Defining the Indigenous Cultural Landscape for The Nanjemoy and Mattawoman Creek Watersheds

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EXECUTIVE SUMMARY

The purpose of this project was to identify and represent the Indigenous Cultural Landscape for the Nanjemoy and Mattawoman creek watersheds on the north shore of the Potomac River in Charles and Prince George's counties, Maryland. The project was undertaken as an initiative of the National Park Service Chesapeake Bay office, which supports and manages the Captain John Smith Chesapeake National Historic Trail. One of the goals of the Captain John Smith Trail is to interpret Native life in the Middle Atlantic in the early years of colonization by Europeans. The Indigenous Cultural Landscape (ICL) concept, developed as an important tool for identifying Native landscapes, has been incorporated into the Smith Trail's Comprehensive Management Plan in an effort to identify Native communities along the trail as they existed in the early17th century and as they exist today. Identifying ICLs along the Smith Trail serves land and cultural conservation, education, historic preservation, and economic development goals. Identifying ICLs empowers descendant indigenous communities to participate fully in achieving these goals.

The Nanjemoy and Mattawoman creek watersheds comprise approximately 223 square miles of land approximately 50 miles southeast of Washington, D.C. In addition to the Nanjemoy and Mattawoman watersheds proper, the project area included lands in the vicinity draining into the Potomac and Port Tobacco rivers. The watersheds have a human history stretching back thousands of years and were among the more populated landscapes observed by Captain John Smith in 1608 during his voyage exploring and mapping the Chesapeake Bay. Following the arrival of European settlers in the 1630s, the region remained a largely indigenous landscape until later in the century, when English encroachment created serious challenges for the Native people residing in the watersheds. Despite displacement through at the end of the 17th and 18th centuries, descendants of the Native occupants remained in the area and many still do.

This project was undertaken and this report prepared in collaboration with members of the two state-recognized Piscataway groups. A number of meetings with the Piscataway, including a driving tour and visits to selected sites and places, as well as meetings with non-tribal stakeholders were held between March and July, 2015. Local information on and knowledge about the landscape, historical records and maps, and large online data sets containing environmental, cultural, archaeological, and land use information were compiled into a GIS database in an effort to document the Nanjemoy and Mattawoman ICL. These data and information sets were collected using criteria previously established for documenting ICLs.

Analysis of these data sets revealed the nature of indigenous knowledge necessary for determining types and locations of settlements. Productive soils, access to wetland environments, and availability of good clay resources were all factors in the selection of residential settlements. Also important were relationships between settlements and sacred places, including Native cemeteries, whose landscape was incorporated into the everyday landscape. Relationships between historic and contemporary landscapes were also identified. A simple predictive model was developed for application to areas in the two watersheds that were not visited during the project. This model was found to be useful for identifying landscape viewsheds and other ICL features.

Recommendations for future work include defining the greater Piscataway Indigenous Cultural Landscape, additional research to more clearly establish connections between the historic and contemporary Piscataway landscape, development of an interpretive strategy for integration into the Captain John Smith Chesapeake National Historic Trail and like projects, gap analysis of key parcels for land conservation, and application of this project methodology to other watersheds along the Smith Trail.

TABLE OF CONTENTS

Executive Summary iii
List of Figures vii
List of Tables ix
Acknowledgments xi

I. Introduction 1

II. The Indigenous Cultural Landscapes Concept: Project Methodology 3
The Study Area: Geographical and Chronological Boundaries 3
Project Methodology 4
Defining "Indigenous Cultural Landscape" 12

III. The Piscataway Indian People 15
The Origin of the Piscataway 15
The Centuries Before Invasion 17
Invasion of the English 18
Piscataway Displacement, Relocation, and Diaspora 31
Native Settlements in the Nanjemoy and Mattawoman Watersheds 35

IV. Indigenous Settlement Models of the Chesapeake Bay Region: Previous Research 40

V. Assembling the Evidence 43
Piscataway Stakeholder Information 43
Historical Record Data 43
Archaeological Site and Survey Data 49
Soil and Geological Data 50
Land Use Classification 51
Wetlands/Marsh Data 51
Protected Lands/Zoning Areas 52
Site Visit Findings 53

VI. Mapping the Nanjemoy and Mattawoman ICL 62
A Settlement Model for the Nanjemoy/Mattawoman Watersheds 62
The Historic and Contemporary Nanjemoy-Mattawoman ICL 67
Predicting Landscapes Evocative of the Nanjemoy-Mattawoman ICL 69
Summary 72

VII. Conclusion and Recommendations 76
The Nanjemoy-Mattawoman ICL 76
The Focus on Time: A Critical Consideration 77
Development of Predictive Models for ICLs 79
Interpretation 81

Gap Analysis of Key Parcels 81

References Cited 82

Appendix I. List of Project Participants 91
Appendix II. Annotated Bibliography 92
Appendix III. Institutional Review Board Consent Forms 100
Appendix IV. NWIS Wetland Classification Schema 101
Appendix V. Professional Qualifications 103

LIST OF FIGURES

1. Project area....4
2. Driving tour location map....6
3. View of Nanjemoy Creek from Friendship Landing....7
4. View of Mattawoman Creek from Indian Head....7
5. View of Chicamuxen Creek from Stump Neck....8
6. Tribal stakeholder kick-off meeting, Nanjemoy Creek Environmental Education Center....8
7. Individual meeting, Friendship Landing Park....9
8. Non-tribal stakeholder meeting, College of Southern Maryland....10
9. Captain John Smith's Map of Virginia, 1608....19
10. Augustine Herman's Map of Maryland and Virginia, 1673....25
11. Jerome Hawley/John Lewger Map of Maryland, 1635....36
12. Lower Potomac Late Woodland settlement model....42
13. Piscataway stakeholder marked areas....44
14. Native settlements shown on Capt. John Smith's map of 1612....46
15. Historical tracts, roads, and paths....47
16. 1856 Hazzard map of the project area....49
17. Late Woodland sites in the project area....50
18. Phase I/II survey areas in the project area....51
19. Agricultural soils (>120 bushels of corn per acre)....52
20. Gravel deposits within the project area....53
21. Majority-clay geology types in the project area....54
22. Land use types within the project area....55
23. Marsh lands derived from NWIS data....56
24. Marsh lands derived from USDA soil data....56
25. Protected land within the project area....57
26. View of Mattawoman Creek from kayak....58
27. View of lotus plants, Mattawoman Creek from....58
28. Beaver observed swinning in Mattawoman Creek....59
29. Blueberry bush – Nanjemoy Preserve....60
30. Beaver wetland – Nanjemoy Preserve....60
31. Abnormally High and Low soil types....64
32. Abnormally High and Low geological types....66
33. Composite map with ICL boundary....68
34. Summary of protected lands within the ICL....69
35. Reclassified LULC Data....70
36. Wetland and shoreline buffer....72
37. Wetland raster image....73
38. Combined reclassified LULC and Wetland raster image....73
39. 1000x1000 ft study blocks....74
40. Evocative landscapes from study block zonal stats....74

41. Goose Bay, Cedar Point Wildlife Management Area. 74
42. ArcGIS Story Map of the Nanjemoy/Mattawoman ICL. 80

LIST OF TABLES

1. Data sources incorporated within the ICL geodatabase. 12
2. Lower Potomac Late Woodland settlement attributes by type. 42
3. Detail of Piscataway marked map areas. 45
4. Soils with Abnormally High and Low presence of sites. 64
5. Mentions of food in Smith's *A True Relation of Virginia*. 67
6. Monthly calendar of settlement and subsistence. 67

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Members of Maryland's two state-recognized Indian tribes, including the Piscataway Indian Nation and the Piscataway Conoy Tribe of Maryland, were involved from the beginning in this effort to document the Nanjemoy and Mattawoman Indigenous Cultural Landscape – their landscape. So involved were representatives of these groups that we have included them as contributing authors. Hope Butler, Francis Gray (PCT Tribal Chair), M. Diana Harley, Rico Newman, Natalie Proctor, Selita Proctor, Mervin Savoy, Mark Tayac, Joan Watson, and Barry Wilson participated in the project's many meetings, generously shared information, and reeled us in when our interpretations needed work or went too far afield. We thank all of our Piscataway colleagues and hope that this project serves them now and into the future.

As part of the effort to develop an understanding of the current land use issues in the Nanjemoy and Mattawoman watersheds, we received valuable input from land managers, land use planners, land conservation specialists, and historic preservationists. These individuals included, from the Accokeek Foundation: Lisa Hayes and Anjela Barnes; Charles County government: Tom Roland, Glenn Gorman, Cathy Thompson, and Esther Doyle Read; from the College of Southern Maryland: Anna Kephart; from the Conservancy of Charles County: Hal Delaplane; from the Maryland Department of Natural Resources: Patrick Bright, Bob Cantin, and Mary Owens; from the Maryland State Highway Administration: Carol Ebright; from the Mattawoman Watershed Society: Bonnie Bick and Jim Long; from The Nature Conservancy: Gabe Cahalan; from the Naval Support Facility Indian Head: Jeron Hayes and Thomas Wright; from Prince George's County government: Don Creveling, Kristin Montaperto, and Jennifer Stabler; and from the Southern Maryland Heritage Area: Jennifer Pitts and Roz Racanello.

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Although we did not work with Kristin Sullivan, Erve Chambers, and Ennis Barbery, we thank them for developing an excellent methodology that served us very well in the execution of the project.

CHAPTER I
INTRODUCTION

This project was undertaken as an initiative of the National Park Service Chesapeake Bay Office, which supports and manages the Captain John Smith Chesapeake National Historic Trail (NHT). The Captain John Smith NHT was Congressionally-established in 2006 to commemorate the then-upcoming 400th anniversary of Smith's exploration of the Chesapeake Bay (1607-1609). As Smith sailed up the Bay and into its tributaries, he encountered hundreds of hamlets, towns, and territories populated by nations whose histories extended back centuries and even millennia. Smith's visit looms large in the modern national consciousness because of the extraordinary map and report he created trying to make sense of the Native cultures and polities he saw, all part of an effort to send information about the promise of colonization in this region back to investors in England. Despite Smith's biases and incomplete understandings of what he and his crew observed, his map and report are considered foundational primary documents in American history, revealing the extent of indigenous occupation in a land Europeans would nonetheless go on to characterize as "uncultivated," vacant, and ready for appropriation.

From a Native perspective, Smith's exploration of the Chesapeake may not have been so momentous. Acknowledging the biases of surviving records, almost all created by English chroniclers, it is still the case that few if any of the many indigenous groups Smith claims he encountered ever mentioned Smith or his visits in later tellings. No doubt to Native eyes, Smith was one of many strangers plying the waters of the Chesapeake at the end of the 16th and beginning of the 17th centuries. These nations almost certainly sized Smith up as he did them, perhaps contemplating just how they could take advantage of this wily stranger's technologies to leverage their own position. Smith was experiencing a dynamic but nonetheless wholly indigenous landscape, a landscape that did not disappear but transformed, a landscape that remains visible today if we choose to see it.

The Indigenous Cultural Landscape (ICL) concept (Beacham 2011, 2015), incorporated into the Captain John Smith Chesapeake National Historic Trail Comprehensive Management Plan (CMP), identifies three key areas of applicability: land conservation, public access, and preservation of the Chesapeake Bay [National Park Service [NPS] 2011). The CMP's ICL model is a tool of public engagement, particularly with regard to public educational benefits. Those educational benefits include learning about and interacting with descendant indigenous communities and the relationships of these communities with the land. The ICL concept is intended as a tool for descendent indigenous communities, serving to level the playing field in land and water conservation. The ICL construct "recognizes that these indigenous communities still exist and that respecting them and their cultures is a valid and central goal of any land/water conservation effort." Perhaps most importantly, the CMP notes that descendant indigenous groups should participate in selecting and prioritizing culturally significant indigenous landscapes (NPS 2011: Appendix Q1-Q2). This study addresses these foci and upholds these tenets of indigenous involvement.

In accordance with the National Trails System Act (NTSA) (NPS 2011: Section 2.4.2), the CMP identifies the Middle Potomac River as a "high potential trail segment" in recognition of its exceptional potential to provide a high quality visitor experience. High potential sites and segments identified in accordance with the NTSA are a priority for protection. Further, the Interpretive Plan for the Captain John Smith NHT calls for building a broad range of stakeholders for a solid support base for a holistic and broad-reaching Trail experience (NPS 2015: 39-40). This project was undertaken in consideration and support of these factors.

According to the CMP, Indigenous Cultural Landscapes represent "the contexts of the American Indian peoples in the Chesapeake Bay and their interaction with the landscape" (National Park Service 2010:4.22). ICLs are defined as areas either containing or with a high potential for containing pre- and post-Contact Native American archaeological sites with large and relatively undisturbed surrounding landscapes. These landscapes should accurately reflect the culture and lifeways of the communities who lived within them (and often still do). These are dynamic landscapes, with broad and diverse areas used in different ways across seasons and over considerable time periods. The ICL concept further notes that these landscapes may be in "proximity to known American Indian communities" and that they may be "part of a descendant community's past known through tribal history, oral history, or archaeology." Therefore, areas important to living indigenous descendant groups that are of more recent history are also part of ICLs.

In 2013, Preservation Maryland (PM) placed 12 indigenous landscapes in six Maryland counties on its Maryland Endangered list, including the Nanjemoy and Mattawoman watersheds. While Preservation Maryland's definition of the Indigenous landscape was more general than the concept used in this report, PM nonetheless recognized the area as deserving of consideration in the face of urban and suburban development. Therefore, although modern development in the Nanjemoy watershed has been limited, the Mattawoman is facing considerable pressure given that Waldorf, an unincorporated but urbanized jurisdiction in Charles County, partially drains into the Mattawoman. This project represents one of the first efforts to address Preservation Maryland's 2013 finding and, in so doing, the project is part of an ongoing effort by the Piscataway to raise awareness of their communities, the landscapes of their ancient and modern-day homeland, and the potential threats to those landscapes.

Even as these landscapes are considered potentially threatened, they are also recognized for their potential for educational purposes, heritage tourism, and economic development. In 2013, the Maryland Historical Trust provided funding to the Southern Maryland Heritage Area to develop a Piscataway Indian Heritage Trail for educational and economic development purposes. Working with the Piscataway Indian communities, the Heritage Area is developing a master plan for the trail, and this master plan is anticipated to be completed in 2016. This regional effort can be informed by the project to identify the Piscataway ICL, even if that project is done in sections, as this one for the Nanjemoy and Mattawoman is.

The National Park Service's plan to identify the Nanjemoy and Mattawoman Creeks ICL presents an opportunity to serve Maryland's state-recognized Piscataway groups as well as to collect information critical for land conservation, natural and cultural resources preservation, education, and tourism. The Nanjemoy/Mattawoman creek watersheds remain relatively undeveloped despite the fact that Charles County is, with its close proximity to Washington, D.C., one of the faster growing jurisdictions in Maryland. The Nanjemoy Creek drainage contains fragile habitat and is the site of the largest great blue heron rookery on the East Coast north of Florida. Mattawoman Creek has been described by the Chesapeake Bay Foundation as "one of the Chesapeake Bay's few remaining natural gems," and the Maryland Department of Natural Resources has described it as "the best, most productive tributary to the Chesapeake Bay." Mattawoman Creek is also known for its fishery, especially for the annual spawning runs of anadromous fish. Together, the two adjacent watersheds contain some of the most ecologically important land in the Potomac valley and, as we shall see, were of tremendous importance to indigenous groups through history.

CHAPTER II
THE INDIGENOUS LANDSCAPES CONCEPT: PROJECT METHODOLOGY

The effort to identify the Nanjemoy and Mattawoman Indigenous Cultural Landscape followed a methodology previously developed by researchers from the University of Maryland for the Nanticoke (Maryland) Indigenous Cultural Landscape (Sullivan, Chambers, and Barbery 2013). Through a cooperative agreement with the National Park Service and the University of Maryland, Kristin Sullivan, Erve Chambers, and Ennis Barbery (2013) reviewed the ICL concept and its history, developing a methodology and criteria for identifying and representing ICLs. The University of Maryland researchers applied the methodology in the identification of the Nanticoke ICL on Maryland's Eastern Shore. The methodology, which was presented as a stand-alone report for the Nanticoke project, has been adopted for the present effort and adapted to fit the specific conditions and circumstances of the Nanjemoy and Mattawoman watershed.

In their study, Sullivan, Chambers, and Barbery (2013:1) recommended that the best approach for defining ICLs along the Chesapeake Bay would involve a watershed-by-watershed focus emphasizing the specific groups and nations who made particular watersheds their home. This approach recognizes that the greater Chesapeake Bay watershed is highly variable and that the Native groups who occupied this region beginning some 12,000 years ago both shaped and were influenced by these local environments and ecologies. Nanjemoy Creek and Mattawoman Creek, neighboring tributaries located in Charles (Nanjemoy and Mattawoman) and Prince George's (Mattawoman) counties on the Bay's western shore, together drain nearly 143,000 acres (223 square miles). The watersheds were historically the home territory of the Nanjemoy (also Nangemy, Nangemaick) and the Mattawoman, sub-groups of the Piscataway. Archaeological research in this area, although limited, indicates evidence of pre-Contact settlements dating back thousands of years. Today, the Nanjemoy and Mattawoman watersheds remain of great significance and interest to members of the state-recognized Piscataway tribes.

It is important to note, however, as members of the Piscataway groups regularly pointed out to us, that the Piscataway have a long and well-documented history throughout the middle Potomac River valley and beyond, and well outside the arbitrary boundaries of this study. Sullivan, Chambers, and Barbery's (2013) recommendation to focus on individual watersheds represents an understandable effort to make the process of identifying ICLs manageable, and this report follows that recommendation. Nonetheless, this study represents only a portion of what would be considered a Piscataway ICL. The use of an ecologically-based watershed boundary has generated an important but nonetheless partial model of the Piscataway landscape. Recommendations for further work to define a larger Piscataway ICL are presented in the concluding section of this report.

The Study Area: Geographical and Chronological Boundaries

The study area's spatial extent includes the entire Nanjemoy and Mattawoman creek watersheds along with portions of the western watershed of the Port Tobacco River and the Potomac River watershed from Cornwallis Neck to the mouth of Port Tobacco Creek (Figure 1). In total, the project area includes approximately 223 square miles and includes shoreline observed and documented by Captain John Smith in 1608. The project area includes the Native town of Nussamek in the vicinity of Mallow's Bay and Pamacocack on the south shore of Mattawoman Creek. The Posey archaeological site (18CH281), believed to be associated with either the Mattawoman werowance (leader) or one of his advisors, and Nanjemoy Indian town are also part of the project area.

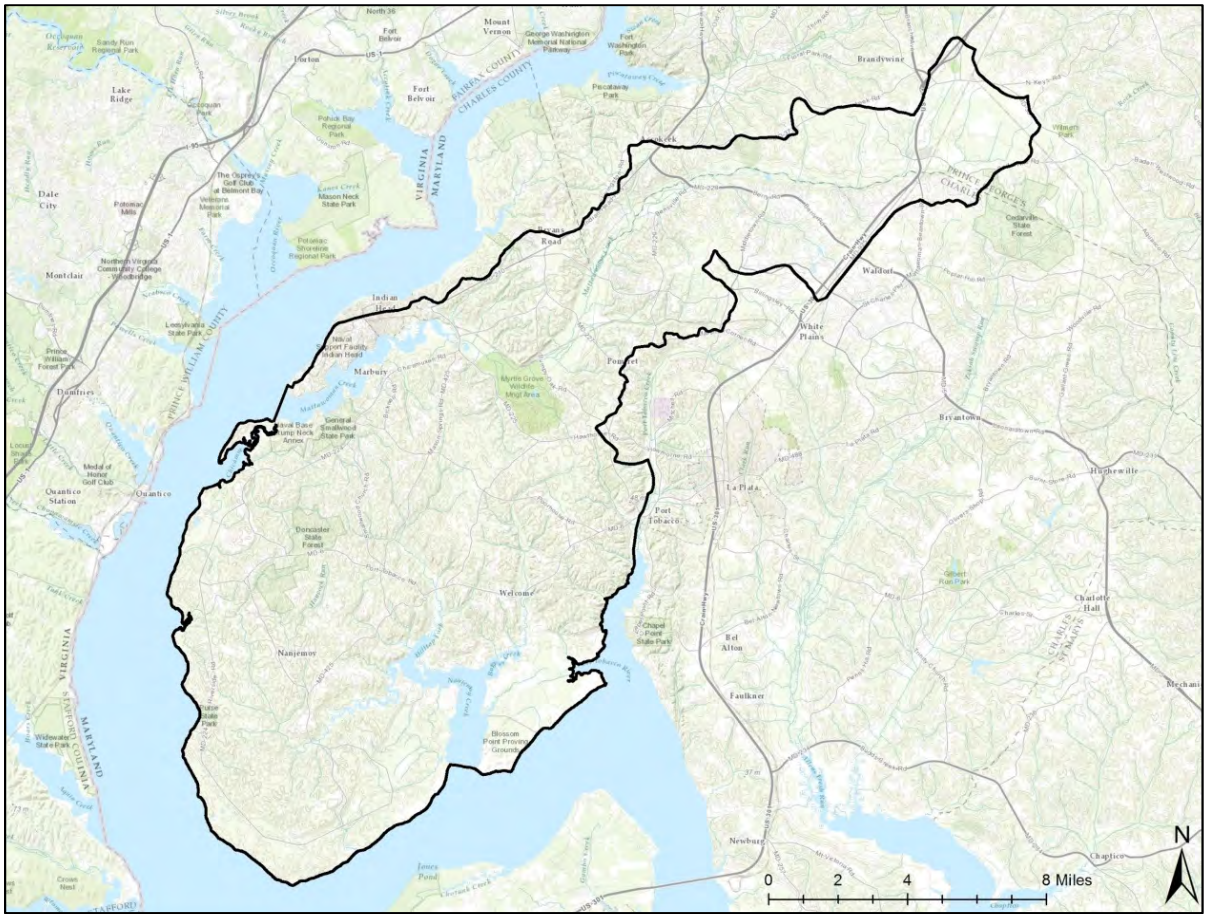

Figure 1. Project area; the thicker black line shows the study or project area, comprising 223 square miles.

The project's chronological boundaries range from about 900 AD through the present (archaeologically, the Late Woodland and Contact/post-Contact periods). The beginning date of 900 AD was defined on the basis of available archaeological evidence and reflects the overall lack of archaeological survey in this portion of the Potomac rather than an absence of people before 900 AD. The lack of reported post-Contact sites is also probably because "[archaeologists have not been] looking for the correct artifact assemblages" rather than because of an absence of population during that period (Baumgartner-Wagner 1979:54). This observation belies a critique that archaeology in Maryland and elsewhere has been constrained by a focus on sites rather than landscapes, and a limited and limiting definition of what "Contact" means (Busby 1995, 2010:90-94).

Project Methodology

The methodology used as part of this study included interviews and discussions with numerous stakeholders with a range of interests in the project area as well as large datasets available online for free. Stakeholders included members and representatives of the two state-recognized Piscataway groups, land use planners and managers from county, state, and Federal agencies, land conservationists, and historic preservationists. Meetings with members of these groups included a day-long driving tour, site visits, and individual and group meetings. A complete list of participants can be found in Appendix I. Details of the steps taken were as follows:

1. Collecting Bibliographic Resources

An annotated bibliography (Appendix II) was assembled in order to better understand the cultural landscape of the Nanjemoy/Mattawoman Creek project area. These documents, all of which are secondary sources, are significant for building context and highlighting archaeological sites, places, waterways, and landscapes important to the Piscataway. These documents were important source data for identifying areas and places that should be included within the ICL for this project and are used extensively throughout this report.

2. Piscataway Engagement

Perhaps the most important source of information for this project was provided by the appointed representatives of the various Piscataway groups, including the Piscataway Indian Nation (PIN), the Piscataway Conoy Tribe of Maryland (PCT), the Piscataway Conoy Confederacy and Sub-tribes, the Cedarville Band of Piscataway Indians, and the Choptico Band of Piscataway Indians. Both the PIN and PCT are state-recognized (2012). Representatives were appointed by each group (see Appendix I).

To ensure that the approach, procedures, and data management of the project were in keeping with applicable ethics standards, Indigenous traditional knowledge and intellectual property rights statements and considerations were reviewed (Christen 2015; Hardison 2014; United Nations 2007) along with ethics statements of the American Anthropological Association (2012) and the Oral History Association (2009). Also reviewed were the National Park Service's legal mandates (Crespi and Mattix 2000). The project's goals and methodology were also reviewed and approved by St. Mary's College of Maryland's Institutional Review Board (IRB) in consideration of the protection of human subjects and sensitive information. Tribal participants were provided the IRB-approved consent form prior to participation. The consent form signed by all tribal participants and a copy of the IRB request can be found in Appendix III.

Two meetings with tribal representatives and NPS were held during the course of the project. The first meeting, held on March 17, 2015, consisted of an introduction to the project and to project staff, a driving tour of the watersheds, and a post-tour discussion. The meeting began and ended at the Nanjemoy Creek Environmental Educational Center, a facility managed by the Charles County Board of Education. The driving tour visited Friendship Landing, the Naval Support Facility Indian Head (including Indian Head and Stump Neck), and Mallows Bay (Figures 2-5). Subsequent site tours with individual tribal representatives were also scheduled (Figure 6). These included revisiting Friendship Landing with PCT representatives on April 23, 2015, and visiting Smallwood State Park and revisiting Friendship Landing with a Choptico Band representative on June 16, 2015.

A final meeting with Piscataway representatives was held at the College of Southern Maryland on July 30, 2015. Project staff presented their preliminary findings concerning the Nanjemoy/Mattawoman ICL using slides and hard copy large-scale maps. The presentation and maps incorporated and summarized information collected from the Piscataway representatives throughout the project as well as from non-tribal sources both historic and current. Materials for review were also made available electronically to tribal representatives in order to solicit further consideration and comments. The final draft of this report was also reviewed by tribal representatives.

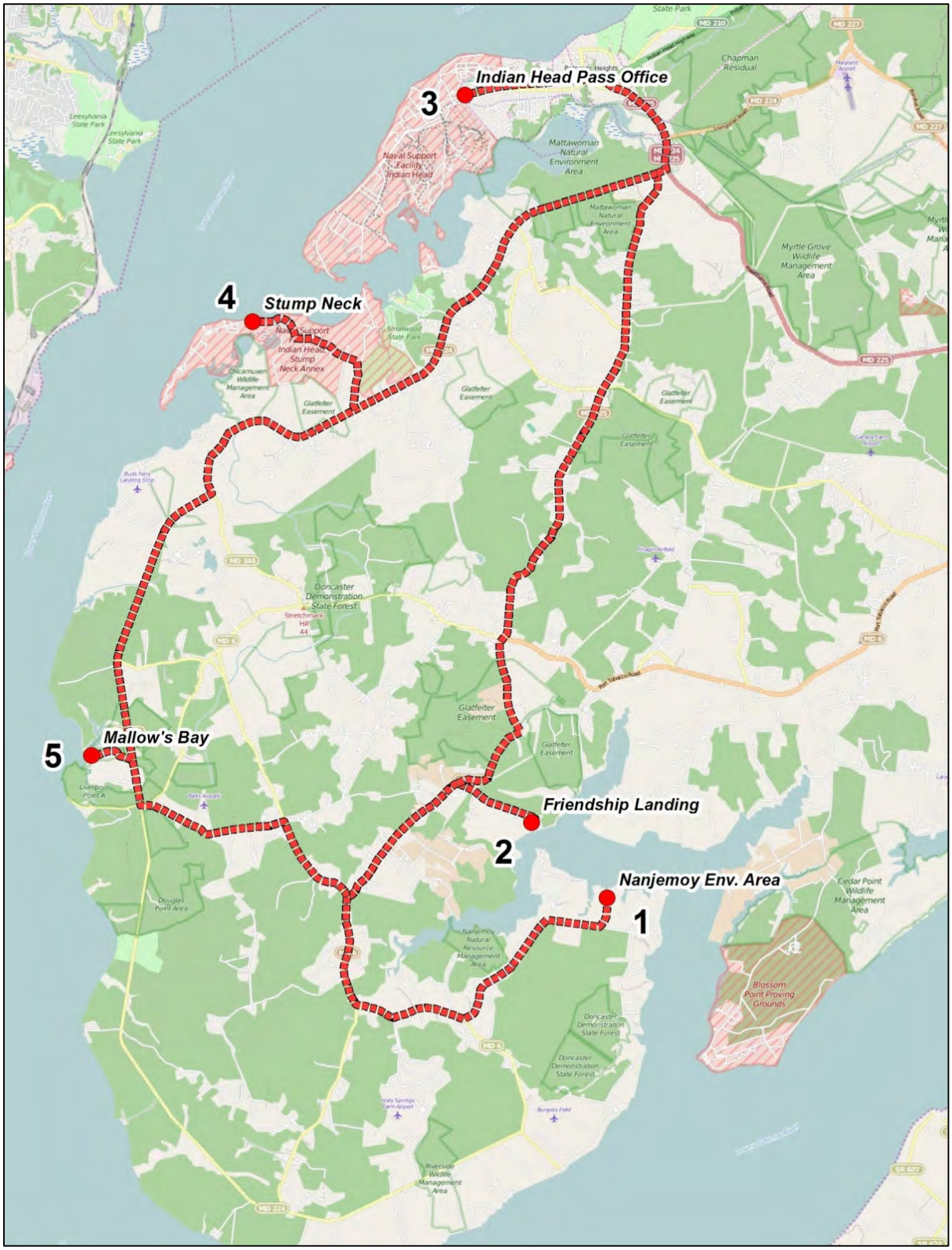

Figure 2. Driving tour location map.

Figure 3. View of Nanjemoy Creek from Friendship Landing.

Figure 4. View of Mattawoman Creek from Indian Head (Courtesy: Tommy Wright, NSWC Indian Head).

Figure 5. View of Chicamuxen Creek from Stump Neck (Courtesy: Tommy Wright, NSWC Indian Head).

Figure 6. Project kick-off meeting with Piscataway, Nanjemoy Creek Environmental Education Center.

Figure 7. Individual meeting, Friendship Landing Park. Left to right: Monica D. Harley, Council Member, Piscataway Conoy Tribe of Maryland; Mervin Savoy, Former Tribal Chair, Piscataway Conoy Tribe of Maryland.

3. Non-Tribal Stakeholder Engagement

Non-tribal stakeholders invited to participate in the project included land managers, land planners, and representatives of conservation, preservation, education, and tourism-based organizations. Three meetings were held with non-tribal stakeholders. Two of these meetings were held at the Southern Maryland Studies Center of the College of Southern Maryland and the third was held at the Accokeek Foundation. Both the Southern Maryland Studies Center and the Accokeek Foundation are important resources for the Piscataway and both are considered stakeholders for this project.

The first meeting was held May 12, 2015, and included representatives from the Charles County Conservancy, the Mattawoman Watershed Society, the Maryland Native Plant Society, the Accokeek Foundation, Charles County Parks and Grounds, the Southern Maryland Heritage Area, Maryland State Parks, Maryland Department of Natural Resources Chesapeake and Coastal Services, the Mid-Atlantic Regional Council on the Ocean, the Naval Support Facility Indian Head, and the National Park Service Chesapeake Bay Office (Figure 8). Invited but unable to attend were representatives from the Bureau of Land Management, the Conservation Fund, the Nature Conservancy, and Maryland's Program Open Space.

The meeting included a power-point presentation on the project's purpose, scope, and products as well as the use of large-scale hard copy maps. Participants were asked to provide comments on the Nanjemoy and Mattawoman watersheds from their organization's or agency's perspective. Stakeholders

were also briefed on the important role of the Piscataway in defining the ICL and the holistic approach supported by the ICL concept.

A second meeting took place at the Accokeek Foundation on June 2, 2015 and consisted of environmental and land use planners, archaeologists, and other cultural resources professionals from Prince George's and Charles counties (including Maryland-National Capital Parks and Planning). The same presentation format, including the use of hard copy maps, was used in this meeting as well. A third meeting was held at the Charles County Department of Planning and Growth Management on June 11, 2015 in order to include the participation of the county's preservation planners and archaeologists who could not attend prior meetings.

Finally, three additional field visits were conducted during the course of the project. These visits included the Cedar Point Wildlife Management Area (June 30, 2015), a guided tour of the Nanjemoy Preserve by staff of The Nature Conservancy (July 16, 2015), and a guided paddle tour of Mattawoman Creek by the Mattawoman Watershed Society (July 30, 2015).

Figure 8. Non-tribal stakeholder meeting, May 12, 2015, College of Southern Maryland. Left to right: Virginia Busby, Project Ethnographer; Thomas Wright, Naval Support Facility Indian Head; Hal Delaplane, the Conservancy for Charles County; and Tom Roland, Chief of Parks and Grounds for the Charles County Department of Public Works.

4. GIS Mapping and Modeling Methodology

Geographic Information Systems (GIS) have revolutionized the collection, analysis, and interpretation of spatial and geographical data. Using digital technologies, GIS can be used to manage and model large amounts of spatial data, with much of this data available online and free of charge. GIS technologies have transformed the study of landscape and, not surprisingly, GIS proved indispensable to this project, not only for managing information, but for revealing meaningful relationships among various types of landscape data. GIS also allows the creation of a legacy database that the National Park Service, the Piscataway groups, and other stakeholders can use to test the findings of this report or to develop new avenues of inquiry.

Certain data themes emerged during meetings and other forms of engagement with project stakeholders. In GIS, a data theme is "a collection of common geographic elements such as a road network, a collection of parcel boundaries, soil types, an elevation surface, satellite imagery for a certain date, well locations, and so on" (ESRI 2015). For the Nanjemoy-Mattawoman ICL project, information noted on maps by the Piscataway, land planners, land managers, land conservationists, and historic preservationists were important for identifying data themes relevant to this effort. As previously noted, this information was collected by inviting stakeholders to mark hard-copy maps with pencils and post-its. The information from this exercise was digitized within GIS using the Maryland State Plane, North American Datum 1983 (feet) coordinate system. These data were then analyzed among other data themes.

Most of the data themes used in creating the ICL GIS came from third-party sources, with some of these sources requiring special data licensing agreements. The Maryland Historical Trust, for example, requires a data licensing agreement in order to protect confidential archaeological site location. Layers developed for the Charles County draft comprehensive plan also required a special use agreement with the county's Department of Planning and Growth Management.

Other source data used in the project was provided through State and Federal agencies and was free or required no use agreement. These data sets, many of which are very large, have a wide range of applications and were essential for the modeling of environmental and land use variables examined as part of this project. A summary of the environmental and land use data can be found in Table 1.

Soils data acquired from the United States Department of Agriculture's Natural Resource Conservation Service included both spatial and tabular data in the form of shapefiles and Access databases. Comprehensive soil attribute data is stored within the Access database, including (but not limited to) information on potential agricultural yield information and gravel source designations. Yield information used in this project was taken from estimated potential yields of corn in a non-irrigated setting. These estimates are generated based on yearly reported averages of individual soil types and conditions. Locating source material for stone tool making was also important. Soil types are classified in qualitative measures ranging from poor to fair for sources of gravel.

Wetlands data, particularly information about marshes and marsh environments, was taken both from Land Use/Land Cover (LULC) data provided by the Maryland Department of Natural Resources (in cases where forested areas obscure marshes) and wetland data from the National Wetland Inventory Survey. Additionally, Wetlands of Special State concern were also incorporated into the dataset in order to review protected non-tidal wetlands containing threatened and endangered species, unique species diversity, and/or other unique habitat values as defined by the Code of Maryland Regulations (COMAR), Title 26, Subtitle 23, Chapter 06. Within the project area there are a number of these wetlands, including Doncaster State Forest, Maryland Point Swamp, Port Tobacco Run, Upper Nanjemoy Creek, and portions of Chickamuxen and Mattawoman creeks. Upper Nanjemoy and Chickamuxen creeks are also the only two identified Natural Heritage Areas within the project study area. These areas are defined by COMAR Title 08, Subtitle 03, Chapter 08 as follows: 1. Contain one or more threatened or endangered species or

wildlife species in need of conservation; 2. Be a unique blend of geological, hydrological, climatological or biological features; and 3. Be considered to be among the best Statewide examples of its kind.

The identification of protected and unprotected areas within the project area was important to all stakeholders. The Charles County Development District and Deferred Development District is centered in and around the urban core of Waldorf and extends west from the Maryland Routes 5, 301, and 228 intersection toward Mattawoman Creek, just south of the Prince George's County line. This district extends well into the bounds of the project area and includes the town of Indian Head, situated near the headwaters of Mattawoman Creek. Protected areas within the project area, especially those within the Development District, are important for their ability to represent the rural and undeveloped nature of landscape that may be considered evocative of the ICL. Protected Lands include forest conservation easements, land preservation easements, environmental trust easements, private conservation easements, and resource protection zones as well as land owned by county, State, and Federal agencies.

Data	**Source**	**Post-Processing**
Soils	USDA-NRCS	Querying of crop yield estimates and gravel content. Analysis of statistical correlations.
Land Use	MDDNR	Raster reclassification of wetland, forested, and developed/farmed areas.
Wetlands	NWIS	Identification of marsh wetland types.
Digital Elevation Model	NOAA Digital Coast	Slope map generation.
Sensitive species areas	MDDNR	-
Forest Interior Dwelling Species	MDDNR	-
Natural Heritage Areas	MDDNR	-
Wetlands of State Concern	MDDNR	-
Water Trails	MDDNR	-
Land Trails	MDDNR	-
Forest Conservation Easement	MDDNR & CCDP	-
Land Preservation Easement	MDDNR & CCDP	-
County land	MDDNR & CCDP	-
State Land	MDDNR & CCDP	-
Federal Land	MDDNR & CCDP	-
Environmental Trust Easement	MDDNR & CCDP	-
Private Conservation Easement	MDDNR & CCDP	-
Development Districts	CCDP	-
Resource Protection Zones	CCDP	-

Table 1. Data sources incorporated within the ICL geodatabase; USDA NRCS: United States Department of Agriculture Natural Resources Conservation Service; MDDNR: Maryland Department of Natural Resources; NWIS: National Wetland Inventory Survey; NOAA: National Oceanic and Atmospheric Administration; CCDP: Charles County Department of Planning.

Defining "Indigenous Cultural Landscape"

The Indigenous Cultural Landscape concept and its potential uses are described by the National Park Service Chesapeake Bay Office in the report, *Indigenous Cultural Landscapes Study for the Captain John Smith Chesapeake National Historic Trail* (Sullivan, Chambers, and Barbery. 2013). This report along with the Captain John Smith NHT's Comprehensive Management Plan (CMP) state that ICLs represent "the context of the American Indian peoples in the Chesapeake Bay and their interaction with the landscape." These landscapes include "both cultural and natural resources and the wildlife therein

associated with the historic lifestyle and settlement patterns and exhibiting the cultural or aesthetic values of American Indian peoples in their totality" (NPS 2011).

A set of basic criteria for identifying landscapes found within an ICL was devised by the National Park Service in 2011. These criteria include:

- Good agricultural soil (fine sandy loam, 1-2% grade)
- Fresh water source (river or creek water may be brackish)
- Transportation tributary adjacent
- Landing place (confluence of tributaries optimal)
- Marshes nearby (for waterfowl, shellfish, reeds, tubes, muskrat, turtles)
- Brushy areas (for small games, berries)
- Primary or mixed deciduous forest (for larger game, nuts, bark, firewood)
- Uplands that could support hunting activities (and a variety of wildlife)
- Proximity to known American Indian communities (documented through ethno-history or archaeology; may be post-Contact)
- Protection from wind
- High terrace landform

Criteria for smaller or connective parcels include:

- Areas of recurrent use for food or medicine acquisition (shell middens, plant gathering sites)
- Areas of recurrent use for tool acquisition (quarries)
- Places with high probability for ceremonial or spiritual use (even if not documented), or known by descendent community to have been used for ceremony.
- Trails used as footpaths (usually became Colonial roads, sometimes are today's highways and local roads).
- Parcels that can be interpreted as supporting activities of Indian community sustainability, such as trading places or meeting places.
- Places associated with ancestors, or part of a descendent community's past known through tribal history, ethno-history, or archaeology.

An additional set of criteria tailored to the Nanjemoy/Mattawoman watersheds emerged from comments and suggestions made by project stakeholders and include:

- Areas associated with living communities/families
- Area associated with indigenous use in the past
- Areas/sites with considerable time depth
- Places known through information from John Smith
- Places known through subsequent written records to include paths, house sites, town sites an reserved lands
- Ecologically significant areas
- Archaeologically significant areas/sites
- Spiritually significant areas/sites
- Burial locations
- Waterways
- Lands that are threatened/needing protection
- Places good for interpreting indigenous culture & history
- Places having good water access or needing increased water access
- Land suitable for land-based visitor experiences (agriculture, settlement, hunting, etc.)
- Having physical characteristics that convey a sense of indigenous landscape at advent of Contact.

Of particular interest to the NPS is identifying landscape areas evocative of the historical Nanjemoy/Mattawoman watershed ICL. It is important to note, however, that, while much of the project area is rural, urban development centered in and around the town of Waldorf in Charles County is present in the eastern extent of the Mattawoman watershed. Areas to the west of Waldorf are also included as part of the county's Development District and Deferred Development District. These urban areas (some of which may now only exist on paper) may contain archaeological sites, be situated on historical tracts associated with indigenous people, or be part of a greater landscape meeting the criteria for being included as part of the ICL. While these urbanized landscapes are not typically evocative of the indigenous landscape as it may have appeared in the early 17th century, the National Park Service nonetheless recognizes these areas as contributing to ICLs.

CHAPTER III
THE PISCATAWAY INDIAN PEOPLE: A HISTORY

The Piscataway (Piscatawa) have called southern Maryland home for centuries. Several thousand modern Piscataway, including members of the Piscataway Indian Nation and the Piscataway Conoy Tribe of Maryland, are concentrated on the western shore of Maryland (their ancient homeland), although a large Piscataway Diaspora well beyond the homeland also exists. The Piscataway today include business owners, civil servants, educators, health care professionals, among many more occupations, all contributing substantially to the communities in which they live.

All Piscataway are conscious of a history that reaches back long before Europeans had invaded their homeland. Despite having endured the effects of colonialism for nearly 400 years, the Piscataway continue to thrive and prosper, leaving their mark on the history of the region. Many place names throughout the region, for example, are derived from Algonquian words used by the Piscataway. This chapter presents Piscataway history through a synopsis of the archaeological and historical record from about 900 AD to the present, including the Nanjemoy and Mattawoman watersheds. Much of the information contained within the text is based upon summaries of archaeological investigations and a review of key primary source documents, including a few existing oral histories and information provided by the Piscataway consultants who participated in the project. As previously stated, an annotated bibliography of the information discussed in this chapter can be found in Appendix II.

The Origin of the Piscataway

An unusual oral history recorded in 1660 by the colonial Maryland government provides one of the most important accounts of the origins of the Piscataway people. In a meeting with Governor Philip Calvert, the unnamed brother of the Piscataway tayac, Uttapoingassinem, recounted Piscataway origins as he informed Calvert about the Native method of selecting a leader. The passage bears full inclusion in this report:

> That long a goe there came a King from the Easterne Shoare who Comanded over all the Indians now inhabiting within the bounds of this Province (nameing every towne severally) and also over the Patowmecks and Sasquehannoughs, whome for that he Did as it were imbrace and cover them all they called Uttapoingassinem this man dyeing without issue made his brother Quokonassaum King after him, after whome Succeeded his other brothers, after whose death they tooke a Sisters Sonn, and soe from Brother to Brother, and for want of such to a Sisters Sonne the Governmt descended for thirteene Generacons without Interrupcon untill Kittamaquunds tyme who dyed without brother or Sister and apoynted his daughter to be Queene but that the Indians withstood itt as being Contrary to their Custome, whereupon they chose Weghucasso for their King who was descended from one of Uttapoingassinem brothers (But which of them they knowe not) and Weghucasso at his death appoynted this other Uttapoingassinem to be King being descended from one of the first Kings this man they sayd was Jan Jan Wizous which in their language signifyes a true King. And would not suffer us to call him Tawzin which is the Style they give to the sons of their Kings, who by their Custome are not to succeede in Rule, but his Brothers, or the Sons of his Sisters (Archives Md. 3:402-403).

Calvert was interested in Piscataway rules of leadership succession, but this passage also provides information about Piscataway understanding of their history. Uttapoingassinem's brother not only described the rules by which a new leader was chosen but how the Piscataway originated long before

Europeans arrived in their homeland. Taken literally, the tayac's brother said some thirteen generations ago, a leader from the Eastern Shore of Maryland united all of the groups in the Maryland coastal plain as well as on the south shore of the Potomac and in Susquehannock country. Average human generation length, including for pre-industrial societies, remains contested in the biological sciences, but many researchers seem to recommend a measure of 27 to 30 years (although genealogists often recommend an average generation length of 20 years). An analysis of individuals recovered from two ossuaries (large secondary burials) on Nanjemoy Creek indicates a child who lived to the age of 5 years could be expected to live another 24 years (Ubelaker 1974:63). Although some individuals in all societies live longer or die younger, the average length of a generation for the Piscataway can be reasonably estimated to have been between 20 and 30 years of age. Using these lengths as the multiplier, then, this would place the arrival of the leader from the Eastern Shore and the coalescence of groups in the Potomac River valley sometime between around 1270 and 1400 AD.

These dates fit well with shifts seen in the archaeological record, although the exact meaning of these changing patterns in material culture is also a subject of some debate. Prior to about 1300 AD, the predominant ceramic type in southern Maryland was Townsend ware, shell-tempered ceramics produced from about 950 AD through the late 17th and early 18th centuries. Beginning about 1300 AD, however, grit- and/or sand-tempered ceramics, including Potomac Creek and, later, Moyaone ware types, also appear in the region's archaeological record. The radiocarbon dates associated with the earliest appearance of Potomac Creek ceramics (ca. 1300 AD) roughly corresponds with the date suggested by the Piscataway oral history (ca. 1270-1400 AD).

A number of archaeologists have pointed out that, at about the time grit-tempered Potomac Creek ceramics began to appear in the inner coastal plain, palisaded towns in the piedmont on both sides of the Potomac River were being abandoned; the inhabitants of these towns made and used a crushed quartz-tempered ceramic analogous to Potomac Creek types. As these towns were being abandoned, others in the piedmont were being established by people producing predominantly limestone-tempered ceramics. Archaeologists infer that the appearance of Potomac Creek ceramics in the Middle Potomac valley may reflect migrations from the piedmont into the coastal plain, possibly spurred by migrations into the piedmont from the west.

There are problems with this model, based in part on incomplete understandings of how archaeological artifact patterns reflect cultural practices and events. First, the model equates groups of people with ceramic ware types, an assumption that may not be warranted given what is known about ceramic manufacture. More problematically, the archaeological evidence appears to conflict with the 1660 oral history. The archaeological evidence suggests a migration from the west while the oral history evidence suggests a migration from the east. In addition, the late anthropologist Paul Cissna's (1986:31; 41-48) analysis of a surviving Piscataway translation of the Ten Commandments (housed at Georgetown University's Lauinger Library) suggests strong affinities with the language spoken by both the Powhatan and the Delaware and not with western groups. And, a study of ossuaries from throughout the Maryland coastal plain suggests that ossuary burials appeared first on the Eastern Shore and slightly later on the western shore (Curry 1999), a phenomenon which could be interpreted as possibly reflecting some kind of westward movement or migration.

Archaeologist Stephen Potter (1993:138) has taken a different approach, arguing that the two sources of historical evidence are not necessarily mutually exclusive. During the meeting of the Council where the oral history was recorded, Potter points out, the tayac's brother was addressing a question from Governor Calvert as to how Uttapoingassinem came to be "emperor" of the Piscataway, "whether by Succession or Election" (Archives Md. 3:403). Potter (1993:138) notes that, "if the brother's reply is taken to be a direct answer to a direct question, then he simply related that the position of tayac passed by inheritance through thirteen rulers, the first of whom came from the Eastern Shore." The archaeological evidence suggesting 13th- and 14th-century migrants from the Potomac Piedmont into the coastal plain,

Potter continues, conceivably comports with an "intergroup alliance" forged by a leader who had come from the Eastern Shore and seated himself at Moyaone (Potter 1993:138; Merrell 1979:550).

The Centuries before Invasion

The southern Maryland region reveals the appearance of a range of archaeological site types containing both sand- or grit-tempered and shell-tempered ceramics dating to between 950 and 1700 AD (classified as the Late Woodland or Contact-period by archaeologists). Many of the sites appear to have been short-term 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, ceramics, and stone artifacts.

The people living in these villages and towns were recorded by European chroniclers as having lived in arbor-like structures covered in reeds and known as wigwams or longhouses. Archaeological investigations have corroborated these descriptions with cases where post mold patterns suggest the traces of former dwellings found at a number of sites. These houses were probably organized cooperatively by age and sex within families to produce food and life's other necessities. As at the Potomac Creek and Accokeek Creek sites, many of these town sites were palisaded, with a majority of houses surrounded by a ring 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). Archaeologist Chris Shephard (2009), however, has suggested that these compounds, rather than reflecting defensive measures, served to demarcate sacred space, including burial grounds, from everyday space.

The Piscataway were one of two powerful nations emerging in the Middle Potomac River valley in the 13th and 14th centuries. The Piscataway controlled much of the north bank of the Potomac while the Patawomeck controlled its south bank. The Piscataway and Patawomeck had an on again-off again relationship, with relations fairly cool at the time of European invasion. There were other smaller, less powerful groups in the drainage that also resisted Piscataway efforts to control them. Although each village or town had its own leader, all or most of the southern Maryland settlements at this time were probably tied to Moyaone, the Piscataway capital on Piscataway Creek. The strength of the relationships, however, would have weakened with distance (Potter 1993:149-161). But the fact of the matter was that even those groups outside Piscataway control nonetheless had to reckon with this powerful polity. The Piscataway leader or tayac controlled territory in what would later become Maryland ranging from St. Mary's County north to the fall line. Subject to the tayac were werowances or individual village or town leaders (Hall 1910:125). Matrilineal inheritance of these positions is believed to have been the norm (as suggested by the 1660 oral history), at least until the death of Kittamaquund (Cissna 1986:62-68; Potter 1993:190). Among the other important positions in Piscataway political organization were war leaders, priests, shamans, and great men, who advised the tayac or werowances (Cissna 1986:68-75).

On the eve of the invasion of Piscatawa by the Europeans, the indigenous people of southern Maryland were practicing a form of slash-and-burn agriculture to clear land for planting corn, beans, and squash (a method subsequently adapted by the colonists). Tobacco was also cultivated, primarily for ritual or spiritual purposes and not for recreational consumption. Hunting and gathering remained vitally important to the subsistence economy, and when residents left to hunt or fish at various times throughout the year, town populations would decline temporarily. Settlements might be permanently abandoned once the soil in nearby fields was depleted and corn yields declined.

The previously noted migrations of the 13th and 14th centuries 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 and 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 Algonquian tribes in the vicinity of the James, York, and Rappahannock rivers and their tributaries (Clark and Rountree 1993:112-135; Fausz 1984; Potter 1993:174-179). Smith's Map of Virginia suggests that Powhatan's power weakened north of the Rappahannock River, and the Patawomeck were able to use the English to strengthen their position against the Powhatan (it is also the case that Smith's map, even as it suggests the weakness of Powhatan's reach beyond the Rappahannock, also mistakenly implies Powhatan's strength north of the Potomac by Smith's misidentification of Powhatan's territory).

Nations even less familiar than the Iroquois began to appear in the Chesapeake region 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, European copper, or other exotic items through trade with groups that had come into contact with the Europeans.

Invasion of the English

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 that Gonzales named San Pedro (Lewis and Loomie 1953:131-139). 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 (Rountree, Clark, and Mountford 2007) (Figure 9). 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, albeit through English eyes. Regardless of Smith's problematic perceptions, his map presents to the viewer what was then a wholly indigenous world.

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 9).

At the time of first contact, the Piscataway tayac controlled much of Maryland's lower western shore south of the Fall Line, with the exception of independent Patuxent villages and possibly the Yaocomico, who were nonetheless influenced by the Piscataway chiefdom (Clark and Rountree 1993:112-116; Potter 1993:19-20; Merrell 1979:552, footnote 12). During Smith's exploration of the Potomac, he gave the warrior populations for the towns he visited, each depicted on his Map of Virginia (see Figure 9). While he estimated 160 Patawomeck and 40 Tauxenant (Doeg) warriors on the west or south side of the river (that is, in Virginia), numbers on the Maryland side were 40 at Secowocomoco, 20 at Potopaco (Portobac), 60 at Pamacacack (Pamunkey), 80 at Nacotchtanke (Anacostin), and finally, 100 at Moyowances, or Moyaone, the capital of Piscataway (Arber 1884:52).

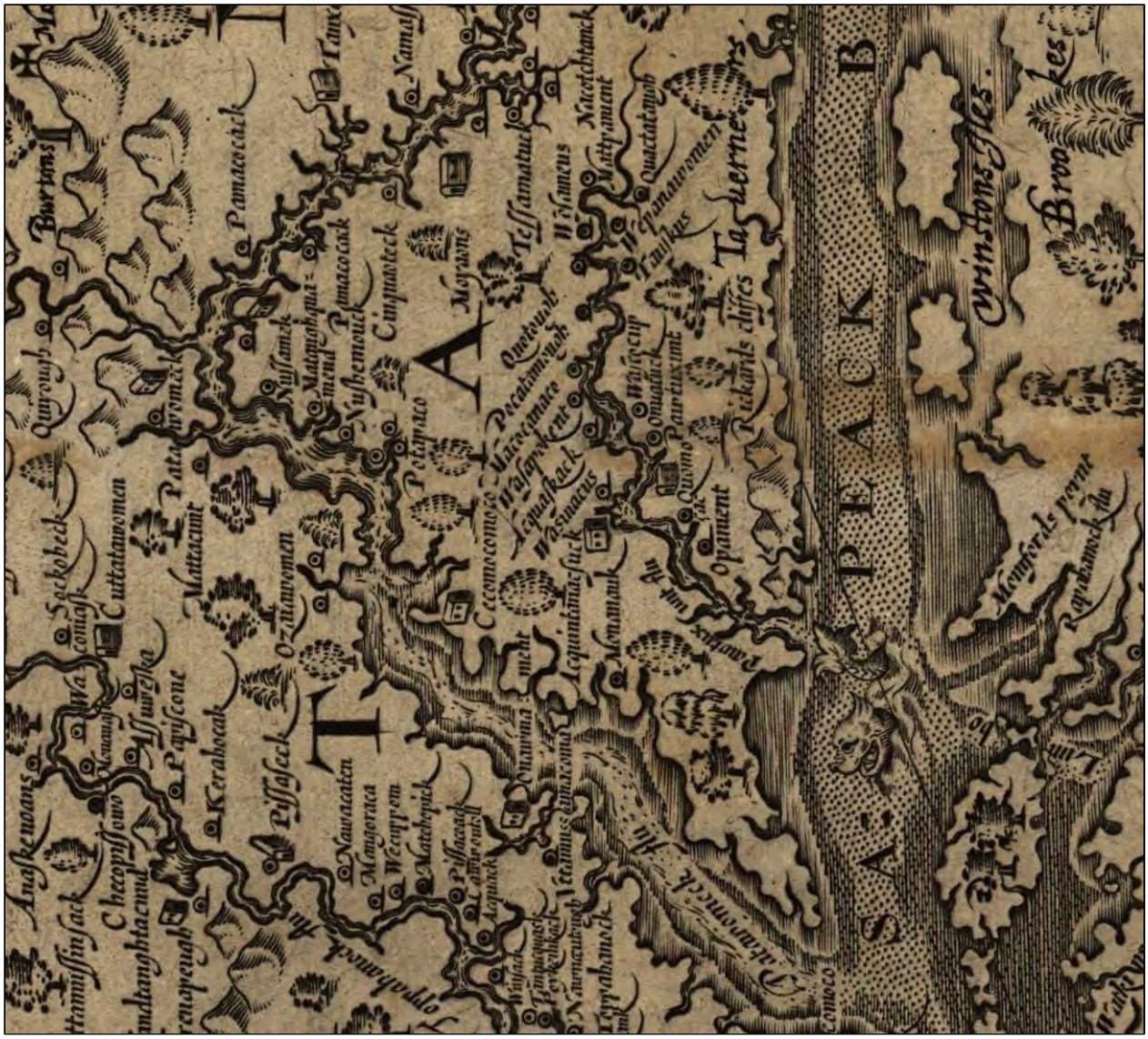

Figure 9. Captain John Smith's Map of Virginia, 1608, showing the Middle and Lower Potomac; the map has been shifted to show north at the top of the page.

Using estimates provided by Smith and other explorers, as well as information extrapolated from archaeological studies, anthropologists have long debated the population of the Piscataway nation at the time of contact, with estimates ranging from 2,000 to 7,000 individuals. These estimates reflect a number of methodologies in calculating population, and are based on assumptions which may not always be warranted. Cissna (1986:49-53), attempting to reconcile the numbers, calculated a range of roughly 3,600 to 5,760 people living on Potomac's northern shore in the early 17th-century.

These numbers must be considered in the context of major raids by the Massawomecks (Kingsbury 1933:19-20; Merrell 1979:552-554), a powerful Iroquoian group believed to be from the western Pennsylvania hinterlands. In 1607/8, Powhatan told Captain Smith that the "Pocoughtronack [or Massawomecks] [are] a fierce Nation…war[ing] with the people of Moyaoncer and Pataromerke" (Arber 1884:20). Powhatan reported that the Massawomecks, whose identity is still debated, had slain 100 Piscataway the previous year. This number pales in comparison with that relayed by Henry Fleet, who

had been held captive by the Nancotchtanke (Anacostins) from 1623 until 1627. According to Fleet, the Massawomecks had formerly massacred 1,000 Piscataway (Neill 1876:26; Pendergast 1991:14). Although these numbers may be inflated, it is nonetheless evident that raids by these northern Indians had reduced the Piscataway population by considerable numbers and influenced subsequent political developments.

The Susquehannock, also an Iroquoian group, constituted another threat from the north. After moving to the lower Susquehanna River at the head of the Chesapeake Bay, the Susquehannock traded furs for other goods with William Claiborne, a Virginian who had established a trading post on Kent Island in the early 1630s. The Susquehannock's increased influence in the region and their desire to protect their lucrative trade relationships brought them into conflict with the Piscataway and other groups on the lower western shore (Fausz 1984:13; Merrell 1979:552-553).

To the Piscataway's south, there were the Virginia Algonquians and the Patawomeck, a group seemingly independent of other Indian nations but nonetheless hostile to the Piscataway and with tepid relations with the fledgling Virginia colony. The Patawomeck were allied with the Virginia government in 1623 when the colonists sailed up the Potomac and assaulted the Piscataway, "putt[ing] many to the swoorde" despite the Piscataway's previously amicable encounters with John Smith (Kingsbury 1935:450).

Figure 9 depicts Smith's understanding of the geopolitical realities in the Chesapeake at the time of his exploration in 1608. His map illustrates the locations of the various settlements and nations hostile to the Piscataway. The pressures on three sides had forced the Piscataway at contact to move their ancient capital of Moyaone on the Potomac River further up Piscataway Creek to a more sheltered location. This interpretation is based on archaeological evidence that indicates a major Piscataway town, occupied for centuries, was located at the mouth of Piscataway Creek and excavated in the 1930s (Stephenson and Ferguson 1963). The absence of European artifacts despite extensive excavations suggests that this town was abandoned before Smith's reconnaissance. Threats from Iroquoian groups to the north and the Virginia colony and the Patawomeck to the south that likely precipitated this move would also influence the subsequent Piscataway response to Leonard Calvert and the Maryland invaders just a few years later (Merrell 1979:554-555).

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 2009:82). 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, as noted, an opportunity to keep Powhatan at bay (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 stable into the late 1620s and early 1630s (Fausz 1984; Rice 2009: 2-91).

In 1634, Wannas, then the Piscataway tayac, received the Maryland colonists guardedly at his capital on Piscataway Creek, with bowmen at the ready. When 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).

Because of this existing complex political geography, representations of early Maryland history have characterized Anglo-Native relations as generally peaceful, giving the credit to the Maryland colonists. This interaction has come to be characterized as an example of an imagined racial harmony (for example, the Woodland Indian Hamlet at Historic St. Mary's City describes "native peoples and English colonists living together, peacefully, until the colonists could establish their own settlement"). In reality, the relationship was far more complicated, and while "invasion" is not a word often used to describe colonial settlement, an invasion and occupation are exactly what the "founding" was for the Piscataway nation and related groups. The Charter of Maryland justified the impending dispossession of Native land by describing the region as a "Country hitherto uncultivated … [and] partly occupied by Savages, having no knowledge of the Divine Being." English subjects understood that uncultivated land was wasted land, and that non-Christian people could be enslaved or otherwise dispensed with for their failure to cultivate the land in an English manner. To be sure, Maryland may have avoided the bloody wars experienced in early to mid-17th-century Virginia and the Calverts may have struck a more diplomatic tone with the Natives, but the ultimate goal was Native subjugation and, by the end of the century, Native removal.

Despite accounts of friendly interaction with the Yaocomico and the Patuxents, relations generally between the English and indigenous nations 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).

The Jesuit letter indicated that at least some Native people were not receptive to the invaders.

Tense relationships with the English or not, the indigenous people nonetheless continued to trade with the newcomers. 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 Natives against the Calvert family's nascent Maryland enterprise (Archives Md. 1:42-44).

The following year, in 1639, a Jesuit Letter described Father Andrew White as living with the tayac at "the metropolis of Pascatoa" since June of that year (Hall 1910:124). The Jesuit letter also related the conversion of some Patuxent Indians and the Patuxent king's gift to the Jesuits of some land at Mattapany (on the Patuxent). Some of the converted Patuxents may have even been living with the Jesuits at the Mattapany farm (Cissna 1986:139-140); an archaeological survey of a portion of the Mattapany tract located a potentially early, post-Contact settlement that may represent an early missionary settlement (Chaney and King 1999).

By 1642, there seems to have been a significant population of non-missionary English living or trading near Piscataway. That year, Governor Calvert and the Council commissioned Robert Evelin "to take the charge and Command of all or any the English in or near ab[ou]t Pascatoway, and to leavie train and Muster them" to put the English "in a posture of defence" against the Indians (Archives Md. 3:102). Historian James Merrell (1979) attributes the reduced tension between the Piscataway and the colonists to Kittamaquund who, in 1636, allegedly killed his brother, the tayac Wannas, and succeeded him in the position.

A significant contingent of Piscataway did not view Kittamaquund as a lawful ruler because of this fratricide, a reality which may have forced Kittamaquund to look to the English to protect and consolidate his position (Merrell 1979:555-557). In 1638, Governor Calvert referred to Kittamaquund as "my brother," writing to Lord Baltimore that the tayac "is much your freind [sic] and servant" (Hall 1910:158). It was Kittamaquund who, in 1639, welcomed Father Andrew White to Piscataway, accommodating the missionary in his dwelling. The tayac also converted to Christianity, was baptized in 1640, and, in 1642, sent his daughter, Mary, to live at St. Mary's with Margaret Brent. Mary Kittamaquund later married Giles Brent, Margaret's brother (Cissna 1986:140-142; Merrell 1979:555-557).

The 1648 "Act Touching Pagans" reflects English anxiety about the Indians whose lands they had invaded. The law disallowed the provision of guns and ammunition to the Indians except at the Governor's discretion (Cissna 1986:145-146; Archives Md. 1:233). The following year, the "Act Touching Indians" prohibited the transportation of Indians out of the province and also reiterated the illegality of providing guns "to any Indian borne of Indian Parentage" (Archives Md. 1:250). Cissna (1986:146-147) suggests that this act may signify a significant population of people of mixed English-Indian parentage or of Indians being raised in English communities. Additionally, the "Act Concerning Purchasing Land from the Indians" annulled individual land purchases directly from the Indians (Archives Md. 1:248). All of these legislative actions, taken together, suggest that, as the English moved away from St. Mary's and began establishing plantations, they were coming into more regular contact with the local Native population. Such acts signify the Maryland government's attempt to regulate and normalize everyday relationships with the Indians; in other words, to extend colonial law and authority to the indigenous population. The Natives, for their part, resisted English authority.

In 1651, a group of Mattapanian, Wocomocon (Yaocomico), Patuxent, Lamasconson, Kighahnixon, and Choptico Indians requested that some land be set aside for them (Archives Md. 1:329). Although the Choptico are believed to have been under Piscataway jurisdiction, Cissna (1986:148) believes that the joint request "may have partly represented an attempt to break from Piscataway domination and to form a confederacy with those nearest neighbors with whom there was a stronger identity;" Cissna also stresses that the wording of the record suggests that not all members of these groups were involved. The English plan was to essentially establish a 1000-acre reservation at the head of the Wicomico River (probably somewhere between present-day Chaptico and Allen's Fresh) on proprietary manor land, not only to protect land for the Native population but to "civilize" and Christianize the Indians as well. They appointed Robert Clark "steward" and authorized him to grant 50-acre parcels to individual Indians and a 200-acre parcel to the werowance, or chief, and to hold court baron and leet (Archives Md. 1:329-331; Cissna 1986:147-149). It is unclear whether this plan ever came to fruition or not, although archaeological survey of a portion of this new manor revealed the presence of a major 17th-century Indian town (King, Trussell, and Strickland 2014).

By 1659, rumors had reached the government at St. Mary's that the Piscataway tayac, Weghucasso, was terminally ill or already dead (Archives Md. 3:360). The following year, the brother of the new Piscataway tayac, Uttapoingassinem, accompanied by the great men of the Portobac and Nanjemoy, visited then-governor Philip Calvert at St. Mary's. It was at this meeting that the tayac's brother related the Piscataway system of tayac succession to the governor (Archives Md. 3:402-403). The 1660 meeting between Governor Calvert and the tayac's brother had another purpose, however. The Piscataway described how the "Cinigoes," or Seneca (a catch-all term for the Five Nations Iroquois), had recently killed five Piscataway and threatened their fort for their friendly relations with the English and the Susquehannock, who were then at war with the Seneca. The tayac's brother also requested the assistance of four Englishmen to help them rebuild and strengthen their fort (Archives Md. 3:403). This is the first mention of hostilities with the Five Nations.

Throughout the 1650s and during the early 1660s, the Five Nations launched several assaults on the Susquehannock, possibly because of Susquehannock willingness to ally with Maryland (Kent 1984:37-40). The Iroquois-Susquehannock warring stemmed from control of the fur trade and incompatible inter-colonial alliances (Kent 1984:37-39). In 1661, the Susquehannock strengthened their treaty and military alliance with the Maryland government, and Governor Calvert pledged military support in helping them fortify and resist the Five Nations' attacks (Archives Md. 3:420-421).

By 1662, the Piscataway tayac Uttapoingassinem had died. As was now the practice, Governor Charles Calvert and the Maryland Council traveled to Portobac to select a new tayac. At that meeting, the Piscataway made known their preference for Wannsapapin, the son of Wannas (the tayac killed by Kittamaquund), and assured Governor Calvert that they would erect an "emperor's" house at Piscataway for when the governor would return and install the new tayac (Archives Md. 3:453-454). It was another year before Governor Calvert and the Council returned to Piscataway. Also present at the installation of the new tayac were the weroances and great men of Portobac, Mattawoman, and Chingwoatyke. However, instead of Wannsapapin, as expected, the Piscataway presented eleven-year-old Nattowaso, the eldest son of Weghucasso, to be confirmed tayac. The Piscataway described that there were two families from which tayacs were chosen, including that of Wannas and that of Weghucasso, suggesting a contentious factionalism over control of the Piscataway nation (Cissna 1986:151-153; Archives Md. 3:482-483). The Piscataway also asked Calvert to protect the new tayac, which he did by ordering "that they should not presume to wrong him uppon any pretence, eyther by poysoning of him, or by other indirect wayes" (Archives Md. 3:482).

By 1664, the Five Nations had begun launching attacks against the English settled along the Maryland frontier, killing some Anne Arundel County residents. Governor Calvert declared war on the Five Nations, offering a reward of 100 arms length of Roanoke to any Indian or Englishman who captured or killed a "Cinigoe" (Archives Md. 3:502-503). Troubles with the Five Nations would continue intermittently for over a decade.

The Maryland government concluded a treaty with the Susquehannock in late June of 1666, during which the Susquehannock related that they had recently lost a number of warriors in skirmishes with the Five Nations Indians near the head of the Patapsco and other rivers. They also described the intention of the Five Nations to storm the Susquehannock Fort in August and, afterward, to attack the English plantations, and the Susquehannock requested military assistance (Archives Md. 3:549-550). Although the profitability of the fur trade was diminished due both to the Five Nations-Susquehannock war and overharvesting of fur-bearing animals, fighting between the Indian groups continued. After successfully repelling a 1663 Seneca attack of their fort, the Susquehannock continued to harass the Iroquois of the Five Nations, assaulting and conquering an Onondaga war party in 1666; anticipation of reprisal likely explains Susquehannock desire to reconfirm their military alliance with Maryland that year (Kent 1984:38-40, 43).

Renewal of the Susquehannock alliance in 1666 was not the only major diplomatic event of that year. A major treaty, which would restructure Indian-English relations, was signed with twelve Indian groups residing in the area claimed by the Calvert family.

Indian complaints of English encroachment were becoming common in the early 1660s as settlement pushed further west and north into what are now Charles and Prince George's counties (Archives Md. 3:489, 534; Archives Md. 49:139). With the continuing patenting and seating of lands ever deeper in Indian territory, Anglo-Native conflict increased, threatening both the stability of the Calverts' colonial enterprise and their indispensable alliance with the Piscataway nation. Amelioration of this issue and normalization of English-Indian interaction in the colony were the impetus for the treaty (Cissna 1986:156). This agreement would have an important impact for decades on the events which were to

follow and the treaty would continue to be renewed (in amended form) even after the Calverts had lost political control of Maryland.

The treaty also provides insight into the state of Indian affairs within the Maryland colony at this time. Parties to the treaty included the Piscataway, Anacostin (Nacotchtanke), Doeg, Mikikiwoman, Masquestend, Mattawoman, Chingwateick, Nanjemoy, Portobacos, Sacayo, Pangayo, and Choptico. There were only seven signers, however, for all twelve groups. Analysis of the signatory groups suggests that the Piscataway and the Sacayo, sharing two signers, were fully united, as were the Chingwateick and Pangayo. The Anacostin, Portobaco, Doeg, Mikikiwoman, Masquestend, and Choptico, having no one sign for them, may have been subsumed by one of the other signatory groups (Cissna 1986:157-158).

As part of the treaty negotiations, the speeches of some Indian representatives to the Assembly's Upper House (or Council) are preserved in the Maryland record. On April 12, 1666, three speakers appeared before the House: Mattagund (speaking for the Anacostin, Doeg, and Patuxent), Choatick, and Isapatawn ("for the King of Nan[jemoy]'s son"). It is possible that Choatick, who spoke before the Upper House, was the same individual as Choticke, "Counceller" for the Chingwateick and Pangayo and signer of the treaty. Mattagund addressed the Upper House by stating that "Your hogs & Cattle injure Us You come too near Us to live & drive Us from place to place We can fly no farther let us know where to live & how to be secured for the future from the Hogs & Cattle." Mattagund's speech also makes reference to "all the other Towns here," lending credence to Cissna's theory that many of the groups were not distinct "sub-tribes," but instead groups subsumed by others, possibly seasonally occupied towns of the larger groups (Archives Md. 2:14-15).

Three articles of the treaty are of special significance for this discussion. The first article formally acknowledges the governor's power to select new tayacs and also states that the tayac, Nattowasso, who had taken his father's name of Weghucasso, had died and a new tayac would be appointed. As Choatick conceded in his speech, the Piscataway "own [up to] the Power that Kittamagund gave to the English to choose the Emperour of Piscattaway & Submitt to it" (Archives Md. 2:15). This article (along with several others) formally subjected the Piscataway to English authority (Cissna 1986:159). The treaty's fifth article affirmed "That in Case of Danger the Governr shall appoint a place to which the Indians of the aforesaid Nacons shall bring their wives & children to be secured from danger of any forreign Indians…" (Archives Md. 2:26). Choatick's speech indicated that some Indians desired this clause of the treaty based on fears of Five Nations raids (Archives Md. 2:15).

And, finally, the tenth article made provision for the governor to establish a reservation "within which bounds it shall not be lawfull for the sd nacons to entertayne any forreign Indians whatsoever to live with them without leave from the Lord Propr or his cheife Governor" (Archives Md. 2:26). The intention was to formally create a place where the allied Indians could expect some relief from English settlers. For the purposes of this project, two years later, in 1668, the Council ordered that no English were to take up land between the head of Mattawoman and Piscataway creeks; the reservation was formally surveyed the following year (Archives Md. 5:34; Marye 1935:239-240).

The treaty also required the Indians to agree to its terms or be declared enemies of Maryland and denied them the ability to wage war or negotiate peace without English oversight (Cissna 1986:163). Such oppressive terms may have been unacceptable to some groups, instigating a significant Indian flight from the colony. A 1669 Virginia census reveals the presence of an estimated 240 "Potopaco" in the vicinity of the Rappahannock River, likely emigrants from Maryland (Cissna 1986:164). Augustine Herrman's Map of Virginia and Maryland, completed in 1670 and published in 1673, shows the Potobac settled on the south side of the Rappahannock River, near the Nanzattico (Figure 10). If Cissna (1986:152) is correct in his assertion that the Chingwateick are the same as the "Cinquateck" on the John Smith map (see Figure 9), then it is possible that this group may have also fled Maryland with the Potobac, as there is a group called the "Chinquatuck" on the north shore of the Rappahannock near the

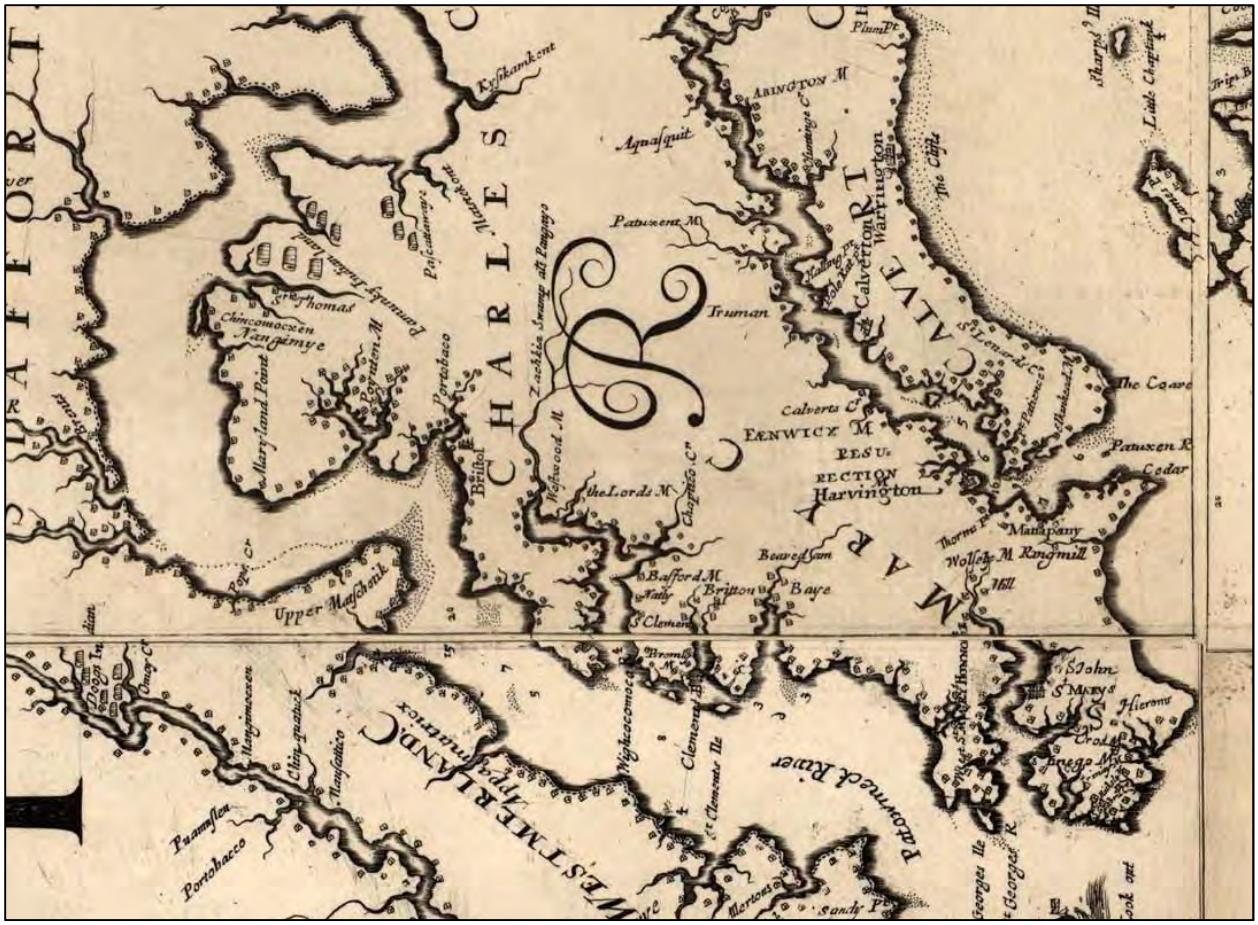

Figure 10. Augustine Herman's Map of Maryland and Virginia, 1673, showing the Middle and Lower Potomac. The map has been adjusted to show north at the top of the page.

Potobac. The Herrman map also shows the Doeg as having moved to Virginia by this time. It seems that the treaty also pushed the Anacostin further north, away from Maryland settlement, and they may have been living on Anacostin Island in the Potomac as indicated by the Herrman map (Cissna 1990:30-31, 1986:178).

By 1670, the Piscataway desired to "revive the League" with Maryland, telling the English that they were "now reduced to a small Number" (Archives Md. 5:65). Perhaps many Piscataway, like many other Maryland Indians, had fled to escape the heavy-handed terms of coexistence with the Maryland English (Cissna 1986:164-165). Others may have assimilated into English society, and Ferguson and Ferguson (1960:28-29) claim that some Piscataway had joined the Susquehannock. The records along with archaeological evidence are also clear that the Piscataway "now reduced" remained an organized nation based at Moyaone (Ferguson and Stewart 1940).

Continued pressure on the Piscataway at their base along Piscataway Creek by the Susquehannock and other "northern Indians" led to their request in June of 1680 to "remove either to Mattawoman Choptico or Zachaiah." Charles Calvert, Lord Baltimore, considered the request and he and the Council concluded that a relocation to the Zekiah was the best option for the Piscataway. The Council stated "the Zachaia is the most proper place for the said Indians at prsent to remove themselves their wives and Children untill such time as his Lspp can come to some treaty with the Senniquos and

Susquehannohs" (Archives Md. 15:302-303). The area of the Zekiah Swamp that was ultimately settled became known as Zekiah Fort.

On June 29, 1680, the Council had received intelligence from Colonel George Wells in Baltimore County that a sizable contingent of Susquehannock and northern Indian troops were determined to make a major assault on the Piscataway in either July or August. The Council appointed Jacob Young, a translator, to attempt to confer with the said Indians and discourage them from the attack (Archives Md. 15:310). The war parties of northern Indians which had previously attacked the Piscataway evidently remained in the area, however. In a letter written June 28, 1680, Captain Brandt reported that the Piscataway had been daily sending out scouts, and these scouts had recently "discovered the Enemy," presumably a northern Indian encampment. By Brandt's account, the Piscataway were concerned that the enemy would attack before construction of the Zekiah Fort was completed (Archives Md. 15:313). Brandt also informed Baltimore that the Mattawoman, who had remained in their own fort on Mattawoman Creek and were now especially exposed given the abandonment of the Piscataway fort on Piscataway Creek, requested some English arms for their defense. Lord Baltimore complied with their request (Archives Md. 15:313-314).

At this point, the historical record goes silent for several months. It is unclear whether the predicted July/August assault occurred or not, but if such an assault had occurred, it seems likely that it would have been mentioned in Council proceedings. Instead, not until the following February does discussion of the Indian situation resume in the Council. On February 19, 1681, Baltimore informed the Council that some Piscataway great men had recently met with him and notified him of their distressed condition. As the Mattawoman chief had earlier indicated, so too did the Piscataway great men attribute their present troubles squarely to their friendship and assistance with the English in the siege of the Susquehannock fort in 1675.

The Piscataway also pointed to the fact that the Mattawoman fort had been recently attacked (in early January) and that "most of the Mattawoman Indians had been lately Surprised and cutt of[f] [killed] by the Susquehannohs" (Archives Md. 15: 329). Indeed, an attack in January was an unusual event for any Indian or English nation, both sides typically avoiding the disadvantage conferred by wintry weather (especially the cold and little vegetative cover) (Mansius 2013). Fearing an attack on the Zekiah Fort and anticipating the time "when it may be their owne turne being already at that passe that they dare not venture out of their ffort to plant their Corne for their sustenance," the Piscataway requested from Baltimore a supply of corn (Archives Md. 15:329-330). Given that the Piscataway, when they moved to Zekiah in late June 1680, had likely abandoned their corn fields around Piscataway Creek, their need for corn in February was probably no exaggeration.

With news of the attack at the Mattawoman fort, the Council realized they needed to assist the Indians per the 1666 treaty. The Council suggested that the Choptico, Nanjemoy, and remnant Mattawoman join the Piscataway at Zekiah Fort, "being the most proper place and secure way for to Defend themselves from their Enemie, and where they may be most capable of receiveing aid and assistance from the English." If these groups did not wish to go to Zekiah, Baltimore and the Council directed them instead to Nanjemoy, placing them on the Charles County frontier (and not in Choptico, presumably nearer English plantations). The Council also agreed to send the Indians thirty pounds of powder and sixty pounds of shot, implying the Indians already had guns. They further promised twenty barrels of corn (Archives Md. 15:330). Finally, the Maryland government began to organize and mobilize its own military forces, appointing Edmund Dennis "Marshall of all our Military forces both horse and foote" for Charles County (Archives Md. 15:333-334).

Relocation to Zekiah Fort did not make the Piscataway immune to future attacks. At least one skirmish with the Iroquois took place on the night of August 28, with Captain Brandt describing that "there were a greate many Gunns shott in the night." Messengers were sent to find the northern Indians,

but they soon discovered that the Iroquois had absconded, leaving notice that their siege had ended. In the fighting the previous evening, nine Piscataway men, four women, and four girls were taken captive by the Iroquois. Another Piscataway man was killed, probably as revenge for the Iroquois scout previously killed by the Piscataway (Archives Md. 17:15).

This particular conflict continued its way south from Zekiah Fort into areas of English settlement. Among the reports was one from Thomas Hussey at Moore's Lodge, the site of the Charles County courthouse. Apparently some Piscataway had sought shelter from the Iroquois among the English plantations. Hussey's report includes a statement that the raiding Indians had carried away eleven Piscataway (one man and ten women) from his plantation. In addition, Hussey had all of his linen, blankets, clothing, and rings stolen by a band of Indians. Similarly, Henry Hawkins of nearby Johnsontown, just south of Moore's Lodge, reported that a Susquehannock man who had been living at his residence was captured by a party of northern Indians (Archives Md. 17:20).

Indian raiding along the English frontier had been, in 1676, a major catalyst of Bacon's Rebellion in Virginia, and the present situation had the potential to play into the then-circulating rumors concerning a Catholic-Indian alliance in Maryland to destroy the Protestants. Fully aware of the risks at hand, Baltimore realized he would need to consult with the elected freemen of the Assembly's Lower House on how to proceed, with regard both to the raids by the northern Indians and Piscataway relations. On September 10, 1681, the Assembly met to consider sending a force of scouts and troops to Zekiah to help defend the Piscataway. The Lower House took several days to respond to the Upper House (consisting of Lord Baltimore and his Council), ultimately reporting that "they have left the Affair of Warr or Peace in Relation to the Northern Indians to his Lordships Sole Conduct and Management and therefore think it inconvenient and improper for this house to be Consulted about any Mediums or Circumstances thereof the matter of the Protection of the said Indians" (Archives Md. 7:159, 177, 180). In other words, Baltimore and his advisors were in this alone.

As Baltimore considered how to protect his denizens and manage political perceptions, including a rumor that was as unlikely as it was believed, the Piscataway braced for another attack by the northern Indians. Baltimore ordered Brandt and his men to continue ranging on the frontier and to have twenty or thirty Piscataway accompany them should any northern Indians be discovered. He also ordered Brandt to garrison the fort with English rangers when the Piscataway men were out patrolling with him to protect the elders, women, and children at Zekiah. Interestingly, Baltimore also stated that "the Choptico Indians be required to joine themselves with the Pascattoway or Nanjemaick [Nanjemoy] Indians in one of their fforts if they expect protection from the English." This may have been another attempt to force the Choptico away from the English plantations in St. Mary's County (Archives Md. 17:27-28) and, indeed, some Choptico later joined the Piscataway at Zekiah Fort (Archives Md. 17:54).

To quell further violence against the Piscataway and the Maryland English, negotiations took place between them and the Five Nations Iroquois. A tentative peace was brokered with the Five Nations in 1682 (Archives Md. 17:96-97). Despite the successful conclusion of peace negotiations, some of the Five Nations informed the Maryland envoys that war parties had already been dispatched, asking the English to excuse them until word reached them of the peace. As late as August 24, 1682, Colonel Chandler was writing Lord Baltimore that the Mattawoman chief had recently approached him and informed him "they were not able to live in their ffort at Nanjemy the Sinniquo Indians did soe Oppress them, and they being weeke were in Inevitable danger of being utterly destroyed." Evidently the Mattawoman had at some point moved to the Nanjemoy fort, which was still being attacked although "the English never takes any notice of them though the Enemy is almost every day upon them." The Mattawoman leader requested a ten or twelve man garrison of English troops to help the Mattawoman and Nanjemoy defend their fort or he would either be forced to remove to Zekiah Fort or give himself up to the enemy. It seems that neither the Mattawoman nor the Nanjemoy had a particular desire to move to Zekiah. Chandler's letter also described that, recently, the "Speaker of the Zachaja ffort" had come to his

house, sent by the "Young Emperor" to tell him that the Piscataway had sixty or seventy deer skins to present to Baltimore and some other business to conduct with him, with the speaker requesting some English troops to defend their wives and children in the fort while they made the journey (Archives Md. 17:111-112).

In 1685, peace with the Seneca of the Five Nations was confirmed between them and the Maryland Government and Piscataway. During a conference of all three parties at the home of Colonel Wells in Baltimore County, the Seneca

> …prsented a Belt of Peake (necklace) signifyeing that whereas much blood had been spilt betweene them, and the Pascattoway Indians, with greate trouble labour and toile, they the sd Pascattoway Indians might now remaine secured of peace, and raigne wthout molestation in their owne territoryes (Archives Md. 17:366).

Peace was also confirmed between the Maryland government and the Seneca, with the Seneca offering the Maryland authorities belts of peake and the English offering several matchcoats to the Seneca.

On 7 August 1685, three Piscataway, including Kanhia, Pasinsiak, and Achsaminnis, arrived in Albany and presented themselves to the New York government, the obligatory channel for negotiating with the Five Nations. The Piscataway made two statements to the New York authorities:

> 1. Wee are come here from MaryLand To ye house of Corlaer where usually Propositions are made, & where ye Covenant fyre burns, to Speak wt al ye Indians westward about ye Covenant, doe give a Belt of 10 deep.
>
> 2. Wee are come to Stay here in Corlaers house till ye Indians as far as onnondage come here to Speak wt us about ye Covenant, and desyre yt arnout ye Interpreter may goe & fetch ym. doe give 4 faddom of wampum to greese his horses leggs (Leder 1956:83).

Three years later, in March 1689, Baltimore's deputy governors responded to provincial disturbances by sending "tenn or twelve men and Armes to goe to the piscattaway fort to desire the Indians to keep the fort till things were settled" (Archives Md. 8: 4). The "piscattaway fort" is believed to be the Zekiah Fort (although this is not certain) and seems to suggest that the Indians had by this time moved out and dispersed from the fort to some degree, though the structure was still standing. Archaeological evidence indicates that the Zekiah Fort was occupied at least into the early 1690s.

Shortly thereafter, in late July/early August 1689, Lord Baltimore lost control of Maryland in an uprising of disaffected rebels (Carr and Jordan 1974). The rebels, or Protestant Associators as they called themselves, seized control of the government, setting up shop at Mattapany, Baltimore's plantation on the Patuxent. Despite the tayac's testimony denying the rumored Catholic-Indian conspiracy, the Piscataway were probably perceived by the new anti-proprietary government and the Protestant populace as allies of the deposed Lord Baltimore and not necessarily of the rebel government. It is unclear why the Piscataway had remained at Zekiah even after the threat of Iroquoian raids had ended, but proximity to the English and the Maryland government may have facilitated a mutually beneficial trade. With a new group of anti-proprietary Protestants in charge, however, and Lord Baltimore back in England, permanently as it turned out, Piscataway ties to Lord Baltimore were probably looked upon unfavorably and subsequent descriptions of interaction between the group and the Maryland English suggest much conflict.

In 1692, a royal government replaced the interim government of the Protestant Associators and the Anglican Church was declared the official religion of Maryland. This newly appointed royal government prohibited Englishmen from taking liquor to the Piscataway fort or other Indian settlements, albeit at the tayac's request (Archives Md. 8:328). It seems that, by the 1690s, a number of factors were pulling the Piscataway apart. The tayac told the Maryland government that the Piscataway youth no

longer respected the elders and were often making forays into Virginia, bringing back prisoners (Cissna 1986:175-176; Merrell 1979:569). The tayac had also hinted in an earlier meeting that some were abandoning the group.

Records indicate that some Piscataway moved back to Piscataway from Zekiah Fort at some point in the 1690s, as recounted by John Hawkins and William Hutchison, who mention having lived "neer the Piscattoway ffort for some years" (Archives Md. 23:226). During this time Hawkins and Hutchison were living in Prince George's County near Piscataway. Some Piscataway probably left the nation to join other groups, as appears to have been happening throughout the 1670s and 1680s, either voluntarily or by force/capture. The tayac and a number of Piscataway soon left Maryland for Virginia on their own, while others remained in the colony, some assimilating with the English and others likely continuing traditional practices in isolated or fringe communities.

Throughout 1696, some Piscataway had been making forays into Virginia and the tayac and a large contingent would soon move there. Some Choptico and Pamunkey (the late 17th-century name of the town shown by Smith as Pamacacack, see p. 18) as well as some Piscataway remained in Maryland during this time (Cissna 1986:178-179). In 1697, James Stoddert, who was living along "the Easterne branch of Potomack in Prince Georges County," or what was the Anacostia River, reported that, in February of that year, several Indians who lived "near the mountains" had come to his house to trade. "At this time," Stoddert noted, "there were some families of the Piscattoway Indians had their Cabins at my house" (Archives Md. 19:522). Cissna (1986:179) interprets this passage as referring to a Piscataway winter hunting quarter, using this as evidence of continuity of the traditional seasonal round; the passage also suggests that Piscataway had indeed remained in Maryland in February 1697. By May, however, the records indicate that the Piscataway, Mattawoman, and Choptico, at least as organized polities, were beginning to withdraw into the mountains of Virginia (Archives Md. 19:557).

By June, a group of Piscataway including the tayac and great men had left Maryland and settled in Virginia "betwixt the two first mountaines above the head of occoquam river lying neare sixty or seaventy miles beyond the Inhabitants where they have made a fort & planted a Corne feild" (Archives Md. 19:520). The Maryland government, which just two years earlier had worked to deprive Indians of land, now sent Major William Barton to find out why the tayac had left Maryland and to determine his interest in returning. The tayac told Barton that the Piscataway had had much conflict with their English neighbors while in Maryland and were being blamed for killing livestock and a host of other problems. The English were also destroying Piscataway corn, tearing down their fences, buying up their lands, and threatening them. Upon his return, Barton reported to the Maryland Council that the tayac and great men were strongly opposed to returning to Maryland, although they "desire to live peaceable there & to passe too & froe without trouble as formerly and that the English should be welcome to come to their ffort as often as they please" (Archives Md. 19:520-521). Major Barton also reported that while the tayac and great men opposed a Piscataway return, "the greatest part of the Indians are inclinable to returne back to Maryland, especially the Comon sort of men & woemen & that severall of them are already come back & more resolved to come suddenly provided they may live peaceably & quietly & that they see the English are not angry with them" (Archives Md. 19:521).

One of the primary catalysts for Piscataway abandonment of Maryland was the murder of one of James Stoddert's African slaves on April 3, 1697 (Archives Md. 19:568-569). It is unknown who committed the murder, but the Piscataway tayac feared his people would be blamed by the Maryland government, as they were already being accused of mischief in Virginia. A June 29, 1697 letter from George Brent to the Maryland governor provides much more detail on the situation. Brent reported that he had recently met with an Indian named Choptico Robin, who told him that several months earlier an Indian named Esquire Tom was at the falls of the Potomac with a group of Piscataway and Seneca. Among the group was a Susquehannock great man named Monges, who secretly gave Esquire Tom a large belt of Peake and told him "that his Nation was Ruined by the English assisted by Piscattoways, &

tht now they were no People, that he had still tears in his Eyes when he thought of it and…he must take his Revenge in private by his money & therefore if this Esq Tom would kill some English where he Could…and most probable to be lay'd upon the Emperors People, he would give him great Rewards…for tht the English would ffirst bleed & then Revenge it upon his Indian Enemies also this Esq Tom promiseth to do" (Archives Md. 23:187-188). Esquire Tom told Choptico Robin that the murder was to be committed in Maryland, but since Robin claimed that he had not participated, he could not confirm that Esquire Tom was responsible for the murder of Stoddert's slave. Nonetheless, Esquire Tom was guilty of the Virginia murders, according to Robin. Choptico Robin did state confidently, however, that it was the murder of Stoddert's slave that "Caused both the [Piscataway] Emperor & Pomunkey Indians to ffly to Virga tht the Emperr sate down there where now he is but the sd Pomunkeys soon Return'd to Maryland" (Archives Md. 23:188).

The Maryland government was anxious to get the Piscataway to return, at the very least so they could keep tabs on them. Virginia records report that, in July 1697, the Piscataway tayac entertained a number of Seneca Indians at his settlement in Virginia and the two nations declared that they were "now all one people" (Cissna 1986:183-184). Maryland eventually succeeded in getting the Piscataway to agree to resettle either at Piscataway Creek or Rock Creek. Virginia officials were also trying to get the Piscataway to return to Maryland. Cissna describes a series of murders in both Stafford County, Virginia and Prince George's County, Maryland for which the Piscataway received blame and efforts to bring them back to Maryland were likely an attempt to better control the group's actions (Cissna 1986:184-185). The Maryland government even considered capturing and holding hostage the son of the Piscataway tayac, who was at Choptico, in an effort to gain leverage in their dealings with the group (Archives Md. 25:76).

It is unclear whether the Piscataway returned to Piscataway Creek or Rock Creek as Maryland desired. Several Pamunkey who had been with the Piscataway in Virginia returned to live near English plantations "att Pomunkey" (Archives Md. 22:328-329; Cissna 1986:186). No doubt some Piscataway also returned to southern Maryland, as the tayac's son was staying at Choptico and, as Major Barton noted earlier when visiting the group in Virginia, many of the "Comon sort" were eager to return to their homeland and some already had.

By 1699, many Piscataway, including the tayac, had moved to Conoy Island (later known as Heater's Island) in the Potomac River, near Point-of-Rocks, Maryland. This site is well above the fall line and distant from the English settlements. By this time, the Piscataway were most frequently referred to as the Conoy (Cissna 1986:191-1912). Virginia's governor, hoping to arrange a meeting with the Piscataway tayac and learn of the group's disposition toward Virginia, sent two emissaries to visit the group on Conoy Island. Burr Harrison and Giles Vandercastle made the long journey through the Virginia wilderness to meet with the tayac in April 1699. The two Virginians described an unfinished fort on the northern edge of the island, about fifty to sixty meters on a side. They estimated the Piscataway population to be about eighty bowmen/warriors (300 people total) and learned from the tayac that there were also "Genekers" (Seneca) who sometimes lived with them "when they are at home." Eighteen cabins were described inside the fort, with another nine outside. The tayac and great men also declined the governor's request to meet with him in the Virginia capital, as they "were very Bussey and could not possibly come or goe down." Instead, they invited the governor to the island, affirming that they desired to live in peace (Palmer 1875:62-65).

Later that year, in November, another pair of Virginians, David Straughn and Giles Tilltet, traveled to Conoy Island to meet with the Piscataway tayac. The tayac told them that the Piscataway were anticipating an attack by the French-allied "Wittowees," who had been seen in the area by some Piscataway women. The pair also confirmed that some Seneca were living at the fort and that the Susquehannock occasionally came to the island (in peace) as well. When asked if he would come live among the English again, the tayac responded that he would be willing to, but was afraid that the foreign

Indians would follow them and commit mischief or violence against the English for which the Piscataway would be blamed. The tayac stated that, despite fears of Witowee attacks, the Piscataway would stay at the fort for now (Palmer 1875:67).

In 1700 and 1701, John Ackatamaka, or Othotomaquah, the Piscataway tayac, sold some tracts of land between Mattawoman and Piscataway creeks to Englishmen. These documents are in effect quit-claim and a legal form of ensuring total dispossession of the land by Native people (Strickland 2015). Around this time, the Maryland government was attempting to establish a reservation for the Piscataway, promising that the English would vacate the area if the Piscataway would return (Archives Md. 24:72-72, 79). The Maryland government was also appointing Indian-English "mediators" for Indian groups in Maryland at this time, likely to keep a watchful eye on Indians on the planned reservations. This act recognized four groups of Southern Maryland Indians at this time: Choptico, Piscataway, Accokeek, and Pamunkey (Cissna 1986:188).

A large contingent of the group remained on Conoy Island, however, and it is unlikely that the reservation was established as planned. The Maryland government appeared to have gotten tayac Othotomaquah to agree to return to Southern Maryland with his group in July 1700, but over a year after this agreement, the Piscataway still had not returned (Cissna 1986:188; Archives 24:147-148). The Maryland government appeared mistrustful of the tayac at this time, ordering rangers to protect the colony's frontier (Archives Md. 24:147-148).

In September 1704, the Piscataway on Conoy Island were visited by Colonel Smallwood, an Indian interpreter named Robin, and a small troop of men. Smallwood learned that 57 Piscataway had died during a smallpox outbreak, including tayac Othotomaquah (Archives Md. Md. 26:376-377), and the group was to select a new tayac (Cissna 1986:189). Smallwood reported that "they had left their Forte," leaving much corn unharvested, although this may have been temporary, as the group remained on the island and in the area (Archives Md. Md. 26:377). Some Piscataway may have left the island after the smallpox epidemic, going to live at Conejoholo on the Susquehanna River (Cissna 1986:192).

Many Piscataway continued on the island, however. In 1712, the Piscataway still at Conoy Island were visited by Christoph von Graffenreid, a Swiss colonist looking to establish a community in the New World. Graffenreid described visiting the island of "Canavest" (phonetically similar to "Ganowese," or Conoy, the Iroquoian term for the Piscataway) where a group of Indians were then living. A Frenchman from Canada named Martin Chartier had married an Indian woman and was present on the island when Graffenreid arrived there. The Piscataway built several bark canoes for Graffenreid and his group and took them down the Potomac (Todd 1920:247, 383-385, 391).

Sometime between Graffenreid's 1712 visit and 1718, the group abandoned Conoy Island and resettled in Pennsylvania. According to a brief oral history of Piscataway chief Old Sack recorded in 1743, his predecessors had "brought down all their Brothers from Potowmeck to Conjoholo," indicating that the Piscataway who had left Conoy Island at this time may have joined previous migrants at Conejoholo for a brief period (quoted in Kent 1984:70). By 1718, the Piscataway had resettled at Conoy Town on the Susquehanna River where they remained until European encroachment in 1743 again forced them to move to either the Juniata River or Shamokin (Van Doren and Boyd 1938: 67-69; Cissna 1986:192-193).

Piscataway Displacement, Relocation, and Diaspora

The Piscataway appear to have maintained close ties to the Nanticoke and, following their move into the Pennsylvania colony, were party to numerous treaties between the colonial government and the Indian nations throughout the 18th century. At this time, the Piscataway were under the influence of the Five/Six Nations Iroquois and maintained extensive contact with many mid-Atlantic Indian groups.

During the negotiations for these treaties, concerns of the Piscataway/Conoy were sometimes raised. At the 1744 Treaty of Lancaster, for example, the Piscataway described "that they were ill used by the white People," forcing them to move from Conoy Town and requesting "some small Satisfaction for their Land" (Van Doren and Boyd 1938:67). At the same meeting, Iroquoian speaker Canassatego conferred with commissioners from Virginia on behalf of the Piscataway. Canassatego told the commissioners that "among these Tuscaroraes there live a few Families of the Conoy Indians, who are desirous to leave them," asking the commissioners for safe passage of these Piscataway on the road through Virginia (Van Doren and Boyd 1938:77). Canassatego's request reveals that some Piscataway had resettled south of Maryland among Tuscarora remnants who had not migrated north to join the Five/Six Nations at the conclusion of the Tuscarora War several decades earlier. Canassatego referred to a recent agreement with the Cherokees necessitating the reopening of a Virginia road to Iroquoian messengers. The Pennsylvania governor responded on behalf of the Virginia commissioners, stating that they "would prepare Passes for such of the Conoy Indians as were willing to remove to the Northward" (Van Doren and Boyd 1938:78).

At the 1761 Treaty of Easton, Piscataway and Nanticoke-specific concerns were again addressed with the colonial Pennsylvania government:

> We the Seven Nations, especially the Nanticokes and Conoys, speak to you. About Seven Years ago we went down to Maryland, with a Belt of Wampum, to fetch our Flesh and Blood, which we shewed to some Englishmen there, who told us they did not understand Belts, but if we had brought any Order in Writing from the Governor of Pennsylvania, they would let our Flesh and Blood then come away with us but as this was not done, they would not let them come Now we desire you would give us an Order for that Purpose (Van Doren and Boyd 1938:260).

Both the Lancaster and Easton treaties demonstrate the geographical extent of Piscataway diaspora. Not only did some Piscataway migrate north into Pennsylvania, some split and went south to live among the Tuscarora (remaining there as late as 1744), while some also stayed behind in Maryland (as evidenced by the 1761 Easton treaty).

In August 1769, a conference was held at Shamokin by Colonel Francis of Pennsylvania for the condolence of Seneca George, "a leading Chief, and faithful Friend of the English," whose son had recently been murdered by an Englishman. Attending along with Seneca George were an Onondaga chief, the "Conoy King," and roughly fifty more Indians, "principally Nanticokes and Conoys." These Indians were described as "inhabiting in and near Shanango," in New York. When Seneca George became too "oppressed with grief" during the proceedings, the Conoy King spoke on his behalf (*Pennsylvania Gazette* 1769).

Cissna notes that some Piscataway may have made their way to Otsiningo, New York after leaving Juniata. At a major Indian conference held with Sir William Johnson in 1770, 193 of the estimated 2,300 Indians in attendance were believed to be Piscataway and Nanticoke and, in 1779, when the Otsiningo Indian settlement was abandoned, 120 Nanticoke and 30 Piscataway were counted in a census at Fort Niagara (Cissna 1986:199-200). Some of these Nanticoke and Piscataway would later move with the Six Nations to a reservation in Canada, while others migrated west with other Indian groups (Cissna 1986:200).

Piscataway representatives were also part of the Northwest Indian council held at the rapids of the Miami River in Ohio in 1793. White settlers had begun settling on Indian territories north of the Ohio River by this time and President George Washington hoped to peacefully end US-Indian hostilities in the area while also securing Indian land concessions. Washington commissioned Benjamin Lincoln and two others to negotiate a peace with the Indian Confederacy with the goal of pushing the boundary line further

into Indian territory, effectively forcing the Indians further west. At a meeting at the mouth of the Detroit River, a Wyandot messenger presented Lincoln with a document outlining the position of the Northwest Indian Confederacy, which demanded adherence to the Treaty of Fort Stanwix, recognizing the Ohio River as the boundary between white settlement and Indian lands. Among the tribes signatory to this document were the "Connoys," who signed with a Turkey (Massachusetts Historical Society 1836:109-176; for "Connoys," see 143).

These negotiations fell through, however, and hostilities between the groups resumed with a US offensive led by General Anthony Wayne. According to oral history, some of the Piscataway joined other Native groups fighting against Wayne's forces during his Fallen Timbers campaign in 1794 (Tayac 1988:7).

While some Piscataway migrated north with Iroquois groups and others west with other nations through the 18th century, others remained in Maryland. Cissna (1986:205-206) describes some additional land transfers in 1713 and 1717 between Englishmen and Piscataway. Despite indications in the archival record of a withdrawal of the native population from the areas around Piscataway, Pomonkey, Mattawoman, and Nanjemoy creeks, reading between the lines indicates that many Native people did remain. Although the adoption of English names makes it difficult to locate indigenous people in the historical record, one especially notable case was brought before the Maryland Council in 1736. George Williams, the son of the Pamunkey "Queen," contested the ownership of land then in the possession of Charles Pye, an English colonist. This land was located on Mattawoman Creek. Williams' argument was that the land had been designated in 1666 as an Indian reserve. The Council agreed, ordering Pye to allow "him the said Indian and his family [to] live quietly upon the land where they are now settled" (Archives Md. 27:94-96). Pye countered that, in 1654, prior to the creation of the Indian reserve, the land in question had been granted to Thomas Cornwallis (Archives Md. 2:26). Pye also cited the decline in overall Native population in the area presumably suggesting that reserve lands were no longer necessary. Eventually the Council agreed that the 1654 Cornwallis patent superseded the 1666 Indian reserve and rescinded its previous order, allowing Pye "remedy at law against the said Indian" (Archives Md. 28:96).

The dispute between Williams and Pye and the recordation of land transfers between Indians and English during the early part of the 18th century is indicative of a major change in Anglo-Native interaction. Through much of the 17th century until ca. 1690, most interactions between English settlers and Native populations, especially with regards to land rights, were conducted as inter-organizational negotiations involving treaties and the creation of Indian reserves. By the 18th century, these interactions were most often manifested as disputes between individuals, with the dispute between Williams and Pye a prime example of this shift. Williams' filing of the initial complaint against Pye indicates his familiarity with the English colonial legal system, and he was able to initially mount a successful defense for the right and claim of the land before the Council. Ultimately, Pye fiercely contested this initial judgment and was able to demonstrate, to English legal eyes, at least, his prior right to the land. Throughout the Council proceedings, it was revealed that Williams was also engaged in typically English practices, including the marking of hogs, keeping livestock, and recognizing the monetary value of raising animals beyond his immediate and personal use. What is especially noteworthy is that Williams also cultivated and sold tobacco, linking him directly to the colonial economic system of trade like his English counterparts. It is perhaps the adoption of otherwise unremarkable English practices that allowed for Williams to remain in the area and make a living, but these practices did not make him any less of an Indian in the eyes of the Maryland Council.

The aforementioned 1761 Treaty of Easton also makes reference to both Nanticokes and Conoys returning to Maryland in a failed effort to "fetch [their] Flesh and Blood," a reference to their relatives remaining in Maryland (Van Doren and Boyd 1938:260). The colonial records also contain numerous references to Choptico and Pamunkey Indians remaining in the colony into the 18th century. References to the remnant Piscataway in the 18th century may be scarce because the tribal leadership, including the

tayac and great men, had left the colony. Major Barton's visit to the group in Virginia in 1697 had revealed that the tayac and great men "utterly refuse[d]" to return, while "the greatest part of the Indians are inclinable to returne back to Maryland, especially the Comon sort of men & woemen" and some of them already had (Archives Md. 19:521). Because the Maryland government largely ceased interaction with Piscataway leadership after their move to Pennsylvania, this likely explains the dearth of documentary references to the group's remaining members.

Archaeologist and ethnohistorian Thomas Davidson (1998:135-136) notes that "most of the tribal chiefs…reacted to [the] loss of power and autonomy by leaving the Maryland colony" and those who remained could either maintain Indian identity on reservation lands or move off reservations and find a place in English society. He also argues that the Maryland government did not regard "Indian" as a racial classification, instead deeming it a cultural, and thus mutable, trait (Davidson 1998:135-136). The implication is that once a Maryland Indian stopped acting in a manner the English viewed as overtly "Indian" – demanding treaty rights, etc. – they effectively ceased to be so in the eyes of the colonial government, which often defaulted their racial classification to white or black based on the community to which they had closest ties. This administrative erasure of Indian identity continued into the 19th century and would have long-lasting effects on the Piscataway and other Native groups who remained in Southern Maryland (Davidson 1998), and suggests the quiet kind of cultural violence precipitated by the records and archives of colonial powers. However, it is also the case that George Pye adopted English habits and practices and yet was still regarded as an Indian by himself and the English.

The overall continuation and survival of Native culture in southern Maryland has been the subject of repeated sociological research efforts dating from the late 19th century to the present. Prior to 1960, Thomas J. Harte documented Native populations using census, parish, and other documentary records. Harte concluded "with reasonable certainty they [the native population] originated in Charles County, Maryland prior to 1778" (Porter 1980:44). James Mooney of the Smithsonian Institution stated that, in 1898, a "remarkable" number of families of Native American origin were living in southern Maryland at that time (Porter 1980:42). The occupation of marginal lands along with endogamous marriage practiced by a core group of families through time allowed for the continued survival of Native life in the region. Throughout this period, Native peoples understood their identity as not African American or white but Indian. It is this maintenance of their identity that has allowed their survival as a cultural unit to this day (Gilbert 1945, 1946; Harte 1963; Harmon 1999:16).

While much work remains to be done on Piscataway life in the homeland after ca. 1700 (but see Seib and Rountree 2015), what appears certain is that, not only did Piscataway people remain in southern Maryland, they not surprisingly recognized a landscape rooted in history. This interpretation comes from a visit in 1882 by Dr. Elmer R. Reynolds, a co-founder of the Anthropological Society of Washington (D.C.). Reynolds visited "Indian Hill," a place he described as an "old Indian town … situated on the head waters of the Wicomico River, twenty-five miles from its junction with the Potomac" (Reynolds 1883:310-311). Reynolds, who was interested in documenting the region's pre-Contact archaeological sites, also described "Bead Hill," which was nearby and "where glass beads…had been plowed" out of the ground. Although Reynolds' descriptions are vague, archaeologists are fairly certain that he was at Zekiah Fort, the ca. 1680-1692 fortified Piscataway settlement located south of modern-day Waldorf, Maryland and previously described in this chapter. Notably, Waldorf sits at the head of two drainages, including the Wicomico River and Mattawoman Creek.

Reynolds was taken to the old town by a self-identified Indian man by the last name of Swann, who, as far as Reynolds could tell, was of the "original, unmixed Wicomico [Piscataway] blood" based on both his appearance and his habits (Reynolds 1883:313-314; Reynolds 1889:259). Swann does not appear to have lived near Indian Hill but about 18 miles away, suggesting his memory of the old town was based not on working the land and finding artifacts himself but on a broader awareness of an earlier landscape that, to western eyes, looked unremarkable and remained invisible. For Swann, however, Indian Hill and

Bead Hill were clearly remembered places and carried meaning for him; to Swann, these places were not invisible. Reynold's description provides a rare but perhaps not unusual glimpse into how one Indian man living in 19th-century southern Maryland recognized what would today be considered the Indigenous Cultural Landscape.

In 2012, after more than two decades of effort, the Piscataway Indian Nation and Piscataway Conoy Tribe of Maryland were recognized by the State of Maryland by two executive orders signed by Governor Martin O'Malley (Executive Orders 01.01.2012.01 and 01.01.2012.02) (State of Maryland 2012a, b). As most of the Piscataway would attest, their Native identity has never been in question or at issue for them, but state recognition confers certain benefits and, importantly, affirms to the non-Indigenous citizens of the state the ongoing presence of the region's most ancient inhabitants. This review of Piscataway history coupled with contemporary Piscataway knowledge of their history and culture provides a solid foundation for (re)identifying the Piscataway Indigenous Cultural Landscape.

Native Settlements in the Nanjemoy and Mattawoman Watersheds

The Nanjemoy and Mattawoman watersheds are part of the much larger Piscataway homeland, with both watersheds named for the Nanjemoy and Mattawoman nations, respectively. Both the Nanjemoy and the Mattawoman were more or less tied to the Piscataway while maintaining some degree of independence and autonomy. Both groups appear to be identified on Smith's 1608 map as the towns Nushemouck and the Mataughquamend (see Figure 9). Other towns also found in what appears to be the vicinity of the two creeks' watersheds include Nussamek, Pamacacock, and Cinquateck. Smith shows all of these locations as "ordinary houses" and not as "king's houses," with later English records referring to leaders of these groups as "kings."

Neither group was mentioned apart from the Piscataway in the early records of Maryland, which more likely reflects incomplete English understandings of the relationships as well as the importance and power of the Piscataway. The 1635 Jerome Hawley/John Lewger map shows no Native towns in the Nanjemoy or Mattawoman watersheds, although towns are shown at "Portobacke" and at "Pascatoway" (Figure 11). Beginning in the 1660s, however, both the Nanjemoy and the Mattawoman are regularly called out in the English records. Significantly, when treaties or other agreements were reached between Native groups and the English, the Nanjemoy and the Mattawoman were represented as relatively independent actors who nonetheless maintained a political relationship with the Piscataway.

The Nanjemoy were first mentioned by the Marylanders in 1660 when one of their great men was reported to be in St. Mary's City, at the same meeting in which the Piscataway tayac's brother described his nation's origins to Governor Philip Calvert. Cissna (1986:151) reads the Nanjemoy's presence at this meeting as indicative of a relatively close relationship between the Piscataway and the Nanjemoy. The Mattawoman were first mentioned in 1663, when the Governor and his Council met at Piscataway to pick a successor to the recently deceased tayac. The great men of the Mattawoman were present at the meeting.

In 1666, when the Maryland government and twelve nations signed Articles of Peace and Amity, both the Nanjemoy and Mattawoman sent leaders who signed on the two nations' behalf. Necutahamon, the "king" of the Nanjemoy, and Mawnawzimo (probably a great man) signed for the Nanjemoy and Unawcawtanim (probably a great man and not a werowance, or leader) signed for the Mattawoman. Cissna (1986:158) suggests that the presence of signatories for the three groups indicates that the Piscataway, Nanjemoy, and Mattawoman were not fully united. Indeed, Article 7 of the treaty makes it clear that not only would the Nanjemoy remain on the place where they then lived, Mecahatammon, their "king," would be "subject to noe Indian whatsoever" (Archives Md. 2:26). The Articles of Peace and Amity were reaffirmed in 1670 (Archives Md. 15:290). Other evidence indicates that, in the case of the Mattawoman, there existed resistance to submitting to Piscataway control. For example, in times of

Figure 11. Jerome Hawley/John Lewger Map of Maryland, 1635. The Nanjemoy and Mattawoman watersheds include the area shown between "Portobacke" and "Pascatoway."

unrest, when the Calvert government would encourage the various Indian nations to join together geographically for protection, the Mattawoman would often defer, citing reasons that did not call out any antagonism toward the Piscataway but that served to keep the two groups at arm's length. Archaeological evidence does suggest, however, that, at least at Zekiah Fort (1680-1692), different groups would sometimes come together for protection if only temporarily.

The growing numbers of mentions of the Nanjemoy and Mattawoman in the records also reflects increasing conflict between Natives and English as settlers encroached ever further into Native territory. In 1660, a dog belonging to Winganatto, the "king" of the Nanjemoy, killed a hog owned by one John Brown; Winganatto was ordered to pay 60 arms length Roanoke in restitution (Archives Md. 47, 414). Three years later, in 1663, Winganatto was reported to have received payment for lands he had sold to seven Englishmen (Archives Md. 53:415). These sales are unusual, given that Cecil Calvert, Lord Baltimore, claimed sole rights to dispensing with indigenous lands. The encroachment of English settlers, however, led to increasing complaints by Native people. In 1665, one of the Mattawoman great men appeared before the Council to ask if he and his people should move further into the woods or stay where they were (Archives Md. 3:534), presumably because of the problems caused by encroaching English. Encroachment could also include theft of personal property, as Misapacka, a Nanjemoy Indian, experienced in 1666. After purchasing corn and beans at Pamunkey and enlisting the services of another Indian as a guide to bring the foodstuffs to Nanjemoy, the guide, traveling by canoe, was hailed by an

Englishman on shore who proceeded to steal some of the corn and beans along with "one boule and too mats" (Archives Md. 60: 34,45).

Despite the encroachment, the Nanjemoy and Mattawoman often joined the English and Piscataway in expeditions against enemy Indians and were rewarded with matchcoats and other goods for their trouble. The Maryland government also provided arms, powder, and shot to the Nanjemoy and Piscataway.

1676 was the year that Nathaniel Bacon assembled and led a group of rebels on Jamestown, the colonial capital of Virginia. Bacon's actions were ostensibly in response to what he saw as a failure of the Virginia government to protect the frontier from raids by Indians, and the Maryland government feared that the events transpiring to the south could spill over into their colony. The governor and Maryland Council kept close tabs on the Natives within the colony, with the great men of the Nanjemoy and Mattawoman appearing before the Council in June of that year. At that meeting, the governor and Council authorized the arrest of any armed Englishman who attempted to enter the Mattawoman fort (Archives Md. 15:78, 102).

That the Piscataway and Mattawoman nations continued an antagonistic relationship is suggested by a 1681 incident in which a Mattawoman Indian, having been captured by the Seneca and later released, reported to the English that the Piscataway had sent a basket containing belts of shell beads and an English iron axe to nations on the Eastern Shore and as far north as the Onondaga and Oneida, a clear invitation to these other groups to join with the Piscataway and destroy the English. Although the English were unable to confirm the veracity of the report, the fact of its telling suggests that the Mattawoman were using intelligence one of their members had collected to harm Piscataway standing with the English.

The precise locations where the Nanjemoy and Mattawoman had their towns and forts were left unsaid in the records beyond the clues provided by the respective creeks' names. Nanjemoy Indian Town, located on the east side of Nanjemoy Creek, first appeared in the land records in 1685 in a patent for 600 acres to William Whittington of Accomack County, Virginia (Pat. Rec. 22/197). The town had probably been occupied for decades if not longer. Whittington never occupied the property and transferred it Samuel Taylor almost immediately.The land was conveyed to Robert Doyne sometime between 1685 and Doyne's death in 1689. Doyne lived on Broad Creek in what would later become Prince George's County and not in Nanjemoy. The property eventually came into the possession of his daughters, Verlinda and Mary. Verlinda and Mary appear in separate deeds transferring title to the land to James Stoddert and William Hutchison in 1702 (CCLR Deed Z/19), 1714 (CCLR Deed F2/59), and 1715 (CCLR Deed F2/76). Along with the neighboring tract known as Rotterdam, William Hutchison's son (also William) and Stoddert combined and resurveyed the land as William and James in 1725 (recorded in 1736, Pat. Cert. 1191).

A 1725 patent notes that the property begins at the end of an Indian road near the confluence of present-day Nanjemoy and King's creeks, a spot now known as Ball's Point. A farm road is located at this point, probably representing later continued use of an original Indian road. This land was previously surveyed through surface reconnaissance in 1980 by archaeologist Michael Smolek. The property contains several shell middens, one of which (18CH153) is described as dating to the Late Woodland period. It is possible that this site represents part of the town occupied by the Nanjemoy. Significantly, this town site is visible from the ossuaries located at Friendship Landing Park, and there is little doubt that this arrangement was intentional.

The ossuaries at Friendship Landing Park (and overlooking Nanjemoy Creek) were the focus of several investigations in the mid-20th century. In 1953 and 1955 and again in 1971 and 1980, staff from the Smithsonian Institution conducted excavations at the Juhle site (18CH89) located on Nanjemoy

Creek. The excavators uncovered three ossuaries, or mass burials, containing more than 319 individuals (one ossuary, excavated in 1980, remains unanalyzed).

Ossuary burials are not uncommon in Maryland and can be found on both the western shore and the Eastern Shore, all within the coastal plain. In a survey of ossuary burials from the state, Curry (1999) concluded that ossuary burials occurred late in pre-Contact times, probably no earlier than 1450 AD through the 17th century. Ossuary burials may have been a way to forge community by linking the past with the present, and there is little doubt that ossuary burials were marked and tended (Curry 1999). Indeed, as Thomas Jefferson (1788:106) and others have written, Native cemeteries in the Chesapeake region were remembered and visited well into the late 18th century despite the effects of ongoing colonial displacement; no doubt these memories and visits persisted much later.

The three ossuary burials along Nanjemoy Creek are located so that an individual at Nanjemoy Indian Town would have been able to see the landform containing the burials. Funerary objects included shell beads, presumably from necklaces interred with the dead, but no artifacts that would suggest the burials post-dated 1600. Thirty-five post molds uncovered between two of the ossuaries may suggest the unusual survival of what would have been a charnel house (a charnel house is depicted on the Smith map); one of the post molds yielded a radiocarbon date of 1515 AD +/- 155). Recently conducted remote sensing in the vicinity of the Juhle ossuaries indicates that more burials are present. Clearly, this location along Nanjemoy Creek had considerable meaning to the Native people living here.

Excavations were also conducted at the Posey site (18CH281) (Harmon 1999), a ca. 1660-1680 Native settlement located on the north shore of Mattawoman Creek at the Naval Support Facility Indian Head. The Posey site, which was tested in 1981 by William Barse and again in 1996 by the Jefferson Patterson Park and Museum, may have been the residence of the Mattawoman werowance or one of the Mattawoman great men. The site was first discovered in 1959 when an explosion at a nitroglycerin facility revealed artifacts and features. Later excavations have generated thousands of Native-made ceramics, red clay tobacco pipes, shell beads, brass points, animal bone, and a few European materials, presumably acquired by the site's occupants through trade. The presence of a relatively high number of shell beads, a shell bead blank, and brass or copper alloy suggests that this site was occupied by an individual or household(s) of high status. The overwhelmingly Native-made material culture as well as a faunal (animal bone) assemblage comprised of almost entirely indigenous foods suggests that, even after 30 to 40 years of colonial occupation, the Natives at this site continued materially familiar practices.

Trade items – artifacts of European manufacture – and a few pig teeth in the faunal assemblage at the Posey site suggest the presence of the invader neighbors. The two or three pig teeth recovered suggest that Native people probably killed (and perhaps even consumed) many of the hogs that destroyed Native fields and crops. Other materials, such as the brass points and a few glass beads, suggest that the Mattawoman inhabitants of the Posey site acquired European materials only to refashion them into meaningful Native objects. Additional trade items include iron nails, probably from boxes in which goods were transported, ceramics, white clay tobacco pipes, European flint, and lead shot.

Changes in behavior may also be reflected in the archaeological record, albeit not in ways traditionally interpreted by archaeologists. For example, ceramic artifacts from the Posey site (18CH281) are composed of 97.5% Native-made ceramics. The Zekiah Fort site (18CH808), occupied by the Piscataway from roughly 1680 to 1692, yielded slightly fewer Native-made ceramics at 81.7% of the total ceramics (Flick et al. 2012:127-132). By the time the Piscataway were at Heater's Island, between 1699 and 1712, the ceramic assemblage contained only 37% Native-made ceramics, and at least some and perhaps most of these artifacts may pre-date the Piscataway occupation (ca. 1699-1712) (Curry n.d.). European-made artifacts dominate the assemblage at Heater's Island, with 97.8% of the pipe assemblage being composed of European-made tobacco pipes.

Acknowledging the small sample size, these numbers seemingly argue for a shift in preference for European-made goods, a shift that was once interpreted as a sign that Native people were becoming assimilated or acculturated to English ways of life. Such assimilation or acculturation models tend to be concerned primarily with an artifact's form (where it was made) rather than with its use. While assimilation and acculturation no doubt occurred in individual cases, using European materials to measure rates of change is risky work and perhaps masks the fact that, through the 17th century, Native people, including the Piscataway, were increasingly displaced within their homeland. After about 1690, this displacement included to territories outside the traditional Piscataway homeland. The production of Native ceramics, typically by female potters, requires proper materials and skilled workmanship. Clay resources for ceramic production require knowledge of where these materials could be found. It is likely that Piscataway displacement forced the use of European ceramics, not because the ceramics were meant to signify an adoption of English ways, but rather because of a profound disruption in access to necessary resources. This may have lead to prioritizing other practices (such as spiritual practices involving the use of copper and beads) for constituting Indian identity while adopting European goods for Native use.

CHAPTER IV
INDIGENOUS SETTLEMENT MODELS OF THE CHESAPEAKE BAY REGION: PREVIOUS RESEARCH

This chapter explores previous efforts to develop models of indigenous settlement in the Chesapeake region, testing these models with archaeological evidence from the Nanjemoy and Mattawoman watersheds. These settlement models provide an important content baseline for identifying the Nanjemoy and Mattawoman Indigenous Cultural Landscape experienced by Smith in 1608.

As noted in Chapter II, certain base criteria have been developed for defining ICL areas. Not surprisingly, no method of defining an ICL is universal and each effort must be adapted to local conditions, including the environment, and culture of the study area. Existing research into Late Woodland/Contact period settlement environments within the Project Area and the greater Chesapeake region provides additional insight and considerations when developing ICL criteria for the Nanjemoy/Mattawoman Creek watershed ICL.

There have been a number of ways in which researchers have tried to understand the settlement of people in the Chesapeake and other Algonquian-speaking regions. Studies of the Middle Woodland period (500 BC-900 AD) in Maryland have shown that these centuries were a transitional period of increasing sedentism (living in one place for a long time), population growth, and the emergence of larger group territories and economies. These changes may have been spurred by better access to reliable food sources, including domesticated plants (Sperling 2008:24). By the Late Woodland (900 AD-1600 AD), even more complex social systems were developing. A growing dependence on domesticated foods requires different structures for ensuring adequate food supplies. The production of food surplus also requires the ability to store resources for future use in subsurface pits, ceramic pots, or above-ground granaries. Availability of resources appears to be the major contributing factor in this transition and is the focus of analysis for this project.

Archaeologist Martin Gallivan (2002) has challenged the common understanding that there was a sudden and dramatic shift toward greater sedentariness in the early part of the Late Woodland. Gallivan argues that sedentary practice at the beginning of the Late Woodland period differed only slightly from the end of the Middle Woodland period. Exploring site population density and duration of occupation through an examination of ceramic discard, Gallivan found that it was only after 1200 AD that more permanent and substantial settlements appear in the archaeological record. Gallivan also found that, between 1500 and 1607, there was an apparent decrease in sedentariness, caused perhaps by political instability, an extended dry period (as revealed by tree ring evidence), or both (Gallivan 2002:549-552).

The standard argument for the decrease in sedentary life in the last century of the Late Woodland described populations stricken with disease brought to indigenous communities by earlier European explorations. Such explorations would have included the failed Spanish Jesuit Ajacán Mission of 1570 (probably on the York River) and earlier expeditions by Lucas Vázquez de Ayllón in 1525 and Ángel de Villafañe in 1561 (Loker 2010; Potter 1993:161-164). Populations in parts of New England in the early 17th century were apparently decimated by European diseases prior to when permanent English settlement took place (Marr and Cathey 2010). European-borne diseases could have conceivably had an impact on populations in the Chesapeake, leading, for example, to the destruction of populations at Shenks Ferry in the Susquehanna Valley (Pendergast 1991:45)

Others contend that there is little archaeological evidence, at least in the Potomac, to support the notion that 16th-century European contact had brought any epidemics to the Native population (Potter 1993: 165). Studies of Late Woodland populations in Southern Maryland in particular suggest that there was actually an increase in population size (Ubelaker 1974:68). In order to fully resolve questions about the impact of European-borne epidemics in the 16th century, further study is needed (Potter 1993:166).

Potter (1993:102) noted a shift in archaeological site types and their distributions from the earlier part of the Late Woodland to the later part in the Northern Neck of Virginia. Sites of "intermediate" size distributed across river necklands were supplanted by a single large site containing dispersed residential settlements. During the later Late Woodland, the chief's residence came to form a "core settlement" within the larger, dispersed village. Clusters of houses as well as hunting and gathering camps would be located over a 2-km range of the core (Potter 1993:88-89).

Potter's systematic study provides an estimate of the size of what could reasonably be called a catchment area for a community and provides a robust starting point for defining Smith-era ICLs. Similar work on the dynamic nature of Late Woodland regional indigenous landscapes can be found in the work of E. Randolph Turner III (1976) and Helen Rountree (1989). These communities, while essentially "permanent" and centered around river drainages, often shifted throughout the landscape in response to resources (good soil, firewood), climate and weather, trading relations, and unfriendly neighbors.

Evidence from Virginia's piedmont communities reveals the great variation that existed in the Native landscape (Hantman 1993). Piedmont groups exhibited dispersed communities and isolated homesites away from the major river drainages. Late Woodland settlement patterns on the Delmarva Peninsula ranged from diffuse to concentrated (Thomas et al. 1975; Custer 1989). Busby's (2010) more recent examination of Nanticoke settlements on Maryland's Eastern Shore showed a nucleated "core settlement" with smaller sites across a broad 3-km-plus area during the later Late Woodland giving way to more dispersed linear settlements following secondary drainages in the early Contact period. The point is, even within this relatively constricted area of the Chesapeake drainage on the Eastern Shore, variation in expression of communities across the landscape existed.

Given that Potter's focus on the Potomac was primarily Virginia's Northern Neck, Strickland (2012) focused on the lower and middle Potomac's north shore. Strickland's spatial and statistical analysis of Late Woodland sites within the lower Potomac valley have yielded interesting results that add to discussions of overall settlement patterning. This analysis demonstrated a statistically significant correlation of Late Woodland sites with proximity to wetland areas such as the Potomac River and inland waterways including Nanjemoy and Mattawoman creeks. Strickland (2012) also found that there were strong correlations between sites and agriculturally productive soils.

Strickland also examined settlement patterns using archaeological site typologies defined by the Maryland Historical Trust (MHT). These typologies can be problematic, especially for those sites identified as short-term camps and procurement sites. These types of sites appear with the largest frequency within MHT's inventories, and the label functions as a catch-all term for indigenous sites with as-yet-unknown settlement activity. A summary of the results and interpretation of the statistical correlative studies of typologies can be found in Table 2. A proposed settlement model based on this data can be found in Figure 12.

Typology	Attributes
Villages/Towns	1.) Strong association with proximity to shore
	2.) Low elevations
	3.) High potential crop yields
	4.) Within close proximity to the most productive soils for corn
Base Camps	1.) Close proximity to shore but with a longer range
	2.) Range of elevations for its shore proximity
	3.) No observed correlations to tested soil attributes
Hamlets	1.) Close proximity to the shore
	2.) Higher elevations than villages, but not a longer range
	3.) Range of different soil productivity attributes
	4.) Close proximity to villages and base camps
Short-term Camps/ Procurement	1.) Close proximity to shore but with a longer range
	2.) Range of elevations for its shore proximity
	3.) Slight association with agriculturally productive soil types
	4.) Range of travel times from villages and base camps, but still clustered with them

Table 2. Lower Potomac Late Woodland settlement attributes by type (adapted from Strickland 2012).

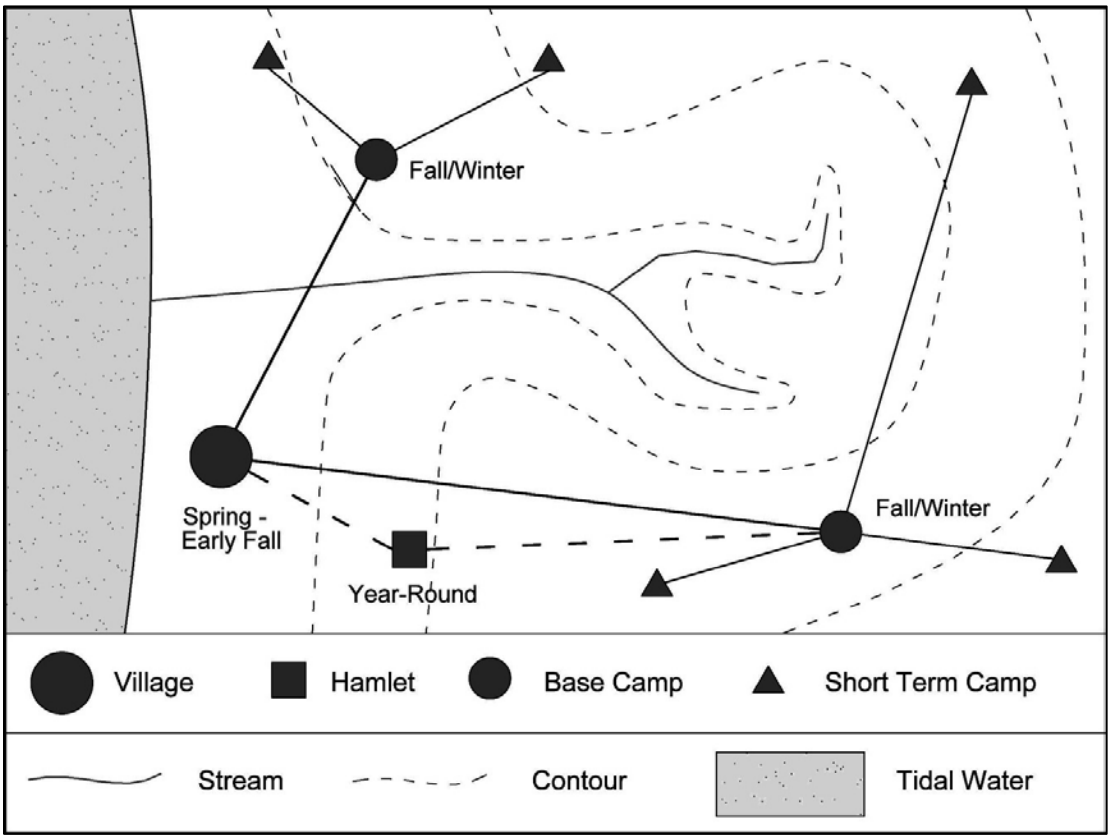

Figure 12. Lower Potomac Late Woodland settlement model (adapted from Strickland 2012).

CHAPTER V
ASSEMBLING THE EVIDENCE

Consultation with a wide range of stakeholders, including members of the two state-recognized Piscataway groups, land planners and managers, and members of land conservation and historic preservation organizations with an interest in the Nanjemoy and Mattawoman creeks, was critically important for mapping the Nanjemoy and Mattawoman Indigenous Cultural Landscape. As a result of this consultation, a wealth of information about the two watersheds was generated from a range of perspectives. Also important were the online sets of data available for this area, including natural and ecological information, archaeological site data, and information gleaned from historical records.

This chapter pulls together the information derived through stakeholder input as well as archaeological, documentary, geological, ecological, and environmental evidence to define not just the landscape of the Piscataway people who were warily eyeing Smith in 1608 but the landscape of the contemporary Piscataway. An array of maps was generated to represent all of this information and to identify high probability areas containing the physical traces of the historic Piscataway ICL in the Nanjemoy and Mattawoman watersheds. These maps are then used to build a composite map in order to delineate not just the ICL boundary (which most participants agree includes the entire watersheds of both creeks) but the varied uses within this landscape.

Piscataway Stakeholder Information

The Piscataway representatives participating in this project highlighted 19 different locations on a base map of the Project Area. These 19 locations, shown in Figure 13, are numbered sequentially starting near Nanjemoy Creek and continuing clockwise around the Potomac River to Mattawoman Creek. A legend for each location is shown in Table 3. Notably, certain areas that were not marked but that were part of group discussions are better shown through other data themes discussed later in this chapter.

Friendship Landing Park, located on Nanjemoy Creek, was not marked as an important location as part of this exercise, but that is probably due to the fact that, from the outset, all participants in this project recognized the sacred importance of this property. Friendship Landing Park contains a large Native American cemetery, portions of which were excavated in 1953, 1955, 1971, and 1980. Friendship Landing Park was a stop on the driving tour and was later visited by Ms. Diana Harley and Ms. Mervin Savoy, both of the Piscataway Conoy Tribe of Maryland. Ms. Savoy provided information about historical and contemporary indigenous plant use and about plants found on site at Friendship Landing. Although beyond the scope of this project, an inventory of information about plant use would augment interpretation of the Nanjemoy-Mattawoman ICL.

Other identified landscape features included bent trees used to demarcate trail locations. The Monarch habitat, the wooded locations, the water viewshed, and the water-based resources were seen as advantageous characteristics for an ICL and its interpretation and experience. The archaeological resources of the park along with the cemetery were discussed, with an emphasis on the necessity of protection and the possibility of Piscataway stewardship. The absence of interpretation of these features in the park's materials was not identified as an issue. This location provides a good opportunity to promote the practice of wise land management practices that do not negatively impact resources as part of the interpretation and recreational experiences tied to the Captain John Smith Trail. Rethinking a collection of discrete "archaeological sites" as a dispersed but connected settlement was discussed.

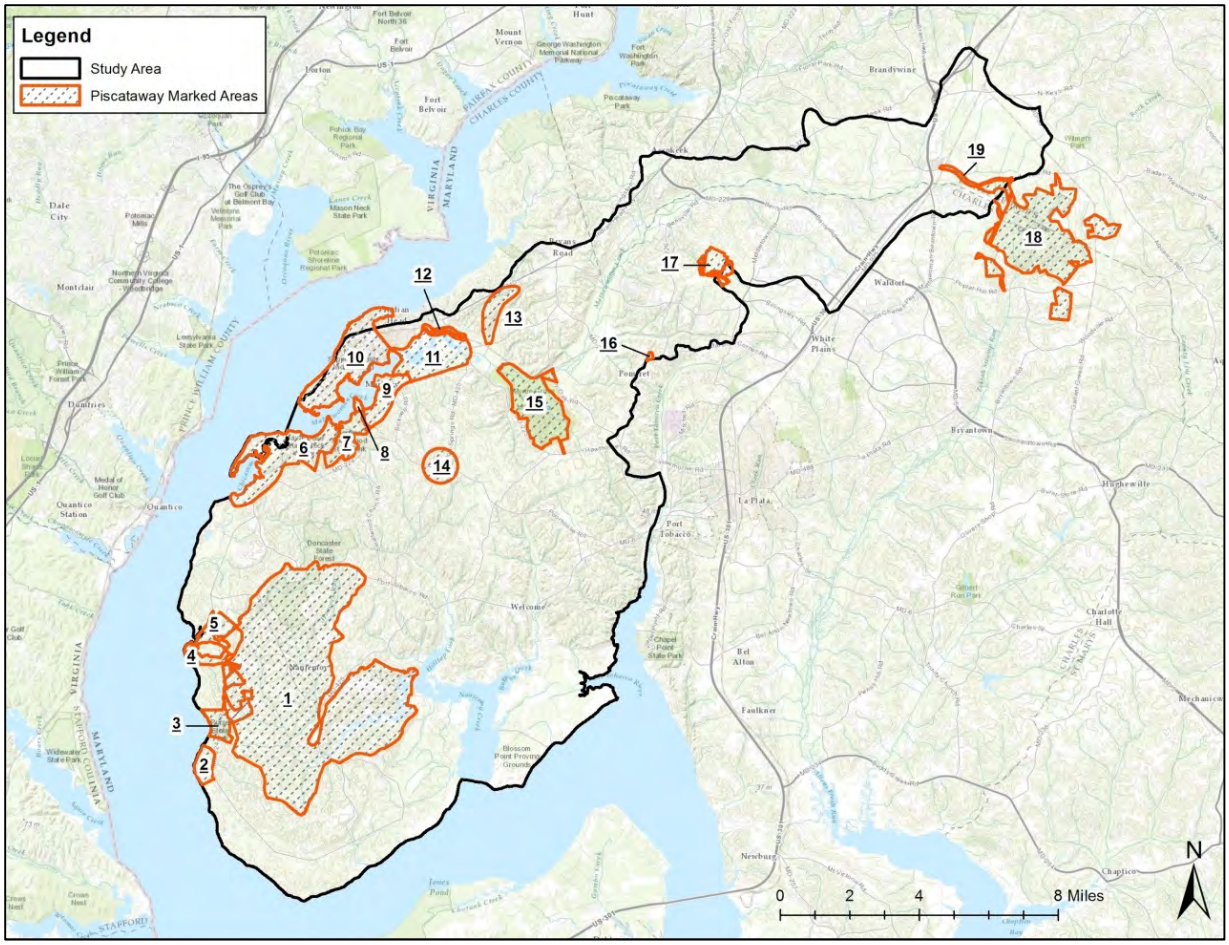

Figure 13. Piscataway stakeholder marked areas; the darker line shows the project area.

A second visit was made to Friendship Landing Park with Mr. Rico Newman of the Choptico Band of Piscataway and Ms. Carol Ebright, senior archaeologist with the Maryland State Highway Administration. Stewardship, site protection, and interpretation of the viewshed and aquatic resources along with the water-based experiences were discussed. Mr. Newman and Ms. Ebright also visited Smallwood State Park, where they met with Ranger Patrick Bright, manager of the Southern Maryland Recreational Complex for Maryland State Parks. Areas of importance include a predominantly hardwood forest rich with a variety of mushrooms, stream indentations, and ridgetops, all believed to have associations with Indian occupants before and at the time of General Smallwood's taking up of the land. Possibilities for interpretation at the park's marina and art center were considered. Ms. Ebright oversees the wetland mitigation banks now being established at Smallwood State Park on behalf of SHA. The impact of wetland banking on indigenous landscape characteristics was not evaluated.

Historical Record Data

Historical records, beginning with John Smith's 1612 map of the Chesapeake, contain important clues about Native use of the landscape, and these documented features are included in the ICL. To be sure, the Smith map, even though it is a remarkable representation of the bay and its tributaries, cannot be used to precisely locate Indian towns on the ground. The Smith map must be considered as only a rough

Area	Significance
1 - Sensitive Species Area West of Nanjemoy Creek	Forested areas also include Forest Interior Dwelling Species habitats. Location of neo-tropical migratory songbirds. Some of the best preserved state habitats.
2 - Smith Point	Scenic beach. Source of shark's teeth and clay deposits.
3 - Purse State Park & Douglas Point	Scenic landscape with water access. Part of Nanjemoy WMA.
4 - Liverpool Point	Scenic landscape near possible Nussamek town site.
5 - Mallow's Bay	Scenic landscape near possible Nussamek town site. Water access.
6 - Stump Neck/Chickamuxen Creek	Scenic landscape. Historically called "Doegs Neck." Employment, community, and recreational value. Proposed Navy "loop trail." Many Late Woodland sites.
7 - Smallwood State Park	Scenic landscape. Possible land reserved for native use in colonial period. Location of Native American activism in 1970's. Mouth of important Mattawoman Creek.
8 - Bullitt Neck	Scenic landscape. Proximity to Marbury/Gray's Beach community activity. Along important Mattawoman Creek. Private property access.
9 - Marbury/Gray's Beach	Scenic landscape. Important farming/trading location. Community/family significance. Along important Mattawoman Creek. Private property access.
10 - Indian Head	Scenic landscape. Many Late Woodland sites (including tayac home at Posey site). Important center of employment. Community/recreational value.
11 - Mattawoman NEA	Scenic landscape. Important marsh habitat for food resources. Trail access overlooking marsh. Public water access.
12 - Indian Head Rail Trail	Scenic and publicly accessible views of the Mattawoman. Passes by clusters of recorded Late Woodland sites.
13 - Late Woodland Cluster	Areas within close proximity to Indian Head Rail Trail. Possible future spot for interpretation.
14 - Pisgah	Important farming and trading community.
15 - Mattawoman Wildland/ Myrtle Grove	Public trail access. Scenic landscape.
16 - St. Joseph's Church	Important place of worship among families of the Cedarville Band.
17 - Osborne Farm/Old Woman Run Watershed	Important farming community locus.
18 - Cedarville State Forest/ American Indian Cultural Center	Mostly outside of project area. Important cultural center to families of the Cedarville Band. Many live near this location.
19 - Cedarville Road	Important to families of the Cedarville Band.

Table 3. Detail of Piscataway marked map areas.

Nonetheless, a number of sites shown on the Smith map have been identified in the archaeological record. These sites include Patawomeck (44ST002), Moyaons (the Accokeek Creek site 18PR008),[1] Potopaco (several adjacent sites on the east side of the Port Tobacco River, including 18CH83, 94-97, and 779), Cecomocomoco (18ST51), and possibly Mataughquamend (several sites at Friendship Landing, including 18CH30, 89, 104, and 368-372). With the possible exceptions of Mataughquamend and Nussamek, however, none of the John Smith sites identified archaeologically are found within the project area.

[1] There is some question that the Accokeek site is not, in fact, Moyaone; see Curry (1999).

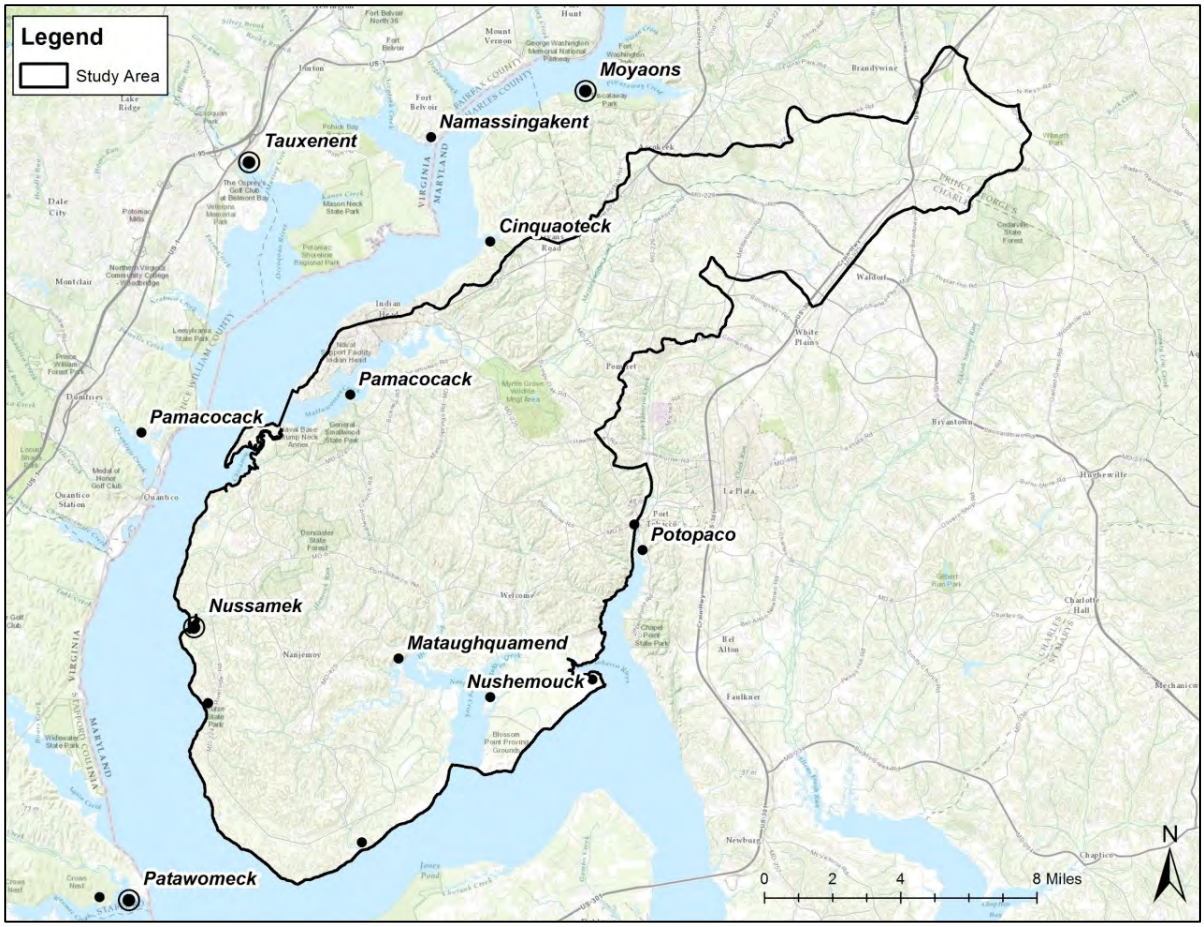

Figure 14. Native settlements depicted on the Smith map of 1612; the darker line shows the project area.

Named villages thought to be within the project study area include Nushemouck, Nussamek, Pamacocack, and possibly Cinquaoteck. Four additional unnamed villages are also depicted within the project area, including two on the west side of the Port Tobacco River and one along the Potomac west of Nanjemoy Creek. It is generally thought that Nussamek is located somewhere in the vicinity of Mallow's Bay. It is believed that the Nushemouck village site is located on the east side of Nanjemoy Creek at a property historically known during the colonial period as Nanjemoy Indian Town, located just north of the Blossom Point Research Facility.

Land records with references to Native places provide more accurate location data that can be mapped with relative confidence (Figure 15). Specific tracts of land, including those set aside for Natives as well as roads deriving from pre-Contact Indian paths, were often mentioned in land records. Fortunately, Charles County has one of the best surviving set of county court and land records from anywhere in the Chesapeake.

One important tract for the purpose of this project includes the reservation at Piscataway or Calvert Manor. This land was reserved for Natives and the reservation was formally recorded in 1669 as "Indian Lands," including the land between Mattawoman and Piscataway creeks (Patent Rec. 12/339) (see Figure 15).

Mattawoman Neck, more commonly called Indian Head, had been previously patented to Thomas Cornwallis in 1654 for 5,000 acres (Patent Rec. AB&H/401) and became known as Cornwallis's Neck.

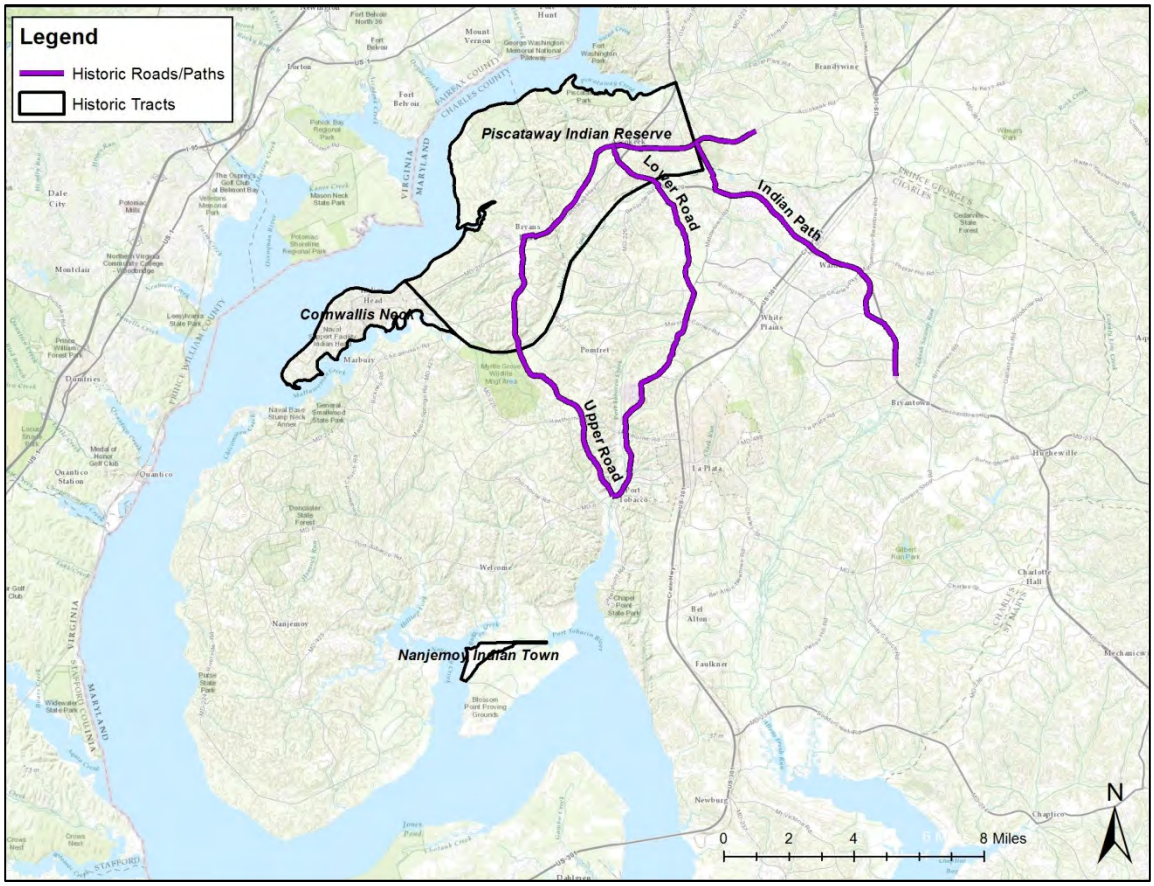

Figure 15. Historical tracts, roads, and paths.

Cornwallis never took up residence on the property, instead living at Cross Manor in St. Mary's County. The Posey archaeological site (18CH281), located on Mattawoman or Cornwallis Neck and described in Chapter III, appears to have been occupied by a werowance or great man from about 1660 to 1680. Augustine Herman's 1673 Map of Maryland and Virginia (see Figure 10) shows this area with Indian longhouses depicted and a label marking "Pamunky Indian land."

Reserving the land between Mattawoman and Piscataway creeks was precipitated in 1665 when Nancotamon, one of the great men of the Mattawoman, inquired "what was the Governor's pleasure to do with [Nancotamon's] nacion – whether he would have them remove further into the woods or to remayne upon the land where they now or lately lived." A proclamation in 1663 by the Maryland government had already declared that no white men could settle within three miles of an Indian settlement (Archives Md. 3:489), but the law was regularly ignored. The Maryland Council decided "it was most for the safety of the Province to Continue them [the Mattawoman] neere us as being more under our Command" and ordered the Mattawoman to remain on their old habitations until further notice. The Council also called for the creation of a reservation "within which noe English man shall take up any land" (Archives Md. 3:534). This temporarily secured continued Indigenous occupation of the land, at least until the later part of the 17th century. At that time, English encroachment in Native territory had dramatically increased. Significantly, the colonial government fully understood that at least three miles was needed outside of a "core" settlement or "Indian town" to allow for indigenous activities and practices, and that friction would ensue if colonists also used the areas (Busby 2010:51).

Nanjemoy Indian Town was located on the eastern side of Nanjemoy Creek. As described in Chapter III, the land containing the town was patented to William Whittington in 1685 and included 600 acres (Patent Rec. 22/197). Whittington lived in Somerset County on Maryland's Eastern Shore and sold the property that same year to Samuel Taylor. This property was later combined with several adjacent tracts under the name William and James (named for William Hutchison and James Stoddert). A 1736 resurvey of the property notes that it started at the end of an Indian road (Patent Cert. 1191). The beginning of this tract, at the end of the Indian road, is now called Ball Point and is located at the confluence of Nanjemoy Creek with King's Creek. Where this road leads is uncertain but it likely followed portions of the current Blossom Point Road and led to settlements near the town of Potobaco.

More roads are identified through a 1701 deed from John Accatamacca (or Octomaquath), "Emperor of the Piscataway," to William Hutchison and John Addison. This record is an example of Piscataway relinquishing land rights and claims to property within the reservation lands promised in 1665. This deed and several others like it may have served as a tool of reconciliation, at least to English eyes, given that the new royal government in Maryland had pleaded with the Piscataway to return to the colony after their flight to Virginia. Similar deeds appear in other locations within the former reservation bounds, though notably only to a select few English landowners. Regardless of whether these deeds should be seen as a conciliatory act or not, they had the effect of legally dispossessing the Natives of any claim to territory in their ancient homeland (Strickland 2015).

The 1701 deed describes land between the "upper road that passeth by Thomas Frederick's [property] down to an Indian path...to Accokeek" (PGCLR Deed A/404). This land was already patented to Hutchison and Addison in 1695 and known by the name of "Strife" (Patent Rec. C3/98). A few months before the deed with Accatamacca was recorded, Hutchison and Addison sold nearly half of the tract to Thomas Frederick and James Green in a deed which described a lower road from Piscataway to Port Tobacco as well as noting that the upper road led down to Port Tobacco (PGCLR Deed A/387). The earliest known map depicting two distinct roads heading from Port Tobacco to the Piscataway/Accokeek area is J.L. Hazzard's map of Maryland and Delaware from 1856 (Figure 16). The "upper road" may be referring to what are now Accokeek, Livingston, Bumpy Oak, and Rose Hill roads, and the "lower road" may be portions of Route 228/Berry, Middletown, Mitchell, and Valley roads.

Directly adjacent to the Strife tract was a parcel known as "Aix." A 1690 deed from William Hutchison to Thomas Frederick, James Green, and John Thompson describes an Indian path leading from Zekiah Fort to Piscataway, and this path marked the boundary of the Indian reserve (CCLR Deed R1/104). Yet another path is described in a 1689 patent to James Smallwood for a tract known as Porke Hall, a parcel located "by the path from Zachiah Fort to Piscattoway" (Patent Rec. 22/433). This tract was located along what is now Route 228, indicating a possible origin for the modern road. It is therefore probable that the route of this path had been incorporated as sections of Route 228, Route 5, and Sharpersville Road.

Paths obviously demonstrate connections between places and groups but they were more than transportation corridors. Significant habitual cultural activities took place over them which included interaction and trade connecting the entire continent (Busby 2010:489-498; Rountree 1989, 1993). Paths were also a source of English anxiety, especially when it came to Native people. "In case the English & Indians meete accidentally in the woods," Article 3 in the Articles of Peace and Amity (1666) states, "every Indian shall be bound immediately to throwe downe his Armes vpon call, and in case any Indian soe meeting an English man shall refuse to throwe downe his armes vpon Call he shall be deemed as an Enemy" (Archives Md. 2:25).

Figure 16. 1856 Hazzard map of the project area.

Archaeological Site and Survey Data

Archaeological site and survey data (Figures 17 and 18) was provided by the Maryland Historical Trust (MHT). Additionally, site files, maps, and reports were examined at the MHT library and discussions were held with several principal investigators to more fully understand the data. Only

archaeological sites with occupations during the Late Woodland and Contact period were selected for further analysis. Site data was not separated out by site type (such as town or hunting camp) and all sites were converted to a point shapefile to be shown at a large scale. These steps were taken to protect site location data while maintaining the ability to depict their locations for drawing ICL boundaries. All known Late Woodland and Contact period sites are included within the ICL boundary area. It should again be noted that MHT's files only show and describe known sites. Areas that have not yet been surveyed almost certainly contain archaeological evidence of past Native occupations. The concentration of archaeological sites in the Mattawoman drainage, then, reflects increased survey aboard the Naval Support Facility Indian Head, a Federal military installation subject to Sections 106 and 110 of the National Historic Preservation Act as amended. Other areas in the two creeks' drainages have not been extensively surveyed (see Figure 18).

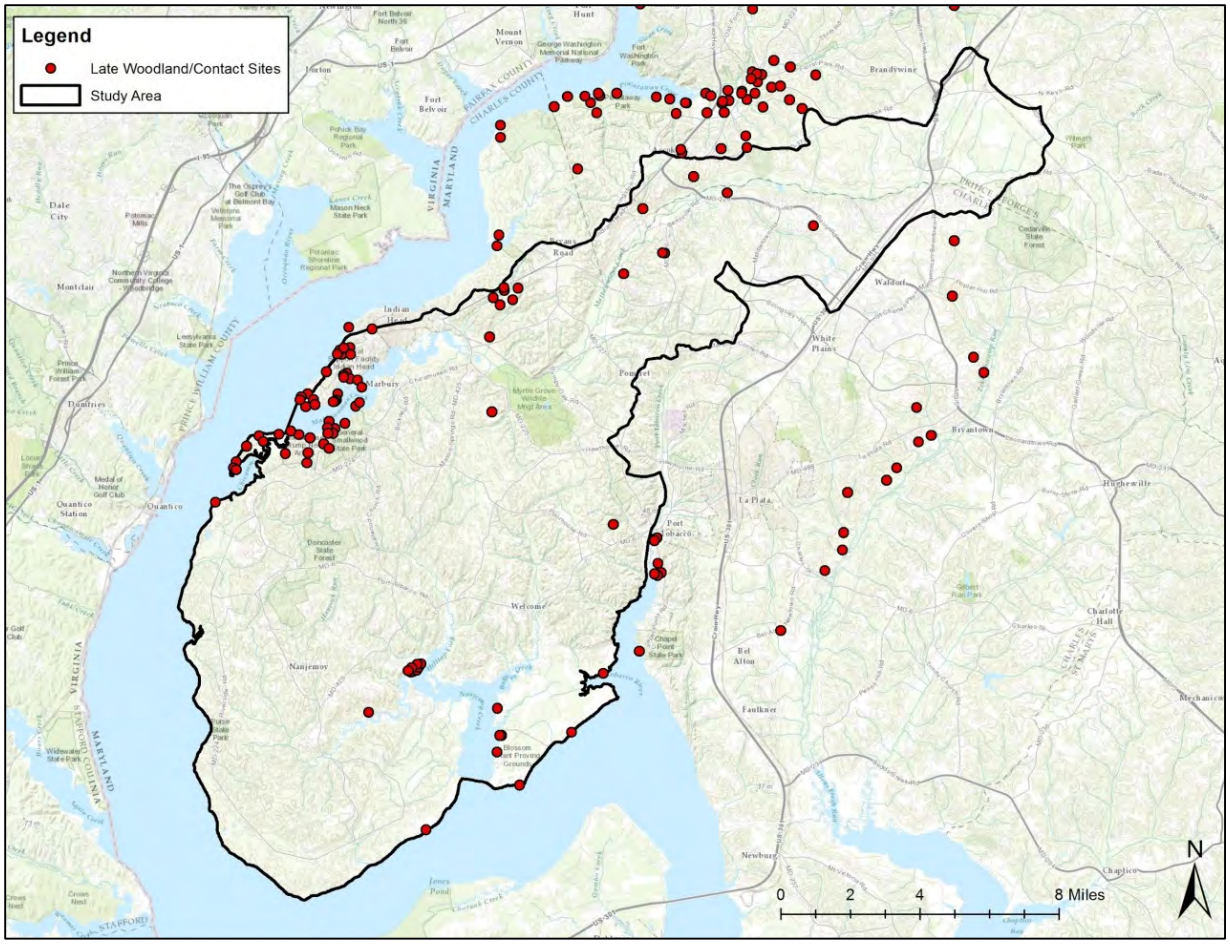

Figure 17. Late Woodland sites in the project area; the darker line shows the project area.

Soil and Geological Data

As described in Chapter IV, beginning after ca. 1300 AD, the production of corn was essential to the indigenous diet for many months of the year. Using USDA soil spatial and tabular data, the soils most suitable for corn production were mapped. Those with estimated potential yields of 120 bushels per acre or more are shown in Figure 19. All concentrations of these soils will be included within the ICL boundary as one of many indicators of settlement location.

Gravel deposits may indicate where material was sourced for the production of stone tools. Soil tabular data includes ratings for potential gravel sources on each soil type. Those soils with notable gravel deposits are ranked as "fair." In addition to plotting the areas with "fair" gravel ratings, those soils which mark where gravel has been mined already are also denoted (Figure 20). Within the project area, the notable gravel deposits are located primarily along Mattawoman Creek.

Geological formations were also sources of clay for pottery production. Within the Project Area, a total of nine different formations may have served this purpose (Figure 21). The nine formations are noted for their components and texture, at least partly composed of clay. This includes Holocene deposits such as Cenozoic colluvium (Czcu) and alluvium (Qal) deposits. Formations in the Pleistocene include the Maryland Point (Qm), Chicamuxen Church (Qcx), and terrace (Qt) deposits. The Calvert formation

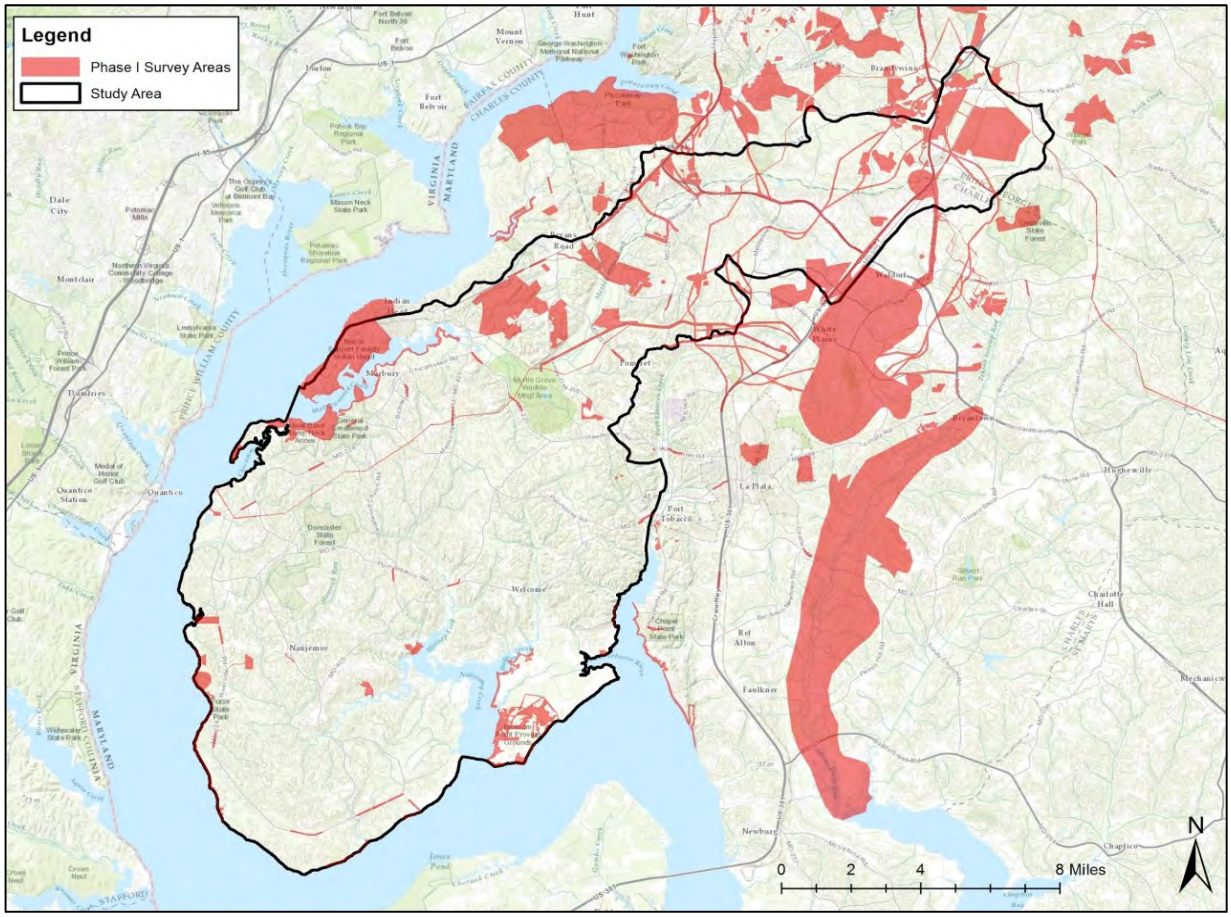

Figure 18. Phase I/II survey areas; note the lack of archaeological survey in the project area.

(Tc), a lower to middle Miocene deposit, is mostly composed of sand with some parts clay. Eocene deposits of clay include the Nanjemoy (Tn) and Marlboro Clay (Tm) formations. Within the most northern extent of the project area are areas of Late Cretaceous deposits of the Potomac group consisting of a silt clay facies, or a clay with subordinate fine to medium grained clayey sand. Interestingly, visual interpretations of the spatial distributions of these formations appear to coincide with recorded areas of Late Woodland/Contact settlement (see Chapter V).

Land Use Classification

Figure 22 depicts the extent of forest cover, surface water, and developed/farmed/open areas. These basic groups help to build an overall picture of where certain landscapes have been left relatively undisturbed.

Wetlands/Marsh

Wetland data was acquired from the National Wetland Inventory Survey (NWIS) and also derived from soil data (Figures 23 and 24). Wetland data from NWIS is designated by code, which is broken down by wetland system type (marine, estuarine, riverine, lacustrine, and palustrine), and then by subsystem, class, and subclass (see Appendix IV for classification system). Subsystems within the marine and estuarine system types include subtidal and intertidal. Riverine systems include tidal, lower perennial,

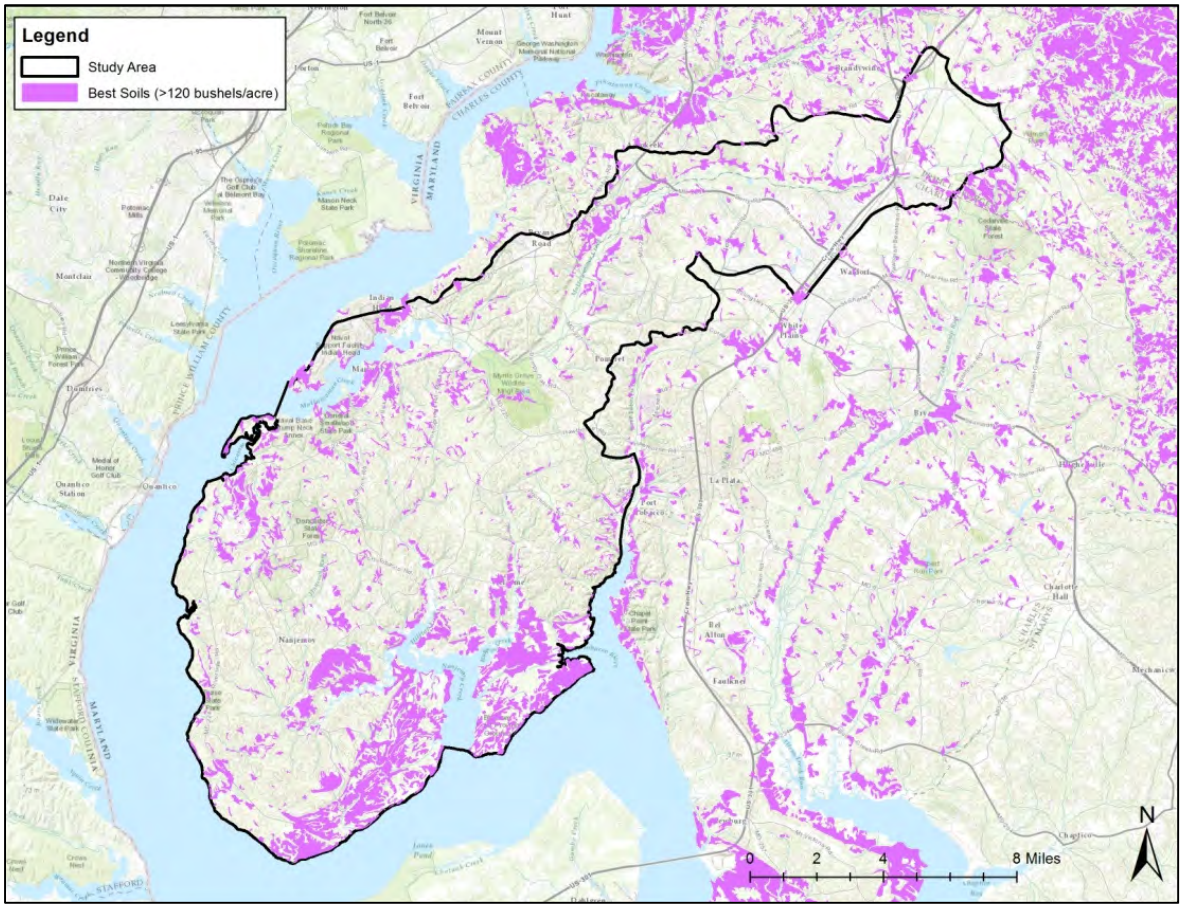

Figure 19. Agricultural soils (>120 bushels of corn per acre).

upper perennial, intermittent, and unknown. Lacustrine consists of limnetic and littoral subsystems. Palustrine wetland types have no subsystem, and are broken down only by class and subclass.

The most common marsh wetland types associated with the Nanjemoy and Mattawoman watersheds are estuarine and palustrine systems, specifically, the estuarine intertidal emergent (E2EM), estuarine intertidal scrub/shrub (E2SS), and palustrine-forested (PFO1) designations. These specific wetland designations are what might be subjectively considered visually reminiscent of indigenous landscapes encountered by Captain John Smith. Conservation groups argue that the wetlands of the Mattawoman are specifically indicative of the state of tidal and estuarine environments that were once present throughout the Chesapeake.

Marsh areas can also be inferred by the presence of certain types of soils, including soils designated as MT (Mispillion and Transquaking soils) and NG (Nanticoke and Mannington). Additionally, Pu, and Px (both Portobac-Issue soils) are soils typically found adjacent to marshes.

Protected Lands/Zoning Areas

In Charles County, a resource protection zone covers nearly all wetland areas within the county (Figure 25). Protected lands consist of forest conservation, land preservation, environmental trust, private conservation, and rural legacy easements. Additionally there are lands owned by county, state

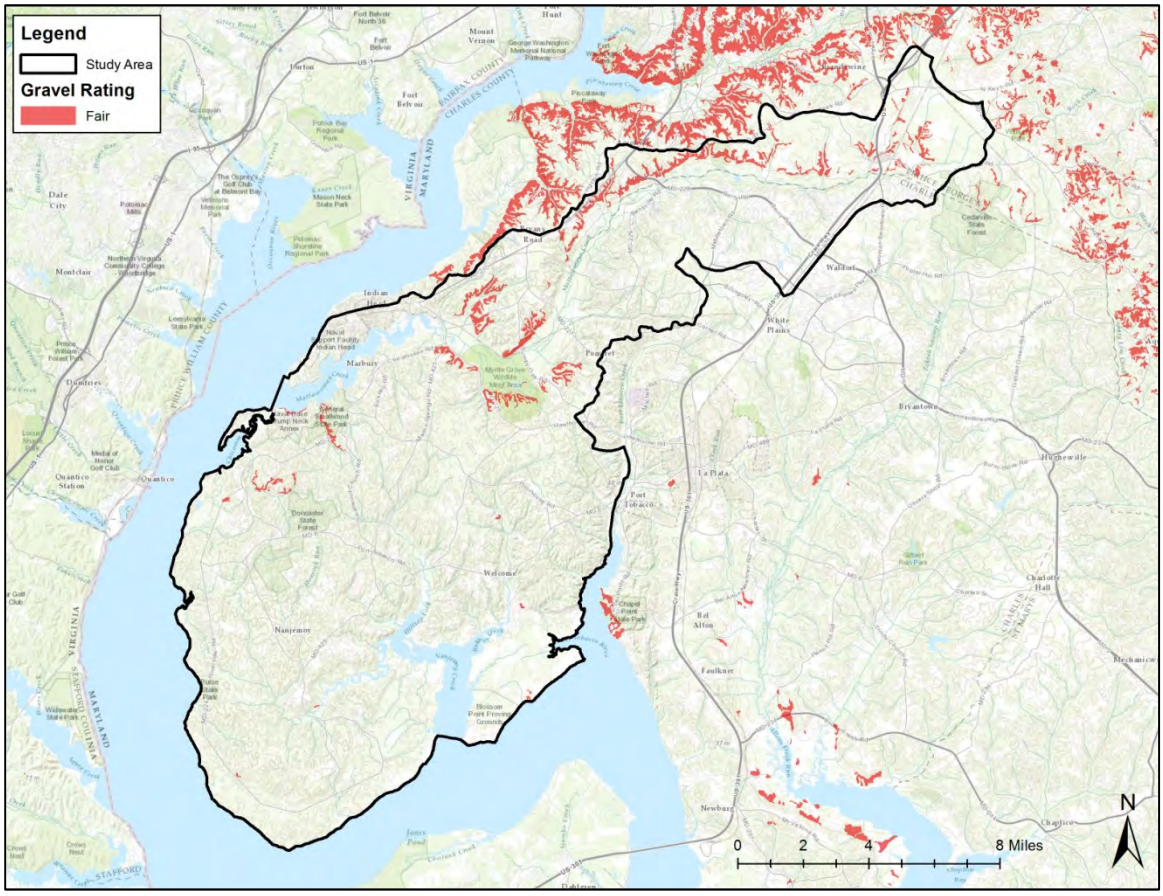

Figure 20. Gravel deposits in the project area.

(Department of Natural Resources), and Federal government entities, including state and county parks and Army and Navy military installations.

In addition to the areas of protected land and wetlands, there are some threatened areas within the Project Area. A large development district extends north and west from the urban core of Waldorf into the Project Area along Mattawoman Creek. The westernmost extent of this district is designated as a Deferred Development District and is not under immediate threat of development. Much of this Deferred Development District consists of Maryland Department of Natural Resources property, specifically the Myrtle Grove/Mattawoman Wildland property.

Noise related to testing by the Navy at its Stump Neck facility constitutes a form of impact. Interestingly, these impacts actually have the effect of serving to preserve the visual landscape. This high noise impact area more or less denotes parts of the landscape that may be seen as undesirable for residential communities.

Site Visit Findings

Virtually the entire drainage areas for both the Nanjemoy and Mattawoman creeks are Target Ecological Areas (TEAs) for the state (MDDNR Greenprint 2015). The State of Maryland, Charles County government, and land conservation entities place a high priority on both watersheds. Similarly, the Piscataway place a high value on the two watersheds for ecological, archaeological, and contemporary

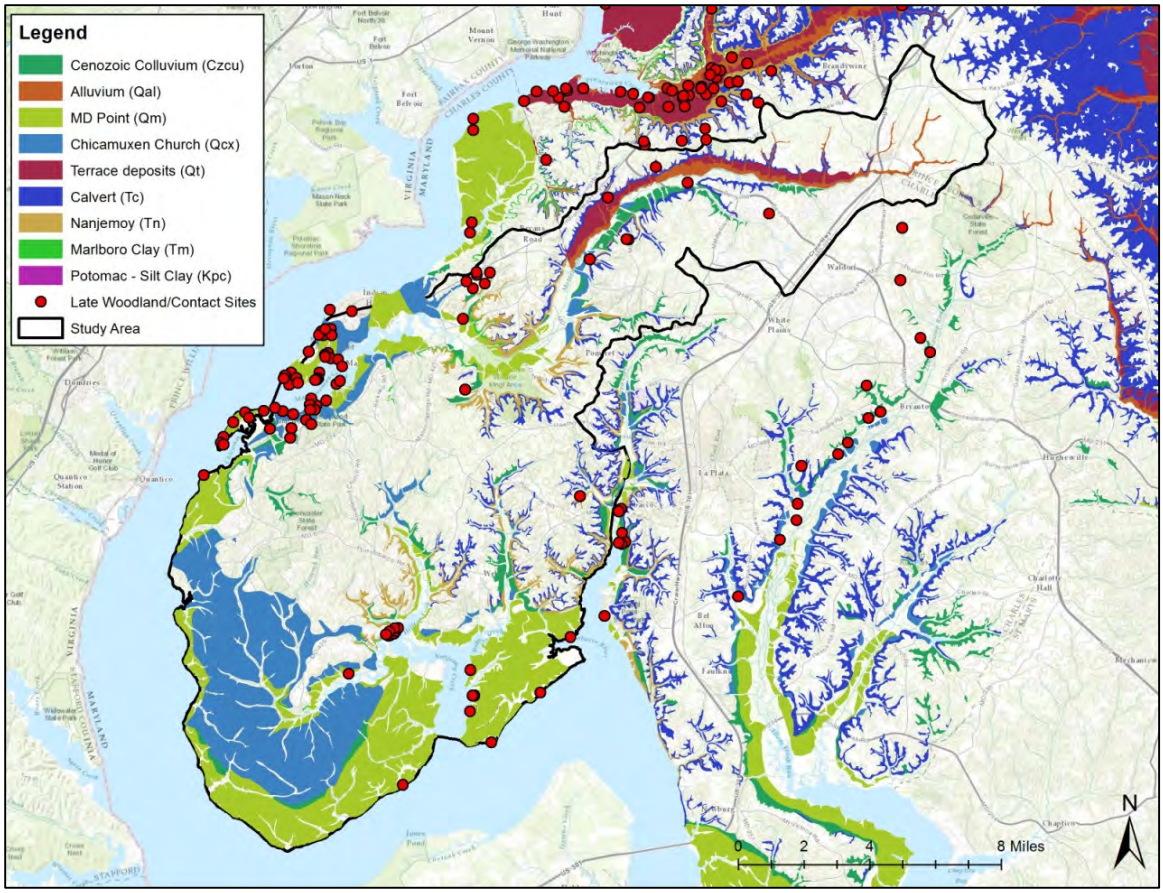

Figure 21. Majority-clay geology types in the project area.

use purposes. Indeed, the Naval Support Facility Indian Head, located along both sides of Mattawoman Creek, is especially important as a place where many Piscataway members work or have worked.

For current ecological health and as an example of a Chesapeake Bay watershed evoking a landscape much like the one experienced by John Smith, the Mattawoman Creek watershed is unexcelled in the region (Figures 26 and 27). Mattawoman Creek is ranked eighth out of 137 Maryland watersheds for freshwater stream biodiversity and is home to six rare, threatened, and endangered animal stream species. The creek is bordered by "exceptionally large forest tracts" and the estuarine portions of the creek have been described as "what a restored Chesapeake Bay would look like." The creek is one of three locations in Maryland's portion of the Bay with improving water clarity (Mattawoman Ecosystem Management Interagency Task Force 2012:5).

The Mattawoman Creek watershed includes tidal freshwater marsh and floodplain and mesic deciduous forest. The creek is rich in wetlands and submerged aquatic vegetation that provides food and nurseries for anadromous herring, shad, and yellow perch as well as other fish such as weakfish, spot, croaker, and the rare longnose gar. Birds such as herons, egrets, and bald eagles make use of these rich resources. Additionally, the intact, mature forests provide habitat for Forest Interior Dwelling Species (FIDS) (MDDNR 2015a).

The majority of protected lands in the Mattawoman Creek watershed belong to the State of Maryland and are managed by the Department of Natural Resources. These lands include the Myrtle Grove Wildlife Management Area, the Mattawoman Natural Area, and Smallwood State Park. Federal

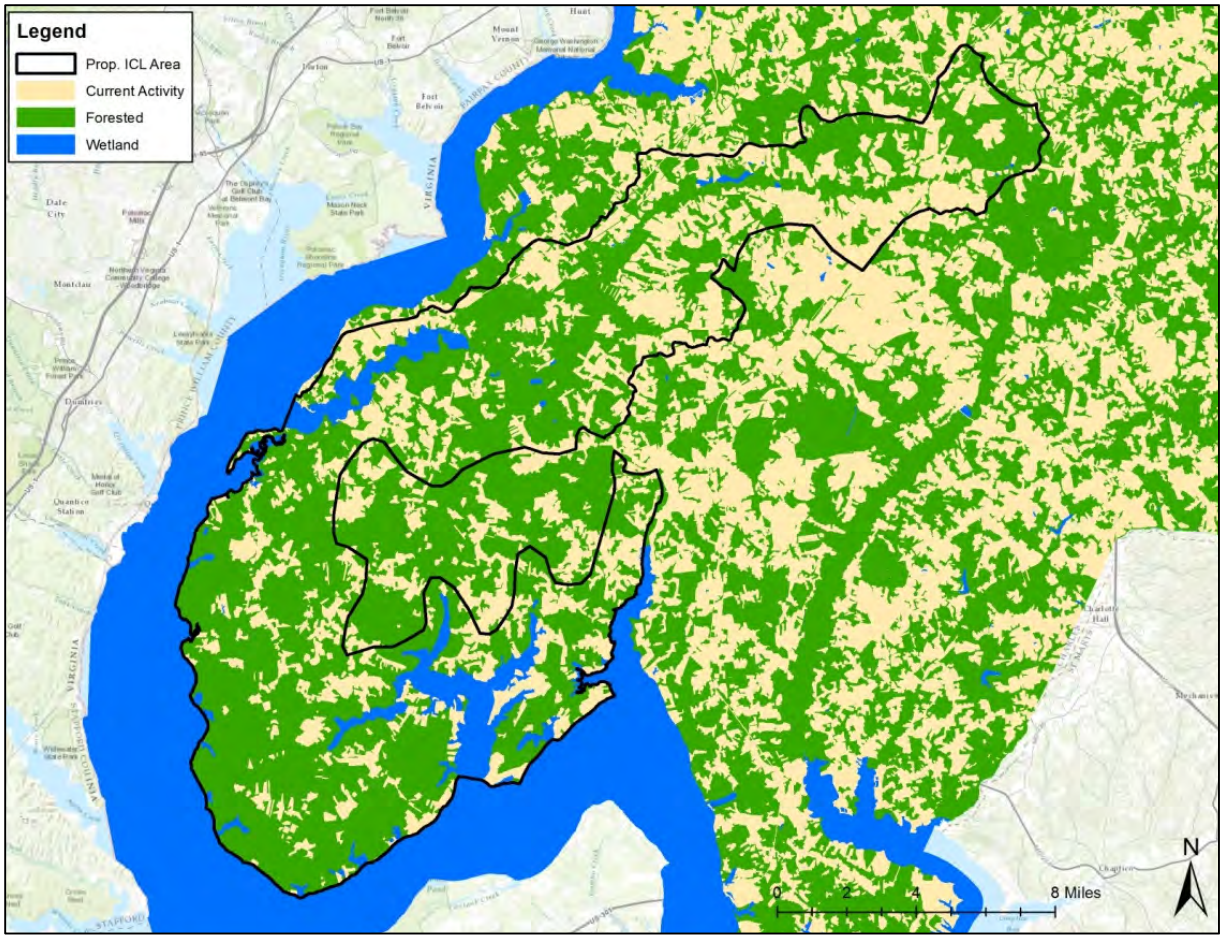

Figure 22. Land use types within the ICL Area.

land comprises a smaller portion of "protected" land in the drainage and includes the Naval Support Facility Indian Head. Water and land access is available on state land at Smallwood State Park and at local publicly-owned access points such as Mattingly Park in the town of Indian Head.

Maps of hiking trails through the Mattawoman Natural Environmental Area (NEA) are provided online through DNR's web page. Indigenous linkages to the watershed are currently interpreted through an NPS Captain John Smith Trail kiosk at Smallwood State Park. DNR's Mattawoman Creek NEA webpage has some American Indian interpretation, including resource-use information pointing out indigenous use of the American lotus and indigenous spreading of the seeds.

Because this creek and its watershed possess such high ecological value in an area with known indigenous affiliations and cultural resources, a kayaking field tour was taken on 23 July 2015 by project and NPS staff. The trip was guided by members of the Mattawoman Watershed Society. The group rented kayaks at a small stand and departed from Mattingly Park, paddling northeast toward the Mattawoman Creek Natural Area. During the course of the tour, stands of wild rice and concentrations of lotus were observed in addition to a variety of fish, a cormorant, a Great Blue Heron, egrets, and a beaver (Figure 28). Piscataway oral history indicates that the area closer to the mouth of the Mattawoman has special long-term significance and that the Algonquian name means "a place to go quietly" (Newman 2013:6).

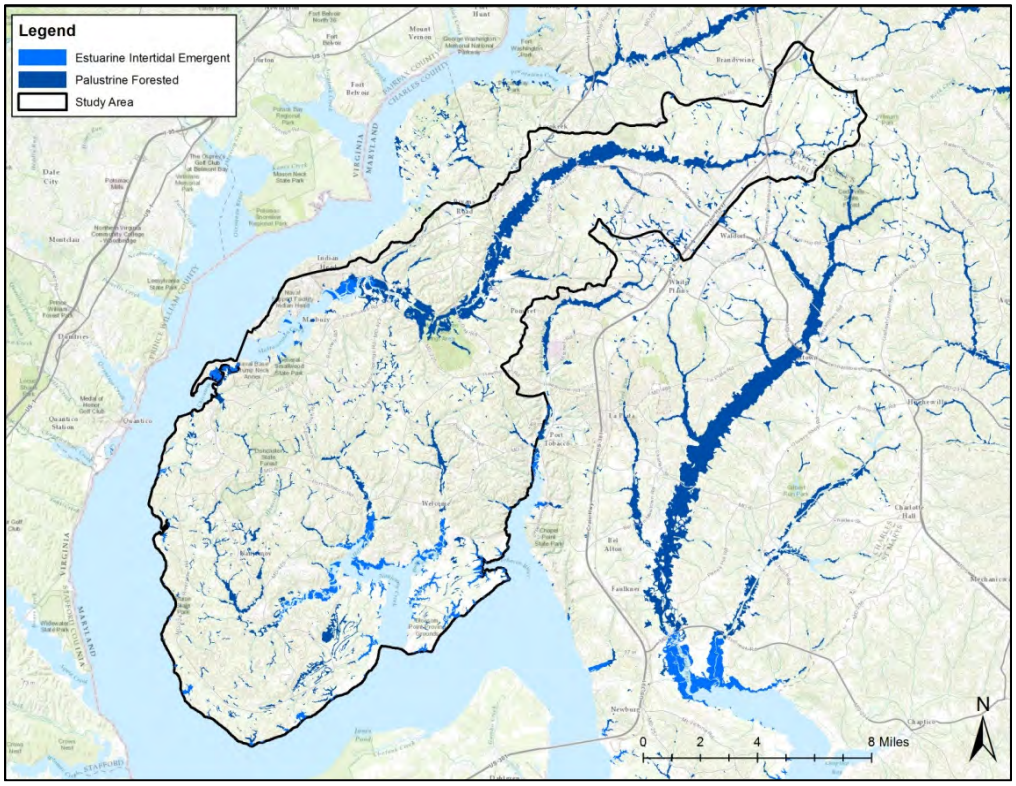

Figure 23. Marsh lands derived from NWIS data.

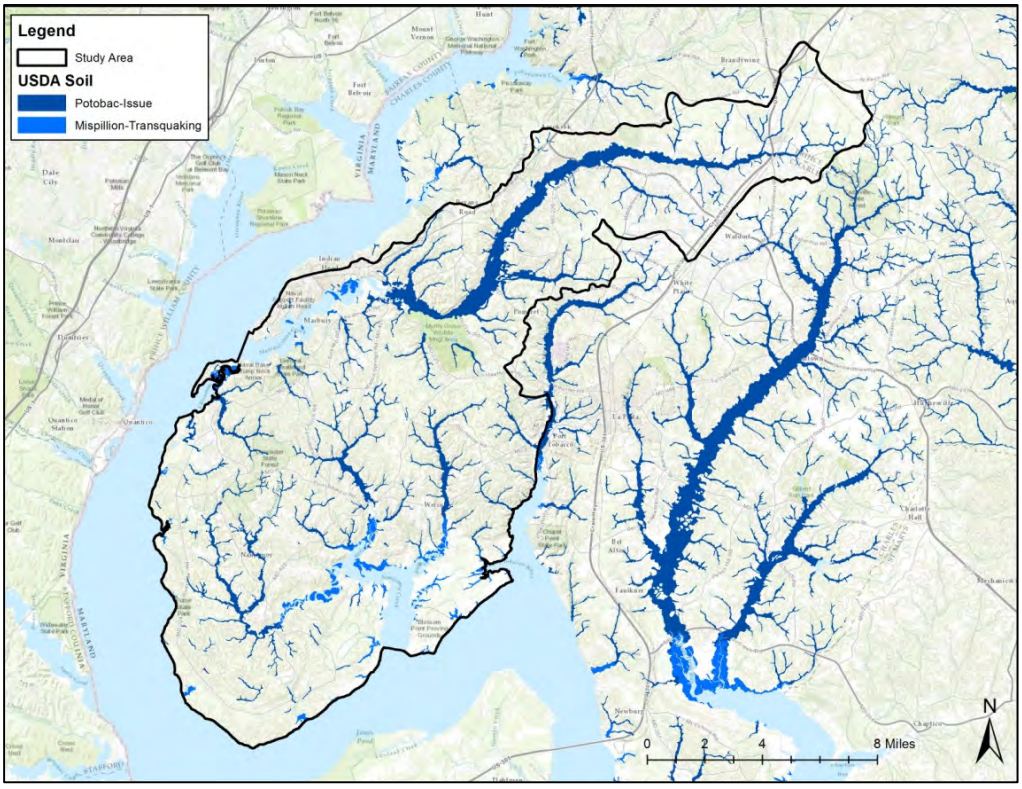

Figure 24. Marsh lands derived from USDA soil data.

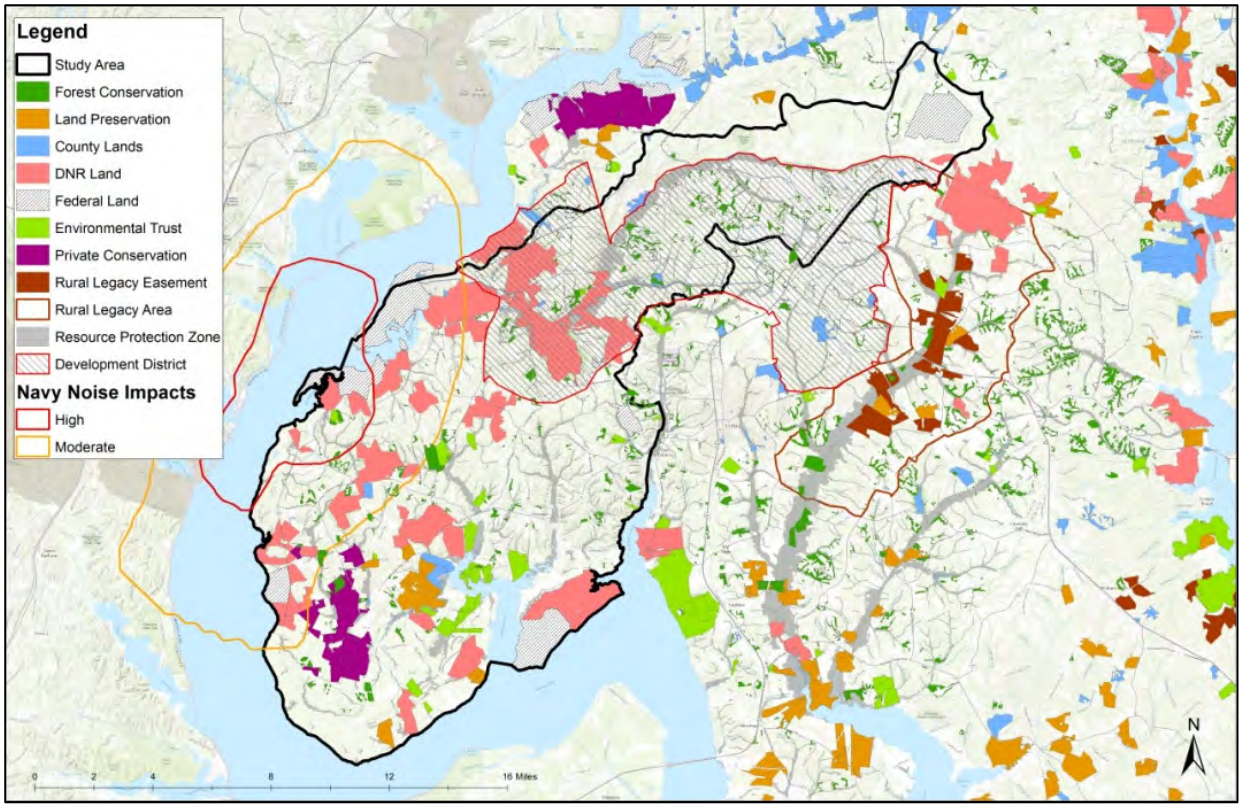

Figure 25. Protected land within the Project Area.

The Nanjemoy Creek watershed is less developed than the Mattawoman drainage and ranks at the top of stream biodiversity in the state. This area too has great importance to the Piscataway people and its Algonquian name is translated as "little raccoon's nest" (Newman 2013:6). The Nature Conservancy (TNC) manages over 3,200 acres in its Nanjemoy Creek Preserve with a goal of preserving more than 48,000 acres. TNC's intention for the Preserve is

> to protect a forested ecosystem large enough to function as nature intended it, and also large enough to encompass most, if not all, common and rare species. Raccoons, bobcats, skunks, and squirrels inhabit the woods; otters swim the creek; and the rare dwarf wedge mussel (found in only 20 sites worldwide) thrives in the sandy-mud bottom of stream banks. The deep forests here also attract many species of migratory songbirds (TNC 2015).

TNC's Nanjemoy Creek Preserve has hiking trail public access in addition to an audio tour that provides a significant narrative of plants and landscape features. The audio tour also links the lands TNC manages to other significant natural and cultural areas across the Nanjemoy peninsula. The area's human habitation over thousands of years is referenced in the audio tour, which provides for both a water- and land-based tour use. Beginning at Friendship Landing Park, the tour moves toward the west and crosses Nanjemoy Creek, skirts southward and includes wetlands, the fossil and clay sources along the beach at Purse State Park, approaching the Chiles Homesite (WMCAR 2015), and then finally to Mallows Bay.

Because the Nanjemoy Creek Preserve represents a significant block of conserved forest ecosystem with agriculturally productive soils and high quality visitor access and experiences, a field visit

Figure 26. View of Mattawoman Creek from kayak.

Figure 27. View of lotus plants, Mattawoman Creek.

Figure 27. Beaver observed swimming in Mattawoman Creek.

was made to the site on July 16, 2015. TNC representative Gabe Cahalan served as a guide. Three locations where high quality agricultural soils were present and where hiking paths penetrate the Preserve were visited in addition to areas that represent beaver-induced wetlands. The forests varied from a pine to mixed hardwood forest with understory including wild blueberries (Figure 29). The beaver habitat would have been an important and possibly ubiquitous element of the southern Maryland landscape during the time of Smith's explorations (Figure 30). Access to these animals and the other forest-dwelling animals and plant species, in would have been key elements of indigenous landscapes as seen by Captain John Smith.

The Nanjemoy Creek Preserve's contiguous ecosystem and the high quality visitor experiences are critical elements in the NPS definition of ICLs. The array of wildlife and its natural forest ecosystem provide exactly the kinds of landscapes identified by the ICL as essential elements needed to support indigenous communities. Further, the Nanjemoy Creek Preserve and its contiguous protected land along with areas targeted for future acquisition by TNC will foster an ecosystem similar to the ecological environment which supported indigenous communities around the time of Smith's journey. The Nanjemoy Creek Preserve should be an important component of the Nanjemoy ICL and a broader encompassing Piscataway ICL.

The TNC's and partnering organizations' land acquisition goals should be included in NPS goals for the Captain John Smith NHT and visitor experiences and tours should be highlighted as part of the Smith Trail. Additional interpretation to augment visitor understanding of the indigenous use of the land could be accomplished through discussions between the Piscataway and TNC. These efforts would go a long way to provide a coherent interpretation and experience across an indigenous landscape.

The Douglas Point Natural Area covers about 800 acres and is owned and managed by several state and Federal entities. Douglas Point encompasses portions of Purse State Park and the Nanjemoy Natural Resources Management Area. Douglas Point is also contiguous to portions of the TNC Nanjemoy Creek Preserve and to areas targeted for future acquisition. The area is presently identified as part of the

Figure 29. Blueberry bush, Nanjemoy Preserve, The Nature Conservancy.

Figure 30. Beaver wetland, Nanjemoy Preserve, The Nature Conservancy.

Captain John Smith Trail, the Star Spangled Banner Trail, and the Potomac Heritage National Scenic Trail (NPS). High quality visitor experiences are available through hiking trails and water access with guides provided through several entities.

Douglas Point contains white and chestnut oak, rare vines, and rare insects and birds. The area was designated the Nanjemoy Important Bird Area by the National Audubon Society. Further, in support of freshwater elements identified as significant to ICLs, the area possesses "forested seepage wetlands, fed by groundwater and saturated year-round, and freshwater marshes" (MDDNR 2015b). Fossil beds and clay sources are exposed along the riverbank; these clay sources would have also been available to and valued by indigenous inhabitants.

The potential for Douglas Point to possess characteristics of an Indigenous Cultural Landscape include its ecological and cultural characteristics. It is a contiguous ecologically and culturally rich landscape linked to the TNC Nanjemoy Preserve with high quality visitor experiences currently available. This area is therefore recommended as comprising parts of the Nanjemoy ICL and a larger Piscataway ICL. Here as well, an overarching cohesive ICL interpretive strategy linking the Trail and contemporary Piscataway people with these landscapes and experiences would assist in "making real" the Captain John Smith Chesapeake NHT and enable visitors to understand the richness of the landscapes and related cultures and appreciate the value of conservation.

CHAPTER VI
MAPPING THE NANJEMOY AND MATTAWOMAN ICL

The Piscataway consultants participating in this project were emphatic that not only was the entire project area part of the historic Piscataway ICL, the Piscataway ICL encompassed a far greater area than that now under consideration. This well-taken point reveals the arbitrariness of using watershed boundaries to establish ICLs. As Sullivan, Chambers, and Barbery (2013) point out, however, the use of watershed boundaries may provide the best method for keeping such projects manageable given funding constraints. Indeed, the present project revealed the rich and extensive evidence for indigenous use of the Nanjemoy and Mattawoman watersheds.

An especially problematic challenge for this project was the representation of time, an important consideration given the dynamic nature of all landscapes, including indigenous ones. Indigenous uses of and indigenous attitudes toward the landscape have, not surprisingly, changed from the Late Woodland period through the present. Culturally meaningful places and landscapes have also shifted over time. The challenge of depicting temporal or chronological variability is a common criticism of mapping and of GIS in particular. Piscataway consultants were especially concerned that Late Woodland/Contact period coastal towns, and those mapped by John Smith in particular, would be prioritized as more important than interior hunting grounds occupied during the fall and winter. They were also concerned that the emphasis on the early 17th century would serve to "freeze" the Piscataway and even reinforce a stereotype of Indians are part of history but not the present. Reconciling the large amounts of available information while also working to address Piscataway concerns about representation became a major focus for determining what should be included in the Nanjemoy and Mattawoman ICL.

This chapter presents the analysis done for determining the boundaries of the Nanjemoy and Mattawoman ICL. It begins by developing a historic settlement model for the watershed using both archaeological and documentary evidence. This analysis reveals the important ecological knowledge of the historic Piscataway as they located settlements to take advantage of natural resources and then fashioned a landscape around those settlements rich in cultural meaning.

Then, using the ethnographic and stakeholder information along with the extensive online datasets mined for this effort, the historic and contemporary Nanjemoy and Mattawoman ICL is presented. Recognizing the entire watersheds of both creeks are an ICL, this exercise focused on identifying meaningful landscapes within the ICL. These are the places to which the contemporary Piscataway and their ancestors have been tied for centuries. These are nonetheless dynamic landscapes that tell a story that connects what happened historically to the present.

Finally, a simple predictive model was developed in an effort both to test the ICL model for this region and identify landscapes across the 223 miles comprising the Nanjemoy and Mattawoman watersheds that were not physically visited during this effort. The simple predictive model was found to be useful for identifying landscapes particularly evocative of the ICL during Captain John Smith's time.

A Settlement Model for the Nanjemoy/Mattawoman Watersheds

Strickland (2012) and others have demonstrated that, in the Middle Atlantic, a correlation exists between archaeological sites (especially town sites) and agriculturally productive soils. There may be other soil attributes desired for settlement during the Late Woodland period. Therefore, as part of this study, sites within the project area were examined for any statistically significant correlations between specific soil types using the classifications of the United States Department of Agriculture's (USDA) Natural Resource Conservation Service (NRCS).

A total of 64 Late Woodland/17th-century archaeological sites lie within the project area, and these sites are located on 25 different soil types. A total of 122 different soil types are found within the Nanjemoy/Mattawoman project area, suggesting that 97 soil types were not preferred for settlements (or at least those settlements that would leave an archaeological signature). A chi-square test – a non-parametric statistical test for nominal data – was used to identify any correlations between soil classifications and site location. The following null hypothesis and its alternative were developed for this test:

H0: Late Woodland/Contact period sites are not distributed according to soil type.
H1: Late Woodland/Contact period sites are distributed according to soil type.

The results of the test revealed that there is a statistically significant correlation between the two datasets (archaeological sites and soil type) at a significance level of 0.001 (99.9% confidence level). This allowed for the rejection of the null hypothesis and the acceptance of the alternative, indicating that Late Woodland/Contact period sites are distributed according to soil type. This test, however, does not explain the relationship between these two variables. The test only serves to demonstrate that there is a relationship present, though its nature is unknown.

To discover what the relationship is, the difference of the percent of sites observed at each soil type and the percent of land area for each soil type were tabulated. Those with an absolute value above the standard deviation were noted and separated as sites with Abnormally High and Abnormally Low frequencies (Figure 31; Table 4). This was done to identify deviation from what would be expected for a random distribution of sites. The soil properties of each soil type were then examined to try and locate patterns (if any). Soil properties included how well drained the soil types are, their texture/composition, and the estimated yield of corn (non-irrigated) in bushels per acre.

The types of drainage for the soils with Abnormally High frequencies of sites range from somewhat poorly drained to excessively drained, with most being moderately well- to well-drained. The level of drainage in the soils with Abnormally Low site frequencies ranges from poorly-drained to moderately well-drained. There appears to be at least some pattern with sites being located on fairly well-drained soils, while poorly-drained soils have lower site frequencies.

The only noticeable difference in the soil texture is that the high site frequency soil types include loams with sand and gravel, while the low frequency types have loamy textures. No clear pattern was observed with regards to the agricultural productivity on the high and low frequency soils types. It should be noted, however, that the overall productivity of soils with high site frequency appears to be higher than that of soils with low site frequency (see Table 4).

All the soils with notably high site frequencies have between two and six archaeological sites located on those soil types. Most soil types with low frequencies have no sites on them at all. The most notable exception are the BaB soils (Beltsville). This soil type is the most abundant type within the project area, so more sites are located on this soil type than any other (15.6% within the project area). The expected number of sites on BaB soils if soils were randomly distributed would 16; in reality, only 10 sites have been identified on Beltsville soils. Because BaB soils are the most abundant soil type in the project area, this soil type is found at a range of different elevations and proximity to waterways. A significant statistical relationship was observed between sites in the lower Potomac and low elevations. BaB soils extend well into the interior of the project area on upland terraces, and above lower terraces slightly removed from the shore.

Thus it is the case that sites are generally found in areas of high agricultural productivity, but this factor appears to be just one of several drivers for determining settlement location. Soils with high agricultural potential that are not well drained have fewer sites located on them. A combination of factors,

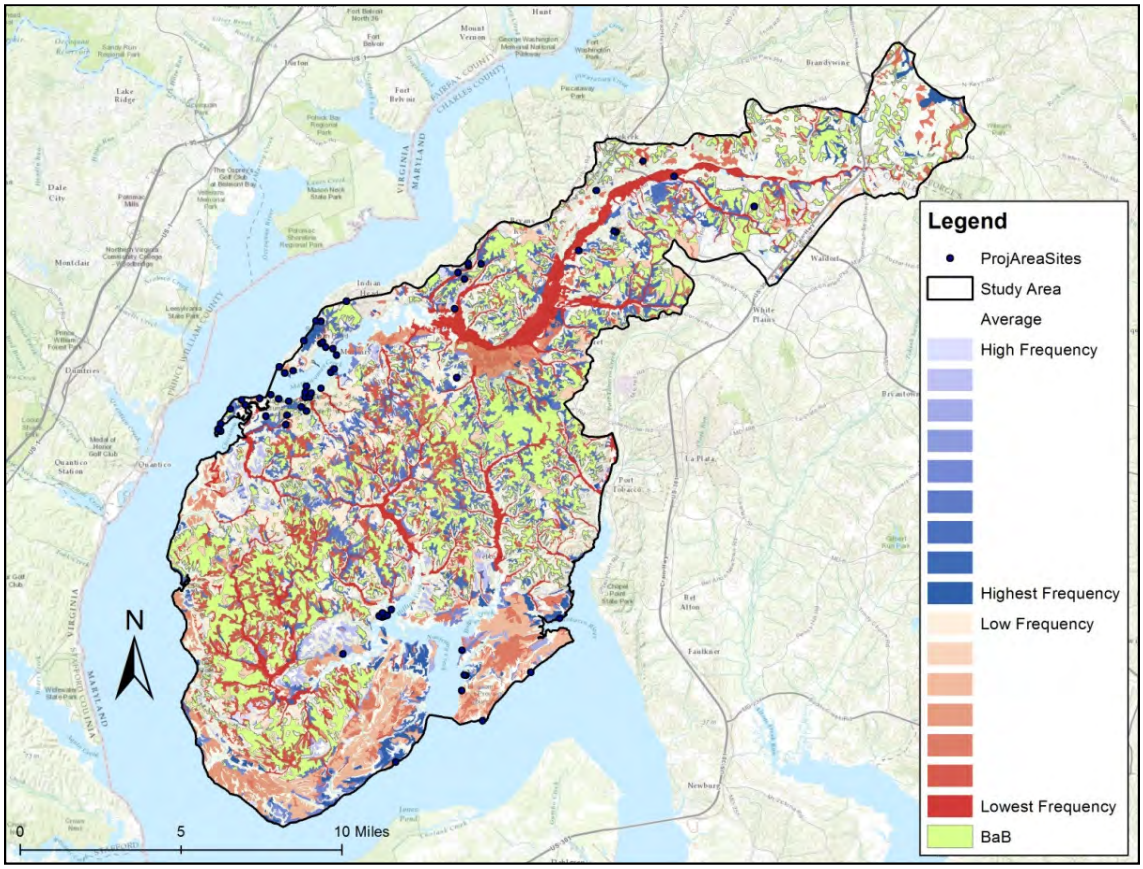

Figure 31. Abnormally High and Low soil types.

Soil Type	Abnormally High or Low	Drainage Capability	Texture	Bushels Per Acre corn	No. of Sites
LsA	High	Moderately well	silt loam	115	6
HgB	High	Excessively	loamy coarse sand	30	5
GmD	High	Well	silt loam	UID	5
GwD	High	Well	gravelly silt loam	UID	6
LsB	High	Moderately well	silt loam	125	4
DnB	High	Moderately well	fine sandy loam	140	3
AsB	High	Poorly	silt loam	120	2
MaB	High	Well	silt loam	145	2
WdB	High	Moderately well	sandy loam	125	2
MkD	Low	Moderately well	silt loam	UID	1
BcA	Low	Moderately well	silt loam	110	0
AsA	Low	Poorly	silt loam	120	1
PcA	Low	Poorly	loam	110	0
LQA	Low	Poorly	loam	70	0
BaC	Low	Moderately well	silt loam	95	0
Pu	Low	Poorly	loam	60	0
BaB	Low	Moderately well	silt loam	110	10

Table 4. Soil types with Abnormally High or Low presence of sites.

including waterway proximity and well-drained agriculturally productive soils are among the main environmental forces for shaping settlement location. This assessment serves as a generalization among all site types and not an assessment of sites with specialized use such as winter hunting and base camps. These sites have been found to exist further from waterways (though still relatively close) without any statistical correlation between them and agricultural productivity. This notion is understandable given the types of subsistence activities performed at those sites.

A chi-square test was also performed for the 17 identified geological formations within the project area (see Figures 20 and 21). This test was performed to see if there was any correlation of sites with deposits of clay that could potentially be used in the production of pottery. A set of hypotheses for the test is laid out below:

> H0: Late Woodland/Contact period sites are not distributed according to geological formation type.
> H1: Late Woodland/Contact period sites are distributed according to geological formation type.

The results of the test revealed that there was a statistically significant correlation between the two datasets at a significance level of 0.001 (99.9% confidence level). This allowed for the rejection of the null hypothesis and the acceptance of the alternative, indicating that Late Woodland/Contact period sites are distributed according to geological formation type. As with the test among soil typologies, this relationship also needs to be examined.

The differences of the percent of sites observed at each geological type and the percent of land area of each type were tabulated (as was done with soils). Those with an absolute value above and below the standard deviation were noted and identified as sites with Abnormally High and Abnormally Low frequencies (Figure 32). This was done to identify deviation from what would be expected from a random distribution of sites.

Sites were found to be distributed at Abnormally High frequencies on only one of the 17 different geological formations. This formation is the Maryland Point Formation (classified as Qm), a stratified Upper Pleistocene formation consisting of fine to coarse-grained sand that is well to poorly sorted in the upper third of the deposit. Large and vast clay deposits associated with the Maryland Point formation are found in the very southern portion of the project area. Virtually no archaeological survey has been conducted in this area, suggesting the Nanjemoy watershed in particular and the greater project area has a high potential for containing significant archaeological properties. The remaining portion consists of poorly sorted silty clay with a thin layer of pebbly sand at its base. Geological formations with abnormally low site frequency are upland gravel deposits (Tu, Tug3, and Tug4). This suggests that Native people sought locations where the best clays for ceramic manufacture could be easily accessed and mined.

In addition to the statistical analysis of archaeological site spatial data, documentary records provide details into the year-round settlement of the Native population during the colonial period. In 1608, when Captain John Smith explored the Chesapeake and its tributaries in voyages lasting from early June to early September, he and his fellow Englishmen often traded items for food. Smith's recounting of these trades appears in the 1612 publication *A True Relation of...Virginia*. In his recounting, Smith mentions food items a total of 87 times. A summary of all food items mentioned can be found in Table 5. Among the food items mentioned, corn related foods appear to have been the most important, making 68% of all food references made by Smith. The largest protein source came from waterfowl and turkey (15%).

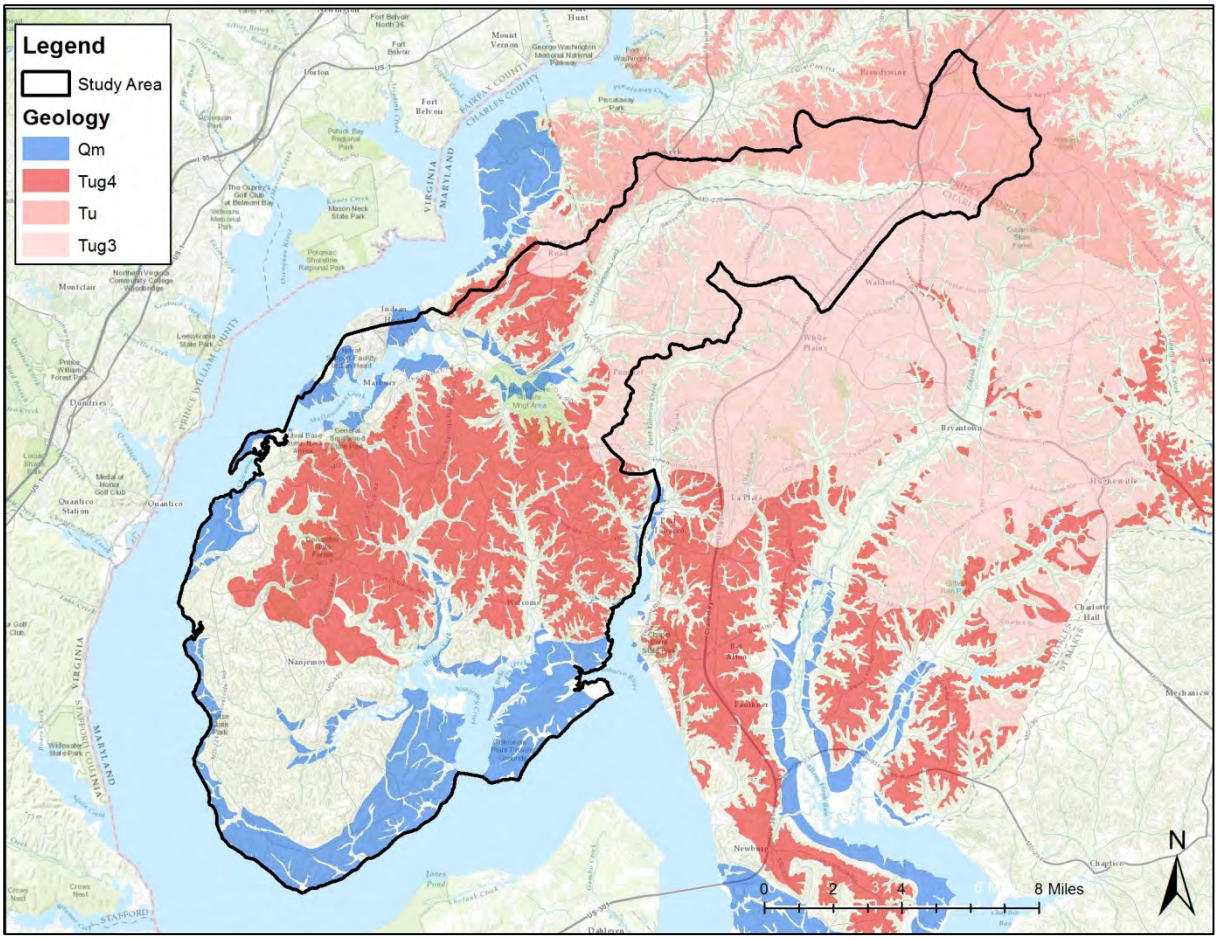

Figure 32. Abnormally High (blue) and Low (reds) geological types.

Smith's record provides a general view into the diet of the groups Englishmen encountered throughout the summer of 1608. Corn of course required suitable soils for its cultivation. Meat resources (including duck, swan, crane, geese, fish, oysters, and mussels) come primarily from wetland environments. This evidence implies a settlement strategy during these months that required close proximity to both wetland resources and agriculturally productive soils.

Using archaeological data, primary source documents, and secondary literature, Mary Kate Mansius developed a model of Piscataway settlement patterns, noting food resources used at the time (Table 6). These data imply corn was an ever-present part of the subsistence strategy, serving as the major plant food source beginning in August (the start of the harvest season) and lasting until stored reserves were depleted sometime during February. The cultivation of corn would begin in late April and May and would be grown along with beans and squash. Throughout the year oysters would have been consumed, though in greater quantities during the late summer and early fall months (Mansius 2013).

The National Park Service base criteria for defining ICLs (listed in Chapter II) serves to address the general settlement patterns of indigenous groups, primarily those present at the time Captain John Smith made his Chesapeake voyages in 1608. By researching the settlement patterns of Late Woodland/Contact period sites on a micro-regional basis, the ICL criteria can be adjusted according to the findings therein. Given the importance of corn agriculture, good agricultural soils can be defined to mean agricultural soils ideal for corn production. This research also informs which criteria may be considered having the greatest impact with regards to settlement location.

Category	Food Type	# of Ref.	%
Corn (67.82%)	Corn	39	44.83%
	Bread	20	22.99%
Fowl/Poultry (14.94%)	UID Fowl	6	6.90%
	Turkey	3	3.45%
	Duck	1	1.15%
	Swan	1	1.15%
	Crane	1	1.15%
	Goose	1	1.15%
Fish/Shellfish (10.34%)	Fish	7	8.05%
	Oysters	1	1.15%
	Mussels	1	1.15%
Other Meat (4.60%)	Deer	3	3.45%
	UID Meat	1	1.15%
Other Plants (2.30%)	Berries	2	2.30%

Table 5. Mentions of food in Smith's *A True Relation of Virginia*.

Month	Plants	Animals	Settlement Type
Jan	Dried food	Deer, oysters	Hunting camps; Hamlets
Feb	Dried food	Deer, oysters	Hunting camps; Hamlets
Mar	Fruits, berries	Fish, oysters	Fishing stations; Long term sites
Apr	Fruits, berries	Fish, oysters	Fishing stations; Long term sites
May	Fruits, berries, greens	Fish, oysters, available wildlife	Long term sites; Procurement camps; Fishing stations
Jun	Fruits, berries, greens	Fish, oysters, available wildlife	Long term sites; Procurement camps
Jul	Fruits, berries, greens	Fish, oysters, available wildlife	Long term sites; Procurement camps
Aug	Corn	Oysters, available wildlife	Long term sites
Sep	Corn	Oysters, available wildlife	Long term sites
Oct	Corn, nuts	Oysters, available wildlife	Long term sites
Nov	Dried food	Deer, oysters	Long term sites; Hunting camps
Dec	Dried food	Deer, oysters	Hunting camps; Hamlets

Table 6. Monthly calendar of settlement and subsistence (adapted from Mansius 2013).

The Historic and Contemporary Nanjemoy-Mattawoman ICL

All relevant data layers, including the archaeological, documentary, ethnographic, and land use information compiled as part of this project, were brought together to produce a single composite map (Figure 33). This map was used in the determination of the ICL boundary within the Project Area. While the entire Nanjemoy and Mattawoman watersheds are both fully part of the greater Piscataway ICL, the composite map revealed areas of more or less use by the Piscataway, historically and in the present.

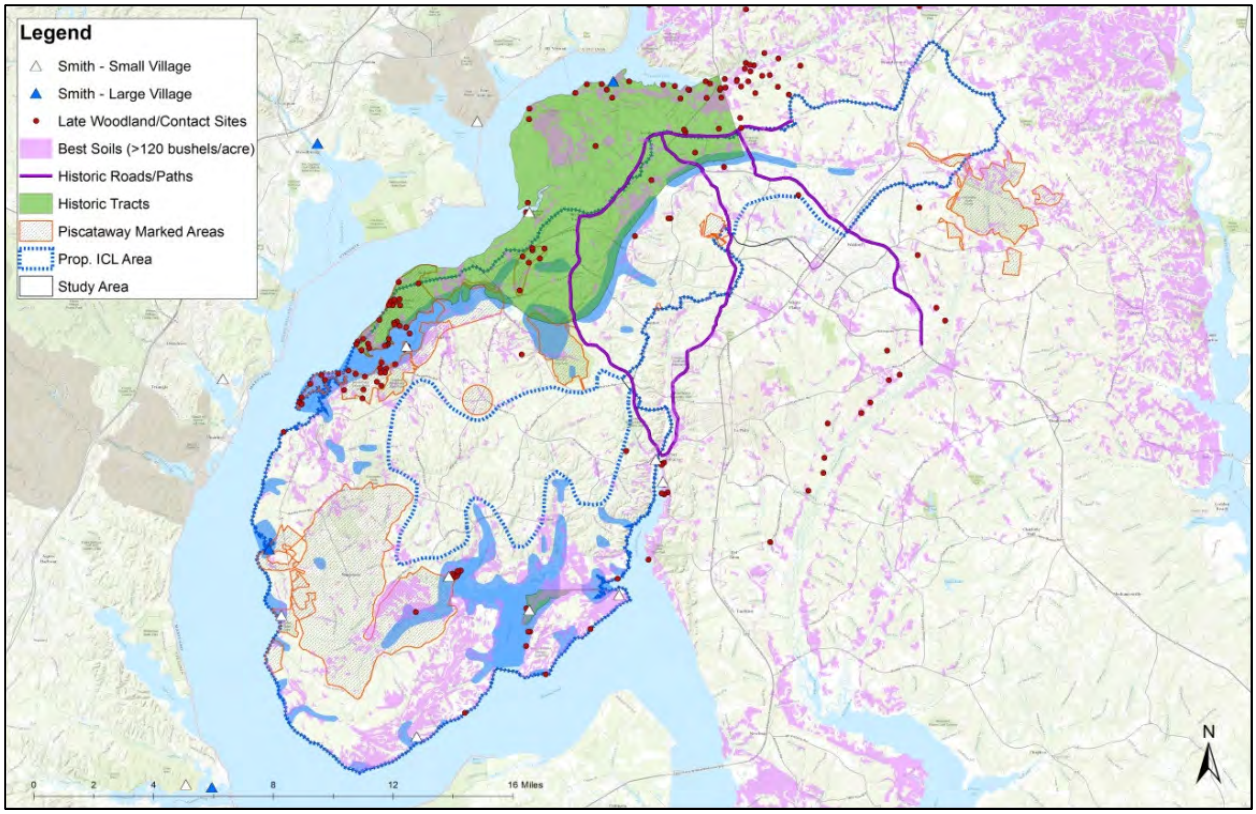

Figure 33. Composite map with ICL boundary.

The proposed ICL boundary shown in Figure 33 includes all areas of interest identified by the Piscataway consultants, recorded archaeological resources with Late Woodland and Contact period contexts, places revealed during historical background research, concentrations of highly productive soil for corn, important wetland/marsh areas, and areas identified as being evocative of indigenous landscapes. These are areas considered "hot spots" for interpretation and preservation. Not surprisingly, nearly all of the project area is included within the ICL boundary. Notable exceptions to this are upland areas just north of Nanjemoy Creek.

The ICL boundary layer was examined in comparison with current land use and land cover data (LULC) as well as with protected land areas (Figure 34; see Figure 22). The reclassified land use data depicts the areas which are undeveloped (forested) and developed (labeled as current activity); developed land includes residential, agricultural, or commercial uses. Much of the ICL is undeveloped, and this is especially true for the southwestern portions. The ICL's northeastern section is the most impacted by current development activity, as it lies within the Charles County Development District and Deferred Development District. Contiguous portions of the land around Mattawoman Creek remain protected as part of the resource protection zone.

Given the rural nature of the project area and the amount of county-, state-, and Federally-owned land within it, it comes as no surprise that approximately 36.2% (51,758 acres) of the ICL area is considered to be at least somewhat protected. State-owned land managed by the Maryland Department of Natural Resources makes up the bulk of the protected land within the ICL. Protected lands are primarily located in the western portion of the ICL, with far fewer protected areas within the Development District

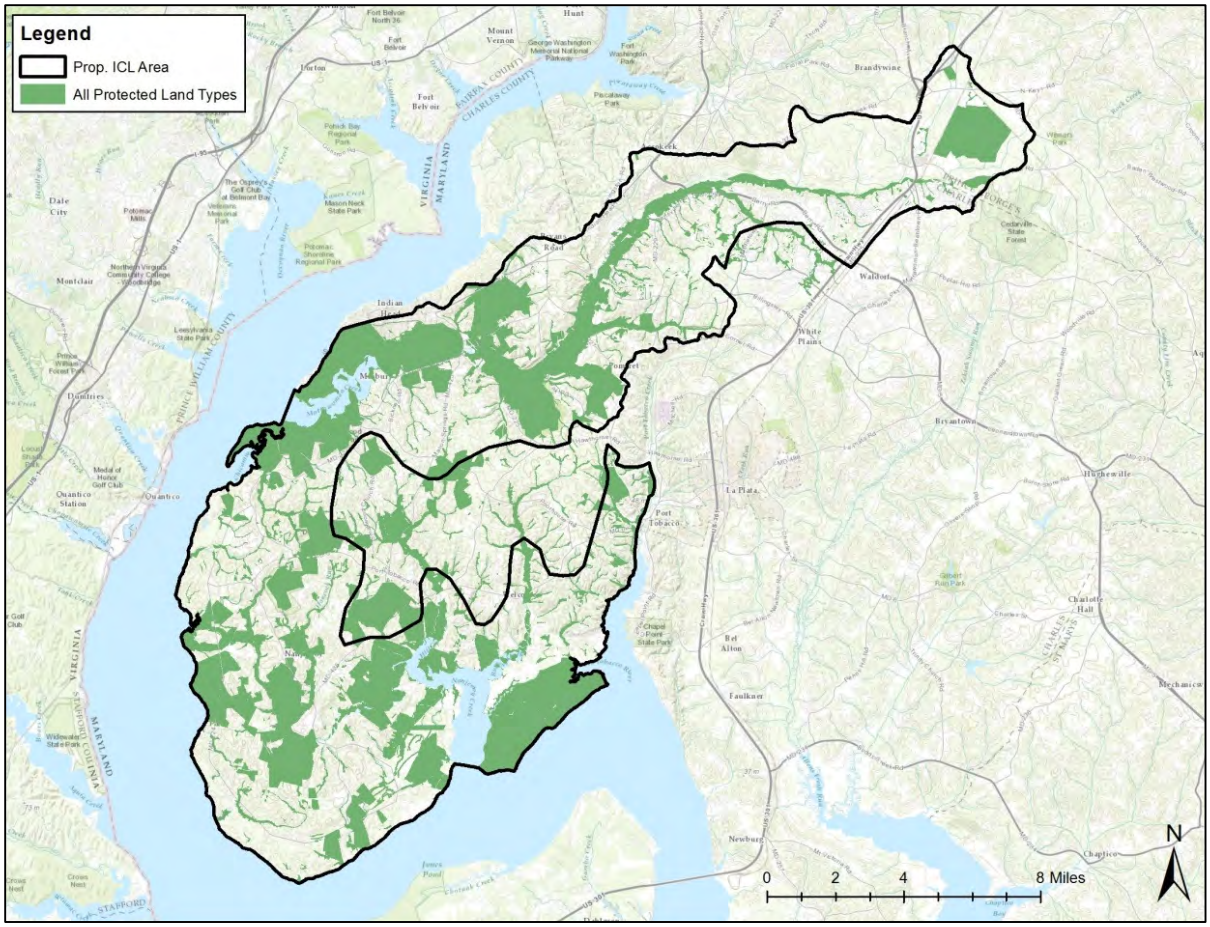

Figure 34. Summary of protected lands within the proposed ICL boundary.

aside from county park land, resource protection zones, and forest conservation easements in the Development District.

Finally, it should be noted that much of the data acquired from the Piscataway stakeholders and from the Maryland Historical Trust site spatial data contains sensitive location information. As such, locations of specific sites are left intentionally vague. As part of the data licensing agreement with the Maryland Historical Trust, all archaeological site location information is to be protected. To safeguard against any destruction of sites depicted in this report, archaeological sites are denoted by selected symbols and depicted only on large scale maps. Sites shown are also not depicted according to typologies such as towns or burial sites, which could easily become targets.

Predicting Landscapes Evocative of the Nanjemoy-Mattawoman ICL

Although this project was comprehensive in its approach, it was not possible in the time allotted to visit every location in the 223 square miles formed by the Nanjemoy and Mattawoman watersheds. In order to identify where landscapes may currently be found that were not visited but that may evoke a sense of the early 17th-century landscape, a simple GIS predictive model was developed.

Using the proposed Nanjemoy-Mattawoman ICL as a guide, the aims of the model were to identify areas where freshwater streams intersect with marshes in generally undeveloped areas. This required the use of three main data themes: LULC (Land Use/Land Cover), coastlines, and stream data.

All data used to develop the model came as or was converted to raster format, with pixels or cells representing different numeric values or classification codes. Each raster cell represented an area measuring 250 feet square.

Land use data is defined by a series of classification codes. Only those codes applicable to the State of Maryland were used. These codes are grouped by general land use types such as Urban (11 - 18, 191, and 192), Agricultural (21-25, 214, and 242), Forest (41-44), Water (50), Wetlands (60), Barren Land (70-73), and Transportation (80). This data was reclassified into a new raster map defined by three simple groups: Wet, Forest, and Current Human Activity (Figure 35). These groups were assigned an arbitrary ordinal value according to perceived level of importance to the model. Water and Wetland land use classifications were reclassified to create the Wet group and given a level value of 2. All land use codes within the Forest group were given a level value of 1. All Urban and Agricultural land classification codes were grouped as areas of Current Human Activity and reclassified with a level value of 0. This served to emphasize the importance of wetland environments to both Piscataway lifeways during the Late Woodland and Contact period as well as to better identify places now accessible along the Captain John Smith Chesapeake NHT.

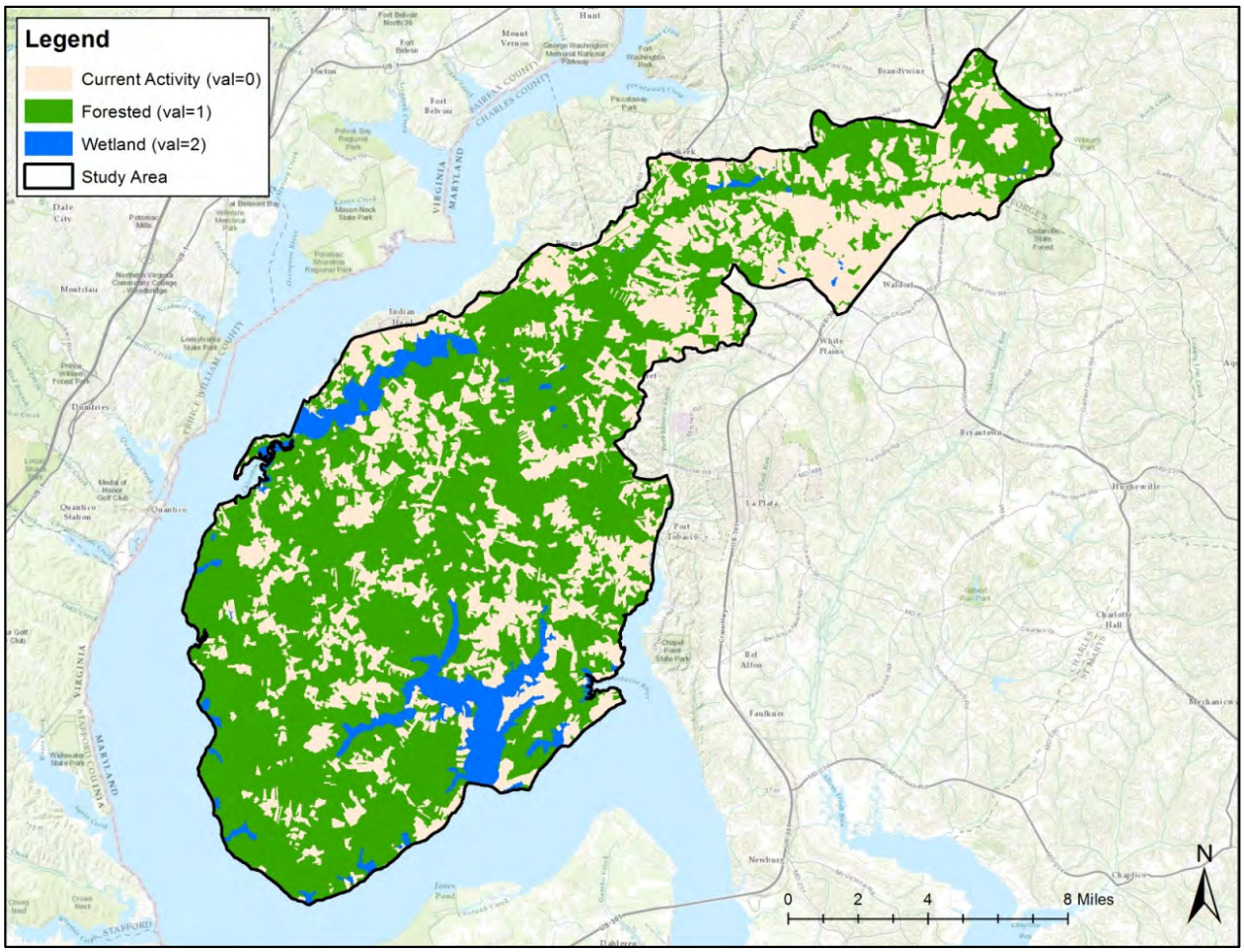

Figure 35. Reclassified LULC Data.

LULC data is derived from aerial photography and anything obscured by tree cover often does not appear within the data. To address this, a buffer of 500 feet was created around the lines delineating edges of tidal water and centerlines of streams and creeks (Figure 36). A 500-foot buffer was used as a way of emphasizing proximity. The resulting water buffer raster map contains binary pixel values of 0 and 2 (Figure 37). A value of 2 represents areas within the 500 foot water buffer. A value of 0 represents all areas within the study area landscape more than 500 feet away from any type of surface water.

The two raster layers were combined or added together to highlight areas of overlap (Figure 38). Resulting values ranged between 0 (areas of current human activity) and 4 (areas within close proximity to surface water and consisting of wetlands with less developed areas).

The resulting map can only be used to identify specific points that could be considered evocative (measured primarily as areas that are wet). It is difficult to identify landscapes that border each other and that may not be considered evocative. For example, an area shown on the map with a value of 4 may also be located directly adjacent to an agricultural field or group of houses, a landscape that would not be considered evocative. A greater view is needed of the surrounding landscape in order to identify what could be considered the most evocative types of landscapes.

As stated before, all raster files were created with a cell size of 250 feet square. In order to explore surrounding cell values in the combined raster, the entire study area was broken into blocks measuring 1000 by 1000 feet (Figure 39). Average raster cell values acquired through zonal statistics (statistics using spatial datasets in GIS) within each study block can reveal whether cells within the block make up landscape variables considered part of an evocative landscape. For example, if a study block average is close to 0, then that study block is composed of landscape types such as residential, removed from nearby water sources, etc. If a study block average is close to 4, then that block most likely represents a spot that could be considered an evocative landscape.

The results of the study block zonal statistics are shown in Figure 40. Values of less than 2 were omitted from the resulting map. Areas of blue represent somewhat visually un-impaired landscapes, while areas of red are considered the most evocative. The landscapes considered most evocative are areas where surface water and marshlands are in close proximity and surrounded by forested areas. Note that the Mattawoman and Nanjemoy creek headwaters are considered the most evocative, as also pointed out by NPS staff during the guided bus tour of the area.

The efficacy of this model was tested by examining photos taken from field visits with the Piscataway stakeholders. The model was able to successfully identify all of the places visited with landscapes considered evocative of the ICL, including the Mattawoman Creek at Indian Head and Smallwood State Park, Mallow's Bay, and the western branch of Nanjemoy around Friendship Landing Park and the Nanjemoy Education Center.

Additionally, one area where no previous visits had taken place and which had not been identified through discussion with the Piscataway was also visited and photographed. Given limitations with property access, mapping state and county publicly-accessible properties became crucial in selecting an area to review. The model indicated that portions of the Cedar Point Wildlife Management Area fit the criteria being tested. This property was visited, and the area around Goose Bay was photographed and subjectively determined to be very similar to areas such as Mallow's Bay (Figure 40). Other areas on the property were also examined but not photographed due to security restrictions associated with the US Army Blossom Point Research Facility located directly to the west of the property.

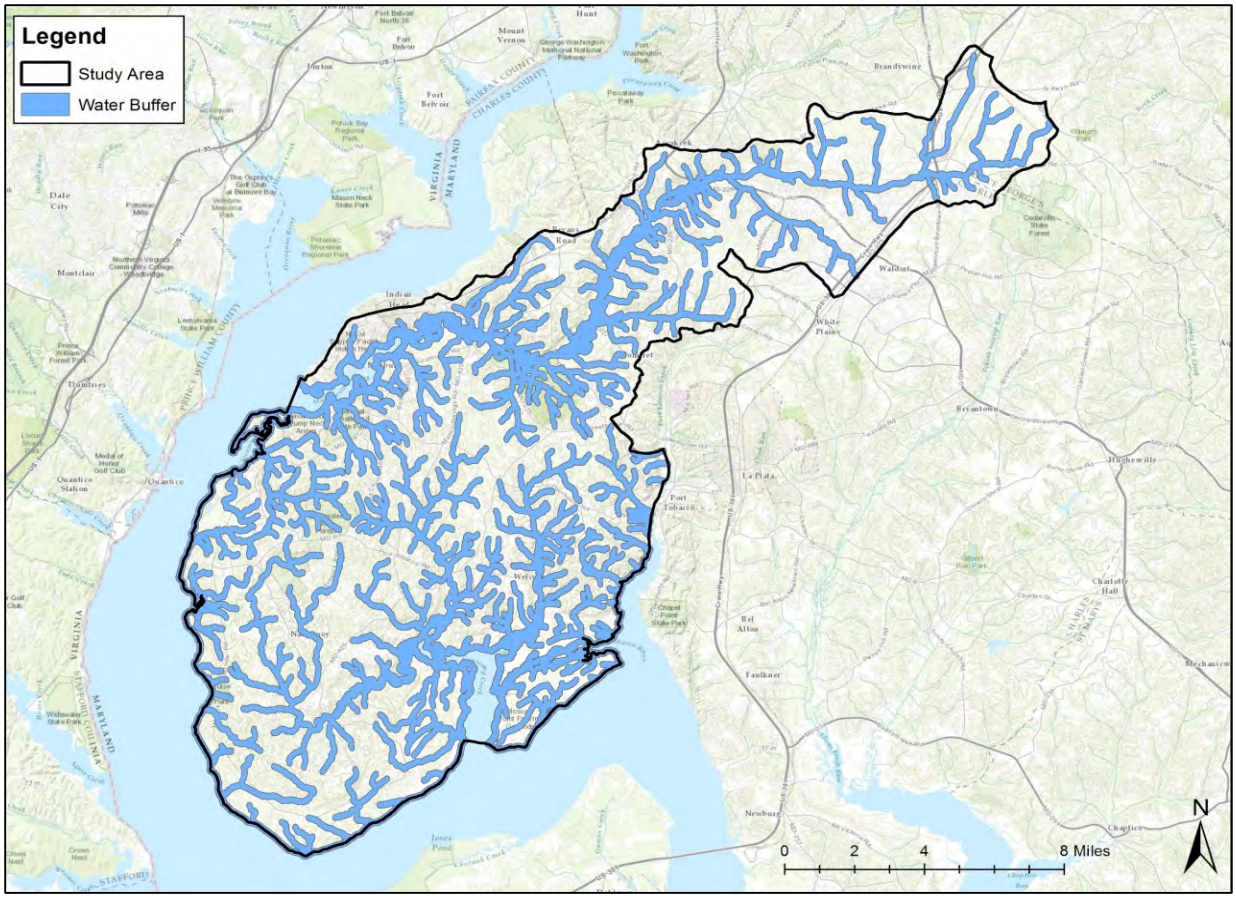

Figure 36. Wetland and shoreline buffer.

Summary

Using stakeholder input (including from the Piscataway, land use planners and managers, land conservationists, and historic preservationists), environmental and land use datasets available online, and clues found in primary source documents, the Nanjemoy-Mattawoman ICL was identified and mapped. While the Piscataway consultants reminded the project participants that the Nanjemoy and Mattawoman watersheds are part of a much larger Piscataway ICL, and that the entire areas of both watersheds should be considered part of the ICL, the ICL that has been mapped represents the areas of known historical and contemporary use. No doubt these boundaries – which exclude the inner core of the watersheds (see Figure 34) – will change as more information becomes available. What the current representation provides is an area in which to focus conservation and interpretation efforts related to the development and management of the Captain John Smith Chesapeake National Historic Trail.

While the focus of the John Smith Trail is in large part the early 17th-century ICL, the presence of a vibrant contemporary Native community in the Nanjemoy and Mattawoman region provides an outstanding opportunity to draw visitors' attention to the persistence of the Piscataway, and the reality that American Indian peoples did not just disappear or even move very far away.

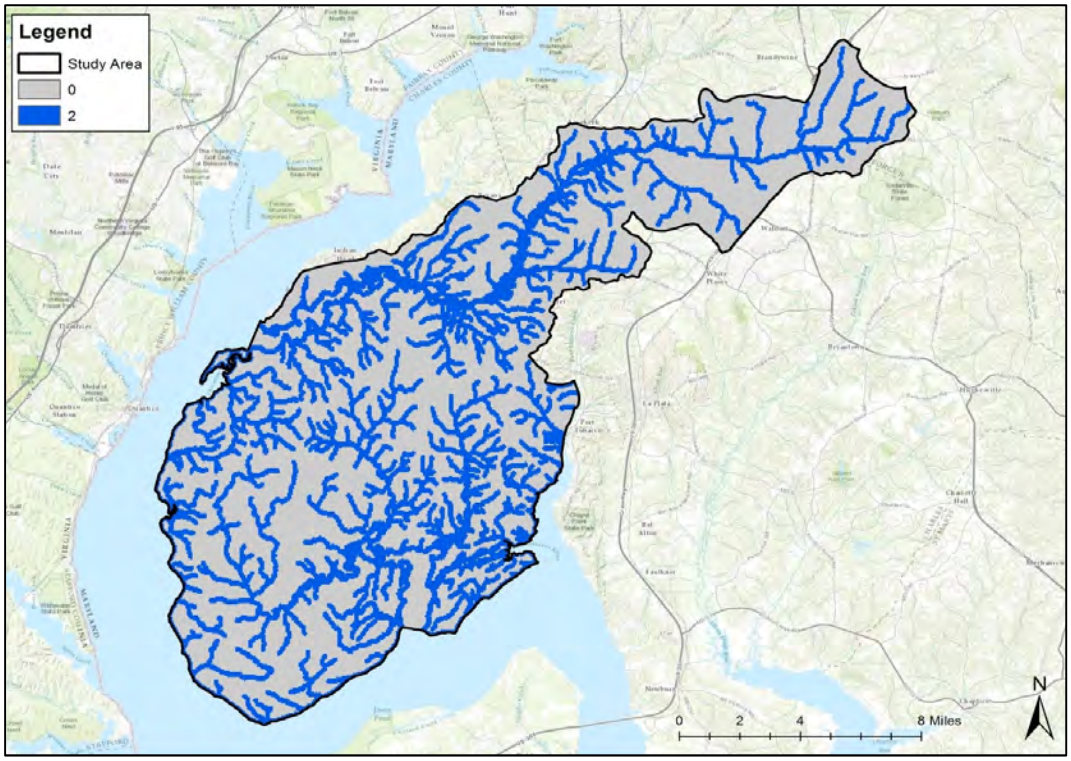

Figure 37. Wetland raster image.

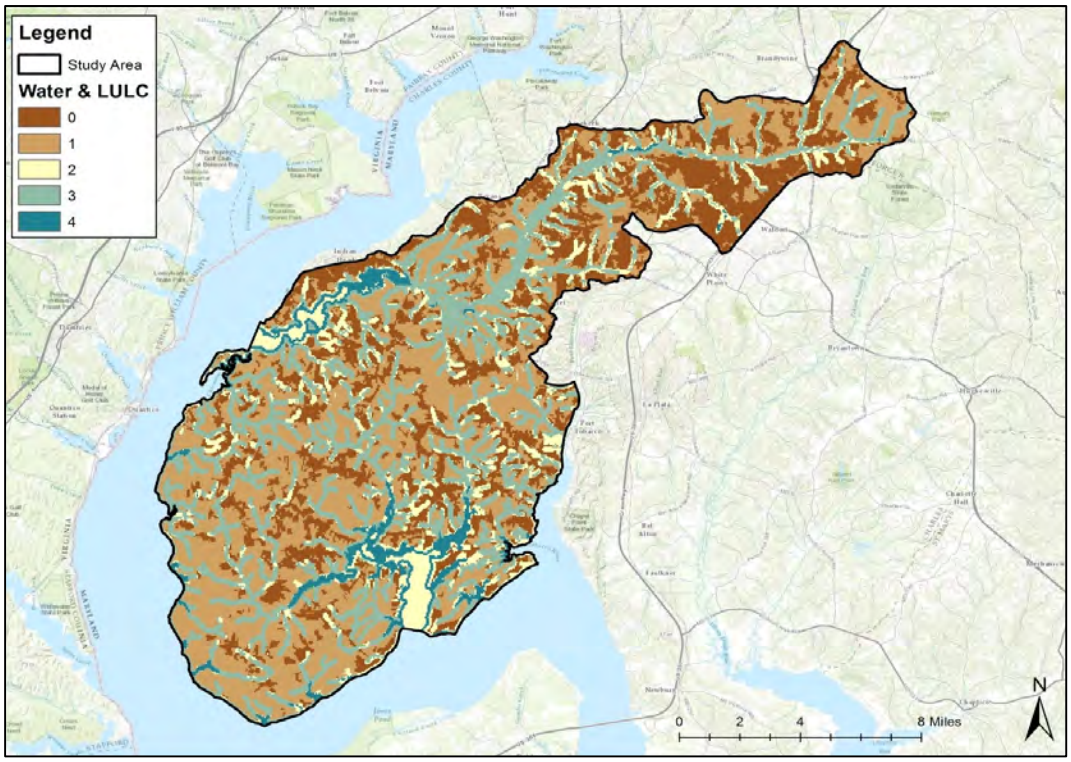

Figure 38. Combined reclassified LULC and Wetland raster image.

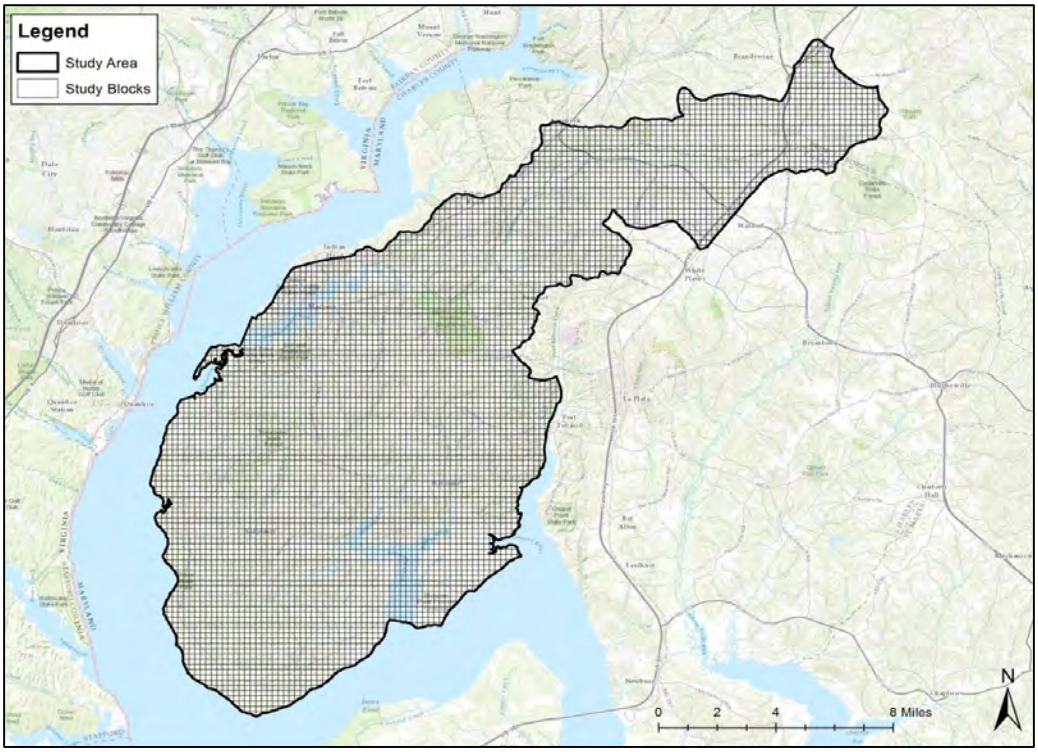

Figure 39. 1000x1000 ft study blocks.

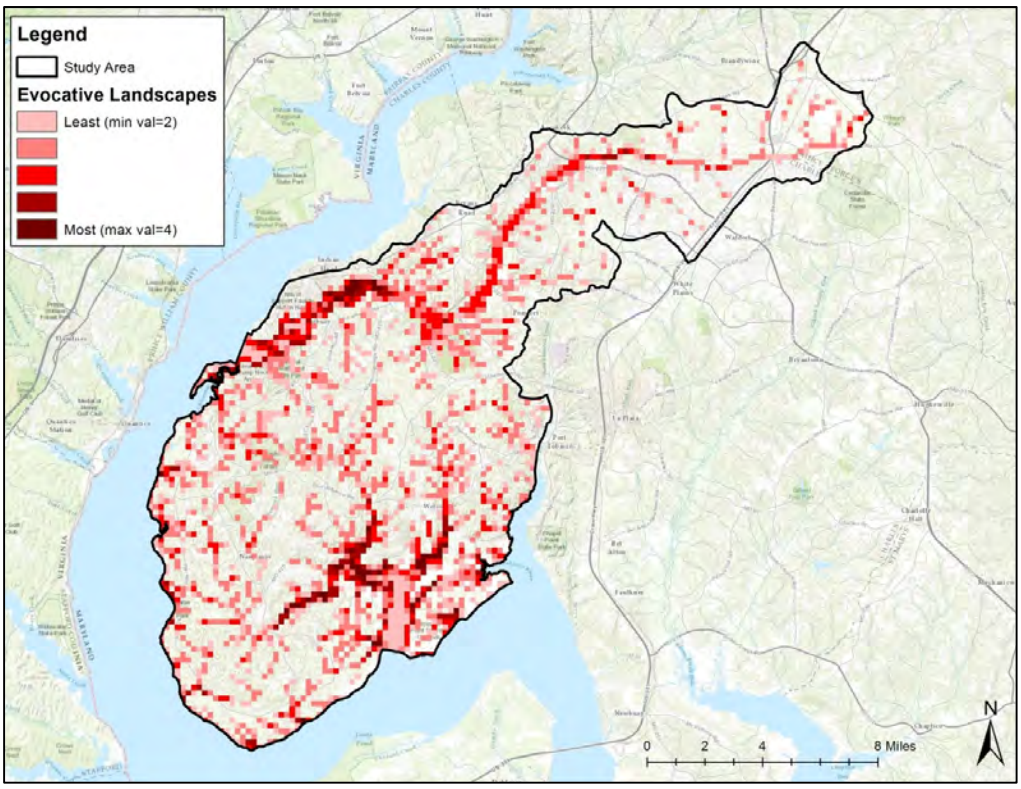

Figure 40. Evocative landscapes from study block zonal stats.

Figure 41. Goose Bay, Cedar Point Wildlife Management Area.

CHAPTER VII
CONCLUSION AND RECOMMENDATIONS

The Nanjemoy-Mattawoman Indigenous Cultural Landscape project constituted an effort to bring together tribal and non-tribal stakeholder input with large quantities of data in a variety of forms for the purpose of identifying places and landscapes meaningful to the historic and contemporary Piscataway. This model of an important but all too often overlooked landscape will ideally serve as a starting point for any future discussions about how this landscape can be used for educational, preservation, conservation, and economic development purposes, beginning with the Captain John Smith Chesapeake National Historic Trail. This chapter organizes the major findings of this project and presents recommendations for future work.

As noted elsewhere in this report, the entire project area is part of the greater Piscataway ICL. Following the recommendation of Sullivan, Chambers, and Barbery (2013), however, along with an assessment of time and funding limitations, the project area was delineated according to watershed boundaries. These boundaries are considered ecological management units by the Environmental Protection Agency (1997) and watershed scientists. In addition, indigenous use of rivers and other waterways, from sources of food to routes of travel, fostered a deep knowledge and understanding of specific watersheds. The fact that the Nanjemoy and Mattawoman creeks take their names from two Native groups within the respective watersheds suggests that, while watersheds may be an arbitrary boundary for undertaking ICL projects, watersheds did have an economic and social reality for the historic Piscataway. Even so, with combined watershed areas at 223 square miles, the Nanjemoy and Mattawoman project area is large. Given these constraints as well as the National Park Service's goal to define "hot spots" of past and present indigenous use of the landscape, the proposed Nanjemoy-Mattawoman ICL represents those areas of greatest interest to the many stakeholders in the project, especially the Piscataway.

The Nanjemoy-Mattawoman ICL

This analysis of the Nanjemoy and Mattawoman watersheds has revealed the extensive and sophisticated levels of ecological knowledge understood by the historic Piscataway. Soil quality, for example, was only one of several factors influencing settlement choice in the Late Woodland. Access to clay sources for ceramic production also figured prominently in the choice of town sites. Perhaps most important were locations with these features and adjacent wetlands. Less clear are the desirable attributes for inland hunting quarters or other short-term settlements, in large part because of the relatively low frequency of archaeological site survey in the Nanjemoy and Mattawoman watersheds.

Documents suggest the historic presence of two nations, the Nanjemoy and Mattawoman, both of which loaned their names to the watersheds. These documents reveal how these two nations interfaced with the Piscataway at Moyaone, and how they interacted and coped with ever encroaching English. Some documents note the locations of roads that almost certainly began as Indian paths, providing connections for people in the Nanjemoy, Mattawoman, Piscataway, Port Tobacco, Patuxent, and Wicomico drainages to interact and engage. Archaeological evidence suggests that, even after European invasion and occupation, these groups maintained familiar practices, continuing to use Native-made pots, to live in Native-style dwellings, and consume Native foods. In some cases, Native people used English material culture and English law to their advantage; in other cases, the dispossession of their lands was accomplished through legal documents that had little meaning to the land's first occupants.

Places of contemporary significance to the Piscataway include the Naval Support Facility Indian Head and the communities of Cedarville, Marbury, Gray's Beach, and Pisgah. Naval Support Facility

Indian Head has served as a workplace for many Piscataway, today and in the past. Cedarville is a community important to members of the Cedarville Band of Piscataway. Marbury and Gray's Beach are considered important farming and trading locations and both have family and community significance. Similarly, Pisgah is noted as an important farming and trading community.

The Focus on Time: A Critical Consideration

This study presented an opportunity to serve Maryland's indigenous community by documenting its members' relationship with the watersheds and identifying areas that stakeholders, including and especially the Piscataway, might target for land conservation, the preservation of natural and cultural resources, education, and tourism. Both the Nanjemoy and Mattawoman creek watersheds are exceptional examples of preserved habitats within the State of Maryland. Mattawoman Creek in particular has been described by the Chesapeake Bay Foundation as "one of the Chesapeake Bay's few remaining natural gems," and the Department of Natural Resources calls it "the best, most productive tributary to the Chesapeake Bay." Nanjemoy Creek, a relatively pristine waterway given its proximity to Washington, D.C., ranks at the top of stream biodiversity in the state. Many organizations, including government agencies and non-profits, maintain an interest in these two watersheds for their environmental and ecological importance.

But it is the cultural history of the two watersheds that remains woefully under-documented, and the hope is that this study will in some small part raise awareness of the project area's long, rich, and unique indigenous history and its present. The watersheds were the homelands for the Nanjemoy and Mattawoman nations, respectively, who organized major settlements along the waterways and inland. Today, the communities of Cedarville, Marbury, Pisgah, and Gray's Beach constitute places of significance to the Piscataway participating in this project.

What the present project has revealed is that there has been little work to connect modern-day Piscataway landscapes to historic landscapes. This has long been a criticism by the Piscataway, who see the focus of historians and archaeologists on the Piscataway as often linked to the Contact period or 17th century (but see Cissna 1986 and Seib and Rountree 2015 for exceptions). This is a focus that, if not approached critically, tends to reify narratives of Native disappearance. This project has revealed just how necessary that criticism is and how it remains a problem, not just for the Piscataway, but for non-Indigenous citizens who often have an incomplete understanding of the Native past.

One of this report's recommendations, then, is a call for an effort to more carefully link Piscataway past and present by focusing on sub-regions (such as the Nanjemoy and Mattawoman areas). Detailed micro-histories, that is, histories focused on particular places, can bring together multiple lines of evidence to connect past and present peoples in a way that broad brush histories oftentimes cannot. While the Piscataway no doubt already have a deep sense of these connections, documenting these stories can be useful as educational tools for non-tribal people, including decision-makers at the local, state, and Federal levels. The Captain John Smith Trail provides an exceptional place in which to tell these stories, linking landscapes evocative of the early 17th century to the vibrant Piscataway present.

Development of Predictive Models for ICLs

An important purpose of the project was to identify landscapes evocative of the world the Piscataway inhabited when John Smith entered the Potomac. Identifying these landscapes is an important goal for creating rich visitor experiences for those who navigate or visit the Captain John Smith Chesapeake National Historic Trail. This project identified many of those landscapes, but no doubt others exist in the Nanjemoy and Mattawoman watersheds that deserve consideration. To that end, a simple predictive model was developed to identify additional landscapes within the two watersheds.

This simple or preliminary model of landscapes evocative of the ICL sought to identify undeveloped viewsheds near wetland resources which would have been highly valued in the 17th century. This initial mapping successfully identified areas previously visited, photographed, and subjectively identified as landscapes evocative of the ICL. Additional areas identified through the modeling exercise were then visited and photographed to test its efficacy. Such models can be revised to incorporate further ICL criteria, such as evidence for known archaeological sites, or be used in conjunction with regional site sensitivity models to identify areas for future archaeological survey.

Any further research involving predictive models (sometimes called sensitivity models) should be informed both by the benefits and the limitations of such work. Sensitivity models fall into two main categories: inductive and deductive. Inductive models, like the type proposed here, are also known as correlative or inferential models. This type of model is used to identify statistically significant relationships between places of habitation (including archaeological sites) and their surrounding environment. When taken as a whole, statistically significant patterns of settlement can be identified. The ultimate goal is to identify areas with similar/same environments in untested areas where archaeological sites and other historic properties may exist (Kohler 1988; Moon 1993; Wheatley and Gillings 2002; Canning 2005).

The types of variables used in predictive or sensitivity models vary depending on the geographical area being studied. A set of environmental variables in one location, for example, may not be found in another location. It is also the case that factors driving settlement change through time, and variables important in the 16th or 18th centuries may or may not be relevant in the 21st century. This is especially important given the Piscataway interest in identifying contemporary as well as historic landscapes.

The development of sensitivity models is centered on three tasks (Parker 1985):

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

Some common variables include spatial parameters (such as site clusters), physical environment characteristics (such as elevation, geology, soils, etc.), economic measures, and cultural features. Economic measures and cultural features can be more difficult to quantify. 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 economic, social, political, and spiritual activity (Wheatley and Gillings 2002).

Inductive modeling, however, is an abstraction that cannot account for all the complexity of the real world, and it is incumbent 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 variables 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).

Despite the criticisms and theoretical pitfalls often associated with inductive and correlative modeling, they are still widely and successfully used in the field of Cultural Resource Management. A major advantage of sensitivity models is the ability to reduce costs and better manage the allocation of

resources (Parker 1985; Moon 1993). In Minnesota, for example, a sensitivity model successfully predicted that 85.5 percent of pre-1837 sites are found on land covering 23 percent of the state. Since the model's implementation, project costs for the Department of Transportation have been reduced by $3 million per year (Seibel 2006). Many models can be developed using already available information, thereby forgoing costs in obtaining source data (Church, Brandon, and Burgett 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. Over time, as a spatial database model accumulates more data, its predictive ability can be refined and serve as an increasingly effective management tool (Kvamme 1989; Moon 1993).

Scale is also an important issue when it comes to developing models for land use planning and management. It has been found 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). And, indeed many indigenous settlement studies, including this one for the Nanjemoy-Mattawoman ICL, indicate that major environmental zones often form the cultural group settlement system (Bragdon 1996:58-9; Custer 1986). The broader the scale, the better it is for regional planning and management. However, the inherent weakness is that large scale efforts cannot produce site-level specific statements (Kincaid 1988; Moon 1993).

Given both the advantages and limitations of sensitivity modeling, it is recommended that a broad approach be taken with any sensitivity model within the Nanjemoy-Mattawoman ICL or any other project area. In order to increase the sample size for statistical testing, archaeological site data should not be restricted to the project area alone. In the case of the Nanjemoy-Mattawoman ICL, site spatial data should be acquired from counties surrounding the project area, including St. Mary's, Charles and Calvert counties in Maryland and King George, Westmoreland, and Stafford counties in Virginia (given the overall lack of significant survey in the Nanjemoy and Mattawoman watersheds, it is essential to draw information from neighboring watersheds). 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 Late Woodland period settlement patterns and Early Woodland period settlement and yet again between the 17th and 20th centuries.

Therefore, a second recommendation is that additional efforts at modeling the ICL be made to incorporate more of the criteria identified during this project. Additionally, correlative statistical analysis on Late Woodland/17th-century sites, sites identified as parts of a larger settlement system, and relations to resources should be examined further. This effort should be expanded to include post-17th-century sites as well (Busby 2010).

Interpretation

The development of the Nanjemoy-Mattawoman ICL revealed many rich narratives about indigenous life in this region from about 900 AD to the present. There are important stories about this landscape waiting to be told; stories that can inspire Indigenous and non-Indigenous people alike about American history and contemporary American life. An important component of any future work, then, should include the development of an interpretive strategy for integration into the Captain John Smith Trail and like projects.

This interpretive strategy should meaningfully involve the Piscataway in its development. It deserves mention that Piscataway groups, in coordination with the Southern Maryland Heritage Area, are now developing a master plan for a Piscataway Indian Heritage Trail (PIHT). Planners for the PIHT may be able to use the information developed as part of identifying the Nanjemoy-Mattawoman ICL to guide their own efforts at narrating a compelling story of Native life in Maryland, right up to the present.

Managers for the Captain John Smith Trail are involved with the PIHT and this collaboration should be continued and, if possible, formalized.

The development of an interpretive program should include evaluating extant interpretive efforts, such as the Maryland Department of Natural Resources Trails Atlas, Charles County Water Trails Map, The Nature Conservancy audio tour for the Nanjemoy Preserve, any Maryland State Historical Markers, MDDNR online and on-site interpretive materials and programming, and signage and pamphlets at Friendship Landing Park, Mattingly Park, Mallows Bay and Douglas Point. Because the American Indian Cultural Center and site of the Piscataway Indian Museum lie within Nanjemoy-Mattawoman ICL, those locations should be considered a "hot spot" and accorded special consideration.

The demand for interpretive content for county and state parks is already high; MDDNR recently discovered in a survey of visitors to its parks that a surprisingly high number come for the history. As the 400th anniversary of the first encounter between the invading Maryland colonists and the Piscataway at their capital of Moyaone looms (2034), now may be the time to begin planning for telling that story through the Smith trail. The Calverts were no doubt influenced by Smith's writings and map when they "secured" their colony from the King, referencing points on the 1608 map in the Maryland Charter issued in 16332. Indeed, George Calvert, the first Lord Baltimore, very likely knew John Smith given that Calvert was an investor in the Virginia Company.

A proof of concept for an interactive map tour of indigenous landscapes within the project is shown in Figure 42. This interactive map example seeks to incorporate spatial locations with photos, interpretive information, and Piscataway stories in order to promote the appreciation and preservation of the landscape within the greater Captain John Smith Chesapeake National Historic Trail. This kind of online interpretation will constitute perhaps the best venue for disseminating stories about the Piscataway through the Smith Trail. Ideally, these stories would be Piscataway-driven.

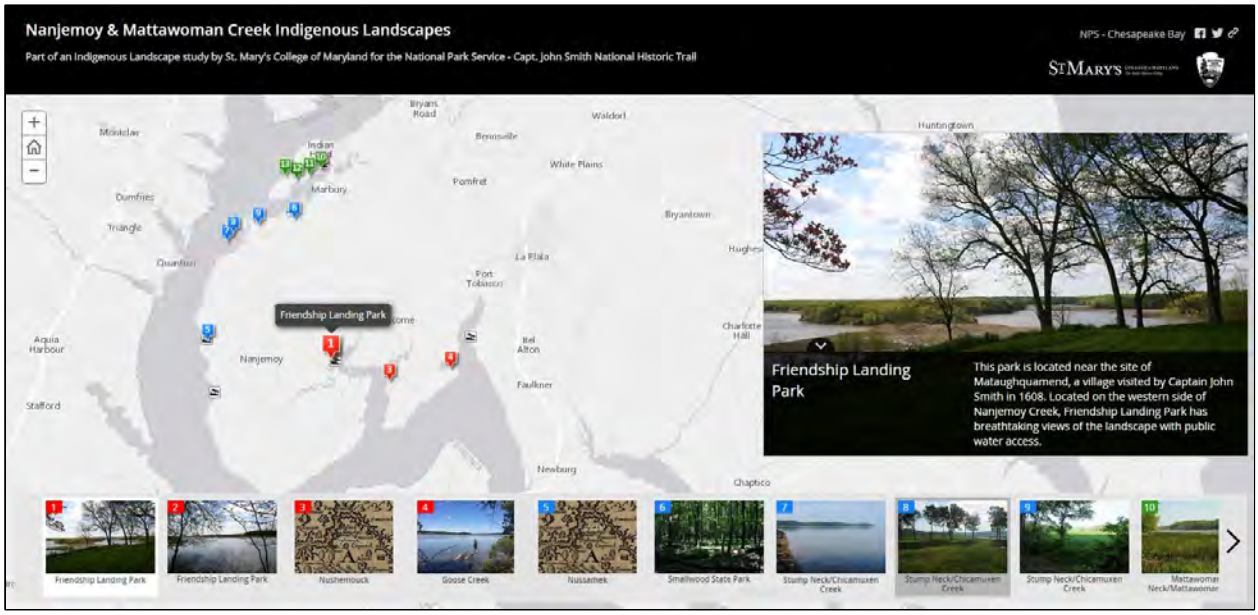

Figure 42. ArcGIS Story Map of the Nanjemoy/Mattawoman ICL.

Gap Analysis of Key Parcels

A gap analysis of key parcels not under conservation ownership should be performed. Areas where archaeological resources are anticipated and areas where historical data indicates important indigenous affiliations should be prioritized for acquisition or easements. Further, any areas with these cultural values that are placed into conservation management or ownership should have explicit protection and management measures put in place for the cultural resources. Any areas that will be developed for visitor experiences should have sufficient provisions in place to prevent destruction of the authentic resources that provide the reason for the visitation.

Expand the Focus to Other Watersheds

In light of these considerations, in order to create a more complete definition of a Piscataway ICL in a more encompassing study, a more expansive area of study is recommended, especially for the Piscataway Creek and Wicomico River/Zekiah Swamp watersheds. The time-depth and constitution of groups today known as Piscataway can be defined in different ways. Their areas of use and interest, areas over which they use-rights and/or primary use-rights, areas where they customarily travelled could all be considered part of their landscape and so the upper Potomac is equally a valid part of their landscape as are places beyond.

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APPENDIX I
LIST OF PROJECT PARTICIPANTS

Staff

1. Virginia R. Busby
2. Julia A. King
3. Scott M. Strickland

Piscataway Consultants

Piscataway Indian Nation:
4. Mark Tayac
5. Naiche Tayac

Piscataway Conoy Tribe of Maryland:
6. Mervin Savoy
7. Diana Harley
8. Mario Harley

Piscataway Conoy Confederacy and Sub-tribes:
9. Joan Watson

Cedarville Band of Piscataway Indians:
10. Natalie Proctor
11. Hope Butler

Choptico Band of Piscataway Indians:
12. Rico Newman
13. Barry Wilson

National Park Service

14. Deanna Beacham
16. Margaret Markham
17. Suzanne Copping

APPENDIX II
ANNOTATED BIBLIOGRAPHY

Arber, Edward

1884 ***Capt. John Smith, of Willoughby by Alfoed, Lincolnshire: president of Virginia and admiral of New England. Works, 1608-1631*. [Editor]. Birmingham.**

This volume consists of the transcribed and collected works of Captain John Smith. The accounts written by Smith detail the voyages he and his crew made throughout the Chesapeake in 1608. Here, Smith names waterways, villages, and towns along the Chesapeake and its tributaries, like those of the lower Potomac River valley. This primary source document has been used by archaeologists and historians widely when discussing the Native landscape on the eve of Contact with European colonists.

Baumgartner-Wagner, Norma A.

1979 An Ethnohistorical Investigation of Maryland Indians, A.D. 1600-1800. Unpublished M.A. Thesis, Department of Anthropology, American University, Washington, DC.

Baumgartner-Wagner, in her 1979 Master's thesis, investigates the continued presence of Maryland's Native population after Contact and through the end of the 18th-century. Baumgartner-Wagner also provides a critique of the oft-used typology of Contact period sites within the field of archaeology, arguing that artifact assemblages of Native people living in the region well into the 18th-century may be incorrectly attributed to people of other ethnic groups.

Busby, Virginia

2010 ***Transformation and Presistence: The Nanticoke Indians and Chicone Indian Town in the Context of European Contact and Colonization.* Ph.D. dissertation, Department of Anthropology, University of Virginia.**

In this dissertation, Busby uses archaeological and ethnohistorical data to trace the history of the Nanticoke Indians in the Chesapeake Bay from 1600 to 1800. Her archaeological fieldwork focuses on the Chicone village site, adjacent to the Nanticoke River. This site reveals occupation from the Late Woodland period through the 18th century. Using evidence from site, related sites, and the historic record, Busby argues that the Nanticoke have transformed and sustained their distinct group identity throughout the contact era.

Carr, Lois Green, and David W. Jordan

1974 ***Maryland's Revolution of Government, 1689-1692*. Ithaca, NY: Cornell University Press.**

Carr and Jordan discuss the 1689 Protestant Revolution in Maryland. This political coup in Maryland coincided with the "Glorious Revolution" in England with the ascension of William of Orange and his wife Mary to the English throne. This period also marks the temporary end of Calvert family proprietary control of the Maryland government. These events contributed to the diaspora of Native groups in the region, who had forged alliances and treaties with the previous colonial governing authority.

Cissna, Paul B.

1986 ***The Piscataway Indians of Southern Maryland: An Ethnohistory from Pre-European Contact to the Present*. Ph.D. dissertation, Department of Anthropology, American University, Washington, DC.**

Cissna's 1986 Ph.D. dissertation contains a comprehensive history regarding the Piscataway in Southern Maryland. Cissna's work is a great synthesis archival records and other primary source documents, writing in detail about events involving the Piscataway and related tribes, especially during the colonial period.

Clark, Wayne E., and Helen Rountree

1993 The Powhatans and the Maryland Mainland. In Helen C. Rountree, ed., *Powhatan Foreign Relations, 1500-1722*, pp. 112-135. Charlottesville, Virginia: University of Virginia Press.

Clark and Rountree discuss the relationship between the Powhatan and the Piscataway and their associated tribes. This selection discusses the center of power of the Piscataway at Moyaone and its waning influence further afield. The on again-off again relationship between the Piscataway and Patawomeke, situated on the opposite side of the Potomac River from Moyaone, is also highlighted.

Custer, Jay F.

1986 Late Woodland Cultural Diversity in the Middle Atlantic: An Evolutionary Perspective. In *Late Woodland Cultures of the Middle Atlantic Region*, ed. Custer, J.F., pp. 143-168. University of Delaware Press, Newark.

Custer lays out changes in settlement and subsistence practices from the Middle Woodland and into the Late Woodland period. Here he argues that complex organizations arose in the Potomac River valley leading to stable and sedentary settlements increasingly supported by agriculture (corn) and coastal resources.

1989 ***Prehistoric Cultures of the Delmarva Peninsula: An Archaeological Study*. Newark: University of Delaware Press.**

In this book Custer provides an overview of the cultural development of Native groups on the Delmarva peninsula from 12,000 BC to 1600 AD, the eve of Contact with Europeans. Using archaeological evidence, Custer also discusses how Native groups adapted and reacted to an ever-changing climate and environment.

Dent, Richard J.

1995 ***Chesapeake Prehistory: Old Traditions, New Directions*. New York: Plenum.**

Dent presents this book as an interdisciplinary look at the prehistory of the Chesapeake Bay region and as an interpretation of how that prehistory has shaped the region's present circumstances. He brings together archaeological evidence (pointing out how archaeological practice and human perspectives on the past have changed over time), accounts of natural history, and discussion of continuing cultural tradition. With regard to the Nanticoke, Dent includes them on a map of Native Chesapeake groups at the time of contact with Europeans and points out that they are reported to have had the largest population compared with the other six Native groups of the Eastern Shore (263-264).

Fausz, J. Frederick

1984 Present at the "Creation:" The Chesapeake World that Greeted the Maryland Colonists. *Maryland Historical Magazine* 79(1):7-20.

In this article Fausz gives an overview of the political climate among Native groups prior to and during the early years of the arrival of Europeans in what is now Maryland. He describes how Powhatan in the south was increasingly gaining influence among Virginia's Algonquian tribes, pushing further north towards the Piscataway capital of Moyaone. At the same time, Fausz explains, the Susquehannock were increasing their influence in the region and into conflict with Native groups on Maryland's lower western shore.

Flick, Alex J., Skylar A. Bauer, Scott M. Strickland, D. Brad Hatch, and Julia A. King

2012 *"...a place now known unto them:" The Search for Zekiah Fort.* St. Mary's City: St. Mary's College of Maryland.

This archaeological site report details initial findings at the Zekiah Fort site (18CH808), occupied by the Piscataway from 1680 to about 1692. This site is considered the last place that the Piscataway were together as one group before their Diaspora. The report also gives a detailed history of the Piscataway leading up to an during their occupation at the site. Archaeological evidence recovered from Zekiah Fort provides useful insight into Native/European interaction during the tumultuous late 17th-century in Maryland.

Gallivan, Martin D.

2002 Measuring Sedentariness and Settlement Population: Accumulations Research in the Middle Atlantic Region. In *American Antiquity*, 67(3) pp. 535-557.

In this article, Gallivan seeks to measure settlement population and level of sedentism. Gallivan challenges the thought that there was a sudden and dramatic shift toward sedentary culture in the region. Alternatively, he argues that there was a gradual shift in the beginning of the Late Woodland period that differed only slightly from the end of the Middle Woodland period. His work is supported by examination of the frequency of pottery discard to estimate population density and duration. Through this research, Gallivan argues that the notion of more permanent and substantial villages arose during the latter portions of the Late Woodland (specifically between 1200 and 1500 AD).

Hall, Clayton C., ed.

1910 *Narratives of Early Maryland, 1633-1684*. New York: Charles Scribner's Sons.

This document consists of a series of published transcriptions of first-hand accounts of the early days of colonial Maryland. Included among these are key documents such as *An Account of the Colony of the Lord Baron of Baltimore* (1633), *Instructions to the Colonists by Lord Baltimore* (1633), *A Briefe Relation of the Voyage unto Maryland* (Father Andrew White, 1634), *A Relation of Maryland* (1635), extracts from the *Annual Letters of the English Province of the Society of Jesus* (various dates between 1634 and 1681), letters from Gov. Leonard Calvert to Lord Baltimore (1638), and *A Character of the Province of* Maryland (George Alsop, 1666), among others. These documents provide information about the Native inhabitants of the region, albeit from a European colonist/invader perspective.

1925 *A Relation of Maryland; together with a Map of the Countrey*. New York: Charles Scribner's Sons.
This publication consists of a transcription of Father Andrew White's *A Relation of Maryland*, initially published as a pamphlet in England in 1635. The pamphlet included a map of the province of Maryland known as *The Lord Baltimore Map*. This map includes minor improvements in the shape of the landscape to Captain John Smith's map published in 1612. The map notably does not include the many native settlements shown in Smith's map, likely drawn so intentionally to depict a landscape claimed solely for English purposes. The only Native villages depicted in southern Maryland are Patuxent, Portobacke and Pascatoway (depicted, though, as English houses).

Hantman, Jeffrey L.
1993 Powhatan's Relations with the Piedmont Monacans. In *Powhatan Foreign Relations: 1500-1722*, edited by H. C. Rountree, pp. 94-111. Charlottesville: University Press of Virginia.
Using archaeological and historical evidence, Hantman examines the intertribal relations of the Powhatan and the Piedmont Monocans during the 16th and early 17th centuries. Hantman concludes that the Monocans were a populous people that were culturally comparable to the Powhatan. Prior to the arrival of Europeans, the Monocans held a near-monopoly of the important and prized sources and distribution of copper in the Virginia Coastal Plain.

Kent, Barry C.
1984 *Susquehanna's Indians*. Anthropological Series No. 6. Harrisburg, PA: Pennsylvania Historical and Museum Commission.
This publication includes detailed information and illustrations to document the story of Native groups in the Susquehanna River valley from the 15th century up to the Contact period between them and Europeans. While partly derived from historical narrative, the bulk of this work is based upon data from archaeological research in the region.

Kingsbury, Susan Myra
1933 *The Records of the Virginia Company of London: The Court Book*. 4 vols. Washington: U.S. Government Printing Office.
This publication by the Library of Congress consists of the official court minutes of the Virginia Company from 1607 to 1622. These documents provide useful insight into the early efforts of colonization by the English. Included within these documents are English perspectives of the relationships among various Native groups in the region.

Leder, Lawrence H., ed.
1956 *The Livingston Indian Records, 1666-1723*. Gettysburg, Pennsylvania: The Pennsylvania Historical Association.
This document contains transcriptions of the conference and meeting minutes of Robert Livingston from 1666 to 1723. Livingston served as Secretary of Rensselaerswyck in New York, Town Clerk of Albany, and the New York colony Secretary for Indian Affairs. Within this series of documents is an account concerning Iroqouis raids against Native and colonial interests in Virginia and Maryland.

Mansius, Mary Kate

2013 *A Piscataway Calendar: the Annual Movements of the Piscataway Indians.* Undergraduate thesis. St. Mary's City: St. Mary's College of Maryland.

This undergraduate research project provides a good synthesis of data as it pertains to the month-by-month of Piscataway activities during the Late Woodland and Contact periods. Combining primary source documents in the archives of Maryland and available data on proposed settlement patterns, a Piscataway calendar is developed and laid out.

Marye, William B.

1935 Piscattaway. *Maryland Historical Magazine* 30(3):183-239.

Marye provides a synthesis of data regarding the Piscataway, pieced together from the Maryland Archives and published narratives compiled in the Narratives of Early Maryland. Though Marye's work is interpreted through the analysis of narratives written solely from an English perspective, it is a useful introduction to English-Native interactions during the 17th century in Maryland.

Merrell, James H.

1979 Cultural Continuity among the Piscataway Indians of Colonial Maryland. *The William and Mary Quarterly* 36: 548-570.

This article highlights the continuation of Piscataway customs and culture throughout the early colonial period – comparing the incursions of the English to incursions by other Native groups prior to the founding of the Maryland colony. The article also goes on to discuss ways in which the Piscataway, in the short-term, were partially benefited by the being located distant from settlements at St. Mary's City. Eventually the Piscataway were placed in a tributary system with the Maryland English, though still maintaining much control over their own affairs. While attempts were made by Jesuits, such as Father Andrew White, to convert the Piscataway to Christianity, Merrell points out that burial practices remained much the same as they were before the arrival of Europeans.

Neill, Rev. Edward D.

1876 *The Founders of Maryland as Portrayed in Manuscripts, Provincial Records and Early Documents.* Albany, NY.

Rev. Neill published a narrative of early Maryland based on founding documents, provincial records, and letters. These documents detail the lives of some of the founders of English settlement in the Maryland colony, including; the early Indian trader Henry Fleet, the Virginian William Claiborne of Kent Island, the first governor Leonard Calvert, and Commissioners Thomas Cornwallis and Jerome Hawley.

Pendergast, James F.

1991 The Massawomeck: Raiders and Traders into the Chesapeake Bay in the Seventeenth Century. *Transactions of the American Philosophical Society* 81(2): i-vii+1-101.

Pendergast's work published by the American Philosophical Society focuses on the seldom mentioned Massawomeck. This work aims to search for the identity of the Massawomeck tribe and their history. Pendergast chronicles the theorized movement of the Massawomeck from western New York and eventually down to the head of the Chesapeake Bay, where they raided the villages of Algonquin speaking tribes of Maryland and Virginia. The tribe was later encountered by Captain John Smith during his voyages in 1608. The Massawomeck saw an opportunity with the English presence and attempted to

participate in and attempt, unsuccessfully, to control the fur trade with the Jamestown settlers. By 1634, however, the Massawomeck completely disappear from the documentary record - a mystery that as-yet remains unsolved.

Potter, Stephen R.
1993 ***Commoners, Tributes, and Chiefs: The Development of Algonquian Culture in the Potomac Valley.*** **Charlottesville, VA: The University of Virginia Press.**
This book by Stephen Potter is widely referenced in regards to the settlement of the Potomac River valley during the Late Woodland period. Potter uses archaeological evidence and ethnohistory of the Chicacoans in Virginia's Northern Neck as a case study of the development of Algonquian culture throughout the Chesapeake. In it, he highlights the development of complex tributary societies in the centuries preceding the arrival of Europeans.

Rice, James D.
2009 ***Nature and History in the Potomac Country: From Hunter-Gatherers to the Age of Jefferson*****. Baltimore: Johns Hopkins University Press.**
Rice explores the role of the environment in Native and colonial settlement. Rice also examines the effect settlement had on the environment itself. In doing so, Rice postulates reasons why certain places and environments were chosen over others and whether this influenced future European settlement in the region. This publication also looks at the effects on the environment from these settlements.

Rountree, Helen C.
1989 ***The Powhatan Indians of Virginia: Their Traditional Culture.*** **Norman: University of Oklahoma Press.**
Rountree's 1989 work represents the first comprehensive book on Powhatan culture and life in the Chesapeake on the eve on contact. Rountree takes an ethnohistorical approach to discuss many aspects of daily life in a typical Powhatan settlement - from hunting and agriculture to music and dance.

1993 The Powhatans and the English: A Case of Multiple Conflicting Agendas. In ***Powhatan Foreign Relations: 1500-1722*****. Helen C. Rountree, ed. Charlottesville: The University of Virginia Press.**
This chapter is part of a collection of papers on the Powhatan and their relations with neighboring tribes, and later, the invading English. Helen Rountree focuses on the latter relations from the early colonial period. Rountree discusses the inner workings of the Powhatan chiefdom at the height of its power in 1607. She examines their relations with the English from this perspective. Likewise, Rountree discusses how the English wished to subdue the Powhatan to serve as a buffer against other neighboring tribes. This is somewhat analogous in many ways to the desire of the Maryland English to use the Piscataway as a buffer from Iroquoian tribes such as the Susquehannock throughout much of the 17th-century.

Rountree, Helen C., Wayne E. Clark, and Kent Mountford
2007 ***John Smith's Chesapeake Voyages, 1607-1609.*** **Charlottesville: University of Virginia Press.**
Rountree, Clark, and Mountford trace Captain John Smith's voyages in the Chesapeake Bay, providing insight into the places and peoples he encountered. The authors describe the Chesapeake environment of the early 17th century as well as details of daily life including Native customs, appearance, villages,

transportation, and farming. Details are provided regarding Smith's encounters on a day-by-day basis, as well as conditions of the lands and waters around his pathways, for example: salinity, soil types, pottery found in nearby lands, and limits of plant growth. Further, the authors explain many of the changes in landscape and population that have occurred in the Chesapeake Bay since Smith's voyages, briefly noting archaeological resources of the area.

Smith, Capt. J.

1624 The Generall Historie of Virginia…, In *Documenting the American South*, [online] University Library, University of North Carolina, Chapel Hill. Available from http://docsouth.unc.edu/southlit/smith/smith.html [Accessed Summer 2015].

Smith discusses his travels in 1608 and 1609 to the Virginia colony and through Chesapeake Bay waterways. He also provides maps of the regions he has explored, naming rivers and other place names, and groups of American Indians. He writes about interacting with and observing several tribes, including the ancestors of groups that later became known as the Piscataway, Choptico, and others.

Strickland, Scott

2012 *A GIS Approach to Late Woodland Settlement Patterns along Maryland's Lower Potomac River.* MSc Dissertation. Department of Archaeology, University of Southampton.

Strickland presents correlative statistics between Late Woodland and Contact period sites within the Lower Potomac drainage in Maryland in Prince George's, Charles, and St. Mary's Counties. These statistics are interpreted, along with key historical documents, to develop a settlement model for Native groups during the Late Woodland period.

2015 *An Investigation of Two 1701 Land Transfers: John Accatamacca, also known as Octomaquath, Emperor of Piscataway to Several Englishmen.* Unpublished manuscript. Prepared for The Maryland Historical Trust, Crownsville, MD.

This unpublished manuscript was prepared as part of a Maryland Historical Trust grant to survey Piscataway landscapes in Southern Maryland. This report describes two land records connected to the Piscataway leader Octomaquath (referred to as John Accatamacca) within the records of Prince George's County in the early 18th century. These documents are key in interpreting shifting interactions between Native groups and colonial government following the effects of the Protestant Revolution of 1689.

Tayac, Gabrielle

1999 *To Speake with One Voice.* Ph.D. Dissertation. Department of Sociology, Harvard University.

This doctoral dissertation challenges the notion that the Piscataway people all left their homeland of Maryland during the 18th-century. This work elaborates on the fact that many Piscataway remained, thrived, and maintained their cultural traditions through the centuries to the present day.

Thomas, Ronald A., Daniel R. Griffith, Cara L. Wise, and Richard E. Artusy, Jr.

1975 Environmental Adaptation on Delaware's Coastal Plain. In *Archaeology of Eastern North America*, 3 pp. 35-90.

The work presented in this article consists of two case studies – the Hughes-Willis Site and the Indian Landing Site in Delaware. This study examined the landscape and environment around these sites to

analyze and explain subsistence strategies, settlement locations, and Native interactions with their surroundings. This approach is informative in defining environmental criteria for identifying indigenous cultural landscapes within the Chesapeake region.

APPENDIX III
INSTITUTIONAL REVIEW BOARD CONSENT FORM

Approved February 11, 2015 by the SMCM Institutional Review Board.

You are invited to participate in a project related to the identification of the Nanjemoy/Mattawoman Indigenous Cultural Landscape. This project aims to gather information about past and contemporary land use by Piscataway people in the Nanjemoy/Mattawoman creek watersheds. You will be asked to attend two all-day meetings and participate in a driving tour during one of those meetings in an effort to identify landscape and properties important to the Piscataway of southern Maryland. The information collected as part of this project will be included in a report prepared for the Chesapeake Conservancy and the National Park Service Chesapeake Bay Office and will be used to develop land preservation and interpretive strategies. You and the group you represent will receive copies of all final reports generated for this project.

Your participation is voluntary and you may choose not to participate at any time. Your decision whether or not to participate will not jeopardize your future relations with SMCM. You will be interviewed about land use in the Nanjemoy and Mattawoman watersheds, and this interview may be recorded. While we do not foresee any risks to participating you may refuse to answer any questions that you do not wish to answer.

Please direct questions about the project to Julia A. King, professor, at jking@smcm.edu, (240) 895-4398, 18952 East Fisher Road, St. Mary's City, MD 20686. Please direct questions regarding your rights as a project participant to, Anna Han, Chair of the Institutional Review Board, at irb@smcm.edu, (240) 895-4426, 18952 East Fisher Road, St. Mary's City, MD 20686.

In consideration of the recording and documentation of information related to Piscataway use of the Nanjemoy/Mattawoman watersheds by St. Mary's College of Maryland, I, the participant,

(print name) _____ hereby grant, assign, and transfer to SMCM the rights to report, publish, duplicate, or otherwise use and dispose of the information recorded on (date) _____. This includes the rights of publication in any form, including electronic.

Note any restrictions:

Narrator's name: _____

Narrator's address: _____

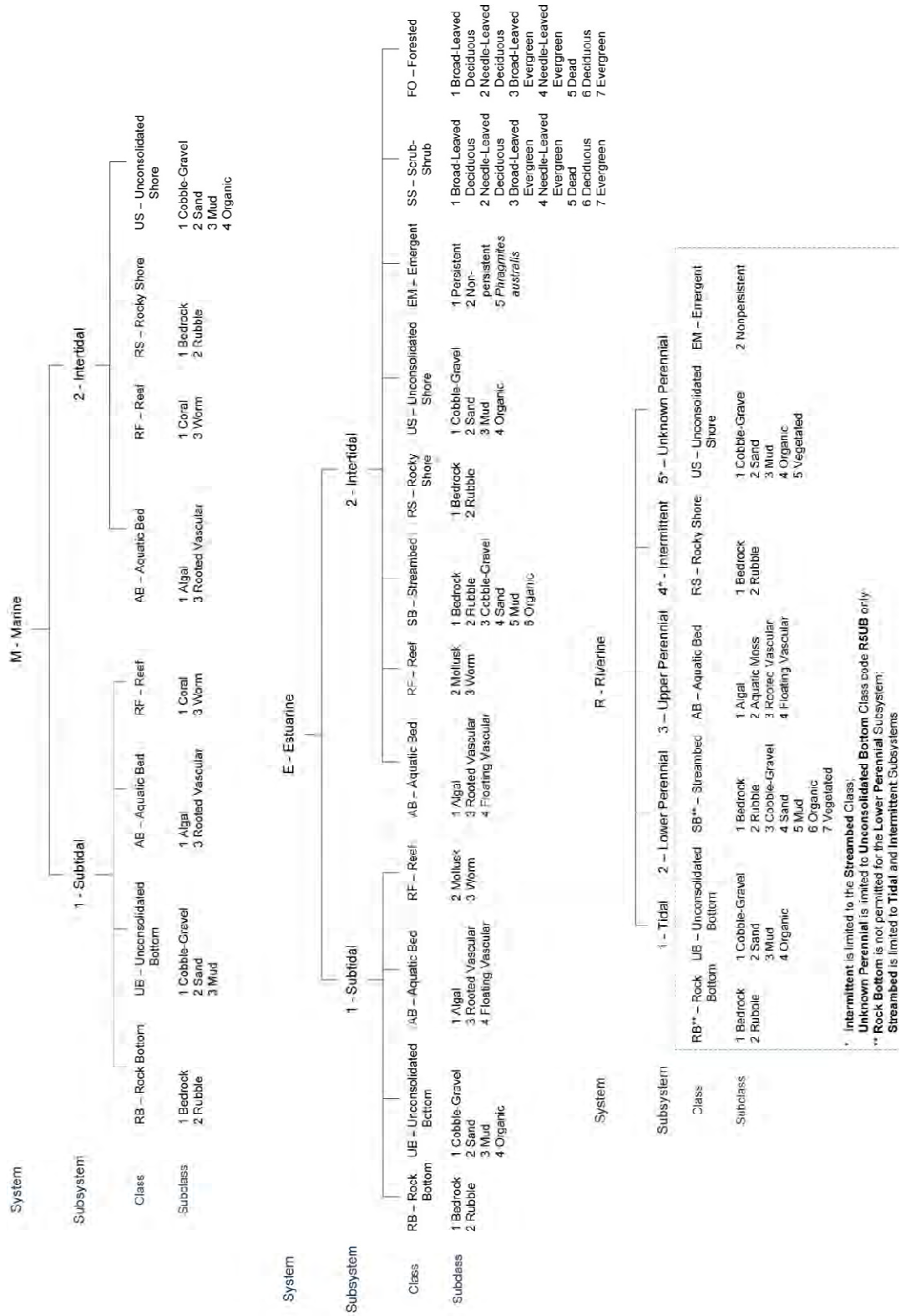
Narrator's phone number: _____

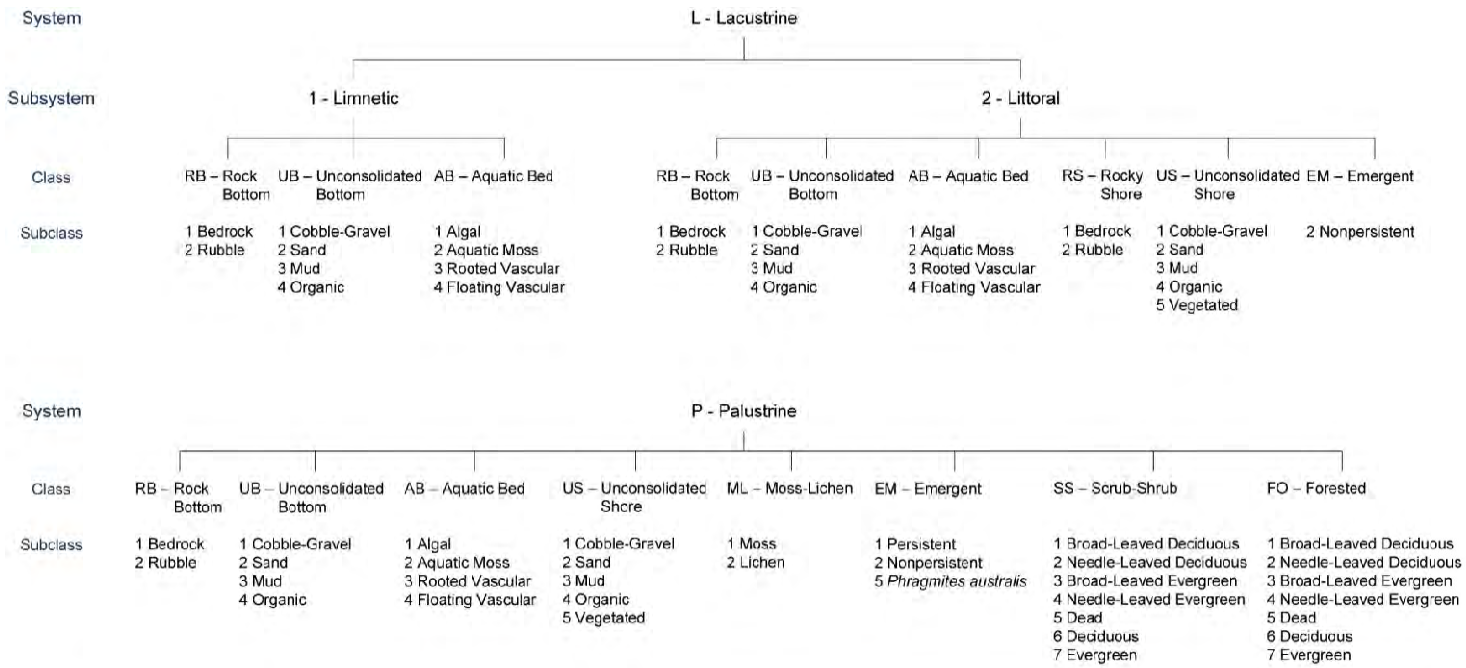
Signature of Narrator: _____ Date: _____

For SMCM: _____

Signature for SMCM: _____ Date: _____

APPENDIX IV
NWIS WETLAND CLASSIFICATION SCHEMA





MODIFIERS

In order to more adequately describe the wetland and deepwater habitats, one or more of the water regime, water chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy. The farmed modifier may also be applied to the ecological system.

Water Regime			Special Modifiers	Water Chemistry			Soil
Nontidal	**Saltwater Tidal**	**Freshwater Tidal**		**Coastal Halinity**	**Inland Salinity**	**pH Modifiers for all Fresh Water**	
A Temporarily Flooded	L Subtidal	S Temporarily Flooded-Tidal	b Beaver	1 Hyperhaline	7 Hypersaline	a Acid	g Organic
B Saturated	M Irregularly Exposed	R Seasonally Flooded-Tidal	d Partly Drained/Ditched	2 Euhaline	8 Eusaline	t Circumneutral	n Mineral
C Seasonally Flooded	N Regularly Flooded	T Semipermanently Flooded-Tidal	f Farmed	3 Mixohaline (Brackish)	9 Mixosaline	i Alkaline	
E Seasonally Flooded/ Saturated	P Irregularly Flooded	V Permanently Flooded-Tidal	h Diked/Impounded	4 Polyhaline	0 Fresh		
F Semipermanently Flooded			r Artificial	5 Mesohaline			
G Intermittently Exposed			s Spoil	6 Oligohaline			
H Permanently Flooded			x Excavated	0 Fresh			
J Intermittently Flooded							
K Artificially Flooded							

APPENDIX V
PROFESSIONAL QUALIFICATIONS

Scott Strickland

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

Virginia R. Busby, PhD
Hillside Consulting, LLC

PROFESSIONAL EXPERIENCE

2011-present **Principal/Owner, Hillside Consulting, LLC.** Cultural resource management/ compliance for federal, state, private clients; archaeology; historical research; heritage and eco-tourism planning, design, and implementation; public history, interpretive design for web-based and museum settings; tribal consultation support; land use planning and management; innovative and integrated preservation and conservation services for clients; grant writing.

2009-2011 **Program Manager, Army Compatible Use Buffer (ACUB) Program, U. S. Army Environmental Command,** APG, MD. Centrally managed active Army's nationwide ACUB program and staff for program that partners with conservation entities to provide compatible land uses off installations to protect on-post training capabilities. Involves Large Landscape conservation with bioregional and community planning approach working with varied stakeholders to meet mission training requirements including management for Endangered Species Act, National Historic Preservation Act, Clean Water Act.

2004-2009 **Program Manager, Archaeology and Native American Affairs, US Army Environmental Command**, APG, MD. Managed HQ Army-wide program within eco-system level, integrated approach. Developed policy, guidance. Monitored and evaluated regulatory impacts. Assisted installation compliance with NHPA, NAGPRA, EOs 13007 and 13175, ARPA, RFRA, and Service-level compliance. Prepared and reviewed compliance documents (NHPA, NAGPRA, NEPA). Conducted site assistance visits, program reviews. Evaluated installation funding requirements. Developed Army GIS quality assurance plans and spatial data standards. Managed American Indian, Native Alaskan, Native Hawaiian consultation, provided assistance to installations.

2002 – 2004 **Historic Preservation Specialist, Advisory Council for Historic Preservation Liaison to the U.S. Army for Archaeology and Native American Affairs, U. S. Army Environmental Center (AEC), APG, MD.**

1999-2002 **Executive Assistant for Native American Affairs/Archaeologist, Division of Historical and Cultural Affairs, Department of State, Dover, DE.**

1999-2001 **Senior Scientist/Archaeologist**, **Parsons Engineering Science, Inc., Fairfax, VA**

1994-2000 **Director, Chicone Indian Town Research Initiative, Dorchester Co., MD**

1998 **Archaeologist, The Thomas Jefferson Memorial Foundation, Monticello.**

1992-1997 **Archaeologist/Principal Investigator, The Cultural Resource Group, Louis Berger &**
Associates, Inc.

1992 **Museum Assistant, Haffenreffer Museum of Anthropology, Brown University**

1989-92 **Field Assistant/Instructor, St. Mary's College, St. Mary's City, Maryland**.
Archaeological Field School at Historic St. Mary's City.

1989 **Lab Assistant, Nautical Archaeology Labs, Texas A &M University.**

TEACHING and CURRICULUM DEVELOPMENT EXPERIENCE

2012-2014 **Elementary school homeschool teacher focus on Chesapeake Bay culture & ecology**.

2009-2011 **Mentor, U.S. Army Environmental Command/Oakridge Institute for Science and Education, Aberdeen Proving Ground, Md.** *Supervised graduate students in applied research within the Army Compatible Use Buffer Program at the U.S. Army Environmental Command, oversaw grad and post-grad applied research at installations.*

2002-09 **Instructor, U.S. Army Environmental Command/Oakridge Institute for Science and Education, Aberdeen Proving Ground, Maryland** *Cultural Resource Management, environmental, and land use planning for Army Installation managers.*

2006 **Course developer, Dept of Sociology, Harford Community College** *Archaeology of Maryland – designed to integrate practical experience with MHT/SHPO, archaeological society activities, current activities within state. (Course earned college award)*

2001 **Adjunct Professor, Dept of Anthropology, University of Virginia**
Contemporary Native American Issues – Designed /taught University's first course on indigenous issues: cultural resources, sovereignty, Treaty rights, environmental justice, landscape conservation, tribal economies include tourism, gaming, energy, banks.

1997-98 **Lecturer, Sociology & Anthropology Dept, Washington College, Chestertown, Md**
-Community/Nation/World Freshman Seminar: Cultures in Contact
-Archaeological Field School at Chicone Indian Town (in tribal cooperation)

1998 **Adjunct Professor, Dept of History, Salisbury State University, Salisbury, Md**
Culture Contact (Upper-level undergraduate/graduate course)

1995-97 **Instructor, Dept of Anthropology, University of Virginia**
Archaeological Field and Laboratory Methods

EDUCATION

2010	Ph.D.	Anthropology,	University of Virginia, Charlottesville
1998	M.A.	Anthropology,	University of Virginia, Charlottesville
1992	M.A.	Anthropology,	Brown University, Providence, Rhode Island
1990	B.A.	Anthropology,	Texas A & M University, College Station

COMMITTEES, BOARDS, ADVISORY POSITIONS

2014 – present **Chair, Board of Trustees, Accokeek Foundation, Prince Georges County, Md**
2012 - present **Chesapeake Conservation Partnership, MCIA representative**
2010 – present **NPS Capt. John Smith and Chesapeake Water Trail, Advisory Council member**
-member Indigenous Cultural Landscape working group
-member land conservation working group
2007-present **Governor appointed Commissioner, Maryland Commission on Indian Affairs**
-Lead, Indigenous Landscape Initiative
-Chair, Appropriate Place of Repose Working Group

AWARDS

2012 **Wilcomb E. Washburn Delmarva History Prize, Edward H. Nabb Center for Delmarva History and Culture at Salisbury University.** Dissertation recognized.

2011 **National Trust for Historic Preservation/Advisory Council for Historic Preservation Federal Partnership Award** for Innovative Preservation partnering between US Army, Virginia SHPO, Rappahannock Tribe, and The Conservation Fund for preservation of off-post National Historic Landmark Native American settlement/landscape combined with land conservation and Army mission buffering at Ft. A. P. Hill, Va.

JULIA ANN KING

EDUCATION:

Ph.D., 1990, Historical Archaeology, University of Pennsylvania, Philadelphia.
M.A., 1981, Anthropology, Florida State University, Tallahassee.
B.A., 1978, College of William and Mary, Williamsburg, Virginia.

TEACHING EXPERIENCE:

2013-present, Professor of Anthropology, St. Mary's College of Maryland, St. Mary's City, Maryland, 20686.
2006-2013, Associate Professor of Anthropology, SMCM.
2008-2012, Coordinator, Museum Studies Program, SMCM.

PROFESSIONAL EXPERIENCE:

1996 to 2006: Director, Maryland Archaeological Conservation Laboratory, Maryland Historical Trust, St. Leonard, Maryland, 20685.
1987 to 1996: Director of Research, Jefferson Patterson Park and Museum, St. Leonard, MD.
1978-1986: Numerous field crew and field supervisor positions, including Flowerdew Hundred, Governor's Land, St. Augustine, St. Mary's City.

OTHER POSITIONS:

2003 President, Society for Historical Archaeology (www.sha.org).
2003-2011 Member, President's Advisory Council on Historic Preservation (www.achp.gov).

GRANTS, AWARDS, and FELLOWSHIPS:

2013-2014 Maryland Historical Trust, *An Archaeological Survey of Piscataway Landscapes.*
2012-2014 National Endowment for the Humanities, Division of Collaborative Research, *The Lower Potomac River Valley at Contact, 1550-1720.*
2005-2007 National Endowment for the Humanities, Division of Preservation and Access. : *Developing a Records Database for the State of Maryland's Archaeological Collections*.
2002-2005 National Endowment for the Humanities, Division of Collaborative Research. *A Comparative Archaeological Study of Colonial Chesapeake Culture*.
2002 Research Fellow, Henry Francis duPont Winterthur Museum, Winterthur, Delaware.
2001-2003 National Endowment for the Humanities, Division of Preservation and Access. *Developing a Digital Catalog for the State of Maryland's Archaeological Collections*.
2000 Andrew Mellon Fellow, Virginia Historical Society, Richmond.
1999 Research Associate, The Colonial Williamsburg Foundation, Williamsburg, Va.
1994 Fellow in Landscape Architecture Studies, Dumbarton Oaks, Washington, D.C.

PROFESSIONAL MEMBERSHIPS and SERVICE:

Society for Historical Archaeology, Member, Director (1997-2000), President (2003)
Society for American Archaeology, Member
Council for Northeast Historical Archaeology, Member, Director (1991-94, 1995-98)
Southeastern Archaeological Conference, Life Member
Register of Professional Archaeologists, Member
American Anthropological Association, Member

PEER-REVIEWED PUBLICATIONS:

2012 *Archaeology, Landscape, and the Politics of the Past: The View from Southern Maryland*. University of Tennessee Press, Knoxville.

2009 Archaeological Collections, Government Warehouses, and Anxious Moderns: The Maryland Archaeological Conservation Laboratory. *Archaeologies, Journal of the World Archaeological Congress* 4(2):264-285.

2007 Still Life with Tobacco: The Archaeological Uses of Dutch Art. In Diana DiPaolo Loren and Uzi Baram, editors, *Between Art and Artifact: Approaches to Visual Representations in Historical Archaeology*. *Historical Archaeology* 41(1):6-22.

2006 Household Archaeologies, Identities, and Biographies. In Mary C. Beaudry and Dan Hicks, editors, *Cambridge Companion in Historical Archaeology*, pp. 293-313. Cambridge University Press, New York.

1997 Tobacco, Innovation, and Economic Persistence in Nineteenth Century Southern Maryland. *Agricultural History* 71(2):207-236.

1996 'The Transient Nature of All Things Sublunary': Romanticism, History and Ruins in Nineteenth Century Southern Maryland. In Rebecca Yamin and Karen Bescherer Metheny, eds., *Landscape Archaeology: Reading and Interpreting the American Historical Landscape*, pp. 249-272. Knoxville, University of Tennessee Press.

1994 Rural Landscape in the Mid-Nineteenth Century Chesapeake. In Barbara J. Little and Paul A. Shackel, eds., *Historical Archaeology of the Chesapeake Region*, pp. 283-299. Washington, D.C., Smithsonian Institution Press.

1984 Ceramic Variability in Seventeenth Century St. Augustine, Florida. *Historical Archaeology* 18(2):75-82.

with Dennis B. Blanton, co-editors

2004 *Indian and European Contact in Context: The Mid-Atlantic Region.* Gainesville, University Press of Florida.

with Edward E. Chaney

2004 Did the Chesapeake English Have a Contact Period? In Dennis B. Blanton and Julia A. King, eds., *Indian and European Contact in Context: The Mid-Atlantic Region*, pp. 193-221. Gainesville, University Press of Florida.

1999 Lord Baltimore and the Meaning of Brick Architecture in Seventeenth Century Maryland. In Geoff Egan and Ronald L. Michael, eds., *Old and New Worlds*, pp. 51-60. Oxford, CT, Oxbow Books.

with Henry M. Miller

1987 The View from the Midden: An Analysis of Midden Distribution and Composition at the van Sweringen Site, St. Mary's City, Maryland. *Historical Archaeology* 21(2):37-59.

with Thao T. Phung and Douglas H. Ubelaker

2009 Alcohol, Tobacco, and Excessive Animal Protein: The Question of an Adequate Diet in the 17th-Century Chesapeake. *Historical Archaeology* 43(2):62-83.