National Park Service
U.S. Department of the Interior

A Conservation Strategy

for the

Captain John Smith Chesapeake National Historic Trail

Prepared in collaboration with the
Chesapeake Conservancy

"The six and twentieth day of April, bout four o'clock in the morning, we descried the land of Virginia; the same day we entered into the Bay of Chesupioc directly without any let or hindrance; there we landed and discovered little way, but we could find nothing worth the speaking of but fair meadows and goodly tall trees, with such freshwaters running through the woods as I was almost ravished at the first sight thereof."

Captain John Smith
John Smith in the Chesapeake

A Conservation Strategy

for the

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National Park Service
U.S. Department of the Interior
Chesapeake Bay Office
Annapolis, Maryland

Chesapeake Conservancy
Annapolis, Maryland

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Development of this Strategy

This *Conservation Strategy for the Captain John Smith Chesapeake National Historic Trail* was developed by the National Park Service in close collaboration with the Chesapeake Conservancy and the trail's Advisory Council.

The Advisory Council, whose members are appointed by the Secretary of the Interior, represents a wide range of state and federal agencies, non-governmental organizations, and citizens. In developing this strategy, the planning team consulted closely and regularly with the Advisory Council and its Land Protection Committee (which included representatives of state land conservation agencies). In 2011/2012 Advisory Council members were:

Suzanne Baird	US Fish and Wildlife Service
Deanna Beacham	Virginia Council on Indians
Hedrick Belin	Potomac Conservancy
Virginia Busby	Maryland Commission on Indian Affairs
Wilton Corkern	Accokeek Foundation
Bill Daisey	Nanticoke Indian Association
Jim Edward	US Environmental Protection Agency - Chesapeake Bay Office
John Griffin	Maryland Department of Natural Resources
Elizabeth Hughes	Maryland Historic Trust
David A. Johnson	Virginia Department of Conservation and Recreation
Kathleen Kilpatrick	Virginia Department of Historic Resources
Mary Ann Lisanti	Lower Susquehanna Heritage Greenway
John Maounis	National Park Service Chesapeake Bay—Designated Federal Official
Drew McMullen	Sultana Projects, Inc.
Susan Moerschel	Delaware Department of Natural Resources & Environmental Control
Kim Nielsen	Department of Defense
Patrick Noonan	The Conservation Fund
Richard Pearsall	Onancock Historic District
Bill Pencek	Maryland Office of Tourism Development
John Reynolds	Student Conservation Association
Peyton Robertson	National Oceanic and Atmospheric Administration, Chesapeake Bay Office
Charlie Stek	Chesapeake Conservancy
Bill Street	James River Association
Ann Swanson	Chesapeake Bay Commission

The Chesapeake Conservancy, through a cooperative agreement with the National Park Service, provided key expertise and information for developing the strategy.

Principal Planning Team

Michael Clarke, Consultant to the Chesapeake Conservancy
Jonathan Doherty, Assistant Superintendent, National Park Service - Chesapeake Bay Office
Warren Brown, National Park Service

For More Information

Superintendent
National Park Service Chesapeake Bay
410 Severn Avenue, Suite 314
Annapolis MD 21403
410-260-2470

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Introduction

The Captain John Smith Chesapeake National Historic Trail commemorates the voyages of Captain John Smith and his crew as they explored the Chesapeake Bay between 1607 and 1609. The more than 2,000-mile trail was established in 2006 as part of the National Trails System and became America's first national water trail. Managed by the National Park Service, the trail traces Smith's routes and the key rivers linked to them, helping visitors imagine the world he encountered more than four hundred years ago. Modern-day explorers travel the trail on land and water, enjoying a variety of recreational experiences at places reminiscent of the Bay in the seventeenth century. The trail is a touchstone for the nation's past, but also a means to experience the Chesapeake's natural beauty and to learn from American Indians who continue to live in the region today.

This document sets out a long-term strategy for conserving lands important to the visitor experience of the John Smith Trail. Its purpose is several-fold:

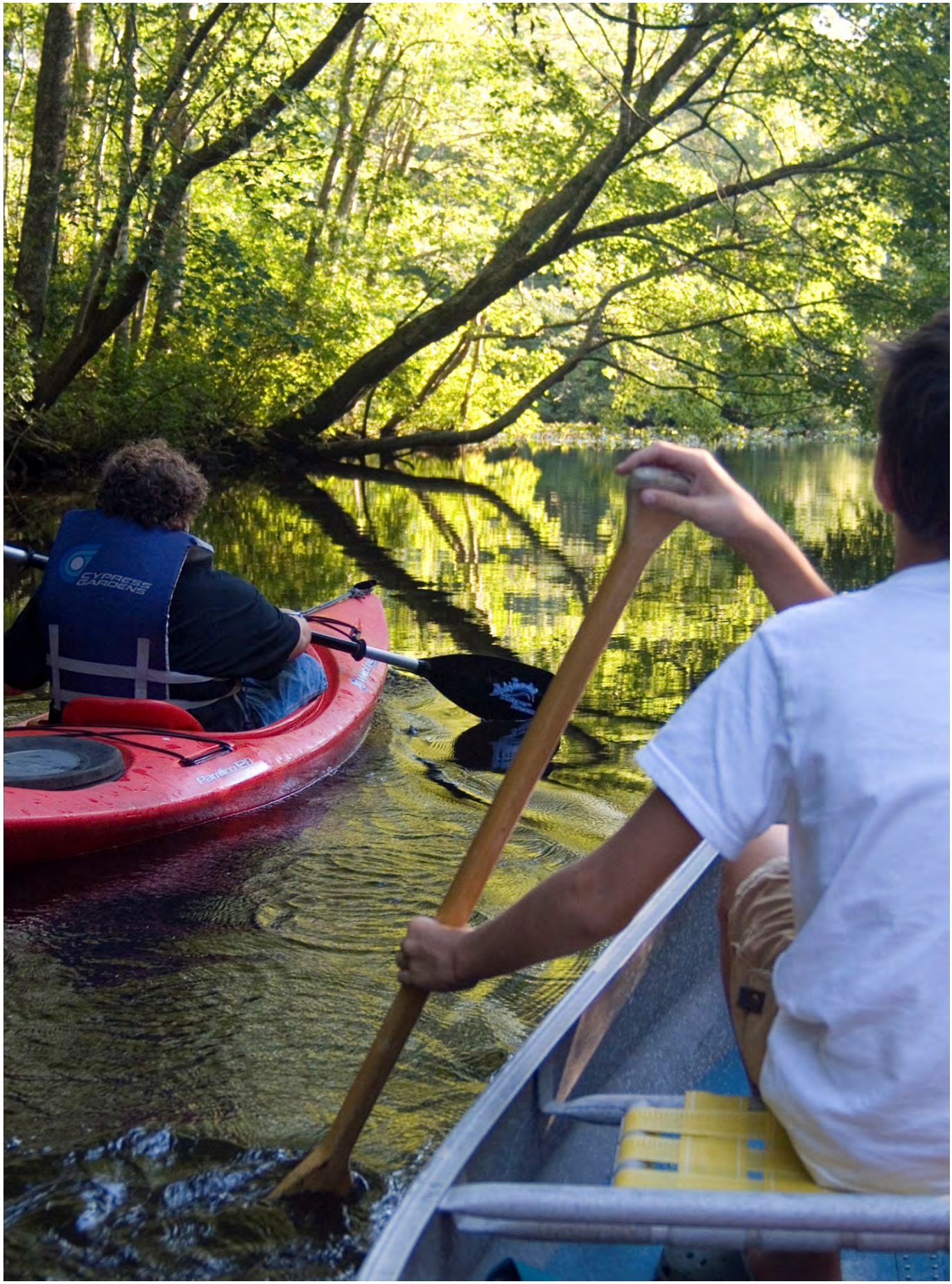
* Further define the trail's most important resources and their locations, based on parameters set in the trail's *Comprehensive Management Plan*.
* Set out a consistent approach for assessing trail resources and their conservation needs.
* Encourage local, state, and federal partners to protect trail resources as a core part of broader land conservation efforts.
* Provide guidelines for implementing conservation through collaborative actions of the National Park Service and its partners.

In short, this *Conservation Strategy* provides the means for defining priority conservation areas relative to the trail and designing appropriate conservation methods. Its focus is on saving the places that enrich visitor experiences and recreation along the trail and that contribute synergy to the many programs working to improve quality of life along the Chesapeake Bay and its rivers.

Foundation

The *Comprehensive Management Plan* (CMP) for the John Smith Trail was finalized in February 2011 following an intensive public planning process. The CMP is the overarching guide for trail development, management, and protection. Implementation plans, including segment plans and this *Conservation Strategy,* build off the CMP and are covered by it for compliance purposes (i.e. NEPA and section 106 of the National Historic Preservation Act). The CMP sets out the following parameters of particular importance to this document.

Figure i-1. Captain John Smith Chesapeake National Historic Trail


CYPRESS GARDENS

Trail Resources

The CMP defines seven principal types of trail-related resources[1] [see endnotes at end of Introduction].

1. *John Smith voyage stops*: Locations where Smith and his crew stopped during the 1607-1609 voyages.
2. *Evocative landscapes:* Visible shoreline generally evocative of the seventeenth century encompassing stretches where the shoreline is relatively free from intrusion by modern development and offers visitors an opportunity to vicariously share the experience of Smith and his crew. Such shorelines are primarily composed of wetland and forest vegetation.
3. *Indigenous cultural landscapes*: Landscapes generally encompassing cultural and natural resources that would have likely been associated with, and supported, the historic lifestyle and settlement patterns of American Indians and that exhibited their cultural or esthetic values at the time of early European contact.
4. *Historic American Indian town sites*: Historic American Indian town sites including, but not limited to, those mapped in *John Smith's Chesapeake Voyages 1607 – 1609* (Rountree et al. 2007), *John Smith in the Chesapeake* (Haile 2008), and others.
5. *Significant seventeenth-century American Indian archeological sites*: Sites listed on the National Register of Historic Places, or determined to be eligible for listing, which offer an opportunity to tell important stories of the native peoples who lived in the Chesapeake when John Smith arrived.
6. *Landscape features and cultural sites of significance to modern American Indian tribes:* Sites which consultation or scholarly research has documented as culturally significant to modern Chesapeake Bay tribes, having an historical connection to a 17th century tribe and in proximity to the Smith voyage route.
7. *Cross sites*: Twenty-five general locations in proximity to the trail where Smith's maps indicate that he or others placed a brass cross, marking the limits of their exploration. These sites are generally known on the basis of interpretation of Smith's maps, his journal writings, and scholarly research.
8. *Public access sites*: Places where the public can view Smith's voyage routes from the land or gain physical access to the water along voyage routes for boating, fishing, swimming, or other recreational use.

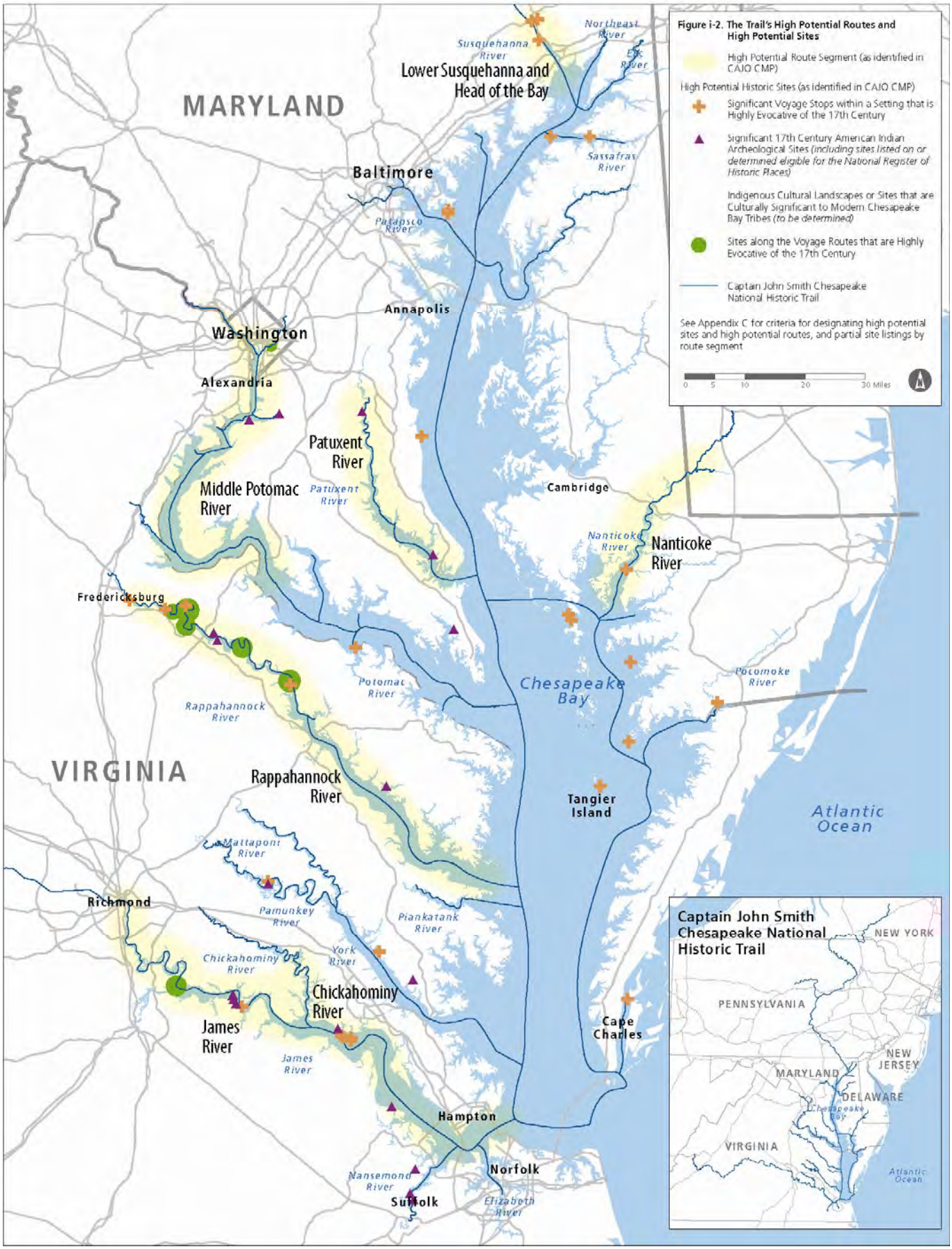
These resources form the basis for the visitor experience along the trail, and thus the basis for conservation.

High-Potential Route Segments and High-Potential Historic Sites

As required by the National Trail System Act (NTSA), the trail's *Comprehensive Management Plan* defines "high-potential route segments" and "high-potential historic sites."[2] Their relevance is summarized as follows:

> *All segments of the trail have the potential to provide important opportunities for visitors to experience the world encountered by John Smith and his crew as they explored the Chesapeake Bay. Those trail segments or sites along the trail that meet criteria for designation as high-potential*

Figure i-2. The Trail's High–Potential Routes and High-Potential Sites



historic sites and high-potential route segments, offer exceptional opportunities for visitors to vicariously share the experience of John Smith and his crew. Because these sites and segments are exceptional, trail management actions would place priority on protecting their associated resources and values that are fundamental to the trail and on enhancing the opportunities which visitors have to experience those resources and values.

Pursuant to Section 7(g) of the NTSA, as amended, future potential direct federal acquisition (i.e., purchase by the United States) for trail purposes would be limited to those areas designated as high-potential historic sites and high-potential route segments. High-potential historic sites and high-potential route segments would be higher priorities for trail development, including:

* *Management unit planning*
* *Public access development*
* *Interpretive media and programming*
* *Resource protection (emphasis added)*[3]

The CMP designated seven high-potential route segments and sixty-eight high-potential historic sites (see figure i-2). These are the starting points on which this strategy is based. Importantly, the CMP notes the potential for designating additional high-potential route segments and/or high-potential historic sites.[4, 5]

Relationship to Segment Plans and Trail Development

The CMP recognizes the vast scale of the John Smith Trail and lays out an approach to trail planning and management based on trail segments. It calls for segment plans to address trail development, protection, and management issues at a finer level of detail.[6] To date, one segment plan has been completed—for the tidal James River segment of the trail—and additional segment plans are scheduled. It is important to note that while this *Conservation Strategy* will influence future segment plans, they, in turn, will provide opportunities for refining conservation priorities specified in either the CMP or this strategy.

Land Conservation Strategy Guidance

In accordance with the national scenic and national historic trails provisions of the NTSA (Section 5), this document provides further strategy guidance in developing a protection plan for high potential-historic sites or high-potential route segments. The trail's *Comprehensive Management Plan* specifically calls for the following conservation strategy.

> *The strategy would identify lands of conservation interest and would include specific techniques to be used to protect them (see appendix K). Priority would be placed on protecting evocative landscapes, voyage stops, and sites that provide public access to evocative landscapes and voyage stops, particularly those that are along high potential route segments and that are designated as high potential historic sites. Priority would also be placed on protecting sites that provide access to the trail for recreation, including: 1) pull-offs that provide visual access to the trail, 2) trailheads from which trails provide access to the trail, 3) day-use facilities, 4) boat launches, and 5) primitive campsites.*[7]

The CMP calls for a broad, comprehensive approach to protection. It is intended to be collaborative, engage many partners, and encompass a range of strategies that include: promoting public awareness, recognizing the trail in public policy, strategic conservation planning, landowner assistance, and land protection through conservation easements and fee-interest acquisitions.[8] The CMP also states that federal acquisition would only occur for sites with a willing seller and with special importance to the CMP's implementation.[9] Environmental and other compliance considerations for this plan are addressed in the environmental assessment accompanying the CMP.

Overview of the Strategy

This strategy is organized in the following five chapters:

Chapter 1: *The Visitor Experience as the Driver for Land Conservation* describes the centrality of the visitor experience to land conservation along the trail and how to understand the trail's varying landscape settings.

Chapter 2: *Trail Resources and Their Protection Status* broadly summarizes the "state-of-the-trail" in terms of its permanent protection. It presents a framework for understanding resource protection issues, considering: 1) the extent to which lands are already permanently protected by conservation easements or public and non-profit ownership, 2) regulatory mechanisms in place to guide development along the trail, and 3) the relevance of landowner circumstances in terms of their potential willingness to protect the trail corridor.

Chapter 3: *Identifying Conservation Focus Areas* describes an approach to identifying potential conservation focus areas as determined by resource conditions and protection needs associated with "visitor itineraries." It depicts the trail's initial focus areas, based upon that approach.

Chapter 4: *A Partnership Model for Conserving Trail Resources* presents an approach to conserving trail resources within the context of conservation focus areas. It describes seven types of collaboration among partners with complementary goals and capabilities.

Chapter 5: *Implementation* describes a series of initial actions the National Park Service intends to work on with partners to begin carrying out this strategy in the near term.

These chapters provide the trail's conservation partners with a guide for focusing on specific conservation priorities within manageable segments of the larger John Smith Trail.

Introduction Endnotes

1. CMP, pages 2-29 to 2-30
2. CMP, section 2.4.2
3. CMP, pages 2-28 to 2-29
4. CMP, page 2-34: "Future research and field study, changing environmental conditions, addition of public access sites, additional land protection, and/or development of new water trails and partnerships could support designation of additional high-potential route segments . . . [or] high-potential historic sites."
5. In May 2012, Secretary of the Interior Ken Salazar designated four connecting trails as new components of the John Smith Trail, including the Susquehanna River from near Conowingo Dam to Cooperstown, New York; the Upper James River from Richmond to Irongate, Virginia; the Chester River in Maryland; and the Upper Nanticoke River in Delaware. Those new segments have not yet been evaluated for the presence of high-potential route segments or high-potential historic sites.
6. CMP, page 2-12
7. CMP, section 2.5.1.
8. CMP, Appendix K-3
9. CMP, page 3-30

Chapter 1

The Visitor Experience as the Driver for Land Conservation

While visitors may experience the John Smith Trail in a variety of ways, a primary objective is for people to "visit trail segments and sites and embark on their own journeys of discovery through self-guided and/or guided experiences."[1] In fact, the CMP recognizes visitors and their experiences as central to the purpose of the trail.

The promise of the Captain John Smith Chesapeake National Historic Trail, then, is to help the millions of people in the region, and elsewhere, experience, envision, come to understand, and care to protect what the explorers and the inhabitants of the region saw four hundred years ago:

* By expanding access to the Bay and rivers
* By protecting special places reminiscent or evocative of those times
* By educating the public of the importance and exceptional nature of the region, its people, and its resources
* By providing recreational experiences throughout the region
* By creating partnerships amongst the many citizens, groups and jurisdictions to realize the vision
* By instilling awe and reverence for the special places in the Chesapeake region[2]

This has direct implications for land conservation: the focus is on saving the places that enrich visitors' experiences and recreation along the trail. In particular, this means the "special places reminiscent or evocative" of the early seventeenth century — with compelling stories linked to Smith's voyages, American Indians, and the natural environment — and locations that will expand public access to the trail.

Landscapes Supporting Visitor Experiences

The landscape and resources that create the setting for a visitor's experience have a dominant effect on that experience. Thus, the trail landscape must be viewed from the visitor's perspective.

The accompanying photos (pages 8-10) illustrate a few examples of visitors in the context of landscapes and resources along the trail. Figure 1-1 conceptually illustrates the visitor in relation to the trail corridor and shows the trail-related resources recognized in the CMP that contribute to the visitor experience. These include important site-based resources, such as a voyage stops, archeological sites, and public access sites.

A dominant influence on a visitor's experience is the trail viewshed — those lands that can be seen from the trail, which can vary significantly in extent and location. The viewshed can be simulated with GIS software to provide a generalized representation, but its accurate delineation requires relatively specific information about the observer's location, height above the water, and the season of the year (i.e., with or without foliage). Moreover, land-based visitors experiencing the trail will have a different viewshed than those on the water. The following two overlapping categories of landscapes provide the trail's most important historical character.

Evocative Landscapes: The CMP establishes "evocative landscapes" within view of the trail as a subset of the trail's viewshed and a primary trail resource. Evocative landscapes are "places possessing a feeling that expresses the aesthetic or historic sense of a particular period of time. This feeling results from the presence of physical features that, taken together, convey a landscape's historic character."

Evocative landscapes are areas visible from the trail route where the natural setting remains generally

free from intrusion by modern development — where the landscape encompasses water, wetlands and wooded shores affording an opportunity for visitors to vicariously share the experiences of Smith, his crew, and American Indians in the seventeenth century.

More than any other resource along the trail, evocative landscapes provide visitors with an impression of what the Chesapeake was like during Smith's time. Some portions of the trail include significant, large stretches of these landscapes, while others may have smaller more fragmented sites.

Indigenous Cultural Landscapes: These landscapes generally encompass the cultural and natural resources that would have been associated with and supported the historic lifestyle and settlement patterns of American Indians at the time of European contact. American Indians lived around the Chesapeake and its tributaries within large, varied landscapes, using different parts of those landscapes in different ways — for obtaining food, medicine, and clothing; for making tools and objects related to transportation and the household; for agriculture; and for settlements.

In many cases, the evocative landscapes noted above are also indigenous cultural landscapes, given American Indian use of waterways, wetlands, and forest resources. For example, the marshes along the Chickahominy River in Virginia — so important for retaining a sense of what the area was like four hundred years ago — were used as locations for procuring specific foods and materials at the time. Indigenous cultural landscapes provide another way of understanding and appreciating these resources. They may also be important to American Indian communities in the area today. To date, cultural landscapes have not been systematically inventoried. Separate from this conservation strategy, work is proceeding to identify such landscapes along the trail.

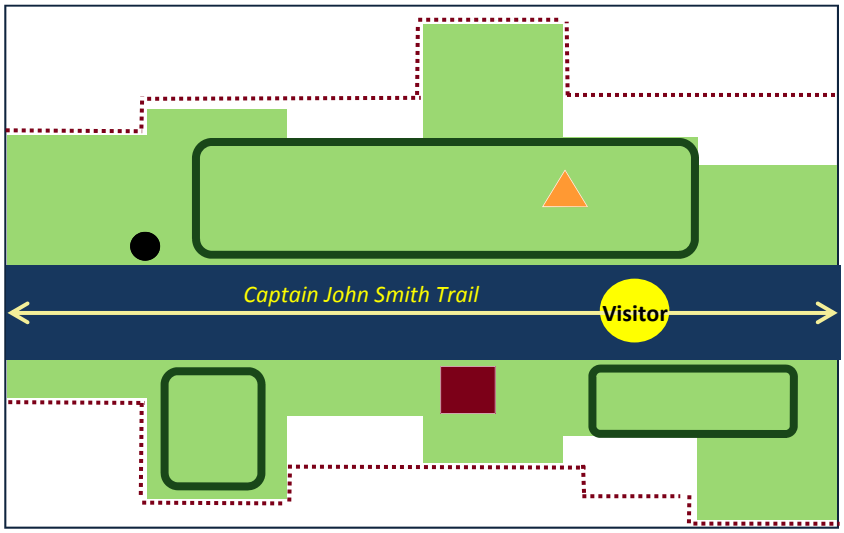
The overall *trail corridor* is defined as lands coinciding with, contiguous to, or near the trail's viewshed that encompass evocative landscapes, indigenous cultural landscapes, archeological sites and other features identified as trail resources. Together, these resources define the character of the landscape that shapes the visitor experience.

Not all settings along the trail are equal from the visitor's perspective. They vary substantially, depending upon the extent to which they are intact. Fragmentation is evidenced by modern intrusions into a natural wooded or marshy landscape. Trail settings can be categorized on that basis. Illustrations in Figure 1-2 (page 17) depict four degrees of landscape integrity ranging from "relatively intact" to "largely absent." Settings that are relatively intact or somewhat fragmented provide the highest level of opportunity for visitors to experience the trail as Smith and seventeenth-century American Indians may have seen it.

Figure 1-1
Conceptual diagram of trail resources potentially contributing to the visitor experience

Note: Indigenous cultural landscape features not illustrated

	Viewshed
	Evocative Landscape
	Archeological Site
	John Smith Voyage Stop
	Public Access Site
	Trail Corridor



In this view along a portion of the trail, the evocative landscape is very limited or absent. Modern development—housing, bulkheading, docks, removal of native vegetation—is the dominant visual feature.

Developing a consistent and relatively uncomplicated approach to identifying and assessing evocative landscapes provides an important foundation for the trail's conservation strategy. Towards that end, the following classifications characterize the extent to which evocative landscapes are intact or fragmented.

A. Relatively Intact Landscapes
The corridor is in a wetland or woodland setting. It may include small patches of agricultural or post-agricultural clearings, as well as a small number of structures, provided they are visually unobtrusive from the trail. Occasional docks and other shoreline improvements such as boathouses may exist if they do not represent significant visual intrusions to the trail experience.
Guideline: more than 85 percent intact.

B. Somewhat Fragmented Landscapes
The corridor is primarily in a wetland or woodland setting, with some intrusions associated with agriculture, residential uses, marinas, and other development, while still enabling trail users to generally have an evocative landscape experience.
Guideline: approximately 65 to 85 percent intact.

C. Extensively Fragmented Landscapes
The corridor is in a mixed setting of natural, agricultural, and developed areas occurring in a patch-like pattern. This category applies to a wide range of conditions along the trail.
Guideline: approximately 25 to 65 percent intact.

D. Very Limited or Absent Landscapes
The corridor's wetlands and woodlands are limited to relatively small patches within a setting dominated by developed areas and/or agricultural lands. Nevertheless, trail users can still experience meaningful evocative landscapes at individual sites, particularly those offering interpretive stories related to those sites.
Guideline: generally under 25 percent intact.

The percentages are general guides that can be adjusted to reflect specific circumstances. However, to the extent possible it is desirable to maintain some trail-wide consistency. Ideally, a particular category should represent the same conditions regardless of trail location. The categories do not consider specific landscape condition, e.g., vegetation types or their health, nor do they suggest generic conservation priorities. For example, a rationale to always prioritize intact landscapes may overlook the importance of preserving a significant interpretive site within an extensively fragmented landscape. Such assessments require careful consideration in strategic conservation planning, as described in chapter 4.

Figure 1-2. Landscape integrity categories

A Good Story

Ensuring opportunities for visitors to understand the landscape in terms of Smith's voyages, American Indian cultures, and the natural history of the seventeenth century is a key trail objective. The greatest opportunities lie within evocative landscapes with compelling stories. Such stories are most likely to be associated with documented information on events, sites, and features within the landscape. The location of a significant voyage stop, a documented American Indian town site, or a four-hundred-year-old bald cypress provides context to the visitor experience. In some cases, the site or feature and its associated story may be so significant that the feature becomes a conservation priority, regardless of the character of the landscape setting.

The Importance of Public Access

Visitors can only experience places they can reach. For the John Smith Trail, this largely means having access to sites along the water and to the water itself. Access along a water trail does not imply visitors must have physical access to all lands along the shoreline, but they must be able to view the shoreline and its surrounding landscape from the water and enjoy convenient physical access at key locations. Currently, more than 600 public access sites occur along the John Smith Trail. While this may seem like a high number, it fails to adequately serve the trail's vast length. Up to half of these sites do not provide boat launch or landing facilities. Numerous stretches have no public access to the water for ten, twenty, or even sixty miles of shoreline, thereby limiting them to visitors with access to a motorized boat — a small percentage of potential trail visitors. In addition, the CMP recognizes that launching a motorboat, canoe, or kayak is not the only experience visitors desire. They also want the opportunity to camp, fish, or walk along the trail; these can be even more limited than launch sites.

Although access opportunities must be improved, many existing access sites already support visitor experiences along the trail — and potentially high quality experiences when they coincide with evocative landscapes and the resources and information that support good stories. These areas may become a focus for conservation efforts.

However, some evocative landscapes with strong stories may currently have little or no public access. If access were available, some of these areas could provide high quality experiences. Developing public access to those areas should also be a focus for conservation efforts.

The Most Important Lands for Maintaining or Enhancing Visitor Experiences

The most important lands for maintaining or enhancing visitor experiences would have the following characteristics:

- They are along high-potential route segments or in association with high-potential historic sites.
- They comprise all or part of a landscape evocative of the seventeenth century along the trail.
- They are loci for interpreting and understanding specific, compelling, place-based stories associated with Smith's voyages, American Indian cultures, and/or the natural history of the seventeenth century.
- They offer opportunities for the public to visit and experience the landscape and its associated stories and to enjoy recreation in the area, both from the water and at key locations on land. If the landscape is not currently accessible, the provision of new access would expand those opportunities.

Chapter 1 Endnotes

1. CMP, pages 2-14
2. CMP, page 1-1
3. CMP, page 2-33
4. Delineation of the corridor should be based upon the best available data layers on the location and extent of trail resources, used in combination with field observations. Development of a consistent and practical methodology for defining the trial corridor will evolve with segment management plans and the trail's conservation focus areas (see chapters 3 and 4)

Chapter 2

Trail Resources and Their Protection Status

As described in chapter 1, evocative landscapes—more than any other resource on the trail—give visitors an impression of what the Chesapeake was like four hundred years ago. This chapter provides context for understanding how those landscapes are currently protected, thereby establishing a foundation for assessing potential conservation focus areas and conservation partnership initiatives described in chapters 3 and 4. Based upon limited available data, it also provides a glance at the current "state of the trail" in terms of the extent to which the shoreline along key segments of the trail is permanently protected.

Context for Understanding Trail Protection Status

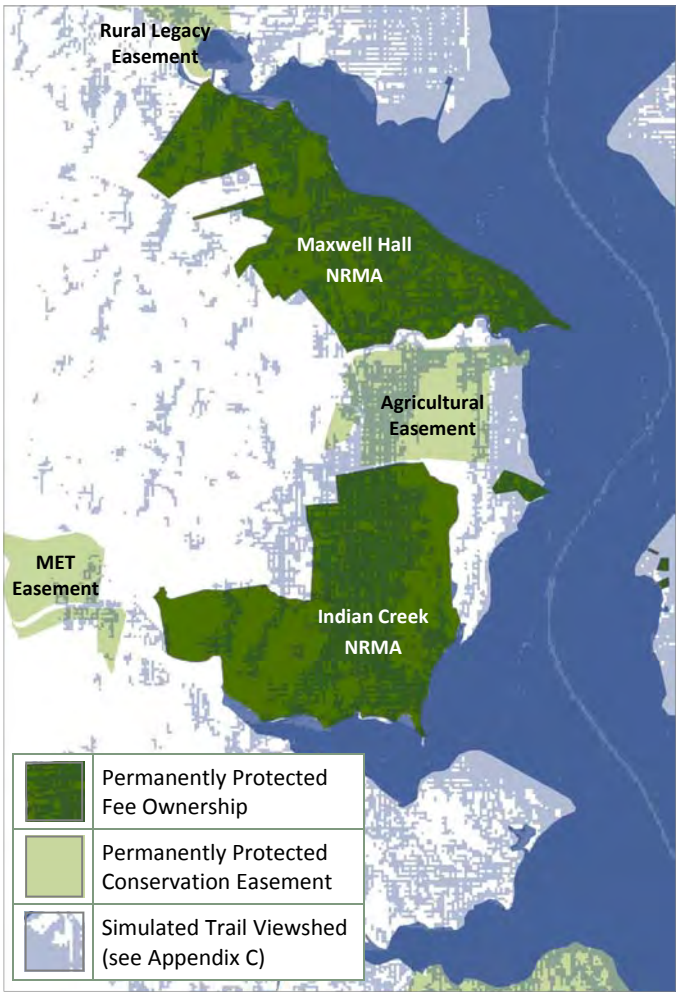
A useful context for understanding the status of trail protection includes consideration of: 1) the extent to which lands are permanently protected by conservation easements or public and nonprofit ownership, 2) the contribution of state and local regulatory mechanisms that guide development along the trail, and 3) landowners' circumstances and interests influencing their willingness to protect the trail corridor.

Permanently Protected Lands

In 2000, the Chesapeake Bay Program adopted a definition of permanent protection as *land permanently preserved from development with a perpetual conservation or open space easement or fee simple ownership, held by a federal, state, or local government or nonprofit organization for natural resource, forestry, agriculture, wildlife, recreation, historic, cultural, or open space use, or to sustain water quality and living resource values.*[1] In recent decades, progress has been made to permanently protect lands in the Chesapeake Bay region. As of 2011, approximately 20 percent of the Chesapeake watershed was permanently protected.

Permanently protecting all lands within the trail viewshed would be an impractical and inappropriate goal, as the trail corridor contains many developed areas. A more realistic goal is to selectively protect lands contributing substantively to the trail experience due to their resource values and public access potential.

Figure 2-1. Mix of permanently protected and other lands along the trail—Patuxent River



Protecting resources through conservation easements generally costs less and provides opportunities for continued private ownership. Therefore, long corridors are often better suited for such easements than outright purchase—except in situations where providing public access or protecting a particularly sensitive site (e.g. a unique archaeological resource) are the conservation objectives. Easements have been used for decades and are familiar to many landowners. They have contributed to protecting hundreds of thousands of acres of shorelines, forests, wetlands, agricultural lands, and other resources throughout the watershed.

While many conservation easements within the trail viewshed undoubtedly benefit the trail, few were drafted with the trail in mind. In some instances, potential activities allowed by such easements may not necessarily be compatible with desired conditions for the John Smith Trail. They might include insufficient limits on the number, size, and location of structures and forest disturbance to sustain evocative landscapes. There are several approaches that could be taken to incorporate trail resources into future conservation easements, including working with the land trust community on standard or model easement language (see chapter 4).

Regulatory Mechanisms

Approximately 30 counties, as well as several cities in Maryland, Virginia, and Delaware, have jurisdiction over development regulations applicable to lands along the trail route in the tidal Chesapeake. Those regulations incorporate, or are administered in coordination with, federal and state requirements and guidelines related to shorelines, wetlands, forests, stormwater runoff, pollutant discharges, and other actions.

Particularly important to the trail are Virginia's Chesapeake Bay Preservation Act and Maryland's Chesapeake Bay Critical Area Protection Act (see Figure 2-2). They establish shoreline management systems implemented largely by local governments involving the designation of resource protection areas, limited development areas, and intensely developed areas. Performance standards and guidelines associated with those designations include development setbacks, maximum impervious coverage, and residential density limitations.

Similarly, wetland regulations established under the federal Clean Water Act and the Rivers and Harbors Act contribute to protecting important trail resources. Administered by the US Army Corps of Engineers in coordination with the states and local jurisdictions, they regulate activities such as dredging, filling, and developing tidal and non-tidal wetlands.

Virginia, Maryland, and Delaware maintain policies, regulations, and technical and financial assistance programs intended to protect forests and encourage best management practices with respect to forest harvesting and timber stand improvement. They either require or encourage the adoption of forest conservation plans. Comparable regulatory mechanisms are in place in Pennsylvania and Delaware. Whereas Delaware regulations

Figure 2-2. Examples of statewide shoreline protection regulations[1]

Maryland's Critical Area Act (est. 1984)

All lands within 1,000 feet of the edge of tidal waters, or from the landward edge of adjacent tidal wetlands, and all tidal waters and lands under those waters and wetlands are designated as a "Critical Area."

Zones within the Critical Area

Resource Conservation. Areas characterized by nature-dominated environments, such as wetlands, forests and abandoned fields, and resource utilization activities such as agriculture, forestry, fisheries, and aquaculture.

Limited Development. Areas developed at low or moderate intensity, containing areas of natural plant and animal habitats, and the quality of runoff has not been substantially altered or impaired.

Intensely Developed. Areas where residential, commercial, institutional and industrial land uses predominate and there is relatively little natural habitat.

Virginia's Chesapeake Bay Preservation Act (est. 1988)

Resource Protection. Land at or near the shoreline having intrinsic water quality value due to ecological and biological processes, including: tidal shore and wetlands, perennial water bodies, and contiguous non-tidal wetlands. 100-foot buffer areas are required for these RPA components with provisions for limited sightlines for waterfront views.

Resource Management. Areas that, if improperly used, have a potential for causing significant water quality degradation or diminishing the functional value of Resource Protection Areas. They include floodplains, highly erodible soils, highly permeable soils and non-tidal wetlands (not included in the RPA).

Intensely Developed. Lots in areas of concentrated development existing prior to November, 1990, provided that: 50 percent or more of the lot is impervious, is served by public sewer and water, and the density in the area of lot is less than 1/4 acre.

are state- or county-based, Pennsylvania has municipal-based codes, reflecting the role of the Commonwealth's many municipalities in land-use controls.

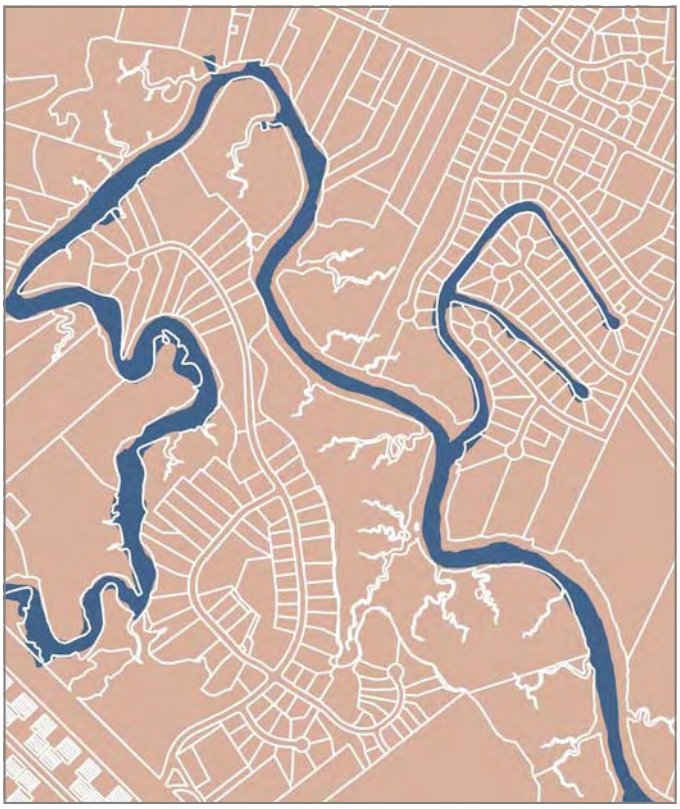
Federal, state, and local regulations contribute significantly to conserving trail resources, but most are oriented towards environmental concerns, rather than cultural and scenic values. The National Park Service and trail partners should consult with regulatory agencies to explore the feasibility for assessing trail resources in their permitting processes.

Interests and Circumstances of Private Landowners

Protecting the trail's evocative landscapes and other high-potential sites ultimately requires an understanding of the interests and circumstances of private landowners and the characteristics of their properties. Given that the trail is relatively new, many landowners may be unaware that they are "on the trail." Therefore, the extent to which the trail may currently influence their outlook and decision-making is uncertain. Some landowners may be motivated to conserve trail resources because they coincide with their own preservation goals, which benefit both their properties and the surrounding community.

Many landowners are inherently good stewards of their properties because of pride of ownership and emotional connection with their lands. Many could become interested in the trail and supportive of its development and protection. Therefore, education is an important first step in building a *landowner constituency*. Enhanced awareness could influence their decisions about vegetation clearing and other actions impacting the trail.

Figure 2-3. Parcel ownership patterns can vary dramatically.



The local landowner community may also affect landowner attitudes towards the trail. Trail sections having a strong rural landowner community may have a greater chance of receiving landowner support than in developing areas where trail resources are fragmented among more landowners. Other factors such as a landowner's age, financial means, and family circumstances will shape a landowner's perspective towards the trail.

While regulations provide an important safety net, they are primarily reactive mechanisms activated as a result of a landowner's decision to move forward with actions requiring regulatory approvals. Programs are needed to work *proactively* with landowners to explore conservation options benefitting the trail. A number of state natural resource and historic preservation agencies, the USDA Natural Resource Conservation Service, and the Extension Service provide technical services to landowners. Qualified land trusts are particularly well-positioned to build working relationships with landowners.

Many landowners may not be aware of options that could meet their personal needs while also benefitting the trail. Those options may include permanent protection measures used in combination with "conservation design" for limited or compact development.

A Glance at the "State-of-the-Trail" in Terms of Its Permanent Protection

The trail's current state of permanent protection can be only approximated at this time. A more accurate characterization will require future analysis of the trail corridor and the effectiveness of current regulatory mechanisms.

Despite these constraints, an impression of the state of permanent protection—and in fee simple ownership for conservation purposes or land under conservation easement—can be provided. A useful interim indicator is the current extent of protection of *shorelines* along the trail that are either forested or in wetlands—the two defining land cover types for evocative landscapes.

Currently protected shorelines in forest or wetlands have been assessed for the trail's six high-potential route segments.[3] Using GIS (geographic information system) data layers, estimates were made of:

* Total length of the shoreline (both sides of the river)
* Amount of shoreline in forest or wetlands
* Extent of forested or wetlands protected

As shown in Figure 2-4, the percentage of shoreline in forest or wetland is relatively consistent across all high-potential route segments – ranging from a low of 65.9% on the Patuxent to a high of 81.6% on the Nanticoke. The average for all segments is 71% of shoreline in forest or wetlands. That is expected in that one criterion for identifying high-potential route segments requires that they have a greater than average aggregation of trail resources, including visible shoreline generally evocative of the 17th century. The Figure also shows the amount of permanently protected shoreline in forest or wetlands which, on average, is 21.5 percent. However, considerable variation exists among route segments, ranging from a low of 5.1% on the Lower Susquehanna (MD) to a high of 38% along the middle Potomac.

Future Assessment Needs

This glance at the state-of-trail does not take into account the following factors:

1. Future assessments need to more carefully examine the role of federal, state and local regulations in protecting trail resources.
2. The CMP identifies 68 high-potential sites whose protection status has not been carefully evaluated. Although some are incorporated into conservation focus areas described in Chapter 3, further analysis will be required to accurately identify the locations and current protection status of those sites.
3. While the CMP and recent work identifies components of indigenous cultural landscapes, their location and extent have not been sufficiently determined to assess their protection status. Further work is underway, the results of which will be considered in updates to this conservation strategy.
4. Unless they are associated with indigenous cultural lands, the CMP does not recognize existing agricultural lands as part of the trail's evocative landscapes. Yet their rural character can contribute to the trail experience in some locations. Restoring forested buffers along waterways on agricultural lands could elevate their importance to the trail.

A fuller understanding of the trail's current protection and its vulnerability will require a careful assessment of these and other factors. The trail segment plans undertaken by the National Park Service and its partners will provide one opportunity for doing so.

Chapter 2 Endnotes

1. *Conserving Chesapeake Landscapes: Protecting Our Investments, Securing Future Progress*. Chesapeake Bay Commission and Chesapeake Conservancy. December 2010 (p 4).
2. See *Bay Smart: A Citizen's Guide to Maryland's Critical Area Program.* Critical Area Commission for the Chesapeake and Atlantic Coastal Bays (Annapolis, 2008) and *A Guide to Shoreline Management Planning for Virginia's Coastal Localities (*Shoreline Studies Program, Virginia Institute of Marine Science, College of William and Mary (Gloucester Point, 2009).
3. A somewhat similar approach was used in the trail CMP to characterize the state of protection. However, the CMP assessment was based on a computer simulated analysis of the *viewshed* in permanently protected forest and wetlands.
4. Calculations are based on GIS analysis using the following data: Protected Lands PL2011_CBW, Land Cover CBLCD_2006, CAJO High-Potential Segments (manually digitized), and Tidal Shoreline CBSEGS 2003 with segment boundaries removed. Methods: clipped Land Cover with CAJO high-potential segments; clipped Tidal shoreline with CAJO high-potential segments to get shoreline miles per segment; converted Land Cover layer to polygons, and included classes 41-43, 52, 90, 95; buffered land cover by 15m to cover slivers caused by accuracy/registration issues; clipped tidal shoreline with buffered land cover to get forest/wetland shoreline miles per segment; clipped above layer with Protected Lands layer to get protected forest/wetland shoreline miles per segment; Lower Susquehanna: manually measured and added 11 miles of shoreline upriver of tidal shoreline boundary to Conowingo Dam; all forested; none protected.

Figure 2-4. Protection status of forests and wetlands on high potential route segments (calculations include both shores)[4]

High Potential Route Segment	Shoreline Length (miles)	Forest-Wetland Shoreline (miles)	Forest-Wetland Shoreline (percent of total)	Forest-Wetland Shoreline Protected (miles)	Forest-Wetland Shoreline Protected (percent of total)
L. Susquehanna (MD)/Head of Bay	31.4	21.7	69.1	1.1	5.1
Nanticoke	237.3	193.7	81.6	63.2	32.6
Patuxent	297.4	196.1	65.9	38.3	19.5
Potomac (middle)	454.7	311.9	68.6	120.7	38.7
Rappahannock	684.7	482.6	70.5	48.5	10
James/Chickahominy	1006.1	719.0	71.5	142.2	19.8
Total	**2711.6**	**1925.0**	**71.0**	**414.0**	**21.5**

Chapter 3

Identifying Conservation Focus Areas

Conservation Focus Areas Defined

As shown in Figure 3-1, identification of potential conservation focus areas reflects a natural progression from the general identification of trail resources, high-potential route segments, and high-potential sites to a greater level of specificity.

Conservation focus areas are stretches or sites along the trail that merit conservation to maintain or enhance the visitor experience of the John Smith Trail — they are the priority areas for future potential conservation action.

Conservation focus areas have the following attributes:

* They are within high-potential route segments or associated with high-potential historic sites.
* They have landscapes evocative of the seventeenth century that in most cases are characterized as "relatively intact" or "somewhat fragmented."
* They are loci for interpreting and understanding specific, compelling, place-based stories associated with Smith's voyages, American Indian cultures, and/or the natural history of the seventeenth century in that particular location.
* They provide reasonable access or potential access for visitors who want to experience the trail and its associated stories, and/or engage in various kinds of land-based and water-based recreation.

Locations with these values are the most important lands to conserve for maintaining the visitor experience over time.

Visitor Itineraries and Their Role in Defining Focus Areas

Visitor itineraries serve as a means for systematically characterizing trail experiences by describing travel routes, landscapes and sites contributing to a visitor's understanding of Smith's journeys and his interactions with American Indians. Itineraries also provide practical information related to trail access, travel distances, appropriate watercraft, and visitor safety.

Establishing the John Smith Trail has provided the impetus for the National Park Service and its partners to develop itineraries to experience the trail from water or land. Examples include the Captain John Smith's

Figure 3-1 Focusing down to conservation priorities

Adventures on the James Water Trail and Auto Tour, James River Water Trail, and Nanticoke River Water Trail, among others.

In 2011, the National Park Service partnered with the Chesapeake Conservancy and the Chesapeake Bay Foundation to publish *A Boater's Guide to the Captain John Smith Trail*, describing fifty-one itineraries. Regionally organized according to the Western Shore, Upper Bay, Eastern Shore, and the Bay's Main Stem, the guide provides an overview of the trail, trip planning advice, maps, and itinerary descriptions for each region within the tidal portion of the trail.[1] Each itinerary contains information about access points, trip length, and sites of interest. One example is the following itinerary for exploring Powhatan Creek on the James River near Jamestown.

> *Powhatan Creek (One-Way, About 4 Miles)*
>
> *Launch canoes and kayaks at the James City County soft landing with floating dock on the creek to access the Powhatan Creek Blueway. The landing and parking lot lie just above the Jamestown Road bridge, on the east side. Be sure to explore above the bridge as well as below. You can launch and return here but, if possible, use two vehicles or a vehicle and a bicycle to set up a shuttle between the bridge and the Jamestown Yacht Basin Marina, near the mouth of the creek. Be sure to visit the four-hundred-year old bald cypress tree growing in the middle of the creek about 100 yards below the bridge. If you visit in late summer, you'll see acres of wild rice ripening in the upper marshes.* (Boater's Guide, p. 21).

To date, the *Boater's Guide* provides the most comprehensive listing of trail itineraries. Future editions and other sources will identify additional itineraries that could help identify additional conservation focus areas along the trail. Four types of itineraries are summarized below.

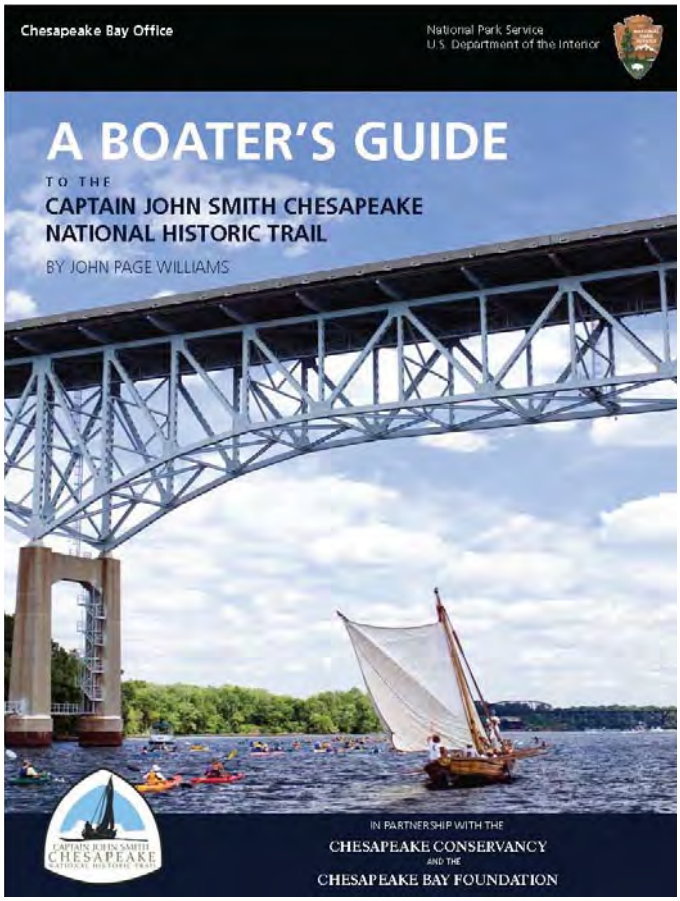
John Smith Trail Boater's Guide: An organized compendium of itineraries developed by the National Park Service and its partners, designed specifically for the trail, using consistent standards and a format that will become familiar to trail visitors.

Other Water-Based Itineraries: Itineraries associated with other designated water trails, all or sections of which coincide with the John Smith Trail. They may describe features of potential interest to trail users, including but not limited to information related to Smith's journeys. The interpretive maps and guides for the Nanticoke River Water Trail are an example of this type of itinerary.

Road and Land Trail Itineraries: Itineraries oriented towards road and land trail users. An example is The Captain John Smith Adventures Water Trail and Auto Tour created by the Virginia Department of Conservation and Recreation and its partners.

Itineraries Oriented Towards Individual Sites: Itineraries associated generally with large sites such as the Jamestown Settlement, Historic Jamestowne, and Henricus Historical Park, which serve as primary destinations for large numbers of visitors. Visitors have an opportunity to experience and learn about the trail from those sites, but the John Smith Trail may not be their only interest.

All four itinerary categories may provide a basis for identifying conservation focus areas.



Itinerary Scorecards

A *scorecard* methodology developed specifically for this strategy allows for preliminary assessments of the landscape settings, current level of protection, and interpretive opportunities associated with individual itineraries. As illustrated in Figure 3-2, a score of *C.2s* indicates that an itinerary's evocative landscapes are extensively fragmented, partially protected by a conservation easement of fee-ownership, but offers relatively specific interpretive opportunities. One of the scorecard's most important purposes is allowing for quick comparisons among itineraries.

As an initial step, the scorecard approach was used to assign values to all itineraries in the *Boater's Guide*. It is intended to serve as an assessment technique for other trail itineraries as they are established by the National Park Service and its partners. Scorecard elements are presented in Figure 3-2 and described below.

Landscape Setting

Landscape setting characterizes the extent to which an itinerary provides opportunities to experience evocative landscapes. Landscape scores reflect a trail user's general impressions of the trail's surroundings. As described in Chapter 1 and summarized in Figure 3-2, the scorecard uses four landscape categories to represent the extent to which evocative landscapes are associated with a particular itinerary.

The percent guidelines in Figure 3-2 reflect the approximate percentage of shoreline lands along an itinerary route that can be characterized as evocative landscapes. They are intended to provide further specificity to qualitative descriptions such as "somewhat fragmented" and to maintain a certain level of consistency among landscape setting scores throughout the trail.

However, judgment should be used in their application. Percentage thresholds among categories are not based upon scientific studies, e.g., minimum requirements of functioning evocative landscapes or trail user perceptions of landscape integrity. They also do not take into account the configuration or extent of evocative landscapes beyond the shoreline, which could significantly impact the trail user's experience.

The landscape setting scores for the *Boater's Guide* itineraries were limited to a review of aerial photographs. Field observations should verify and refine the scorecard ratings if necessary, noting changes that may have occurred subsequent to the date of aerial photography.

Permanent Protection Status

Permanent protection status reflects the extent to which evocative landscapes associated with an itinerary are permanently protected by conservation easements or ownership by a public agency or nonprofit organization for conservation purposes. Federal lands used for military purposes are not included.

Figure 3-2. Scorecard format and guidelines for assessing landscape integrity and protection status

Landscape Setting	
Relatively Intact	A
Somewhat Fragmented	B
Extensively Fragmented	C
Very Limited or Absent	D
Permanent Protection Status	
Relatively Protected	1
Partially Protected	2
Relatively Unprotected	3
Interpretive Opportunities	
Specific Place-Based	s
General	g
Assessment Score (Example)	C.2s

Guidelines		
Landscape Integrity		
A	Relatively Intact	Over 85%
B	Somewhat Fragmented	65 – 85%
C	Extensively Fragmented	25 – 65%
D	Very Limited or Absent	Under 25%
Landscape Protection		
1	Relatively Protected	Over 80%
2	Partially Protected	25 – 80%
3	Relatively Unprotected	Under 25%

As with landscape settings, percent guidelines are intended to add greater specificity and consistency to qualitative descriptions such as "partially protected." However, they are not intended to be rigid and require judgment in scoring an itinerary's protection status.

Interpretive Opportunities

This rating is based on the specificity of existing documentation of place-based stories and interpretive themes for a particular itinerary. Two categories were used in assessing interpretive opportunities for itineraries in the *Boater's Guide*

Specific. Relatively specific interpretive opportunities are generally site specific and associated with documented stories and information directly related to the location of 1607-1609 events and observations associated with Smith's voyages, American Indian cultures and history, or the natural history of the seventeenth-century Chesapeake. Examples include:

* The approximate site of the chief's town that Smith mapped as "Kuskarawaok" when he visited Chicone Creek, a tributary to the Nanticoke River

* A bald cypress believed to be four-hundred years old and therefore existing at the time of Smith's travels on Powhatan Creek, a tributary of the James River

General. Relatively general interpretive opportunities, which may or may not be site specific, are associated with general observations about the Smith voyages, American Indian cultures and history, or the natural history of the seventeenth-century Chesapeake. Examples include:

* Opportunities to see native species such as American eagles in flight or long-nose garfish that roll on the surface at the mouth of Cat Point Creek on the Rappahannock River

* Transitional fresh and brackish marshes on the Patuxent River

These interpretive scores reflect the level of information in the *Boater's Guide* itineraries. More detailed interpretive information for those and other itineraries would provide the basis for refining the scoring criteria.

Examples of Itinerary Scorecards

Figure 3-3 illustrates the scorecard ratings for the Morris Creek and Powhatan Creek itineraries. The A.2g score for Morris Creek reflects a relatively intact landscape setting partially protected by the Chickahominy Wildlife Management Area. The C.2s score for Powhatan Creek reflects an extensively fragmented landscape setting partially protected by a conservation easement along the creek. With respect to interpretive opportunities, a bald cypress tree can be seen on Powhatan Creek, possibly dating back to John Smith's time, whereas less specific references are associated with Morris Creek.

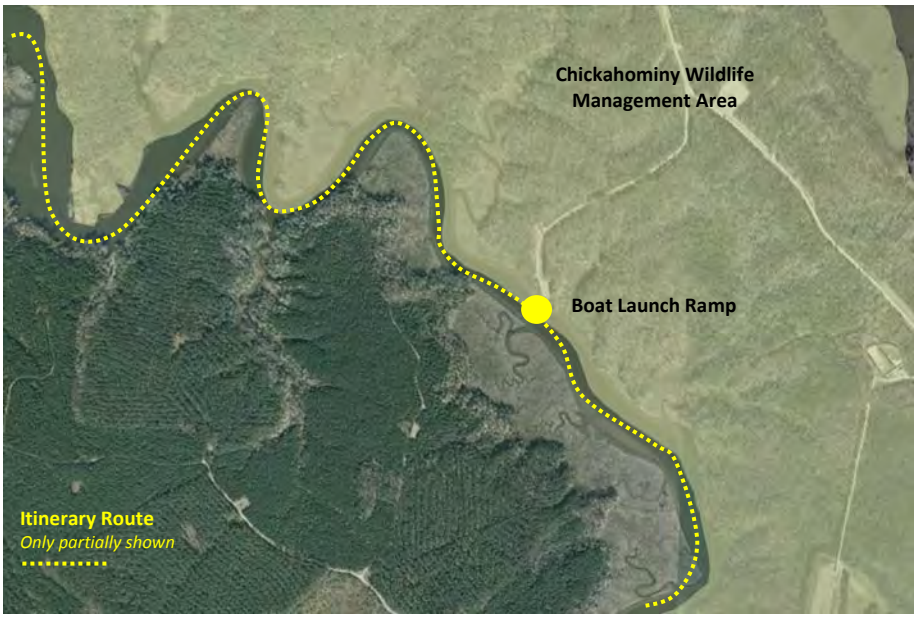
Future Refinements to the Scorecard Methodology

Future refinements to the methodology should be considered as experience is gained in its use. For example, as presented in this document, scorecards provide only a general assessment of conditions along a trail route without specific references to simulated viewshed data or a defined trail corridor. More detailed scorecard analyses should consider a presumed trail corridor associated with each itinerary. Future trail segment management planning will provide such opportunities.

Figure 3-3. Itinerary Scorecards - Morris Creek and Powhatan Creek

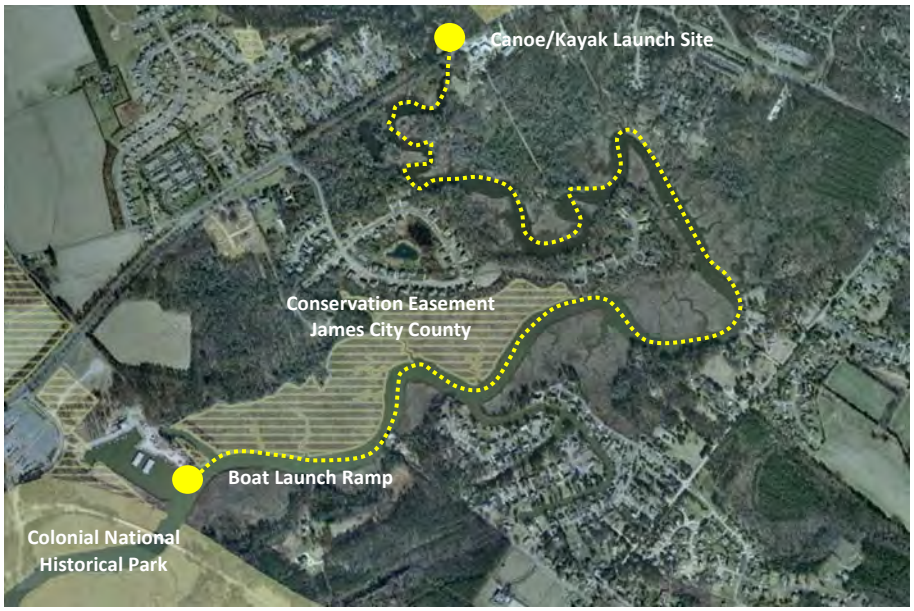
Morris Creek Itinerary , Chickahominy River, Two-Way, About Four Miles (see p 27 of the Boater's Guide for more details)

Landscape Setting	
Relatively Intact	A
Somewhat Fragmented	
Extensively Fragmented	
Very Limited or Absent	
Permanent Protection Status	
Relatively Protected	
Partially Protected	2
Relatively Unprotected	
Interpretive Opportunities	
Specific Place-Based	
General	g
Assessment Score	A.2g



Powhatan Creek Itinerary, James River, One-Way, About Four Miles (see p 21 of Boater's Guide for more details)

Landscape Setting	
Relatively Intact	
Somewhat Fragmented	
Extensively Fragmented	C
Very Limited or Absent	
Permanent Protection Status	
Relatively Protected	
Partially Protected	2
Relatively Unprotected	
Interpretive Opportunities	
Specific Place-Based	s
General	
Assessment Score	C.2s



Using Scorecards to Categorize Conservation Focus Areas

Itinerary scorecards provide essential information for identifying potential conservation focus areas. As presented in Figure 3-4 and summarized below, four categories of focus areas provide guidelines for determining priorities and the types of investments that may be appropriate in protecting trail resources.

Category I
A2 Intact, Partially Protected
A3 Intact, Unprotected
B2 Somewhat Fragmented, Partially Protected
B3 Somewhat Fragmented, Unprotected

These are itineraries associated with high-potential routes or sites, having relatively intact or somewhat fragmented landscapes with partial or no permanent protection. They represent those itinerary routes having the most intact evocative landscapes that are only partially protected or not protected at all. They generally represent the highest priority for trail-related conservation investments.

Category II
A1 Intact, Protected
B1 Somewhat Fragmented, Protected

These are itineraries associated with high-potential routes or sites having evocative landscapes already relatively protected. Such areas generally are not expected to require further major conservation investments, although they may be warranted in circumstances such as protecting remaining key parcels or converting lands under conservation easement to conservation ownership (such as where providing public access is a key objective).

Category III
C2 Extensively Fragmented, Partially Protected
C3 Extensively Fragmented, Unprotected

These are itineraries associated with high-potential routes or sites, having extensively fragmented landscapes with only partial or no permanent protection. Their landscape fragmentation diminishes their capacity to support a quality visitor experience along the trail. As a result, conservation investments would be limited generally to sites offering truly important interpretive opportunities or improved public access to the trail. *(Note: C1 conditions are not expected to occur, i.e., absent evocative landscapes that are relatively protected)*

Category IV
All Other Scorecard Values

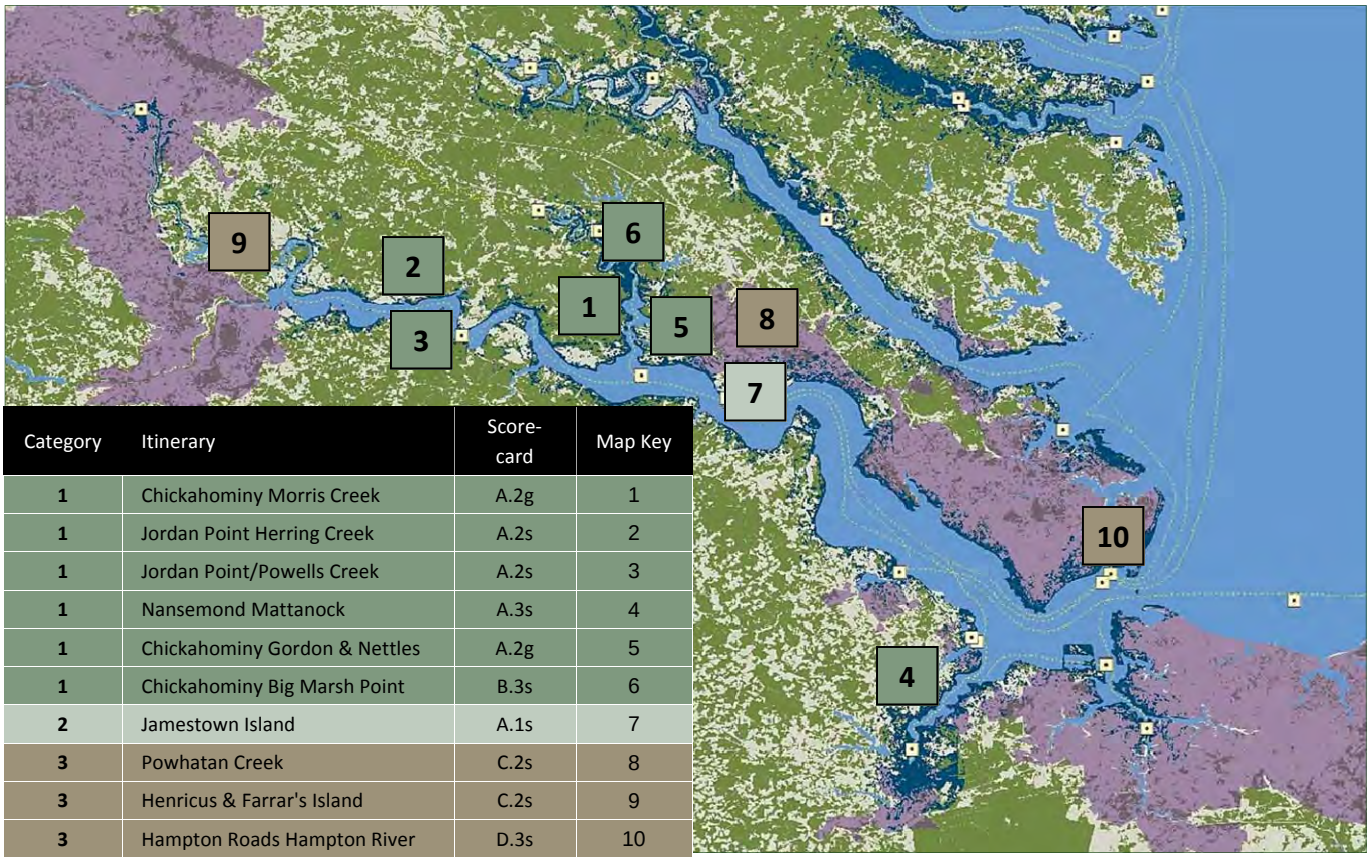
All itineraries not on a high-potential route or at a high-potential historic site are combined in this category. While they may have potential as future focus areas, they are currently not eligible unless they receive a high-potential route segment or high-potential historic site designation based on guidance in the National Trails System Act and the trail's CMP. However, they may have conservation value for reasons other than the John Smith Trail, which would provide the basis for other kinds of conservation initiatives.

Figure 3-4. Criteria for classifying itinerary score cards as potential focus areas

Category	Scorecard	High-Potential Route or Site	Itinerary Related	Permanent Protection
1	A2, A3 B2, B3	Yes	Yes	Partial or Absent
2	A1, B1	Yes	Yes	Relatively Protected
3	C2, C3	Yes	Yes	Partial or Absent
4	Variable	No	Variable	Variable

As illustrated in Figure 3-5, the focus area categories provide a means by which itineraries may be compared within a trail segment or among different segments. For example, the *Boater's Guide* describes 11 itineraries on the James River, six of which are Category 1, meaning that their evocative landscapes are relatively intact and unprotected or partially protected. At the level of trail segment planning, it becomes possible to set conservation priorities which, on the James, may include conservation actions cutting across several focus area categories.

Figure 3-5. Illustration of conservation focus area categories—James River



Category	Itinerary	Score-card	Map Key
1	Chickahominy Morris Creek	A.2g	1
1	Jordan Point Herring Creek	A.2s	2
1	Jordan Point/Powells Creek	A.2s	3
1	Nansemond Mattanock	A.3s	4
1	Chickahominy Gordon & Nettles	A.2g	5
1	Chickahominy Big Marsh Point	B.3s	6
2	Jamestown Island	A.1s	7
3	Powhatan Creek	C.2s	8
3	Henricus & Farrar's Island	C.2s	9
3	Hampton Roads Hampton River	D.3s	10

Other Potential Conservation Focus Areas

Consideration should be given to two other kinds of conservation focus areas as summarized below.

The scorecard approach is predicated on visitor itineraries — places visitors can get to today to experience trail resources. As such, it does not fully address situations where new public access opportunities could result in new itineraries and designation of additional focus areas. Many trail sections lack adequate public access, as does the Chesapeake Bay region as a whole. The *Chesapeake Bay Watershed Public Access Plan*, prepared in 2012 by the National Park Service, its state partners, and the District of Columbia, documents the problem and the need to expand public access to the Bay and its tidal tributaries. The plan identifies over 300 potential new public access sites for future development, many of which are along the John Smith Trail.

Development of access facilities at these sites, or improving access through acquiring lands to construct boat launching ramps or soft landings for paddle craft, would lead to new itinerary opportunities.

Similarly, there may be significant site-based trail resources such as archeological sites, that are unprotected and inaccessible to the public. At the time of Smith's explorations, approximately 11 Indian tribes lived along the Chesapeake and its tidal tributaries. Depending upon their significance, archeological sites associated with those tribes could potentially meet the criteria for conservation focus areas if they were to become publically accessible. An important site and its landscape context, which contributes to its integrity and interpretive value, could form the basis for a future visitor itinerary.

In situations such as these, the scorecard approach can still be used to perform a rapid evaluation of what is effectively a "potential" itinerary, based on the addition of public accessibility.

Potential Conservation Focus Areas: An Initial Portfolio

Figures 3-6 and 3-7 depict an *initial* portfolio of conservation focus areas, to which others are likely to be added in the future. Actions to conserve trail resources in these areas will depend upon collaborative efforts among the many partners engaged with the trail, as described in Chapters 4 and 5.

Chapter 3 Endnotes

1. *A Boater's Guide to the Captain John Smith Trail* was published in 2011, prior to the expansion of the trail in 2012 by the incorporation of four connecting trails. Future updates of the Boater's Guide will include itineraries on these newer John Smith Trail segments.

Figure 3-6. Summary of categorized focus areas, based upon trip itineraries in the 2011 Boaters Guide for the Captain John Smith Trail

No.	Itinerary	Score	Category
James River Segment			
1	Morris Creek	A.2g	I
2	Jordan Pt. Herring Creek	A.2s	I
3	Jordan Pt. Powell's Creek	A.2s	I
4	Nansemond Mattanock	A.3s	I
5	Gordon & Netttles Creek	A.2g	I
6	Big Marsh Point	B.3s	I
7	Jamestown Island	A.1s	II
8	Powhatan Creek	C.2s	III
9	Henricus & Farrar's Island	C.2s	III
10	Hampton Rds Hampton River	C.3s	III
York River Segment			
11	Werowocomoco	B.3s	I
Rappahannock River Segment			
12	Fones Cliffs Horsehead Bluffs	A.2g	I
13	Mount Landing	A.2s	I
14	Fones Cliffs	A.2s	I
15	Goat Island	A/3s	I
16	Cat Point Creek	B.2g	I
17	Belle Isle State Park	B.2s	I

No.	Itinerary	Score	Category
Potomac River Segment			
18	Mattawoman Creek	B.2g	I
19	Port Tobacco River	B.2s	I
20	Nomini Creek	B.3s	I
21	Piscataway Creek	B.1g	II
22	Leesylvania State Park	C.2g	III
Patuxent River Segment			
23	Mattaponi Creek	B.2s	I
24	Skiffin' to Nottingham	B.2s	I
25	MacGruder's Ferry	B.2s	I
26	Jefferson Patterson	B.3g	I
Lower Susquehanna—Head of Bay Segment			
27	Susquehanna Flats	B.2g	I
28	Turkey Point	B.2s	I
29	Sassafras River	B.2s	I
30	Garrett Island	C.2s	III
Nanticoke River Segment			
32	Vienna Area	A.3s	I
33	Sharptown Area (a & b)	A.3s	I
34	Wetipquin Creek	B.3s	I

Figure 3-7 Initial portfolio of potential conservation focus areas

Chapter 4

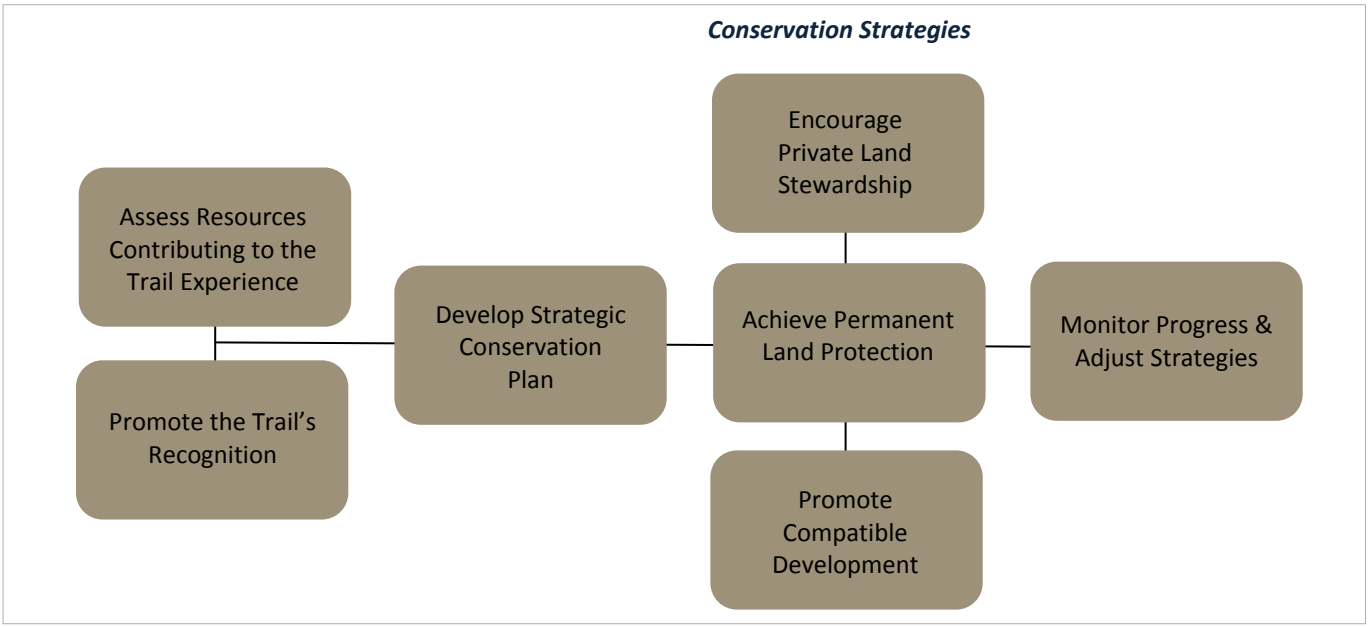
A Partnership Action Model for Conserving Trail Resources

This chapter describes an approach to conserving trail resources within the context of individual conservation focus areas, as well as multiple focus areas associated with a particular trail segment. It proposes a number of coordinated actions to protect trail resources, while also supporting individual actions in instances where they are the best choice, such as purchasing a significant property imminently susceptible to development. Over time, the approach should provide a foundation for identifying particular techniques proven to be successful in trail protection. In turn, those findings could lead to "institutionalizing" a set of proven proactive conservation strategies likely to be more effective than reactive ad hoc initiatives.

Its premise is that the most successful strategies will involve collaboration among partners with complementary goals and capabilities who can address the multiple challenges associated with protecting trail resources. Figure 4-1 shows the relationships among seven components of a *partnership action model* that provides a general framework for trail protection. Those components include:

Assessing resources contributing to the trail experience: The visitor experience is a major driver for defining conservation focus areas along the trail which, in turn, provides insights to those resources contributing to that experience. Assessments of existing and potential resources will evolve as part of the trail segment management planning process and provide a framework for identifying and prioritizing conservation focus areas.

Figure 4-1. Conceptual diagram of the partnership action model



Promoting the trail's recognition: Obtaining broad recognition of the trail by the public, nonprofit, and private sectors will support efforts to protect its corridor. Examples include the trail's reference in state open space and local comprehensive plans, open space funding programs, nonprofit educational and conservation programs, and information distributed by tourism organizations.

Developing strategic conservation plans: Strategic plans prescribe the range of actions required to protect conservation focus areas and other trail resources. Although such plans will be an integral part of trail segment management planning, they may also be incorporated into other initiatives not directly related to the trail, such as corridor habitat plans.

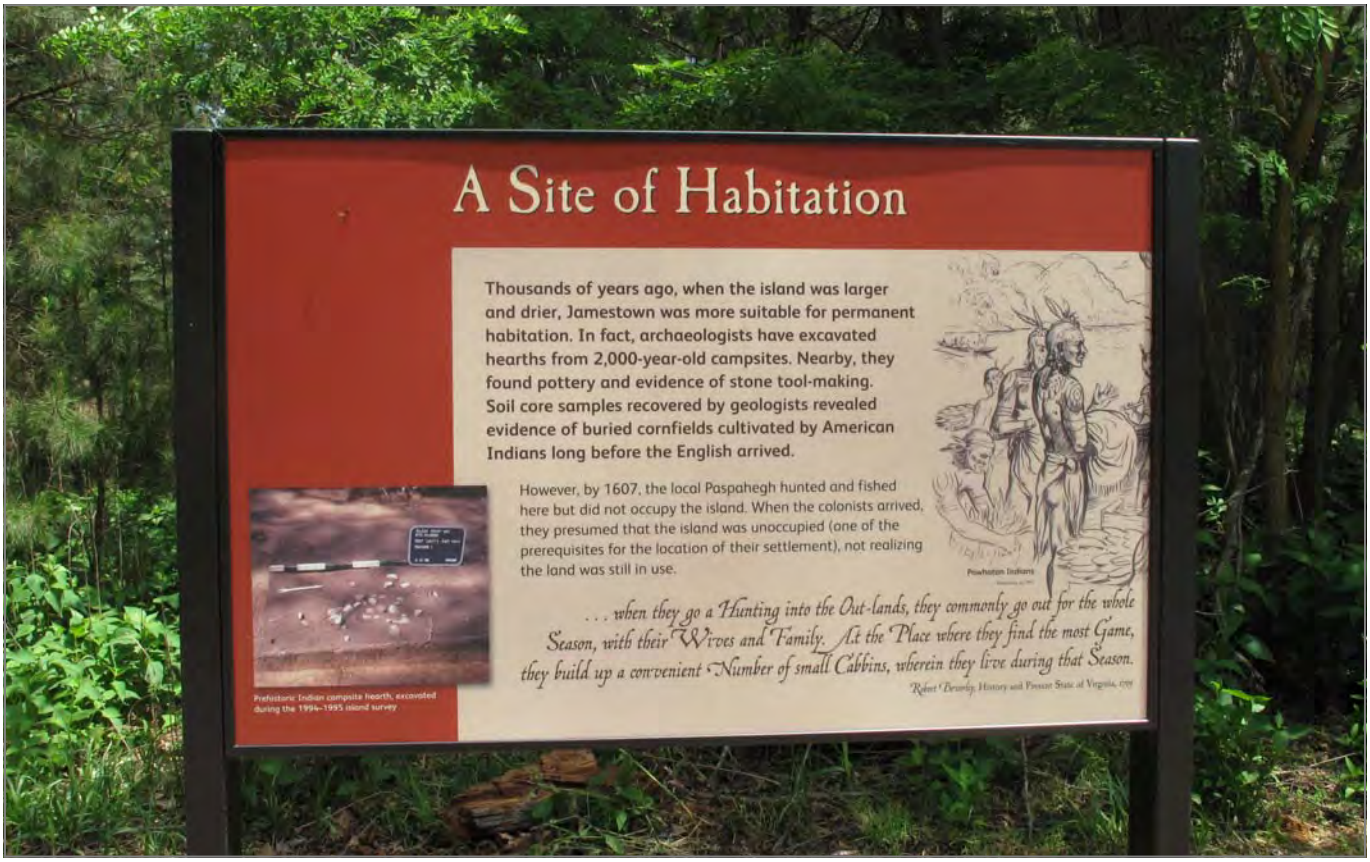
Encouraging private land stewardship: Given that most of the trail corridor is privately-owned, initiatives to build relationships and provide technical assistance to private landowners will help them become more aware of the trail and consider actions that will achieve their individual goals and help to protect trail resources.

Permanently protecting lands to ensure the trail's integrity: Acquiring conservation easements and lands in fee from willing landowners will be the most assured means of permanently protecting the trail corridor.

Guiding compatible development: Incorporating trail considerations into state and local regulations, such as providing for reasonable setback buffers, non-intrusive architectural styles and conservation design of land subdivisions, will be important in minimizing the impacts of future development on the trail.

Monitoring progress and adjusting strategies to reflect changing situations: Monitoring progress and adjusting strategies should be a component of all sustained trail protection initiatives.

The National Park Service will work with partners on these strategies to advance long-term conservation of the trail. Priority strategies and actions will vary over time, and likely vary depending upon the specific circumstances of individual trail segments as well. Initial emphases are described in Chapter 5.



Assessing Resources Contributing to the Trail Experience

As described in Chapter 1, the visitor experience is the major driver for designating the trail's conservation focus areas. Segment planning will lead to a closer look at existing and potential visitor itineraries and their associated trail resources.

Resource Values and Interpretive Opportunities

Resource values reflect trail attributes contributing to a visitor's understanding and enjoyment of the trail. Examples include: wetlands and forests representing evocative landscapes, indigenous cultural landscape features, Smith's interactions with American Indian tribes, and Smith's general observations recorded during his travels. Of particular importance is how such values relate to the trail's primary interpretive themes associated with: 1) Smith's exploratory voyages on the Chesapeake Bay and its tributaries, 2) American Indian societies and cultures of the seventeenth century, and 3) the Bay's historic and contemporary natural history.

As described in Chapter 3, interpretive opportunities were preliminarily identified for each of the trail's conservation focus areas. Further evaluations will provide a better understanding of places where interpretive stories can best be told and the actions required to protect their integrity.

Although Smith and his journeys have been studied extensively, many knowledge gaps remain. For example, the approximate locations of voyage stops, Indian towns, and many archeological sites require further research and present the added challenge that many of those sites are on private lands. Archeological and related studies are needed to ensure that conservation initiatives are based on adequate data.

Resource Condition and Ownership

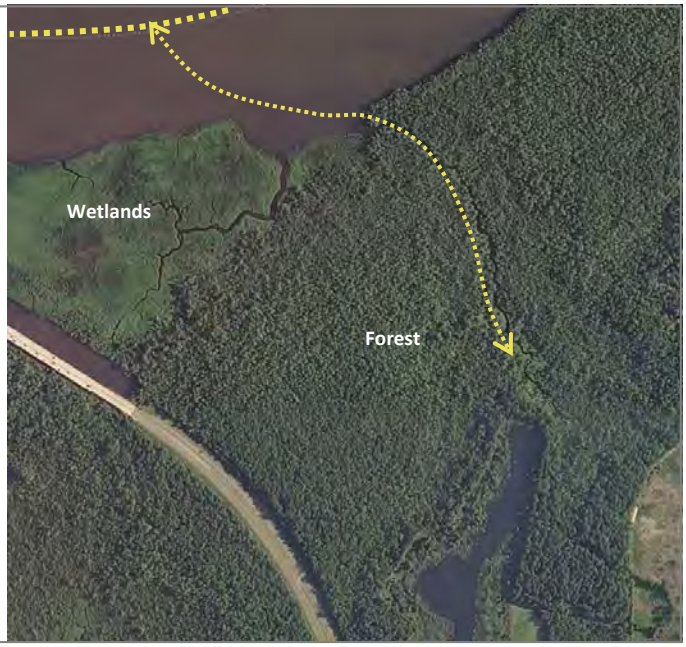
The context, condition, and ownership of trail resources will determine if and how they may be protected. A voyage stop situated within a developed residential subdivision, an archeological site located in an agricultural field, and woodlands on a large waterfront county estate present different circumstances in terms of designing trail protection strategies.

Although not the only means for doing so, the trail segment management planning process provides the best mechanism by which the National Park Service and its partners can assess resources contributing to the trail experience. The first segment plan, completed in 2011 for the James River, identified five conservation focus areas, which included initial assessments by the Chesapeake Conservancy.

Figure 4-2. Resources associated with Chicone Creek, part of the Vienna Area itinerary on the Nanticoke River

"....Once into Chicone Creek, follow I up into a deep wooded swamp fringed with rich tidal freshwater marsh. The land you see through the trees was part of the chief's town that Captain John Smith mapped as Kuskarawaok when he visited. The combination of forested wetlands, tidal fresh marsh and fertile soils for growing corn, beans and squash was especially valuable for the way of life of the 17th Century Nanticoke."

Vienna Area Itinerary
A Boater's Guide to the Captain John Smith Trail (2011)



Itinerary route (yellow dash line) is on Chesapeake Forest Lands, acquired and retained as working forest to produce forest products to help local employment, protect outdoor recreational values and provide environmental benefits to local communities on Maryland's Eastern Shore.

Promoting the Trail's Recognition

NOW, THEREFORE, BE IT RESOLVED that the County Executive and County Council of Harford County, Maryland pledge their support for the establishment of the Captain John Smith Chesapeake National Historic Trail
—Resolution No. 19-06 June 6, 2006.

The trail's endorsement by local governments, nonprofit organizations and others provided the impetus for its establishment in 2006. Its continued broad recognition will be essential to the trail's development and protection. Several examples are provided as follows.

The *Virginia Outdoors Plan*, published in 2007 recognized the trail's importance and relevance to Virginia's goals for green infrastructure. Subsequently, with support from the National Park Service, the Virginia Department of Conservation and Recreation proceeded in developing the John Smith's Adventures Water Trail and Auto Tour that includes three driving loops on both sides of the James River. Virginia and Maryland have also signed memoranda with the National Park Service regarding ongoing trail planning, management and implementation.

The 2009 James City County Comprehensive Plan illustrates how the John Smith Trail and other trails can receive county recognition. The plan's parks and recreation element recommended:

* Continue to provide access to major water bodies for expansion of water recreation opportunities.
* Seek additional waterfront access on the James, York, and Chickahominy rivers to improve and expand water access and blueway trail development, especially in areas currently lacking water access, such as the lower James River.
* Develop recreational components of the Jamestown Beach Campground, Jamestown Yacht Basin, and Chickahominy Riverfront Park in accordance with approved master plans.
* Collaborate with the National Park Service to develop water trails, such as the *Captain John Smith water trail*, and continue to provide trail information at designated Chesapeake Bay Gateways.

Nonprofit conservation and educational organizations can also effectively promote the trail's recognition.

Sultana Projects, a nonprofit organization based in Chestertown, Maryland, provides land-based and water-based experiential education to students of all ages. The organization played an important role in supporting the trail's establishment and commemorating Jamestown's 400th anniversary in 2007 when it constructed a small open boat resembling Smith's "shallop," which it used to retrace Smith's exploration of the Chesapeake. Today, Sultana Projects continues to use the trail in its education, adventure, and training programs. Most recently, Sultana Projects has led development of the Chester and Sassafras Rivers segments of the trail, including developing map-guides, orientation panels, access sites markers.

The James River Association is a key partner along the entire James River segment of the trail. The organization has worked to develop multiple projects on the James and Chickahominy Rivers, including interpretive signage and water trail mapping, as well as educational programs based out of Presquile National Wildlife Refuge.

The Chesapeake Conservancy works "to ensure conservation, stewardship, access, and enjoyment of the Chesapeake's iconic landscapes and waterways and its cultural and historic assets, highlighted by the Captain John Smith Chesapeake National Historic Trail and the Chesapeake Gateways and Watertrails Network." Given its unique mission, the Conservancy has become an important partner of the National Park Service in promoting the trail's recognition, development and protection.

These examples, drawn from state, county, and nonprofit organizations, illustrate different means for recognizing the trail. Equally important is support from other sources such as tourism agencies, boating groups, and environmental organizations. Consideration of the extent to which the trail has received recognition will be important in developing conservation strategies for its conservation focus areas.

Developing Strategic Conservation Plans

Strategic conservation planning is intended to present relatively specific goals and actions for the trail's conservation focus areas. This should serve as a blueprint for the National Park Service and its partners in developing strategies that address a focus area's particular circumstances and needs. A principle vehicle for strategic conservation planning is as a component of trail segment plans. However, trail partners may well use the basic planning elements below for incorporating trail resources into their conservation efforts.

Strategic conservation planning should provide opportunities for stakeholders (such as public lands managers, local planning agencies, private landowners, and conservation organizations) to engage in developing the following elements:

Areas of Primary Interest: An assessment of resources contributing to the trail experience should provide the basis for delineating one or more areas *of primary interest* within a conservation focus area. Figure 4-3 illustrates one approach to depicting such areas. Other techniques may also be used.

Protection Status and Conservation Opportunities: Areas of primary interest should be evaluated based on:

* Their protection status, considering the extent of permanently protected lands, the likely effectiveness of land use regulations, and the status of current programs to promote private land stewardship

* Their susceptibility to change, considering factors such as local development trends, readiness of utilities and roads to serve future development, and the stability of land ownership.

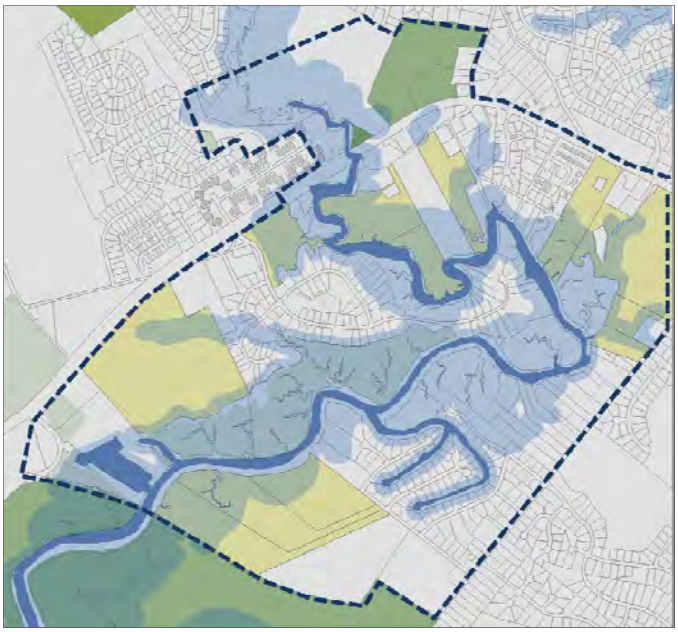
* Existing conservation opportunities such as adopted greenways, presence of conservation-minded landowners, and the availability of funds for land conservation.

Conceptual Alternatives: Such concepts should present different approaches to addressing the area's conservation needs and opportunities. For example, one may emphasize landowner education and assistance, whereas others may be oriented towards permanently protecting certain properties and working with local governments.

Selecting a Preferred Strategy: The process of selecting a preferred strategy should be explicit and replicable.

Priorities and Partner Commitments: The preferred strategy should set priorities and obtain commitments from those partners participating in its development. Although seen as a component of trail segment management plans, strategic conservation planning may also be undertaken as an element of other planning initiatives. Examples include statewide conservation priority designations, corridor conservation plans, watershed plans, and special area management plans.

Figure 4-3. Illustrative analysis of lands of primary conservation interest to the trail



Encouraging Private Land Stewardship

Given the majority of the trail's viewshed is privately owned with no permanent protection, private stewardship should play an important role in trail conservation initiatives. Many landowners, particularly owners of larger properties, are potentially eligible for various forms of technical and financial assistance for conserving environmentally sensitive lands. Examples include programs of the Natural Resource Conservation Service, state agencies such as Maryland's Department of Natural Resources, Virginia's Department of Conservation and Recreation, and Delaware's Department of Natural Resources and Environmental Control. Many land trusts, particularly those locally-based, are well positioned to work closely with landowners over extended periods.

Landowner assistance program managers are important partners in developing strategies for the trail's conservation focus areas, particularly in circumstances where they are already working with landowners within or near the trail corridor. Working with these managers to incorporate concerns about the trail experience and lands of special interest to the trail will open new areas for collaboration and stewardship and minimize the risk of confusing landowners who might be approached by various organizations with somewhat different goals.

Summarized below are several guidelines for working with landowners in the trail's conservation focus areas.

Understanding the Landowner Community: Each focus area will have its own mix of landowners whose circumstances, interests and relationships to the trail will be unique. Understanding the landowner community will provide important insights on landowner concerns and their receptivity to protecting the trail.

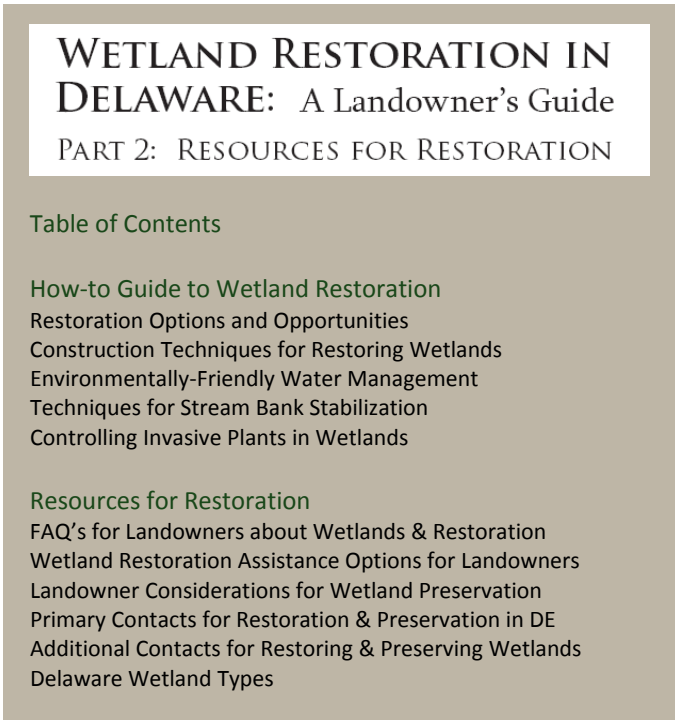
Learning from Local Experience: Understanding local history and success stories related to conservation easements, parkland acquisitions, or sensitively-designed subdivisions may serve as useful precedents in discussions with landowners. Conversely, local controversies could be deterrents that need to be overcome.

Presenting Attractive Conservation Choices: Landowners are more likely to protect their part of the trail corridor if presented with approaches that would not incur financial sacrifices or interfere with their other interests. Therefore, the case for conservation needs to be made with an understanding of how it might relate to a landowner's interests and other options.

Landowners might benefit from a general guide for how lands along the route can be managed to retain characteristics evocative of the seventeenth century and reflective of the landscapes that sustained indigenous cultures. Such a guide would illustrate examples of compatible and incompatible uses, offer suggestions for retention of wetlands and forest cover, discuss options for providing public access, and recommend treatments for shoreline stabilization to retain relatively natural characteristics that benefit wildlife, historic and scenic values.

Efforts to encourage landowner stewardship will often require a timeframe measured in years rather than months. Building and maintaining positive relationships with landowners, particularly those who own properties of special importance to the trail, will be enhanced when such landowners also feel a sense of trail ownership. Successes in encouraging private stewardship are also likely to enhance prospects for permanent protection.

Figure 4-4. An example of a "how-to" guide available to landowner's along the trail (Delaware Department of Natural Resources and Environmental Control, 2009)


WETLAND RESTORATION IN DELAWARE: A Landowner's Guide

PART 2: RESOURCES FOR RESTORATION

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Permanently Protecting Lands

As illustrated in Figure 4-5, many trail sections have a checkerboard pattern of protected lands held by different fee owners and easement grantees. Fee-owned lands include wildlife management areas, state forests and parks, county and municipal parks, natural area preserves, historic sites, and other designations. Conservation easements are held by the Maryland Environmental Trust, Virginia Outdoors Foundation, Delaware Forest Service, The Nature Conservancy, and local land trusts. They may vary in their purposes and restrictions, as in the case of agricultural and natural area easements.

The diversity of public agencies and nonprofit organizations involved in permanent protection offers a range of potential partnership options for protecting trail resources. Organizations' legislative mandates, mission goals, and funding restrictions may encourage or limit the ability to include the trail in their resource protection programs. Still, many entities seek to conserve resources that directly or indirectly benefit the trail. For example, in October, 2011, an 825-acre parcel along the Nanticoke River was added to the Blackwater National Wildlife Refuge managed by the U.S. Fish and Wildlife Service. The acquisition protects habitat important to the refuge, as well as approximately one mile of evocative landscape along the John Smith Trail. About 1.4 million dollars from the Land and Water Conservation Fund were used to purchase the property from The Conservation Fund, which had acquired the property from Tideland Ltd. The Chesapeake Conservancy assisted by highlighting the benefits of the acquisition and advocating for funding.

The Blackwater example illustrates how multiple partners may become involved in a single project, each assuming an important role in its success. The essential ingredients included advocacy, adequate funding, a willing seller, an initial purchaser, and an ultimate owner. Many projects secure funds from several sources, highlighting the importance of understanding relationships among funding sources and cost-sharing requirements.

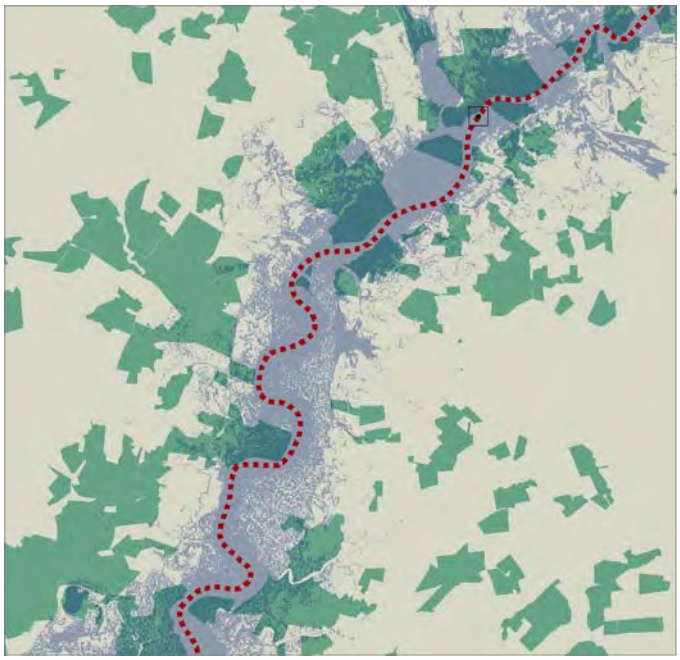
Most public acquisition programs apply criteria and scoring systems to rank individual projects for funding. Maryland and Virginia have made substantial commitments to land conservation through their programs of financial support for acquisitions and easements. The prioritization systems for those programs are designed to reflect state-wide goals that often coincide with the purposes of the John Smith Trail. Delaware's open space program is intended to serve a variety of conservation goals that focus on wildlife habitats of special concern but that also may overlap with the relatively small portion of the trail along the Nanticoke River.

A preliminary review of the prioritization systems in Maryland, Virginia, and Delaware identified a substantial number of criteria that would correspond with the trail. These include factors such as public access to state waters, availability of land for public use, and projects that may further other public interests, such as education, research, and heritage tourism. Maryland's human ecology scorecard adds another dimension for potential recognition of trail values to their program open space factors that focus on ecological considerations.

Some minor clarifications or adjustments in the factors states use to rank conservation projects could help trail resources receive favorable consideration. For example, in Virginia, a factor for scenic resources protection lists heritage rivers, scenic roads and byways, recreational trails and "greenways or blueways" as examples. National historic trails could be added to that list, or the John Smith Trail could be identified as an example of a "blueway." The trail, or national historic trails in general, also could be specifically mentioned under the factor regarding historic preservation that currently cites properties listed on the Virginia Landmarks Register. References to the trail could also recognize various levels of importance that a specific site or area might have; they could make distinctions based on proximity to the route and relationship to the categories of evocative landscapes, high-potential sites, high-potential segments, and indigenous cultural landscapes.

Recognition of the trail in state or local plans also could help support favorable prioritization in the states' land conservation programs. Virginia provides

Figure 4-5. Illustration of checkerboard pattern of permanently protected lands—Nanticoke River



points for projects that support "local and/or regional comprehensive plans for parks, open space, and recreational facilities," and Maryland recognizes projects that "implement documented community preservation objectives." Delaware recognizes "Potential for High-Priority Outdoor Recreation Needs as Defined in the SCORP." Adding specific recognition of the trail or specific sites and segments would help their ability to successfully compete in state funding programs.

Similar efforts to enhance coordination with prioritization systems used by the US Fish and Wildlife Service, USDA Forest Service, USDA Natural Resource Conservation Service, and the Defense Department's Readiness and Environmental Protection Initiative should also be pursued.

Consideration should also be given to applying high-leverage partnership strategies. For example, the Maryland Environmental Trust (MET), holding over 1,000 conservation easements on 127,000 acres, has helped create more than 50 land trusts in Maryland. Nearly three-quarters of its easements now involve partnerships with those land trusts. Working through MET, the Virginia Outdoors Foundation or similar state-wide and regional organizations could be an efficient means to introduce trail considerations to many local land trusts. This could include collaborating on educational material for prospective easement grantors, model easement language, and easement design guidelines for easement grantees—all designed to incorporate trail resource considerations. Of particular importance for prospective grantors is how restrictive easements might be. Easement policies having many restrictions and minimal flexibility may not have much appeal. Alternatively, allowing for flexibility and use of easements in conjunction with "conservation design" for compact or limited development could be more attractive options while still conserving the trail.

Guiding Compatible Development

Local governments have jurisdiction over land use within the trail corridor. They are responsible for zoning and subdivision regulations, which incorporate or are administered in coordination with federal mandates such as wetlands protection, and state laws such as Virginia's Chesapeake Bay Preservation Act and Maryland's Chesapeake Bay Critical Area Act.

Given their important role, local governments must be key partners in determining the extent to which the trail corridor can be incorporated into their permitting processes. One approach would be to enable *compatible development*, which refers to the design, construction and maintenance of buildings and utilities in a manner having minimal adverse impacts on the trail experience. This would involve considering the specific standards needed to guide design and development of structures proposed within or near the trail corridor. For example, criteria might define whether a structure should not be visible from the trail, be partially visible if filtered by a vegetation buffer, or may be fully visible if consistent with setbacks, building size, architectural treatment and exterior colors. In considering such approaches, local governments might benefit from a guidebook describing the trail and the kinds of permitting processes that could help protect trail resources.

All states through which the trail passes have state county associations affiliated with the National Association of Counties. These associations could provide a means through which multiple counties could jointly consider the trail.

Figure 4-6. Compatible development guidelines for "forest friendly development " Alliance for the Chesapeake Bay (2005)

Recommended Land Use Planning and Development Practices

* Avoid the fragmentation of forests and direct growth to so sites away from large, ecologically intact forest lands
* Conserve or restore riparian or streamside forest buffers
* Encourage the connection of forested corridors
* Limit the degree of clearing and grading to protect native vegetation
* Promote the replanting of trees and forests on or near development sites
* Integrate trees and forests into development stormwater management strategies

Monitoring Progress

Several programs monitor the status of environmental health and resource protection in the Chesapeake Bay region. For example, since 2000, the Chesapeake Bay Foundation has published reports on the *State of the Bay*. Its 2010 report provides scorecards for pollution, habitat, and fisheries. Under habitat, for example, it provides scores for forest buffers, wetlands, underwater grasses, and resource lands.

In 2007, Maryland's Governor O'Malley created Chesapeake *BayStat* to assess, coordinate, and target Maryland's Bay restoration programs and to inform its citizens on their progress. BayStat tracks land conservation as an important tool for protecting water quality and identifying "targeted ecological areas" to prioritize its Program Open Space projects.

Monitoring also occurs at a river segment scale. For example, the James River Association published a 2011 report on the *State of the James River,* using the categories of fish and wildlife, habitat, pollution, and restoration and protection actions, as well as providing a combined score. Although conservation of natural areas and restoration of riparian buffers throughout the watershed continue to rise, the report also notes the demands for restoration and protection are also rising, given the threats of new development. The report indicates that the James River has met 85 percent of the state's adopted goal to permanently protect more than 20 percent of its watershed.

While sharing the report card concept, these monitoring programs vary in their purpose, success indicators and geographic coverage. As an advocacy organization, the Chesapeake Bay Foundation's *State of the Bay* report makes a case for seeking public support to improve the Bay's environmental health. Similarly, Maryland's BayStat offers a statewide mechanism for assessing conditions and applying its findings to statewide protection priorities. The James River Association takes monitoring to a watershed scale. Although all three programs serve important purposes, they do not specifically address current conditions or needs for protecting resources within the corridor of the John Smith Trail.

Comparable in some ways to Maryland's BayStat, trail monitoring should become a management tool that uses indicators meaningful to the trail's conservation strategies. Selecting appropriate indicators will depend somewhat on their geographic scale and feasibility of acquiring reliable information. Although percentage of permanently protected lands is an important indicator, it suggests that 100 percent permanent protection is the primary goal of every conservation initiative. Permanent protection, combined with private land stewardship and the trail's consideration in development permitting processes, reflects a more balanced and realistic goal.

Although trail-wide indicators will be applicable to individual conservation focus areas and trail segments, they may not be sufficiently specific to serve as management tools in evaluating success of on-the-ground initiatives. Needed is an approach that identifies and calibrates indicators that reflect relatively specific goals and milestones adopted for individual conservation focus areas.

Monitoring functions must also note changing circumstances that can affect the outcome of individual conservation initiatives. They may be associated with increased threats caused by events such as land sales, pending land subdivisions, and infrastructure improvements. Conversely, certain threats may diminish as a result of successful conservation projects or other actions, thereby providing opportunities to redirect efforts to other parts of the trail. Other changes may be associated with trail partners, such as the diminished role of one partner or the emergence of another. Changes in funding can dramatically reduce or enhance the capacity of conservation partnerships to carry out their missions. Therefore, both monitoring results and assessments of changing circumstances should contribute towards adjusting conservation strategies as required.

Working in cooperation with its state partners, the National Park Service will seek to maintain a trailwide database of trail conservation activities. Through segment planning, trail partners will also seek to design monitoring processes for segments and individual conservation focus areas.

Tracking Who's Doing What

A successful conservation strategy will require coordination among multiple partners leading to outcomes greater than the sum of their parts. Initiating and sustaining collaborative efforts to protect trail resources will require both a big picture perspective and engaging in the details of individual conservation initiatives. Such efforts are likely to be multi-jurisdictional—involving the public sector, nonprofit organizations, private landowners and other private sector representatives.

No single partnership management template is likely to consistently serve the trail's needs. However, the likelihood for success will be enhanced by a consistent means by which conservation initiatives are assessed and tracked in terms of "who's doing what" and understanding where the gaps exist, as suggested in Figure 4-7.

Figure 4-7. An action partnership matrix for conservation focus areas

	Resource Assessments	Trail Recognition	Strategic Conservation	Land Stewardship	Permanent Protection	Compatible Development	Monitoring
Federal Agencies							
State Agencies							
Local Jurisdictions							
Nonprofit Organizations							
Private Sector							

Chapter 5

Implementation

Following the shoreline of the Bay and its major tributaries, the John Smith Trail conveniently overlaps with many different public and private interests in protecting the Chesapeake. In most instances, protection of trail resources and values complements or overlaps with other conservation efforts aimed at water quality, wildlife habitat, cultural heritage, and public recreation. Because of this, virtually all conservation benefiting the trail will occur through collaborative partnerships.

The strategies described in chapter 4 outline the different steps and approaches through which partners can conserve trail resources. Given the vast extent of the trail, these are strategies that require implementation over the long term. Priorities—in terms of programmatic emphases and geography—must be set, and will change over time. The process for identifying conservation focus areas set out in chapter 3 addresses initial geographic priorities. This chapter sets out near term (2-3 years) programmatic emphases:

A. Continue identifying landscape values contributing to the trail experience—and share information on those values;
B. Promote the trail's recognition by demonstrating substantial progress in making the trail real;
C. Use segment planning for engaging local partners with the trail and for advancing trail development and conservation;
D. Collaborate with land conservation partners to advance specific projects that protect the visitor experience.

These steps, described in more detail below, identify what the National Park Service will undertake in collaboration with its partners. While the trail is managed by the NPS, *implementation of this strategy is largely dependent upon others—state agencies, other federal agencies, local governments, businesses, citizens, landowners and non-governmental organizations, including the Chesapeake Conservancy.* Their work, their success, and their partnership with the NPS is what will make the John Smith Trail real and what will achieve this trail conservation strategy.

A. Continue Identifying Landscape Values

The National Park Service will work with trail partners to further identify landscape values and resources that contribute to the visitor experience and share this information with conservation partners and the public. Specifically, NPS will:

* *Support further identification of indigenous cultural landscapes (ICLs).* In partnership with descendent indigenous communities, resource experts and academics, NPS will support efforts to review literature relevant to ICLs; list and map existing identified ICLs in the Chesapeake watershed; conduct pilot ICL identification and mapping projects along the John Smith Trail; and provide recommendations on ICL criteria and methodology.
* *Conduct additional resource assessments along key trail segments.* In addition to resource assessments carried out as part of segment planning, NPS will work with partners to conduct further assessments of viewsheds, evocative landscapes and cultural resources, such as a resource overview and viewshed analysis for the lower Susquehanna trail segment.
* *Share landscape values and conservation priorities through LandScope Chesapeake.* Many organizations and agencies outline their priorities in on-line mapping applications. One particular application designed specifically to support collaboration among partners in the Chesapeake watershed is LandScope

Chesapeake. This web-based site (www.landscope.org/chesapeake) provides users with mapped information and editorial content on a large array of local, state, federal, and non-governmental organization conservation priorities. The National Park Service, a partner in LandScope Chesapeake, will continuously add trail conservation information to the system, work with other organizations and agencies to incorporate their conservation priorities, and actively use the system to facilitate collaboration.

B. Promote the Trail by Making It Real

Trail partners, especially at the local level, want and need to see the trail become increasingly real. While much progress has been made since 2007, much more remains to be done. As more and more trail development projects come on-line, local governments, local land trusts, landowners and others will recognize opportunities for incorporating the trail into their stewardship plans. The National Park Service will:

* *Work with partners to increase public access along the trail.* NPS will focus its technical and financial assistance resources towards public access development along priority trail segments. In particular, NPS will focus on adding soft launches for paddle-craft as well as opportunities for primitive camping for canoeists and kayakers. NPS will also continue to work with partners to advance public access throughout the trail, based on the *Chesapeake Bay Watershed Public Access Plan.*
* *Increase trail visibility.* NPS will work with partners to increase the visibility of the trail, both on the landscape and through various media targeted to visitors. For example, NPS will continue work to install trail orientation kiosks at many key visitor sites along the trail route, including many state parks. NPS and partners will also work to add trail markers at public access sites along the route. NPS will also continue to expand web, mobile and print guides to using the trail, such as the *Chesapeake Explorer* mobile app, smithtrail.net, and other maps and guides.

C. Engage Localities in Segment Planning

As described earlier in this strategy, the National Park Service uses a collaborative approach to engaging partners in planning how to develop the trail in particular river segments. This creates an agenda for making the trail real along those routes, crystallizes opportunities for local trail programming and tourism, and recognizes opportunities or needs for conserving resources contributing to the visitor experience. NPS will continue collaborating with multiple partners to develop segment plans and engage localities in doing so. In 2013, segment planning will focus on the Potomac.

D. Collaborate on Land Conservation

States, land trusts, local governments, and private landowners are the biggest contributors to land conservation in the Chesapeake watershed. Other federal agencies, such as the USDA Natural Resource Conservation Service and the Department of Defense Readiness and Environmental Protection Initiative also provide significant investments. Realistically, the resources available to these organizations for land conservation are likely to continue to be far higher than funding the National Park Service would have to deploy. Fortunately, many of these organizations hold conservation objectives that can also protect the visitor experience along the John Smith Trail.

The National Park Service can be most effective by promoting communication and collaboration on trail conservation objectives among local, state and federal agencies and land trusts. NPS efforts will concentrate on the high-priority sites and segments identified in the trail CMP and on the conservation focus areas identified in this strategy and subsequent segment plans.

Specifically, NPS will:

* *Facilitate collaborative conservation.* NPS will work with multiple partners to advance collaborative conservation that benefits the trail. Both the John Smith Trail Advisory Council and the broad group of Chesapeake Landscape Conservation Partners include representatives of many of the major non-governmental organizations and state and federal agencies engaged in conservation along the trail. Through these forums and in direct work with individual partners, NPS will promote the trail's values and support conservation opportunities that achieve mutual benefits, including working with states and other conservation program managers to credit trail values in ranking and prioritization systems.
* *Pursue collaborative large landscape funding.* The Land and Water Conservation Fund (LWCF) provides funding for the federal government and the states to support land conservation and outdoor recreation. Recently, the National Park Service, US Fish and Wildlife Service (FWS), Bureau of Land Management (BLM) and US Forest Service began work towards targeting a portion of federal LWCF monies on collaborative community-based landscape conservation efforts that make the best use of sci-

ence, partnerships and leveraging to deliver a high return on Federal investments in land acquisitions.

NPS, FWS and BLM, in partnership with the Chesapeake Conservancy and many others have developed the Rivers of the Chesapeake Collaborative, focusing on the great rivers of the Chesapeake Bay. Along four initial focus areas in the Potomac, Rappahannock, James and Nanticoke River watersheds are over 17,000 acres in conservation opportunities—virtually all of which are along the John Smith Trail. A fifth future area on the Lower Susquehanna (also along the trail) encompasses opportunities for significant additional conservation. These landscapes include nationally significant resources such as migratory bird habitat, spawning sites for economically important fish and shellfish, historic viewsheds, and American Indian sites, and would increase outdoor recreation opportunities for the public and help to protect water quality. NPS will continue to work with multiple partners to pursue LWCF funding for the Rivers of the Chesapeake Collaborative.

* *Partner on protecting specific high priorities:* In addition to collaborating on identified conservation focus areas, NPS will partner with landowners and other agencies and organizations to conserve specific high priority properties. Given available funding, these efforts are much more likely to result in permanent protection by an agency or organization other than NPS. That said, there may be certain projects that merit direct NPS involvement; NPS would use criteria such as those listed in Appendix D as one means for identifying such priorities. Conservation easements would generally be preferred, except in cases where providing public access or protecting a uniquely sensitive resources (such as a particular archaeological site) are the conservation objective. Ultimately, for NPS to consider acquiring land or easements, a project would have to compete successfully in the agency's national land acquisition ranking system and be approved by Congress in the annual budgeting process. In recent years, funding for NPS land acquisitions has been very limited, and substantially less than the funds available to the states for land protection.

The National Park Service must also weigh constraints for funding to support operations, development, and maintenance in the event that land might be donated or transferred for trail purposes. To be eligible for favorable consideration as a donation, the Park Service would look to the availability of partners willing to commit to the long-term management costs of the land (unless the site is in proximity to an existing Park Service unit).

Conclusion

Implementation of this conservation strategy will be a continuing process over many years. Progress will be monitored and adjustments made to apply best practices as they evolve. The John Smith Trail is one way to link a multitude of programs designed to conserve the Chesapeake Bay and its tributaries and provide opportunities for public enjoyment. The promise of the John Smith Trail is to enhance public appreciation for and enjoyment of the Chesapeake's rich heritage, offering contemporary experiences that link history and cultures of the past with inspiration and benefits for both present and future generations.

Appendices

Appendix A. National Trails System Act

Appendix B. High-Potential Sites and High Potential Routes

Appendix C. Viewshed Analysis Methodology

Appendix D. Guidelines for Evaluating Acquisition Priorities

Appendix A

National Trails System Act

The text below is the portion of the National Trails System Act that specifically describes the Captain John Smith Chesapeake National Historic Trail and describes required planning. The much longer entire Act is included in the trail's Comprehensive Management Plan.

Section 5 . National Scenic and National Historic Trails

(a) (25) Captain John Smith Chesapeake National Historic Trail -

(A) In General - The John Smith Chesapeake National Historic Trail, a series of water routes extending approximately 3,000 miles along the Chesapeake Bay and the tributaries of the Chesapeake Bay in the States of Virginia, Maryland, and Delaware, and in the District of Columbia, that traces the 1607-1609 voyages of Captain John Smith to chart the land and waterways of the Chesapeake Bay, as generally depicted on the map entitled Captain John Smith Chesapeake National Historic Trail Map MD, VA, DE, and DC, numbered P-16/8000 (CAJO), and dated May 2006.

(B) Map - The map referred to in subparagraph (A) shall be on file and available for public inspection in the appropriate offices of the National Park Service.

(C) Administration - The trail shall be administered by the Secretary of the Interior in coordination with (I) the Chesapeake Bay Gateways and Watertrails Network authorized under the Chesapeake Bay Initiative Act of 1998 (16 U.S.C. 461 note; 112 Stat. 2961); and (II) the Chesapeake Bay Program authorized under section 117 of the Federal Water Pollution Control Act (33 U.S.C. 1267); and in consultation with other Federal, State, tribal, regional, and local agencies; and the private sector.

(D) Land Acquisition - The United States shall not acquire for the trail any land or interest in land outside the exterior boundary of any federally-managed area without the consent of the owner of the land or interest in land.

. . .

(f) Within two complete fiscal years of the date of enactment of legislation designating a national historic trail or the Continental Divide National Scenic Trail or the North Country National Scenic Trail as part of the system, the responsible Secretary shall, after full consultation with affected Federal land managing agencies, the Governors of the affected States, and the relevant Advisory Council established pursuant to section 5(d) of this Act, submit to the Committee on Interior and Insular Affairs of the House of Representatives and the Committee on Energy and Natural Resources of the Senate, a comprehensive plan for the management, and use of the trail, including but not limited to, the following items:

(1) *specific objectives and practices to be observed in the management of the trail, including the identification of all significant natural, historical, and cultural resources to be preserved,* details of any anticipated cooperative agreements to be consummated with State and local government agencies or private interests, and for nation

(2) al scenic or national historic trails an identified carrying capacity of the trail and a plan for its implementation;

(3) the process to be followed by the appropriate Secretary to implement the marking requirements established in section 7(c) of this Act;

(*4*) *a protection plan for any high potential historic sites or high potential route segments….* [emphasis added]

Appendix B

High-Potential Sites and High-Potential Routes

Criteria used to designate high-potential sites are summarized in the box below. Future research and/or changing resource conditions along the rail could support decisions by the NPS to designate additional high potential historic sites.

High-Potential Sites—Definition and Criteria

The term high potential historic site, as defined by the National Trail System Act (Section 12) refers to those sites related to the route which provide opportunities to interpret the historic the trail's historic significance. Criteria for consideration as high potential sites include: historic significance, presence of visible historic remnants, scenic quality, and relative freedom from intrusion. The trail's Comprehensive Management Plan recognizes the following categories of high-potential sites.

Class 1—Smith Voyage Stops

* Important historic and interpretive associations
* Scenic quality and relative freedom from intrusion
* Public access

Class 2—Significant 17th Century American Indian Archeological Sites

* Important historic and interpretive associations

Class 3—Landscape Features and Cultural Sites Significant to Modern American Indian Tribes

* Important historic and interpretive associations
* Scenic quality and relative freedom from intrusion

Class 4—Sites Along Voyage Routes Highly Evocative of the 17th Century

* Scenic quality and relative freedom from intrusion
  Public access

1. Significant Voyage Stops with a Highly Evocative Setting

James River	5-21
	6.2, 7.21, 7.24-1, 9.7-1
Nanticoke River	6.10-1
York River	12.26, 12.27
Pamunkey River	12.20
Rappahannock River	8.18-1, 8.21-1, 8.23-1, 8.23-2
Potomac River	6.71
Patapsco River	6.12-4, 6.14-1
Susquehanna River	8.2-1, 8.2-2, 8.2-4,
Sassafras River	7.31-2, 8.1-1
Pocomoke River	6.5-3
Wicomico River	6.6-3
Cape Charles	6.3-2
Chesapeake Bay	6.5-1, 6.6-1, 6.7.8-1, 6.11-1, 6.11-2

2. Significant 17th Century American Indian Archeological Sites (number of sites)

James River	10
Rappahannock River	3
York River	1
Nansemond River	3
Pamunkey River	9
Patuxent River	3
Potomac River	2
Piscataway Creek	1

3. Landscape Features and Cultural Sites of Significance to Modern American Indian Tribes

Future consultation with tribes or scholarly research, to be conducted as part of more detailed trail planning and management, would reveal the occurrence of landscapes and sites that meet this criterion for a high potential historic site.

4. Sites Along Voyage Routes Highly Evocative of the 17th Century

Rappahannock River
Certain parts of Corbins Neck Marsh, Cleve Marsh, Skinkers Neck Marsh, The Bays, Beverly Marsh and Fones Cliffs

James River
Certain parts of Epps Island

Anacostia River
Certain parts of Kenilworth Marsh

Source: Comprehensive Management Plan, page 2-35

High-Potential Route Segments

Criteria used to designated high-potential route segments are summarized in the box below. As part of the CMP planning process, the NPS planning team has applied these criteria to high-potential route segments, in consultation with the trail's Advisory Council and the Chesapeake Conservancy.

The criteria which most limited the designation of high-potential route segments were the capacity to support a high quality recreation experience, as evidenced by the presence of an established water trail with one or more partnerships with the capacity to provide recreational experiences to the water. Future research and field study, changing environmental conditions, addition of public access sites, additional land protection, and/or development of new water rails and partnerships could support designation of additional high potential route segments

Source: Comprehensive Management Plan, page 2-34

Criteria for High-Potential Route Segments

Trail-Related Resources

Must have a much greater than average aggregation of trail-related resources within the trail corridor, including:

- High potential sites
- Visible shoreline generally evocative of the 17th century
- Other voyage stops
- Indigenous cultural landscapes
- Historic American Indian Town sites
- Cross sites

Public Access Sites

Must have capacity to support high quality water-based and land-based recreation experiences supported by:

- A local coordinating and managing organization
- Local community and government
- Public access
- A partnership with the NPS or state resource agencies able to provide technical and financial assistance to aid in the trail's development
- Proximity to a CBGN partner

Presence of Protected Lands

Must have greater than average adjoining land protected by public or nonprofit ownership that may or may not be open for public recreation.

Figure B.1 Designated high-potential route segments in the Comprehensive Management Plan

Lower Susquehanna and Head of the Bay
Nanticoke River
Rappahannock River
Middle Potomac River
Chickahominy River
James River
Patuxent River

Source: Comprehensive Management Plan, page 2-35

Appendix C
Viewshed Analysis Methodology

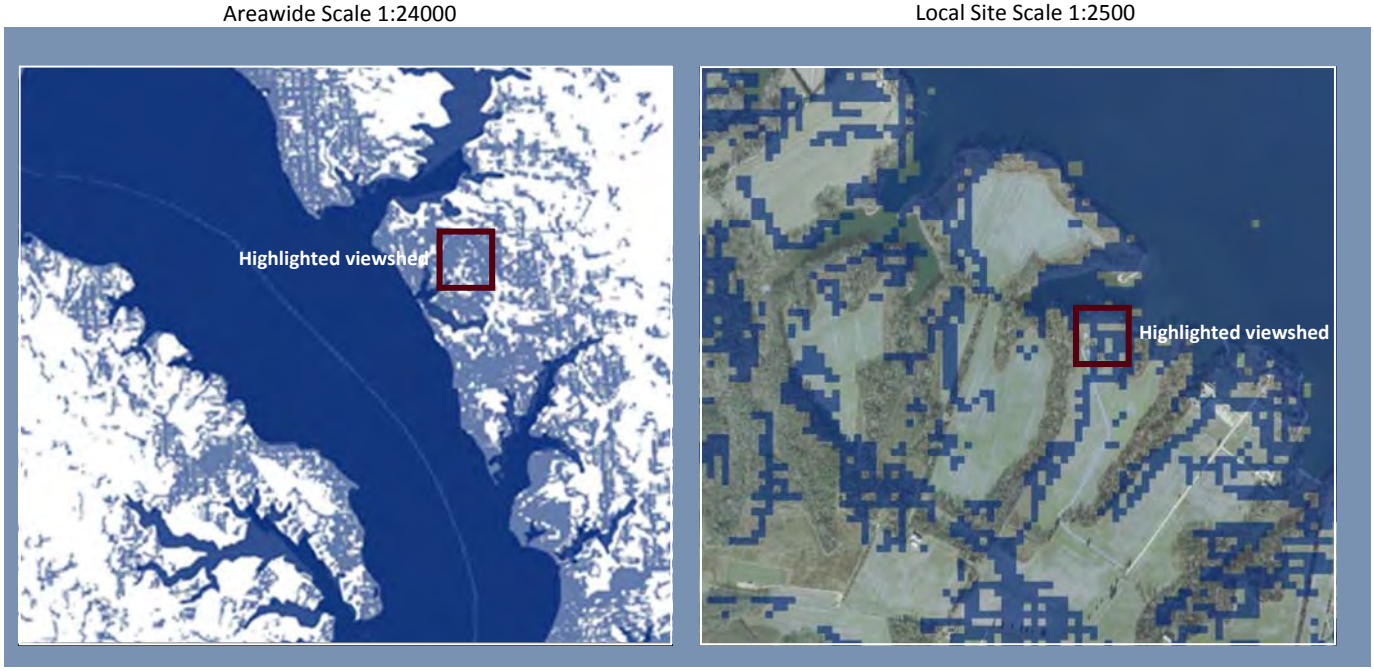
The viewshed simulation methodology used in preparing the Comprehensive Management Plan provides an order -of-magnitude estimate of the trail's viewshed, i.e., lands potentially seen from the Captain John Smith Trail for the entire trail and its route segments. The technique is less applicable at larger (local site) scales as an accurate representation of what trail users may actually see from a specific location, as illustrated in Figure C-1. When working at the local site scale, viewshed simulation should always be supplemented by field observations to help define the most accurate delineation of the trail corridor.

The CMP's viewshed analysis was performed with the ESRI Spatial Analyst extension. Data layers used to create the model included: National Elevation Dataset (USGS 1-Arc Second NED), tree cover from Virginia's Forest Cover (VA Dept. of Forestry) and Maryland's Green Infrastructure Land Cover (MD DNR), Wetlands (NWI, May 2009), and John Smith voyage routes (NPS). Smith's voyage route served as the observation point, assuming a surface water elevation plus an additional six feet. After consideration was given to sight distances extending up to 3.29 miles, a maximum visual line of sight of 1,000 feet was selected, creating a corridor of 2,000 feet for the viewshed analysis.

The CMP's viewshed analysis was limited to the originally designated route of the trail, prior to the addition of four connecting trails in May 2012, which extended the trail route significantly. A similar analysis is underway for these newer portions of the trail route not covered by the original work.

Figure C-1 . Viewshed simulations—areawide and local scales

Areawide Scale 1:24000



Local Site Scale 1:2500

Appendix D
Guidelines for Evaluating Acquisition Priorities

On an annual basis, the National Park Service will identify priorities for both technical assistance and potential acquisitions of lands or easements. The methodology described below is intended to illustrate how priorities could be established. Specific steps and criteria would be adjusted every few years based on experience and specific characteristics of proposed projects, which may involve acquisition of a single tract or several parcels where a mix of tools could be applied.

For example, a series of screens could be applied to see if the proposed project is eligible for Park Service assistance or if another partner would be the most appropriate lead. For the Park Service, preliminary eligibility would be determined by considering the following questions:

1. Does the CMP or segment plan identify the area as a high-potential site or high-potential route? If not currently identified, would the area meet established standards for such a designation?
2. Is there a willing seller, donor, or partner to accomplish the potential acquisition?
3. Is a trail partner prepared to commit to long-term stewardship, management, and operations of any land or easements proposed for acquisition? If the proposed project passes this initial screening, the Park Service would then evaluate the project for the following attributes:

Resource significance: Will the project protect a resource that is especially significant (a unique, rare, or outstanding example of a resource type)? How does the project compare with what we know about other documentation of resource significance to the trail's cultural values and opportunities for visitor experience?

Integrity: Does the project area contain resources that have a high degree of integrity in their natural and cultural resource values? If integrity has been compromised, could important resource values be restored at reasonable cost?

Threats/risk analysis: Are the area's significant resource values at risk of being lost or impaired? What is the likely time frame for such impacts? If damage is imminent, is protective action possible to prevent loss of significant resource values?

Access: Does the project provide public access to sites or segments where it is now lacking? Does it enhance existing access opportunities and expand potential use of the trail by different modes (for example, paddle craft instead of motorized boats, land access instead of water)?

Interpretive /educational opportunities: Are there opportunities for high quality interpretation and visitor experience? Does it include resources that are especially illustrative of major interpretive themes for the trail, or examples of resources that have exceptional educational value?

Partnerships and leverage: Can the project leverage support from multiple partners and programs? For example, is there documentation that acquisition of an access site might generate commitments from landowners to enter cooperative agreements, and land trusts to convey easements for permanent protection of the surrounding shoreline? Might protection of a few acres generate support from other federal and state programs to protect a much larger landscape of importance to indigenous cultures?

Local support: Does the project have documented support of neighboring landowners, local residents, and their elected representatives? How does this compare to evidence of local support (or potential opposition) for other potential projects?

Multiple benefits: Does the project provide multiple benefits in addition to those of the Smith trail (such as shoreline buffers that protect and connect wildlife habitat, enhance water quality, connect communities to recreational opportunities, offer economic benefits from heritage tourism, etc.)?