

Chesapeake Bay Special Resource Study and Final Environmental Impact Statement

ABSTRACT

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National Park Service
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Responding to a request from Congress, the National Park Service (NPS) has explored the potential for a new unit of the National Park System focused on the Chesapeake Bay. The *Chesapeake Bay Special Resource Study (SRS) and Final Environmental Impact Statement* examines whether having additional Chesapeake Bay resources within the National Park System would make sense and would advance partnership efforts to conserve and celebrate the Chesapeake Bay; defines any concepts for how resources or areas of the Bay might fit within the National Park System; and makes recommendations regarding these findings. The *Chesapeake Bay Special Resource Study (SRS) and Final Environmental Impact Statement* describes a series of conceptual alternatives for how the National Park System might best represent the national significance of the Chesapeake Bay.

The study compares four action alternatives against a no action alternative that calls for the continuation of existing initiatives:

Alternative A: Today's Programs – No New Initiatives—This alternative assumes the National Park Service would simply continue its existing roles related to Chesapeake Bay conservation, restoration and interpretation.

Alternative B: An Enhanced Chesapeake Bay Gateways Network – A Permanent Watershed-wide System of Special Bay Places for Experiencing the Chesapeake--This alternative would enhance and build upon the existing Chesapeake Bay Gateways Network, the partnership system of 140-plus parks, refuges, maritime museums, historic sites and trails around the Bay watershed.

Alternative C: Chesapeake Bay Estuary National Park – Conserving and Exploring the Bay's Waters – The Chesapeake Bay is a vast estuary – 2,500 square miles of water – known not just for its size, but also its high productivity as a natural system. This alternative would create a water-based national park that exemplifies the larger Bay's estuarine character with limited land resources for access and interpretation.

Alternative D: Chesapeake Bay National Reserve – Protecting Bay Maritime & Rural Heritage – Unlike national parks, national reserves protect and sustain the working landscape, recognizing the vital role of continued human uses in the heritage of a special place. This alternative would create a reserve representative of the Chesapeake's maritime and agricultural heritage.

Alternative E: Chesapeake Bay Watershed National Ecological & Cultural Preserve – A Living Example for the Bay and the Nation--The Bay is fed by 124,000 miles of rivers and streams from a 64,000 square mile watershed. This alternative would establish a national ecological and cultural preserve focused on one exemplary Bay tributary, from headwater stream to open Bay, representative of the larger watershed.

Preferred Alternative: Alternative B represents a remarkably efficient and effective approach to advancing public understanding and enjoyment of Chesapeake resources and stimulating resource conservation. The Chesapeake Bay Gateways Network should be a permanent partnership system for experiencing the Chesapeake. For this to occur, alternative B would be implemented in its entirety: the Gateways Network would be designated a permanent program of the National Park System with an on-going funding commitment; creation of two new partnership Chesapeake Bay interpretive/education centers would be stimulated through two matching grants; and the Gateways Network would enhance links to surrounding working landscapes. At some time in the future, a unit of the National Park System encompassing either one or several of alternatives C, D, and E could make a significant contribution to protection and public enjoyment of the Chesapeake Bay.

Questions regarding this document should be directed in writing to the Director, National Park Service Chesapeake Bay Program Office, 410 Severn Avenue, Suite 109, Annapolis, Maryland 21403.

Executive Summary

CELEBRATING & CONSERVING A NATIONAL TREASURE:

Exploring the Opportunities & Alternatives

Responding to a request from Congress, the National Park Service (NPS) has explored the potential for a new unit of the National Park System focused on the Chesapeake Bay. This section summarizes the product of that effort – the *Chesapeake Bay Special Resource Study (SRS) and Final Environmental Impact Statement*.

Most importantly, the *Chesapeake Bay Special Resource Study and Final Environmental Impact Statement* describes a series of conceptual alternatives and a preferred approach for how the National Park System might best represent the national significance of the Chesapeake Bay.

The National Park System

The National park System protects America’s treasured places—grand and wild, historic and human, on mountain peaks and under water. Our national parks, 388 of them, welcome visitors to the best of the American experience.

The Chesapeake Bay

The Chesapeake Bay is a spectacular national treasure, rich in nature and history. Almost 200 miles long with 2,500 square miles of water, the Bay drains 64,000 square miles of land from New York to Virginia through 150 rivers and thousands of streams. It is home to millions and influences and inspires our culture, our economy and our recreational pursuits. Simply put, the Chesapeake Bay is a vital part of the American experience.

Many people, organizations and agencies are working hard to celebrate and conserve the Chesapeake and restore key natural resources and functions. Local residents and visitors, groups, stakeholders, and regional, state and federal agencies have long cherished the Chesapeake Bay and its important role in the natural environment and cultural development of the United States. However, we all also recognize the Chesapeake Bay faces significant pressures, which in some cases threaten the long-term sustainability of the Chesapeake ecosystem. This study provides an opportunity to look beyond existing programs and consider additional ways of conserving and celebrating the Chesapeake Bay.

The Special Resource Study

This study does three things:

- Examines whether having additional Chesapeake Bay resources within the National Park System would make sense and would advance partnership efforts to conserve and celebrate the Chesapeake Bay;

- Defines any concepts for how resources or areas of the Bay might fit within the National Park System;
- Makes recommendations regarding these findings.

At a series of public workshops in September 2002, many people discussed initial concepts for this study. New ideas and refinements came from those sessions and from comments submitted in writing and on the SRS website. Those refinements, combined with analysis by the study team and Chesapeake Bay partners, led directly to a series of five conceptual alternatives. (See Section 3 for more information and public comments that led to the current alternatives.)

The Alternatives

The alternatives described in the study are concepts for how the Chesapeake Bay might be represented within the National Park System. They provide different answers to the questions: If a Chesapeake Bay-focused unit of the National Park System were to be created . . .

- What would it be like?
- What focus or emphasis would it have?
- What types of resources would need to be included?
- What would be the conservation goals or priorities?
- What would a visitor experience?

Of the five alternatives, one (alternative A) is a “no action” alternative that would simply continue current NPS roles in the Chesapeake Bay. The four “action alternatives” (B, C, D & E)¹ vary significantly. One of these, alternative B, is quite different from the others and would not technically be labeled a unit of the National Park System.

The descriptions on the following pages are summarized. Full descriptions and a comparison chart can be found in Section 4. An environmental analysis can be found in Section 6. This detailed information is also available on the study website – www.chesapeakestudy.org.

Alternative A: Today’s Programs – No New Initiatives

Rather than adding a new Chesapeake Bay-focused unit of the National Park System, this alternative assumes the National Park Service would simply continue its existing roles related to Chesapeake Bay conservation, restoration and interpretation. Generally, these roles include:

- Partnership in the Chesapeake Bay Program, the federal/state Bay watershed conservation effort;
- Management of existing National Park System units in the Chesapeake Bay watershed;
- Coordination of the Chesapeake Bay Gateways Network through 2008; and

¹ Note: Alternatives B-E assume the continuation of existing initiatives for the duration of their authorized programs and funding. However, alternatives B-E add new elements, concepts or approaches as well.

- Providing technical assistance to communities and organizations to facilitate conservation of watersheds, natural and cultural resources.

Alternative B: An Enhanced Chesapeake Bay Gateways Network – A Permanent Watershed-wide System of Special Bay Places for Experiencing the Chesapeake

This alternative would enhance and build upon the existing Chesapeake Bay Gateways Network, the partnership system of 140-plus parks, refuges, maritime museums, historic sites and trails around the Bay watershed. The Chesapeake Bay Gateways Network would retain its current core characteristics, but be enhanced to fill several identified gaps in Bay conservation and restoration. It would:

- Be authorized as a permanent program of the National Park System giving the Network a continuity limited by current legislation; this would provide the broadest and most far-reaching means of addressing the geographic and thematic diversity of the Chesapeake Bay watershed;
- Stimulate the creation of and add two partnership Bay interpretive/education facilities; and
- Create a new means of linking Gateways to their surrounding working Bay landscapes.

Alternative C: Chesapeake Bay Estuary National Park – Conserving and Exploring the Bay’s Waters

The Chesapeake Bay is a vast estuary – 2,500 square miles of water – known not just for its size, but also its high productivity as a natural system. This alternative would create a national park that exemplifies the larger Bay’s estuarine character with only limited land resources for access and interpretation. The park would:

- Encompass a reasonably large, but still proportionally small water area representative of core aspects of the Chesapeake’s estuarine environment, including limited, but related shoreline areas;
- Protect aquatic resources within the park in a high quality natural system, reflecting the Bay’s importance as habitat, breeding ground and refuge for countless species;
- Provide public access that allows visitors to explore, enjoy and learn about the estuary and its resources without degrading the estuary’s natural systems; and
- Interpret the Chesapeake Bay as an outstanding natural system through a land-based visitor orientation/interpretive center and other programming in the park.

Alternative D: Chesapeake Bay National Reserve – Protecting Bay Maritime & Rural Heritage

National reserves protect and sustain the working landscape, recognizing the vital role of continued human uses in the heritage of a special place. This alternative would create a reserve representative of the Chesapeake’s maritime and agricultural heritage. The reserve would:

- Encompass an area of land and water reflective of the region’s rural maritime, agricultural heritage;
- Retain the living, working character and pattern of human use of the lands and waters;

- Protect traditional resource dependent activities (commercial and recreational fishing, crabbing, oystering, agriculture, forestry) and manage the resources for permanently sustainable use;
- Conserve the reserve landscape, preserving high priority, sensitive natural and cultural resources;
- Interpret the Chesapeake Bay’s heritage through media and programming at a central interpretive center and multiple partner sites within and beyond the reserve; and
- Be fully dependent on a partnership approach to management, involving local, state and federal government and the private sector.

Alternative E: Chesapeake Bay Watershed National Ecological & Cultural Preserve – A Living Example for the Bay and the Nation

The Bay is fed by over 124,000 miles of rivers and streams from a 64,000 square mile watershed. This alternative would establish a national ecological and cultural preserve focused on one exemplary Bay tributary – from headwater stream to open Bay – as a representative of the larger watershed. It would:

- Conserve and restore the tributary ecosystem such that human uses are in optimal balance with natural processes, ensuring a vital, sustainable and clean future;
- Protect key natural resources and river shorelines along a core riparian area along the tributary;
- Demonstrate and apply the best in evolving stewardship practices on public and private lands throughout a resource conservation area encompassing the entire tributary watershed;
- Provide a series of opportunities for experiencing and learning about the transition of natural areas from headwaters to Bay and how human actions influence the health of the Bay; and
- Be fully dependent on a broad partnership approach to management.

Selection of Preferred Alternative

A draft Chesapeake Bay Special Resource Study and Environmental Impact Statement, including the alternatives described above, was available for public comment in summer 2003. The draft stimulated over 3,000 comments from the public by mail, fax, email and the internet, as well as at a series of public open houses. A summary of public comments is provided, beginning on page 61. The National Park Service used these comments to help formulate a preferred alternative for this study.

A final special resource study is required to “identify what alternative or combination of alternatives would in the professional judgment of the Director of the National Park Service be most effective and efficient in protecting significant resources and providing for public enjoyment.”² This standard guides the identification of a “preferred alternative.”

Several factors combine to make the Chesapeake Bay Special Resource Study different from typical “new area studies” – and ultimately shape the most

² Public Law 105-391.

effective and efficient approach for a National Park Service role in the Chesapeake:

1. As a natural and cultural resource and source of recreational opportunities, the Chesapeake's scope is immense in significance, size and diversity.
2. The region has a wide range and variety of established institutions involved in various aspects of resource conservation, interpretation and recreation, including the Chesapeake Bay Program's guidance of a multi-faceted regional strategy for restoring water quality.
3. Through an extensive partnership system of multiple sites – the Chesapeake Bay Gateways Network – the National Park Service has a unique existing role in interpreting the Chesapeake, enhancing public access, and stimulating involvement in Bay restoration.
4. While there appears to be strong interest in the role a unit of the National Park System could play in contributing to Bay conservation and interpretation, there is not yet a site-specific park proposal within the study area.

These factors and other findings summarized on pages 63-65 point to a most effective and efficient approach combining elements of several alternatives in two principal outcomes:

The Chesapeake Bay Gateways Network should be enhanced and made permanent:

The existing partnership system of Chesapeake Bay Gateways represents the most comprehensive approach for visitors to experience the diversity of the Chesapeake Bay. The Gateways Network links Chesapeake sites throughout the watershed, enhancing their interpretation, improving public access to Bay resources, and stimulating citizen involvement in conservation. In addition to scores of sites are twenty designated water trails, extending well over 1100 linear miles – with outstanding potential for an integrated and nationally recognized Chesapeake Bay water trail system.

Though the Gateways Network exists today, under current law the National Park Service – the coordinating agency for the entire Network – would cease its involvement in 2008. This sunset date should be eliminated if the Gateways Network is to continue to function.

The National Park Service plays the core, integrating role in the Gateways Network: drawing together 140 independent sites in five states and the District of Columbia; coordinating overall planning for the Network with the states and other partners; providing technical and financial assistance to partner sites; and carrying out a range of Network-wide initiatives. The National Park Service role in the Gateways Network is unique – not duplicated by any other organization. However, it is fully consistent with legislation and precedent for key federal roles in the federal-state Chesapeake Bay watershed partnership.

Continuation of the Gateways Network and the National Park Service role is broadly supported by public and organizational comments – summarized as follows in comments by the Virginia Department of Historic Resources:

With millions of visitors coming to enjoy the Bay watershed each year . . . , a permanent commitment by the nation and NPS to the Gateways Network is instrumental to sound tourism, conservation and stewardship efforts. NPS's direct involvement in partnership with the states and regional and local conservation partners is critical. . . . The Bay is a vast resource representing several states, many diverse interests, multiple geographic locations, and a wide range of related sites and site types. The Gateways Network seems to be the most flexible option for providing for full recognition, assistance and interpretation of the vast array of sites that are related to the Bay. Furthermore, it seems the most efficient to implement, and the most fiscally responsible.

The Chesapeake Bay Gateways Network should be a permanent partnership system for experiencing the Chesapeake. For this to occur, alternative B would be implemented in its entirety: the Gateways Network would be designated a permanent program of the National Park System with an on-going funding commitment; creation of two partnership Chesapeake Bay interpretive/education facilities would be stimulated through two 1:1 matching grants (NPS grant share capped at \$2.5 million each); and the Gateways Network would enhance links to surrounding working landscapes.

Alternative B represents a remarkably efficient and effective approach to advancing public understanding and enjoyment of Chesapeake resources and stimulating resource conservation.

The park/reserve/preserve concepts (or combination of alternatives C, D & E) meet NPS criteria and fill a key gap in protection and public enjoyment of Bay resources:

While the Bay is large and diverse, with many ongoing protection and interpretation efforts (including the Gateways Network), some key gaps in those efforts remain. Those gaps relate to certain types of resources and themes – representative of the Bay – that are encompassed with the scopes of alternatives C, D and/or E.

At some time in the future, a unit of the National Park System encompassing either one or several of these alternative concepts could make a significant contribution to protection and public enjoyment of the Chesapeake Bay. While the alternatives are described in this study as individual concepts, many who commented on the draft study correctly observed that several concepts could be linked together. There are models for this at other locations within the National Park System, where several different sub-units are managed by the National Park Service, or a partner in association with the Park Service, as part of a larger unit. The sub-units typically protect and interpret key under-represented natural and cultural themes of the region. Existing park units neighboring the Bay (Fort McHenry National Monument, Colonial National Historical Park, and George Washington Birthplace, which each represent a narrow spectrum of Bay cultural themes) could be viewed as initial elements of such an approach.

However, there are no detailed, broadly supported site-specific proposals for any of alternatives C, D or E, or a combination thereof, at this time. As noted in the findings above, a finding on the feasibility of a potential future unit is wholly dependent upon site-specific analysis.

No further consideration and evaluation of these concepts as a potential Chesapeake Bay focused unit of the National Park System is necessary unless and until a specific proposal enjoying demonstrated state and local government, Chesapeake Executive Council³ and public support is advanced. Proposals suitable for future consideration would focus on those concepts (Alternatives C, D & E) and their core resources, or a combination of those concepts, determined through this study to preliminarily meet National Park Service criteria. Such proposals would clearly articulate how the key elements of the relevant concepts described in this study are met. The National Park Service would ultimately consider and offer a finding on any such proposal relative to new unit criteria – with a particular emphasis on feasibility and management alternatives – and this study’s findings and relevant concept descriptions.

³ The Chesapeake Executive Council – which guides the Chesapeake Bay Program – consists of the Governors of Maryland, Pennsylvania and Virginia, Mayor of the District of Columbia, Chair of the Chesapeake Bay Commission and Administrator of the Environmental Protection Agency.

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Section 1:

Purpose and Need for Action

PURPOSE OF THE SPECIAL RESOURCE STUDY

The Chesapeake Bay Special Resource Study (SRS) was requested by Congress to evaluate the potential for a new unit of the National Park System focused on the Chesapeake Bay.

The purpose of the study is to explore whether it would be appropriate to represent additional Chesapeake Bay resources within the National Park System and whether that would help advance the national and regional partnership efforts to conserve and restore the Chesapeake Bay; to determine what type of resource(s) and concept(s) might be appropriate, if any; and to make recommendations regarding these findings. The 1998 National Parks Omnibus Management Act provides that studies of potential new park units include a determination by the Director of the National Park Service on what alternative is most efficient and effective. Recommendations on what, if any action should be taken are made by the Secretary of the Interior when the study is transmitted to Congress. For this study, such recommendations focus on overall concepts, resource types and criteria and not site-specific resources.

As part of this mission, the study team, led by the National Park Service (NPS), has sought direct input from political, environmental, business and community leaders, as well as local citizens and resource managers, so that alternative concepts fully representing the national significance of the Chesapeake Bay and the requirements for new NPS units could be identified. Through evaluating the concept descriptions, stakeholders in potential sites and/or areas can begin to explore for themselves whether they fit one of the concepts and wish to suggest how their place might play a role if a concept were to be implemented in the future.

Ultimately, any realistic vision or concept can only be achieved in partnership with others and in a way that sustains the vital economic, cultural, natural and recreational role the Bay plays in its surrounding communities and the nation at large.

NEED FOR THE SPECIAL RESOURCE STUDY

The SRS provides a unique opportunity to look beyond existing programs and assess certain aspects of desired future conditions for the resources along the Chesapeake Bay. Local residents and visitors, action groups, stakeholders, and regional, state and federal agencies have long cherished the Chesapeake Bay and its important role in the natural environment and cultural development of the United States. However, these concerned parties also recognize that Chesapeake Bay resources face substantial pressures, in some cases threatening the long-term sustainability of the Chesapeake ecosystem.

Many people, organizations and agencies are now working hard to celebrate and conserve the Chesapeake Bay, and restore its key natural resources and

functions. Coordinating overall conservation and restoration efforts is the Chesapeake Bay Program, a partnership between the federal government, the states of Maryland, Virginia and Pennsylvania, the District of Columbia, and the Chesapeake Bay Commission. The National Park Service is a partner in this work.

Currently, the National Park Service works to enhance interpretation and conservation of, and access to, the Chesapeake Bay through a variety of programs and initiatives. These initiatives include: a) the Chesapeake Bay Gateways Network, a vibrant partnership system of natural, cultural, historical and recreational sites; b) management of existing NPS units, such as Fort McHenry National Monument and Historic Shrine and Colonial National Historical Park; and c) the provision of technical assistance to various preservation and conservation efforts in the Bay watershed. These initiatives help support the overall Bay conservation and restoration effort coordinated by the Chesapeake Bay Program.

Despite these efforts, existing programs may not completely encompass the important resources, stories, and themes of the Chesapeake Bay. Congress has described the units of the national park system as a cumulative expression of our national heritage. This system does not include a representative example focused on the Chesapeake Bay. The current study is intended to determine if establishing a new NPS unit would fill a gap in the National Park System. Equally important is the evaluation of a new NPS unit's potential to help support current partnership efforts to protect and interpret the Bay. Without effective recognition, protection, and interpretation, the natural resources, cultural resources and the lifestyles of the Bay may be threatened by loss, over-development, and degradation through neglect over time.

This SRS explores whether and how the NPS might extend and expand its support, using its resources and expertise to help ensure that the natural, cultural and recreational resources of the Chesapeake Bay will be enjoyed by future generations. Specifically, the study explores whether and how a National Park System area designation would help advance conservation and interpretation of the Chesapeake Bay. The SRS is a formal means of assessing existing programs, resources, and interpretive opportunities around the Bay, where gaps in conservation and interpretation might exist, and what the NPS role in filling those gaps might be.

STUDY PROCESS

Geographic Scope of the Study

The Chesapeake Bay as a region and a system is generally recognized as going beyond the strictest definition of the Bay itself. There are multiple layers, ranging from the Bay proper to the Bay and the tidal portions of its tributaries to the entire watershed. Sites within these broader areas contribute significantly to telling the Bay story.

However, the Chesapeake Bay watershed is enormous, encompassing 64,000 square miles (Figure 1-1). Even the Bay and its tidal tributaries have a

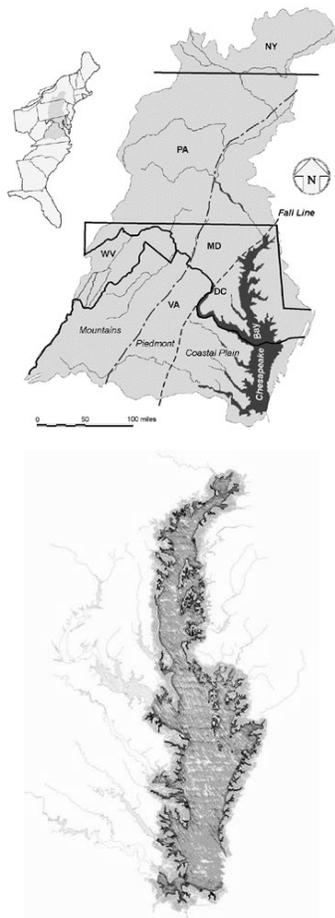


Figure 1-1: The Chesapeake Bay watershed, above, and the SRS area of focus, the mainstem of the Bay and the surrounding shoreline, below.

combined shoreline of over 11,684 miles. Since congressional interest in exploring the potential for a new National Park System unit(s) focused on the Chesapeake Bay, any potential unit should be directly recognizable as a Chesapeake Bay place.

Accordingly, the SRS focuses on the Bay proper and its surrounding shoreline. Any concepts or places considered in this study should have a substantial foothold or anchor along the Bay, but may extend beyond this core as well. The shaded portion of this drawing shows the area of focus for the study.

Study Process Overview

National Park Service management policies outline the criteria for designating a new unit and the process for conducting a special resource study. To be eligible for favorable consideration as a unit of the National Park System, an area must:

- Possess nationally significant natural or cultural resources;
- Be a suitable and feasible addition to the system; and
- Require direct NPS management instead of protection by some other government agency or by the private sector.

Generally these criteria are straightforwardly applied to specific resources and lands, usually more discrete than the Chesapeake Bay study area described above. A combination of factors – the geographic scope of the Chesapeake Bay, its diversity in resources and themes, and the lack of any initial specific proposed areas for park unit designation – requires a somewhat modified study process that still ensures NPS criteria are applied.

First and foremost, the Chesapeake Bay Special Resource Study starts with a different focus than many other special resource studies prepared by the National Park Service. This study focuses not on place, but on seeking consensus on what kind of unit of the National Park System – if any – might best represent the Chesapeake Bay. The concepts presented in this study as alternatives provide the basis for that discussion. Eventual implementation of any concept resulting from this study – a step requiring Congressional legislation – would be preceded extensive consultations and possibly even further study.

In developing concepts for a Chesapeake Bay unit of the National Park System, this study has encompassed the following steps:

- Defining the national significance of the Chesapeake Bay;
- Identifying the resource types and interpretive themes that typify the Bay
- Assessing the degree to which existing programs and initiatives conserve and interpret those resources and themes, or, conversely, identifying gaps in current Bay conservation and interpretation; Developing initial concepts as starting points for public discussion in workshops, briefings and consultations creating conceptual alternatives based on public feedback, gaps, Bay resources and themes and NPS criteria;
- Preparing a draft study with alternative concepts for public review;
- Evaluating public comments on draft alternatives;
- Establishing findings for a preferred NPS-alternative.

An interdisciplinary study team, led by the National Park Service, has overseen completion of these steps. Central to this process is the direct involvement of the public and Bay stakeholders in exploring and informing what kinds of concepts might best reflect the Chesapeake Bay. The study team has consulted with county, city, state, and federal officials; politicians; natural and cultural resource managers; technical experts; tourism officials; citizen's groups; trade organizations; and the general public.

“It is so known through the length and breadth of its watershed. The Bay. There is no possible confusion with any other body of water, no need for more precise description. It is, after all, the continent’s largest estuary. Its waters are rich, the main supply of oysters, crabs, clams and other seafoods for much of the Atlantic seaboard. Its shorelines cradled our first settlements. It is the Chesapeake.”

--William Warner, *Beautiful Swimmers*, 1976

Section 2: National Significance of the Chesapeake Bay

INTRODUCTION

The National Park System represents many of America’s most significant and treasured resources. In fact, having “national significance” is one of several key criteria that any new unit of the National Park System must meet.

A resource is considered nationally significant if it meets all four of the following standards:

- 1: The proposed unit is an outstanding example of a particular type of resource.
- 2: It possesses exceptional value or quality in illustrating or interpreting the natural or cultural themes of our nation’s heritage.
- 3: It offers superlative opportunities for recreation, for public use and enjoyment, or for scientific study.
- 4: It retains a high degree of integrity as a true, accurate, and relatively unspoiled example of the resource.

This study explores whether it is appropriate to represent Chesapeake Bay resources within the National Park System. Any such exploration must begin with an assessment of the Chesapeake Bay’s overall significance. Any specific concepts or places for representing the Bay within the National Park System must reflect this significance.

THE BAY’S NATIONAL SIGNIFICANCE

The Chesapeake Bay is a national treasure and a resource of international significance. The Chesapeake Bay is the largest estuary in North America and is historically one of the most productive in the world. The abundance of natural resources has fed multitudes and nurtured myriad cultures and ways of life. The Bay encompasses 2,500 square miles of water; its watershed, which includes 64,000 square miles of land in six states, is drained by over 124,000 miles of rivers and streams. The Bay watershed is an incredibly complex ecosystem of water and land, creatures and peoples, cultures and economies. It is a region of profound diversity, essential to the cultural and economic vitality of the nation. Home to more than 3,600 species of plants and animals, it is known far beyond its boundaries for its aquatic productivity and once-plentiful harvests of seafood; for its cultural diversity and richness; its extensive recreational capacity; and its scenic beauty.

Ultimately, to describe what makes the Chesapeake special, we must focus not on the individual but on the collective. As John Muir said in describing ecosystems, “When we try to pick out anything by itself, we find it hitched to everything else in the universe.” It is like this with the Chesapeake Bay. The

story of the Chesapeake is not just a story of individual places, resources, and events, but also of the region, and our nation, as a whole. It is the changing dynamics of the natural systems, the progression of events over time, and how the culture reflects the place.

To fully appreciate and understand the Bay, we must understand that the essence of the Chesapeake Bay story is found in the dynamic interconnectedness of water, place, nature and people over time. For centuries, human well-being has depended on the Bay's abundance, yet today, the Bay's well-being is dependent on human decisions and actions. Although it is one of the most studied bodies of water in the world, the Chesapeake Bay retains a spirit of mystery and unpredictability.

The Bay as a Natural Resource

A complex interaction of water, land, climate, geological formations and topographical features creates a unique ecosystem that supports the Bay's remarkable diversity and abundance. Long before humans came to the Chesapeake region, natural forces were shaping the Bay and its watershed. The Chesapeake Bay reflects a geology shaped by both cataclysmic events and the routine march of mountains to the sea, one grain of sand at a time.

The Chesapeake region contains three distinct, occasionally overlapping environmental areas or physiographic provinces. These are the Bay itself, the Coastal Plain, and the Piedmont. The Bay environment consists of deep and shallow open salt waters and the brackish waters of the lower tidal portions of rivers. The Coastal Plain bordering on the Bay consists of beaches, marshes, forests, and grasslands, growing on generally sandy or gravelly soils. This area is often called the tidewater region, since the waters along the shores rise and fall with the tide. The Piedmont region, beginning at the fall line as the upper limit of tidal influences, is characterized by mixed hardwood forests and softwood barren lands bordering on swift running freshwater rivers and streams.

The Chesapeake Bay is an estuary - a place of transition between the land and the sea, where incoming fresh water mixes with salty ocean waters driven by tidal forces. By their very nature, estuaries are places of tremendous diversity and productivity. Overall, the Chesapeake estuary is very shallow, with an average depth of about 7 meters - 10% of the area is less than a meter in depth and 20% is less than two meters. This shallowness influences the productivity of the Bay. The ability of light to penetrate the water column and reach the bottom creates an ideal habitat for living resources. Some 295 species of fish and shellfish are known to occur in the Chesapeake at various times of the year, with 32 being year-round inhabitants. Ninety percent of the Atlantic striped bass (rockfish) spawn in the Chesapeake Bay and its tributaries. Although severely depleted, nearly 40% of the U.S. commercial harvest of blue crabs comes from the Chesapeake. Approximately 2,700 species of plants have been inventoried in the Chesapeake Bay waters (the number of species of animals in flux is more difficult to estimate). The Chesapeake Bay is a major rest and feeding stop along the Atlantic Flyway for millions of migratory birds. The Bay is also winter home to more than 35% of all the waterfowl using the Atlantic Flyway. The Chesapeake Bay's abundance of

The Chesapeake Bay is nationally significant in part because it is an outstanding example of... an estuary in its natural sense, and of a unique historic and modern human development pattern that is profoundly influenced by the estuary's natural resources.

natural resources has nourished a myriad of associated cultures and has contributed to the very special Bay environment.

The Chesapeake Bay is nationally significant in part because it is an outstanding example of a particular type of resource. It is the largest estuary in North America – an outstanding example of an estuary in its natural sense, and of a unique historic and modern human development pattern that is profoundly influenced by the estuary’s natural resources.

The Bay provides an exceptional opportunity for interpreting the interdependence of cultural and natural resources, both in its modern condition and its nearly 300-year history.

The Bay as a Historical and Cultural Resource

Chesapeake Bay history encompasses thousands of years of human settlement from indigenous peoples and early colonists to new immigrants. The history of the Chesapeake is inextricably linked with this nation’s founding, growth, development, and perseverance. The Chesapeake landscape reflects settlement patterns that responded to the evolution of transportation technology, from canoe to sail to steam to railroads and highways. The Bay’s abundance, diversity of habitats, and commercially valuable species led to hundreds of human settlements along its shores, and the development of local culture and industries. Indigenous Native Americans lived along the Bay’s main and tidal river shorelines, leaving evidence of a rich diversity of cultures and adaptations to the estuary’s abundance. The early European settlements along its shores, such as Jamestown and St. Mary’s City, were among the first successful English colonial developments along the northern and mid-Atlantic coast. The Chesapeake Bay had a major influence on colonial development, the Declaration of Independence, the revolutionary period, the War of 1812, and the Civil War. Today, the Bay continues to influence 21st-century living.

The geography of the Bay and its rich, natural abundance have been a powerful incentive for commercial development, influencing the region’s economy, transportation, and productivity. From early settlement through modern times, the natural environment of the Bay and the diverse population it has attracted have given shape to distinctive cultural traditions.

Watermen, the unique term applied to those making their living from the Bay’s waters, hold a prominent place in the region’s history, economy and mystique. Working year-round, many watermen harvest oysters half the year and crabs the other half. Others harvest clams, menhaden, and other fish. Waterfowl, once present in vast flocks, supported market hunting, an extractive industry that did not long endure in the face of resource depletion.

For those who worked on the Bay, vessels and methods were developed to take full advantage of the Bay’s resources. The history of naval architecture on the Chesapeake encompasses schooners, Baltimore clippers, steamships and warships, from the nation’s first iron-hulled ship to modern designs from the Chesapeake shipyards. Private and commercial vessels have long been designed to respond to the unique Bay environment and working conditions. Skipjacks and bugeyes are widely recognized hull designs that have historically plied the Bay’s shallow waters. Centuries after the first commercial boats on the Bay, commercial shipping continues to be a driving force in the regional economy and the national and international

transportation and shipping network. The Port of Baltimore handles more than 30 million tons of cargo annually (Maryland Department of Transportation, 2003). The Port of Virginia at the gateway to the Bay is also a major force in the international shipping arena moving more than 12 million tons annually through the marine facilities (Port of Virginia, 2003).

Today, the cultural richness of the Bay region is maintained in the face of the extensive changes in contemporary society and tourism development. Distinctive dialects, stories, and superstitions are retained, and traditional trades of the watermen, shipbuilders, lighthouse keepers, farmers, and old fishermen are continued. The impressive history has been recognized locally with extensive interest in preserving historic structures and the cultural resources of the past. Today, there are more than 200 National Historic Landmarks designated around the Chesapeake Bay in Maryland, Pennsylvania, Virginia and the District of Columbia.

The Chesapeake Bay is nationally significant in part because it possesses exceptional value or quality in illustrating or interpreting the themes of our nation's natural and cultural heritage. The Bay provides an exceptional opportunity for interpreting the interdependence of cultural and natural resources, both in its modern condition and its nearly 300-year history. Over that period, the Bay has exerted an extraordinary influence on the course of United States history and development.

The Bay as a Recreational Resource

The Chesapeake Bay is within relatively easy access for tens of millions of people living in the mid-Atlantic states. For these people, it continues to be an incredible educational and recreational resource. Current and future recreational use of the Chesapeake Bay is focused on sailing and boating, fishing, cultural and natural history exploration and interpretation, and enjoyment of local foods, crafts, and hospitality. The Bay provides ideal resources and much potential for such recreation, and in recent decades, Bay-related recreation has become an economic force in the region.

Abundant opportunities for a broad range of leisure-time activities spring from the vast resources and exquisite landscapes of the Chesapeake Bay. The traditional uses of the Bay, including boating, fishing, and hunting, by long-time area residents, also attract visitors for recreation and renewal. Recreational boats now outnumber work boats in most of the Bay's communities. In 2000, there were more than 445,000 recreational boats registered in Maryland, Virginia and the District of Columbia (US Coast Guard, 2000)

One great recreational characteristic of the Bay is its soft sandy bottom. Unlike other bays such as Narragansett and San Francisco, the sandy bottom reduces the risks inherent in running aground and therefore allows boaters to explore smaller embayments and sail closer to shore. Personal watercraft, motorized boats, luxury pleasure craft, and working boats enjoy both the protection and beauty of the shorelines and the expanse of the open water.

The Bay's open waters, tidal rivers, and shorelines, as well as dozens of parks and refuges and a rapidly developing system of land and water trails, provide excellent opportunities for public use, enjoyment, education, and scientific study.

For fishermen, the diversity of the Bay enhances that greatest of all mysteries, “what is on the end of your line?” On a single fall day, a fisherman with a rod and reel has a realistic chance to catch a rockfish, bluefish, two types of trout (spotted sea trout and weakfish), flounder, spot, croaker, Spanish mackerel and white perch. In some places, there is an added bonus of two types of drum (red or black), black sea bass, cobia, yellow perch, pickerel, largemouth bass, catfish, sunfish, tautog, and other transient species.

The value of the Chesapeake Bay as a passive recreational resource cannot be overstated. To watch fish jumping, birds diving from the sky, waterfowl dabbling in the grass beds, and watermen tonging for oysters is highly enjoyable to outdoor enthusiasts interested in “nature viewing” as well as more active recreation. Being able to walk by the shoreline and see the life at the edges is gratifying and interesting to observe. You never know what will surprise you as the environment changes every hour of every day.

Present estimates are that only one to two percent of the Bay’s shoreline is publicly accessible. If you have a seaworthy boat, the Bay is openly accessible, but if you are looking for a place to wade or picnic with the family or do surf fishing, your recreational options are more limited. Interest in and commitment to the Chesapeake Bay and its associated resources are greatly affected by personal contact with the natural and cultural systems. Improved opportunities for access to the shores, waters, and associated cultural and natural resources are essential if public awareness and support is to be maintained and increased. Consequently, enhancing public access to meet escalating recreational demand is considered a priority by public and private Bay interests.

The Chesapeake Bay is nationally significant in part because it offers superlative opportunities for recreation, public use and enjoyment, and scientific study. The Bay’s open waters, tidal rivers, and shorelines, as well as dozens of parks and refuges and a rapidly developing system of land and water trails, provide excellent opportunities for public use, enjoyment, education, and scientific study.

The Bay’s Integrity Today

The future of the Chesapeake hangs in the balance. The Bay today is beautiful and teeming with life. But the Chesapeake has been losing its wonderful biodiversity and abundance for decades, symbolic of a national pattern. The Chesapeake Bay and its living resources are suffering from the cumulative effects of human use and exploitation. More than 15 million people live within the Chesapeake Bay watershed. The same resource that fed millions is now hard pressed to feed tens of millions. The same land area that has housed millions is reeling under the impacts of an ever-growing population and related development pressures. If the Bay is to retain its vitality, people must increase their efforts to reduce and prevent pollution.

New environmental attitudes, policies, and behaviors offer hope for the Bay’s protection, renewal, and sustainability. Recognizing the fragility of the ecosystem, residents, visitors, governments, and organizations have reassessed the ways in which humans interact with the Bay and its resources.

The changes resulting from this attention are helping to restore the Bay. The Chesapeake Bay is perhaps the most studied large estuary ecosystem in the world and arguably a primary model for ecosystem restoration and regional partnerships. The Chesapeake Bay Program is the model for dozens of other estuary restoration efforts nationally, including Casco Bay, Long Island Sound, Tampa Bay, Monterey Bay, Puget Sound and others. Much hope is placed on this ecosystem recovery and protection effort to serve as a model for additional regions.

The Chesapeake Bay is nationally significant in part because it retains a high degree of integrity as a true, accurate, and relatively unspoiled example of the resource that it illustrates. Despite some changes in its vitality, the Chesapeake Bay continues to function as an intact estuary. Furthermore, part of what makes the Chesapeake Bay significant is the effort that has been made to understand the Chesapeake ecosystem and restore the Bay's health.

Summary

The Chesapeake Bay is undoubtedly nationally significant. The Bay is an outstanding and large example of a unique set of ecological and cultural elements with a long-standing importance to the history and development of the United States.

While the Chesapeake can be independently viewed as a significant natural resource, a significant historic and cultural resource, and an area that provides outstanding recreational opportunities, it can only truly be understood as an interconnected and interdependent mosaic. Real understanding of the Bay comes by viewing all elements through their context and interrelationships.

The Bay's natural resources are the basis of a rich cultural history and multitude of recreational opportunities. The region's cultural history in turn affects the natural environment. The Bay proper is dramatically influenced by its watershed. Many cultural patterns of the upper watershed developed because of connections with the Bay. The Chesapeake is truly a system where each part's significance is understood through the significance of the whole.

RECOGNITION OF THE SIGNIFICANCE OF THE CHESAPEAKE BAY

Recognition of the Chesapeake Bay as a living national treasure has long been a part of the regional and national conscience. More recently, state and federal government have heightened that recognition. The Chesapeake Bay was the first estuary in the United States targeted for intensive government-sponsored restoration efforts. Initiated and championed first by citizens, efforts were made to stop the pollution that had nearly killed the Bay by the early 1970s.

The Chesapeake Bay is now the focus of an intensive state/federal restoration and protection effort. In 1983 and 1987, the states of Virginia, Maryland, and Pennsylvania, the District of Columbia, the Chesapeake Bay Commission, and the U.S. Environmental Protection Agency, representing the federal

“The Chesapeake Bay is a national treasure that is worth preserving for its own sake.”

--President Ronald Reagan,
1984

government, signed historic agreements establishing the Chesapeake Bay Program partnership to protect and restore the Chesapeake Bay ecosystem. For almost two decades, these signatories have worked together as stewards to achieve improved water quality and improvements in the productivity of living resources of the Bay. This commitment was reaffirmed through the *Chesapeake 2000* agreement, wherein the signatories recognized that the Chesapeake Bay is a resource of extraordinary productivity and worthy of the highest levels of protection and restoration. The *Chesapeake 2000* agreement committed the Chesapeake Bay Program partners to 94 specific measurable goals, each goal, like the elements of the Bay itself, connected to all the others.

Congress, recognizing that the Chesapeake Bay is a national treasure and a resource of worldwide significance, enacted the *Chesapeake Bay Restoration Act of 2000* reauthorizing the continuance of the Chesapeake Bay Program to implement the comprehensive cooperative restoration program.

Noting the existence of outstanding resources and the need to study and interpret the connection between the unique cultural heritage of human settlements throughout the Chesapeake Bay watershed and the natural resources on which the settlements depend, the U.S. Congress passed the *Chesapeake Bay Initiative Act of 1998* (P.L. 105-312). The purposes of the Act are to:

- Create a linked network of Chesapeake Bay gateways and water trails;
- Provide financial and technical assistance to State and local governments, local communities, non-profit organizations, and the private sector for conserving important natural, cultural, historical, and recreational resources within the watershed.

The Chesapeake Bay Gateways Network, evolving in response to the *Chesapeake Bay Initiative Act*, is a growing partnership between a diverse array of special places within the Bay watershed, including but not limited to water trails, parks, wildlife refuges, historic communities, and maritime museums. By linking these gateways, the Network allows visitors and residents to more easily explore, understand, and conserve the Bay, its watershed, and related resources.

Fifteen agencies of the federal government, recognizing the importance of the Chesapeake Bay, joined together to sign the *Agreement of Federal Agencies on Ecosystem Management in the Chesapeake Bay* (1994) and the *Federal Agencies Chesapeake Ecosystem Unified Plan* (1998). Guided by these agreements and a fundamental commitment to manage the Chesapeake Bay as a cohesive ecosystem, the federal agencies have built a record of accomplishment in a broad array of Bay stewardship objectives.

The National Park Service participates in the Chesapeake Bay Program through a Memorandum of Understanding with the United States Environmental Protection Agency and also carries out its responsibilities under the *Agreement of Federal Agencies on Ecosystem Management in the Chesapeake Bay* and the *Federal Agencies' Chesapeake Ecosystem Unified Plan*. Through each of these agreements and through the legal requirements of the *Chesapeake Bay Restoration Act*, NPS is committed to a range of specific

actions to support and advance conservation and restoration of the Chesapeake Bay.

RESOURCES AND THEMES OF THE CHESAPEAKE BAY

What specific features, characteristics and stories best represent the true nature and significance of the large, diverse Chesapeake Bay? Answering this question is a starting point upon which to build an analysis of whether a Bay-focused unit of the National Park System is appropriate. This study uses two ways of viewing this question: (1) identifying a set of typical Chesapeake Bay resource types and (2) using a series of Chesapeake Bay interpretive themes. In combination, these approaches to viewing the Bay encompass its true meaning.

Typical Chesapeake Bay Resource Types

A series of resources that broadly typify the Chesapeake Bay were identified during the study process. While these resource types do not necessarily represent a comprehensive resource assessment, they form the basis of the essential elements of the tidal Chesapeake Bay experience.⁴ These resource types were confirmed through public workshops and consultations as being essential to the interpretation and conservation of the Chesapeake Bay story.

Natural Resource Types:

- Coastal plain geologic features (shoreline cliffs)
- Tidally-influenced tributaries
- Headwater streams
- Upland/headwater forests
- Meandering shorelines (necks, creeks)
- Forested shorelines
- Wetlands (saltwater brackish and freshwater marsh, swamp)
- Estuarine islands
- Open, generally shallow waters
- Submerged aquatic vegetation (SAV)
- Fish spawning and nursery areas
- Oyster beds
- Blue crab congregation areas
- Waterfowl wintering areas
- Sea duck foraging habitat (benthic concentration areas)
- Beaches
- Ecological restoration sites

Cultural Resource Types:

- Water oriented settlement sites
 - American Indian
 - Colonial
 - Plantations
 - Port/maritime communities

“...a faire Bay compassed but for the mouth with fruitful and delightsome land. Within is a country that may have the prerogative over the most pleasant places of Europe, Asia, Africa or America, for large and pleasant navigable rivers. Heaven and earth never agreed better to frame a place for man’s habitation.”

--Captain John Smith, 1612

⁴ A more comprehensive description of the Chesapeake Bay environment and resources can be found in Section 5 – The Affected Environment.

- Docks
- Boatyards, ship-building sites
- Fishing piers and wharves
- Seafood processing establishments
- Maritime historic districts
- Chesapeake Bay vessels (Skipjacks, Bugeyes, etc.)
- Water based transportation routes
- Watermen fishing areas
- Bay-oriented agricultural landscapes, working farms
- Water connected military sites on the Bay
 - Revolutionary War sites
 - War of 1812 sites
 - Civil War sites
 - 20th century sites

Recreational Opportunities:

- Scenic Bay shoreline vistas
- Scenic tributary rivers
- Recreational boating access
- Recreational fishing access sites
- Canoeing/Kayaking access points and routes
- Waterfowl hunting areas

Chesapeake Bay Themes

*“The baye is the most
delightful water I ever saw
between two sweet lands.”*

--Father Andrew White, 1634

The stories of the people, places, and events related to the Chesapeake Bay and its component resources are numerous and diverse. Organizing these stories in a comprehensive series of Bay themes allows a fuller understanding of the whole Chesapeake Bay story. Themes are also the organizing framework under which interpretation of natural and cultural resources is conducted.

The existing Chesapeake Bay Gateways Network established a thematic framework for the Chesapeake Bay in 2000. The framework includes a series of overarching and principal themes and many sub-themes or topics. These themes convey the breadth of Chesapeake Bay-related interpretation and are used as part of the analysis of opportunities and gaps explained in Section 3. The principal themes are listed below (Chesapeake Bay Gateways Network, 2000). A complete list of sub-themes can be found in Appendix A.

The Living, Natural Bay

A complex interaction of water, land, climate, geological formations and topographical features creates a unique ecosystem that supports the Bay’s remarkable diversity and abundance. Long before humans came to the Chesapeake region, natural forces were shaping the Bay and its watershed. With a surface area of 2,500 square miles, the Bay is one of the largest estuaries in the world, serving as home for a wide variety of plant and animal life. Today, both natural and human forces continue to impact and change the Bay and its watershed.

Peoples of the Bay

From early settlement to today, the natural environment of the Bay and the diverse population it attracted gave shape to distinctive cultural attractions. People from all over the world settled side-by-side along the Bay, with both cooperation and conflict marking their communities. Racial, religious, ethnic, political and economic divisions have been counterbalanced by united efforts, common concerns and shared values. Throughout the history of its peoples, the water and land of the Bay influenced and transformed the culture taking root. This heritage has given the region a distinctive style and identifiable sense of place.

Settlement of the Bay

The Chesapeake Bay and its tributaries have attracted settlement by humans throughout time, resulting in patterns that shape the region's landscape and reflect the nation's history. First, indigenous peoples, then Europeans, and soon after, Africans established footholds in the Bay area, opening a gateway for the burgeoning nation. The early arrivals dispersed along shorelines creating patterns of settlement characterizing the new nation and reflected to this day. Later arrivals have fueled the growth of the region's metropolitan centers. Throughout, the Bay has served as magnet and crucible, attracting, defining, shaping and reconfiguring the patterns of settlements around it.

The Bay as an Economic Resource--Commerce, Productivity and Transportation

The rich, natural abundance of the Bay has been a powerful incentive for commercial development, influencing the region's economy, transportation, and productivity. The Bay's resources and geography shaped the economic development of the region. Terrestrial and marine creatures, as well as the land and waterways, led to development of specific industries, harvesting methods, modes of transportation, and even boat designs. It is this resource-based economy and its connections to other parts of the nation and the world that are responsible for producing much of the image of the Bay area. Despite modern transformations, natural resources remain a fundamental component of the Bay's economy.

Military and Naval Presence on the Bay

Because of its vast waters and strategic location, the Bay has long played a critical role in the military and naval history of the United States. As the site of the nation's capital, historic battles and significant military installations, the Bay has long been intricately involved in a complex and dramatic web of national and international affairs. Today, the Chesapeake region continues to be home to a sizable military and naval presence.

The Bay as a Source of Recreation and Renewal

Abundant opportunities for a broad range of leisure-time activities, involving sport, education, culture and stewardship, spring from the vast resources and exquisite landscapes of the Chesapeake Bay. The traditional uses of the Bay's waters by area residents—boating, fishing, hunting—have long attracted visitors for recreation and renewal. Especially in recent decades, Bay-related recreation has become an economic force in the region. Today, the Chesapeake represents a source of inspiration and personal renewal through

its diverse recreational opportunities and the Bay's natural and cultural heritage on which they are based.

Environmental Stewardship and Sustainability of the Bay

The Bay and its living resources are suffering from the cumulative effects of human use and exploitation. But, new environmental attitudes, policies and behaviors offer hope for the Bay's renewal and sustainability. The realization that an ecological crisis exists has impelled residents, visitors, governments, and organizations to reassess the ways in which humans interact with the Bay and use its resources. The changes resulting from this attention are helping to restore the Bay and creating a world-wide model for environmental programs. Restoration and conservation are crucial to sustaining the Bay and its tributary rivers and streams that make such fundamental contributions to our well-being, our heritage, and our spirit.

Section 3:

Analysis of Opportunities

INTRODUCTION

Many National Park Service studies of potential new park units focus on detailed proposals for specific locations. The Chesapeake Bay Special Resource Study is very different. This study evaluates general concepts to determine whether it may be appropriate to establish a unit of the National Park System representing the Bay somewhere within the study area.

Rather than beginning with a place, this study began with an analysis of opportunities and gaps that might inform the development of initial, and subsequently, more detailed concepts. The opportunity/gap analysis derives from National Park Service criteria for potential new units. Along with the national significance criterion discussed in Section 2, potential new units must meet a suitability criterion – they must represent a natural or cultural theme or type of recreational resource that is not already adequately represented in the National Park System, or is not comparably represented and protected for public enjoyment by another land-managing entity.

This criterion points to assessing gaps in existing Chesapeake Bay conservation and interpretation initiatives – including the existing National Park System – as an indicator of opportunities or niches for a potential Bay-focused NPS unit. In addition, such opportunities must relate to the purposes and functions of units of the National Park System and be feasible as park units. In other words, they must consist of natural systems and/or historic settings of sufficient size and appropriate configuration to ensure long-term protection of the resources and to accommodate public use.

This section describes a gap analysis deriving from these criteria, along with the initial concepts derived from that analysis and the testing of these concepts through public workshops and comments.

GAP ANALYSIS

Process

During the Special Resource Study, a rapid “gap analysis” was used to determine gaps in conservation and interpretation of the Chesapeake Bay that might be relevant to a potential unit of the National Park System. The importance of this stems from the fact that NPS criteria steer potential new units away from duplicating something already being done effectively. Thus, park concepts or alternatives should address gaps, adding value to the ongoing Bay conservation and restoration effort.

Typically, gap analysis is used as a systematic, scientific approach for assessing the extent of protection in place for native animal and plant species. The goal is to keep common species common by identifying those species and plant communities that are not adequately represented in existing conservation lands. The results of the analysis often assist land managers and

policy makers in identifying priority areas for conservation of key habitats that are not yet threatened with extinction. (USGS, National Gap Analysis Program, 2002)

The study team adapted the typical gap analysis methods used for biological systems to assess the voids in conservation and interpretation that exist around the Chesapeake Bay. The voids, or gaps, were estimated to be appropriate proxies for new conservation and interpretation efforts, potentially involving the National Park Service. As a means for assessing the large number of Bay conservation and interpretation initiatives, the study team used the organizing frameworks of the Chesapeake Bay Program's *Chesapeake 2000* agreement and the Chesapeake Bay Gateways Network. These frameworks are best equipped for providing a cross-section view of initiatives and gaps due to their broad, cross-cutting representation of resource topics, conservation elements and Bay themes. In addition, the study team reviewed and assessed existing National Park Service roles within the Chesapeake Bay region, as well as maps of public lands, natural resource areas, and cultural resources around the Chesapeake Bay. Existing NPS roles, the Chesapeake Bay Program and the Chesapeake Bay Gateways Network are briefly described below, followed by results of the gap analysis.

Existing NPS Programs

The National Park Service is involved in the Chesapeake Bay region in several ways. These are described briefly below:

Chesapeake Bay Program Office

The National Park Service maintains a staffed office in Annapolis, Maryland to coordinate NPS efforts with and in the Chesapeake Bay Program. NPS is one of many partners in the Chesapeake Bay Program. While there are numerous aspects to overall Chesapeake Bay Program efforts (see following pages), NPS roles focus on: enhancing interpretation and communication regarding Chesapeake Bay themes, enhancing public access to Bay and tributary waters, implementing Bay stewardship practices at existing NPS units, and assisting communities and organizations in developing locally based conservation efforts that advance Chesapeake Bay Program goals. As one core aspect of carrying out these roles, the NPS Chesapeake Bay Program Office coordinates the Chesapeake Bay Gateways Network, a partnership system of parks, refuges, historic sites, museums and water trails described more fully at several other points in this study. The Gateways Network, while intended as an ongoing system, is only legislatively authorized through 2008. In addition, the NPS Chesapeake Bay Program Office is managing this Special Resource Study.

Existing Units of the National Park System

There are currently three units of the National Park System in close proximity to the Chesapeake Bay: Fort McHenry National Monument and Historic Shrine (Baltimore, Maryland), George Washington Birthplace National Monument (Westmoreland County, Virginia) and Colonial National Historical Park (Yorktown Battlefield and Jamestown Island, Virginia). Arguably, each of these historic sites conserves and interprets resources and themes related to the Chesapeake Bay – Fort McHenry would

not have been developed were it not for the Bay's existence. However, none of these sites were established with the core purpose of reflecting broader Chesapeake Bay characteristics and themes. They represent a narrow slice of the Bay's history, generally focusing on the colonial and early national periods.

Though not considered a unit of the National Park System, the National Park Service also owns Lightship #16 "Chesapeake," currently docked in Baltimore and managed by the Baltimore Maritime Museum through a cooperative agreement with the City of Baltimore.

Within the 64,000 square mile Chesapeake Bay watershed, there are an additional 61 units of the National Park System. These range in size and scope from Shenandoah National Park (199,000 acres in the Appalachian Piedmont of Virginia) to the Washington, Lincoln, and Jefferson Memorials in Washington DC. Some of these units reflect themes related to the Chesapeake Bay, such as the story of transportation along Bay tributaries shown through the 184 mile long Chesapeake and Ohio Canal National Historical Park on the Potomac River. Others have relatively little thematic connection to the Bay, excepting their location in the Bay watershed. In general, however, the entire collection of NPS units in the watershed represents a very limited segment of Chesapeake Bay resources and interpretive themes, especially in the core study area for this Special Resource Study.

Other NPS Studies Involving Chesapeake Bay Related Resources or Themes

Three separate NPS studies are also concurrently evaluating resources or themes which touch upon the Chesapeake Bay.

Harriet Tubman Special Resource Study

Congress directed the National Park Service to conduct a separate special resource study to look at options for protecting nationally significant resources related to Harriet Tubman. Ms. Tubman is known for her roles as a "conductor" of former slaves through the Underground Railroad, a Civil War nurse, a scout, a spy, and in her later years, a founder and operator of a home for the aged in Auburn, New York. The Harriet Tubman Special Resource Study focuses on sites in the Dorchester County, Maryland where she was born, Auburn, New York, where she lived for more than 40 years, and other Tubman sites around the nation. The Tubman study will outline alternatives for conserving and interpreting these sites and themes. Information is available at www.harriettubmanstudy.org.

The Star-Spangled Banner National Historic Trail Study

The National Park Service has also been directed by Congress to evaluate the feasibility and desirability of creating a National Historic Trail along routes used by the British and Americans during the Chesapeake Campaign in the War of 1812. These routes are significant for their relationship to the burning of Washington and the Battle for Baltimore, the latter of which inspired Francis Scott Key to write the poem that would become the National Anthem. Most of the routes and sites associated with the trail study are concentrated on the Bay's western shore, particularly along the Patuxent

River. The trail study will outline alternatives for conserving and interpreting these resources. Information is available at www.nps.gov/phso/jstarspan.htm.

Washington-Rochambeau Revolutionary Route Study

Congress also directed the National Park Service to determine whether the route the French and Continental Armies followed in 1781 from New England and New York to the Chesapeake Bay and Yorktown, Virginia is eligible for designation as a National Historic Trail. The route is significant in that it led to the surrender of British General Cornwallis to the French and Continental Armies at Yorktown. The study will outline alternatives for conserving and interpreting this aspect of the Nation's (and the Bay's) heritage. Information is available at www.nps.gov/boso/w-r/.

Other National Park Service Programs

A variety of other national programs of the National Park Service apply to resources within the Chesapeake Bay watershed in differing ways. Among these are: the National Register of Historic Places, National Historic Landmark Program, Saving America's Treasures Program, National Natural Landmarks Program, and the Land and Water Conservation Fund. These programs focus on specific types of resources nation-wide of which many are represented within the Bay watershed. For example, there are more than 200 National Historic Landmarks in the watershed, including such Bay resources as Thomas Point Shoals Lighthouse, Sotterley Plantation, the Lightship Chesapeake and others. National Historic Landmark designation means the resources have been found to meet national significance criteria, but it provides no management, funding or direct protection from the National Park Service.

Chesapeake Bay Program – Chesapeake 2000 Agreement

The Chesapeake Bay Program, a partnership between the federal government, the states of Maryland, Virginia and Pennsylvania, the District of Columbia, and the Chesapeake Bay Commission, guides efforts to restore and conserve the Chesapeake Bay and its tributaries.

On June 28, 2000, the Executive Council of the Chesapeake Bay Program signed *Chesapeake 2000* – a comprehensive and far-reaching Bay agreement that guides the Bay Program partners in their combined efforts to restore and protect the Chesapeake Bay through the year 2010.

Chesapeake 2000 outlines 93 commitments detailing protection and restoration goals critical to the health of the Bay watershed. From pledges to increase riparian forest buffers, preserve additional tracts of land, restore oyster populations and protect wetlands, *Chesapeake 2000* sets all partner states and agencies on specific tracks toward improving protection and restoration of the Bay and its tributaries. Scientists, government officials, conservation leaders and citizens were all involved in the development of *Chesapeake 2000*.

The gap analysis for this study correlates *Chesapeake 2000*'s commitments with specific Chesapeake Bay resource types. The analysis then identifies areas of potential gaps that might be relevant to a potential Bay-focused unit



of the National Park System. Findings are summarized in the results section below.

Chesapeake Bay Gateways Network

The Chesapeake Bay Gateways Network includes 140⁵ parks, wildlife refuges, museums, historic communities and trails throughout the Chesapeake Bay watershed. The Network has an extremely broad representation of Bay conservation and interpretation sites and of Bay interpretive themes. For this reason, the Network is an effective proxy through which to evaluate gaps in resource conservation sites and interpretive themes. The Gateways Network was evaluated in terms of type and number of institutions, representation of interpretive themes, and representation of key resource types. This data is presented in Figures 3-1 through 3-3, based on the 123 Gateways designated as of April 2003. The gap analysis for this study correlates Gateways with resource types and interpretive themes to identify potential gaps that might be relevant.



Results of the Rapid Gap Analysis

The results of the gap analysis are organized by typical Chesapeake Bay resource types and interpretive themes described in Section 2 for which Chesapeake Bay Program and Chesapeake Bay Gateways Network data exists. Aspects of these results are supported by quantitative data presented in Figures 3-1, 3-2 and 3-3.

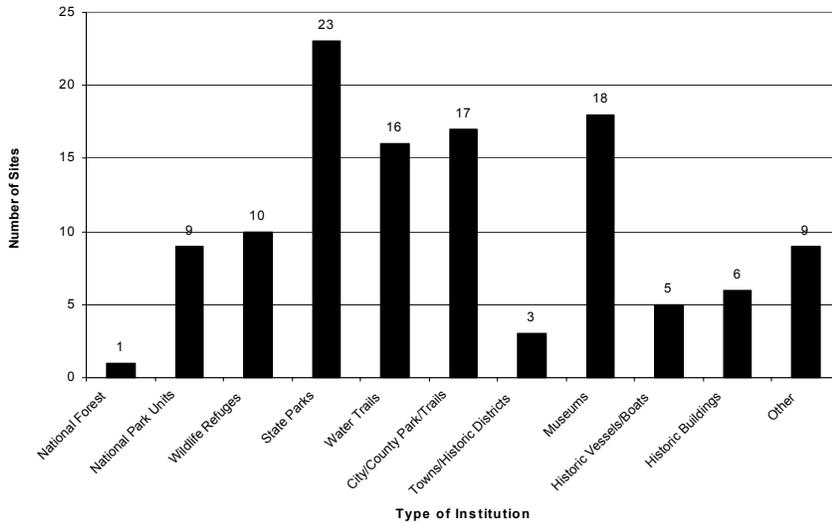


Figure 3-1: Chesapeake Bay Gateways Network sites by type of institution

⁵ As of June 2004; Chesapeake Bay Gateways are added to the Network through an ongoing nomination/designation process.

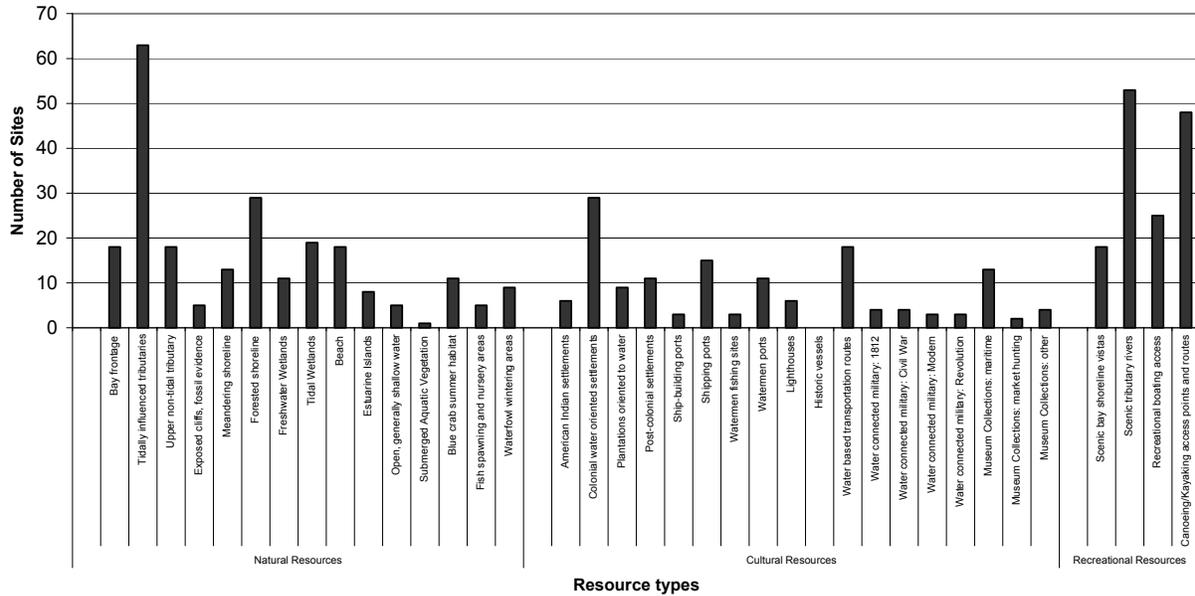


Figure 3-2: Number of Chesapeake Bay Gateways Network sites with key natural, cultural, and recreational resource types

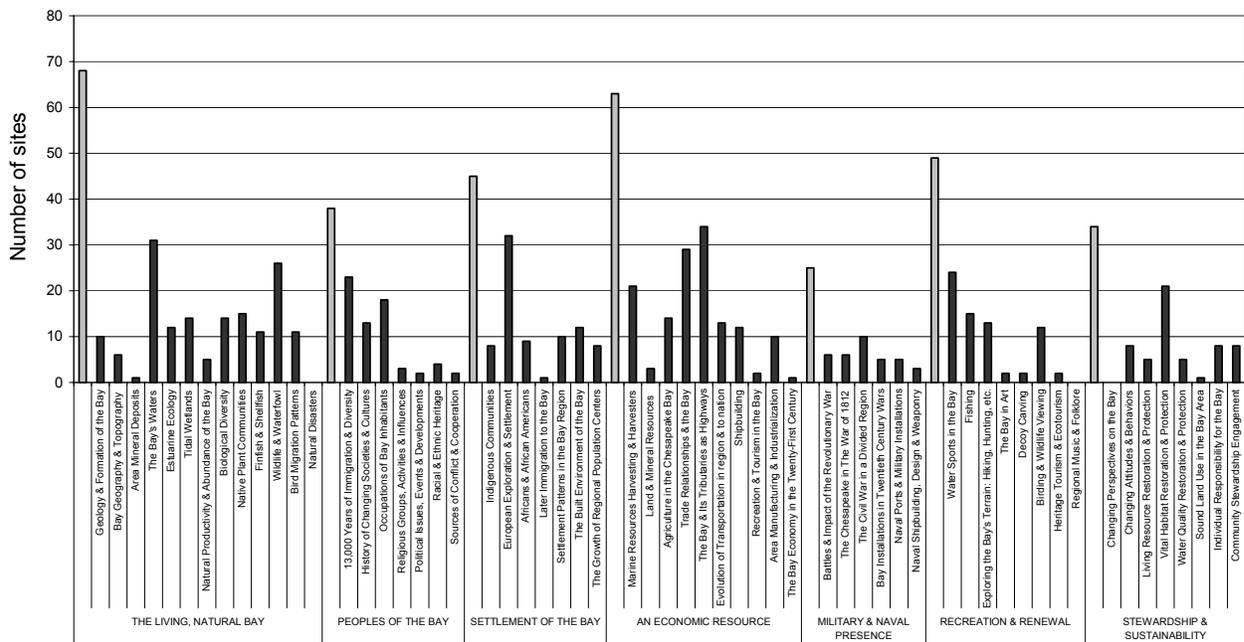


Figure 3-3: Representation of Interpretive Themes in the Chesapeake Bay Gateways Network

Natural Resources

Oysters, Crabs, and Finfish

The states of Maryland and Virginia and several inter-jurisdictional agencies are responsible for overall fisheries management in the Chesapeake Bay, including regulatory protection of a number of existing designated protected areas, sanctuaries and spawning areas. *Chesapeake 2000* sets a number of specific commitments related to oysters, crabs and migratory fisheries to be undertaken by the states and other partners. These resources represent a core focus area of existing Bay conservation efforts.

Park unit concepts could potentially complement or enhance strategies for protecting or restoring fisheries protected areas without being duplicative.

Waterfowl

Waterfowl wintering areas are provided at many state and federal management areas and refuges specifically created for this purpose throughout the Bay area.

Creation of a park unit specifically for waterfowl conservation purposes would be duplicative, though waterfowl conservation could be a complementary element of a larger concept.

Submerged Aquatic Vegetation (SAV)

Some existing federal and state regulatory mechanisms provide a level of protection for SAV which serves as critical habitat for aquatic species. A draft strategy established by the Chesapeake Bay Program calls for protected areas from which uses destructive of SAV would be excluded; the strategy is tied to a goal of protecting and restoring 185,000 acres of SAV.

Park unit concepts could potentially complement or advance an SAV protected area strategy without being duplicative.

Tidal Wetlands

Tidal wetlands are protected by local, state and federal regulations. In addition, a number of state, federal and non-governmental sites include and conserve tidal wetlands.

Creation of a park unit specifically for tidal wetland conservation purposes would be duplicative, though wetlands protection could be a complementary element of a larger concept.

Forests

In 2003, the Chesapeake Executive Council committed to expanding streamside forest buffers by at least 10,000 miles by 2010. *Chesapeake 2000* also commits to reducing conversion of forest and agricultural lands to sprawl development by 30%. A number of forested areas are also managed by public and private agencies for conservation purposes.

Creation of a park unit specifically for forest conservation purposes would be duplicative, though forest conservation could be a complementary element

of a larger concept. Moreover, park unit concepts could contribute to achieving *Chesapeake 2000* goals.

Undeveloped Lands

Chesapeake 2000 sets a goal of preserving 20% of the watershed land area from development through a series of federal, state, local, and non-governmental organization acquisitions.

Park unit concepts could contribute to achieving this goal and would be complementary, though any concept would only make a fractional contribution to the larger watershed commitment.

Cultural Resources

Traditional Water Dependent Communities

State and local historic preservation and economic development programs exist but do not focus specifically on this type of community. In Maryland, traditional water-dependent communities may be part of designated state heritage areas. Several Chesapeake Bay Gateways are located in such communities but do not address community-wide conservation. No *Chesapeake 2000* commitment is set.

Park unit concepts could address conservation/interpretation objectives for such communities within designated areas.

Working Bay Landscapes

General state and local historic preservation, conservation and economic development programs address aspects of these landscapes but do not necessarily focus exclusively or specifically on this type of resource. For example, state heritage areas in Maryland may assist in marketing and interpreting aspects of working landscapes within designated heritage areas, but not overall landscape conservation. No specific *Chesapeake 2000* commitment is set for this resource, though goals for increasing land conservation and limiting harmful sprawl development are relevant.

Park unit concepts could address conservation/interpretation objectives for such landscapes within a designated area.

Historic Military Sites

Multiple sites related to Revolutionary, War of 1812 and Civil Wars are already protected and represented with the Gateways Network. Twentieth century era military bases exist, but many are still in active use and not feasible for incorporation in a park concept.

Recreational Resources

Public Access

Strategies to meet the *Chesapeake 2000* goal of a 30% increase in public access sites are being identified. Less than 2% of the Bay's shoreline is estimated to be publicly accessible.

New park unit concepts could contribute to achieving this goal and would be complementary, though any concept would only make a fractional contribution to the larger watershed commitment.

Water Trails (recreational boating, canoe/kayak access)

The *Chesapeake 2000* goal to add 500 miles of water trails has been met through state, local and non-governmental efforts represented in the Chesapeake Bay Gateways Network's multiple water trails. More than 1000 miles of water trails are under development.

Park unit concepts could complement this effort, but creation of a unit for this purpose alone would be redundant with ongoing efforts unless it adds substantial new elements not possible through existing authorities.

Open Water Boating

Chesapeake 2000 calls for identification of priority areas for no-discharge of boat waste by 2003; a few small areas are currently designated.

Park unit concepts could potentially complement a designated area strategy for no discharge zones without being duplicative.

Interpretive Themes

Overarching Themes

Few sites address Bay-wide overarching themes as primary emphasis of programming.

Primary Themes

All primary themes are broadly represented through multiple sites, but interpretation of primary themes themselves – as they play out over the full Bay – is limited. Most sites focus on topics or sub-themes. Listings below show numbers of sites with capability to present themes (i.e. sites have resources related to those themes present); the numbers do not indicate that sites are actively interpreting those themes.

Living, Natural Bay: 50+ sites. Under-represented sub-themes include: Bay geography and geology.

Peoples of the Bay: 30+ sites. Under-represented sub-themes include: Racial and ethnic heritage, political events, religious influences, sources of conflict.

Settlement of the Bay: 30+ sites. Under-represented sub-themes include: Later immigration, growth of regional population centers, Africans and African-Americans.

Bay as an Economic Resource: 50+ sites. Under-represented sub-themes include: Recreation and the economy, industrialization, 21st century Bay economy.

Naval/Military History of the Bay: 20+ sites. Under-represented sub-themes include: Naval ship-building, naval ports and military installations.

Bay as a Recreational Resource: 40+ sites. Under-represented sub-themes include: The Bay in art, music & folklore.

Stewardship and Environmental Responsibility: 30 + sites. Under-represented sub-themes include: Living resource restoration, water quality restoration, and sound land use.

Summary of Findings

The on-going initiatives addressing Chesapeake Bay conservation, restoration and interpretation are extensive, but not complete. The Chesapeake Bay Program partnership clearly guides and coordinates an overall conservation and restoration strategy. Currently, the Chesapeake Bay Gateways Network links scores of diverse sites and routes for experiencing the Bay and serves as an illustrative cross-section of site-based ongoing conservation and interpretation. However, there are still gaps or opportunities within this large picture of the Bay. In some cases those gaps are well beyond the scope of any single initiative, let alone a concept for a Chesapeake Bay focused unit of the National Park System. For example, the Chesapeake Bay Commission identified an estimated financial gap in carrying out all of the *Chesapeake 2000* commitments – the total cost: \$18.7 billion, with \$12.8 billion of that amount unfunded (Chesapeake Bay Commission, 2003). On the other hand, the gap analysis described above points to several opportunities or niches which might be relevant to a park unit concept. These niches include:

- Expanded natural resource conservation, especially aquatic resources, in a focused area that complements and goes beyond current programs;
- Enhanced recognition, conservation and interpretation of broad cultural resource areas, specifically working landscapes and traditional water dependent communities;
- Interpretation and conservation of areas that fully represent both the cultural and natural characteristics of the Chesapeake Bay;
- Interpretation of broad overarching and primary Chesapeake Bay themes at a Bay-wide level – providing the overall introduction to the Chesapeake Bay story;
- Expanded land conservation, public access, and education through a park unit concept and contributing to Chesapeake Bay Program commitments in these areas;
- Incorporation of under-represented topics/sub-themes and resources in a park unit concept, where those topics are a relevant contribution to a broader Bay-focused concept; and,
- Continuing the Chesapeake Bay Gateways Network as a permanent system for exploring the Chesapeake Bay and enhancing interpretation, public access and conservation.

These niches or opportunities provided the basis for initial concepts presented during the study and are described below.

INITIAL CONCEPTS

The results of this gap analysis led to the development of a series of initial concepts and ultimately provided the basis for the alternative concepts presented in Section 4 of this report. Through an initial consultation with Chesapeake Bay Program stakeholders, six initial concepts were developed as starting points for public discussion and feedback. These initial concepts

were presented to the public in a series of public workshops in September 2002, as described in the following section.

The initial concepts were:

Concept 1 – A Conserved Traditional Working Bay Town: Establish a historical area or reserve comprised of a small traditional working Chesapeake Bay town/community. This town or community would be illustrative of the interconnection between culture and place in the Chesapeake region. The primary focus would be on conserving and interpreting the areas as a living example of the Bay’s unique working communities and their long-standing relationships with the Bay.

Concept 2 – The Nation’s Estuary: Establish an aquatic ecological preserve representative of the Chesapeake’s estuarine environment and centered on one or several substantial open Bay systems with limited portions of adjacent shoreline. The primary focus would be on conserving and interpreting estuarine resources and natural systems from an aquatic perspective.

Concept 3 – Living with the Bay: Establish an ecological and cultural reserve representative of the Bay’s estuarine environment and the human interaction with that environment over time. Such a reserve would center on a substantial open Bay aquatic system and the surrounding lands indicative of Bay-oriented human use, both past and present. The mission of this reserve would be to conserve, interpret and provide access to estuarine resources, natural systems, and associated land-based cultural resources.

Concept 4 – The Watershed in Microcosm: Establish an ecological and cultural reserve representative of a cross-section of the Bay watershed from upland to open Bay and island. This cross-section would follow one particular tributary watershed. The primary focus would be to provide an understanding of the Chesapeake Bay watershed, its stewardship challenges, and the relationship between the cultural and natural aspects of the landscape over time.

Concept 5 – Chesapeake Bay Interpretive Center: Establish one, or series of, educational and interpretive centers to enhance understanding and interpretation of the Chesapeake Bay and provide a central “Bay” clearinghouse for visitors, researchers, educators, and conservationists.

Concept 6 – The Islands of the Chesapeake: Establish a series of natural and cultural preserves or parks representative of the Chesapeake’s estuarine island environment, centered on uninhabited islands with adjacent inhabited islands and aquatic open Bay waters. The primary focus would be to conserve and interpret island resources and diverse natural systems within a relatively small area. The focus on the island environment allows visitors to truly experience the resource and be “on the Bay.”

PUBLIC EVALUATION OF INITIAL CONCEPTS

At a series of public workshops in September 2002, through the mail, and via the project website, people commented on the six initial concepts described above and were encouraged to suggest new concepts or combinations of the existing concepts. People were asked to evaluate whether the initial concepts:

- Represent opportunities or niches in Chesapeake Bay resource protection and interpretation not duplicated by existing initiatives;
- Capture the national significance, key resources and themes that reflect what is truly characteristic of the Chesapeake Bay;
- Represent feasible conceptual options for National Park System units.

In general, the public expressed:

- Broad interest in and affirmation of the idea of creating a unit of the National Park System focused on the Chesapeake Bay;
- Public education should be emphasized, including addressing principles of Bay and watershed stewardship, preservation, and conservation;
- A broad array of resources and stories should be incorporated with emphasis on the interconnectedness of natural and cultural resources;
- Multiple experiences and resource characteristics from the northern and southern Bay and eastern and western shores should somehow be addressed;
- Public access to the Bay should be enhanced; an optimal visitor experience should include getting onto or into the water;
- A strong preference for combining elements of the initial concepts rather than selecting any single concept by itself; no single concept can adequately represent the size and diversity of the Bay;
- Including a Chesapeake Bay interpretive and education center as a launching point for visitors and researchers and as an integral component of other concepts;
- The need for any concept to employ partnerships and cooperative agreements with institutions, landholders, and government agencies in order to assemble resources and build on existing efforts; and,
- National recognition should be used to add cachet, bring more funding for Bay restoration, publicize Bay issues, integrate interpretation of natural and cultural components, and highlight the Bay as a model for resource protection and research.

Members of the public also offered specific comments on each concept and combinations of concepts. Frequently mentioned emphases included:

- Elements of all concepts ought to be combined or represented in a final preferred approach;
- Concepts 3 and 4 (Living with the Bay and The Watershed in Microcosm) represented approaches more likely to encompass the breadth and diversity of Bay themes; moreover, these could be a basis for combining with portions of other more narrow concepts such as an island ecosystem or an interpretive center;
- Several concepts seemed either too narrow to reflect the Bay all by themselves (Concepts 1 and 6) or appeared to have feasibility issues (Concept 6);
- Concept 5 (Chesapeake Bay Interpretive Center) was a high priority, but optimally as part of another concept rather than as a stand alone result.

Several new concepts were also suggested. These ideas included:

- Building on the existing Chesapeake Bay Gateways Network and designating it as a permanent unit of the National Park System;
- Creating a national historical reserve that protects traditional fishing and crabbing rights for fishing-dependent communities;

- Creating a Harriet Tubman National Park to communicate the Underground Railroad story (the proponents' idea actually extends far beyond the Chesapeake region, but participants suggested a main site that would address the role of the Bay in the story; a separate Harriet Tubman Special Resource Study is being conducted at this time).

For a more complete summary of comments see issue 2 of the study newsletter (available at www.chesapeakestudy.org).

Following public workshops in September 2002 and submission of written comments, the study team sorted comments and presented them to an interdisciplinary group representing the Chesapeake Bay Program partnership. The group worked together during a facilitated worksession to build specific conceptual alternatives from the public comments and initial concepts. After similar ideas were grouped together, teams outlined a no action alternative and four conceptual action alternatives.

These conceptual alternatives were then elaborated upon to include a description, vision, essential resource types, themes, interpretive potential, and roles. The group along with the study team made an initial determination that each of the five conceptual alternatives appeared to fill gaps in existing Bay interpretation and conservation and were not duplicative of existing National Park System units. These alternatives are described in Section 4.

Section 4:

Conceptual Alternatives

INTRODUCTION

The alternatives described here are concepts for how the Chesapeake Bay might be represented within the National Park System. They are the product of numerous interviews, consultations, workshops, public meetings, and team meetings involving individuals, groups, organizations, and public officials with a range of interests in a Chesapeake Bay-focused unit of the National Park System: county, city, state, and federal officials; politicians; natural and cultural resource managers; technical experts; tourism officials; citizens' groups; trade organizations; and the general public.

These alternative concepts provide different answers to the questions: If a Chesapeake Bay-focused unit of the National Park System were to be created...

- What would it be like?
- What focus or emphasis would it have?
- What types of resources would need to be included?
- What would be the conservation goals or priorities?
- What would it be like to experience as a visitor?
- What roles might various partners and the National Park Service play in managing it?

Five alternative concepts are presented:

- *Alternative A:* Today's Programs – No New Initiatives
- *Alternative B:* An Enhanced Chesapeake Bay Gateways Network – A Permanent Watershed-wide System of Special Bay Places for Experiencing the Chesapeake
- *Alternative C:* Chesapeake Bay Estuary National Park – Conserving and Exploring the Bay's Waters
- *Alternative D:* A Chesapeake Bay National Reserve – Protecting Bay Maritime and Rural Heritage
- *Alternative E:* Chesapeake Bay Watershed National Ecological & Cultural Preserve – A Living Example for the Bay and the Nation

Of these five alternatives, one (alternative A) is a “no action” alternative that would simply continue current National Park Service roles in the Chesapeake Bay. This also provides a point of comparison for understanding what is new and different in four “action alternative” concepts which vary significantly (alternatives B, C, D & E). One of these, alternative B, is quite different from the others and would not technically be labeled as a unit of the National Park System.

The task is to determine which of the four “action alternative” concepts – if any – might most appropriately represent the Chesapeake Bay within the National Park System and best enhance the ongoing effort to conserve, restore and celebrate the Bay. Between June and September 2003, the National Park Service solicited broad public advice and comments on this

question. With one exception (alternative B)⁶, there are no specific places proposed as the location where the alternative concepts would apply. Alternatives C, D and E are truly conceptual alternatives. The Chesapeake Bay Special Resource Study focuses not on a specific place, but on seeking consensus on what kind of unit of the National Park System – if any – might best represent the Chesapeake Bay. The concepts presented here as alternatives provide the basis for that discussion. In considering the concepts, interested people can also begin to think about “place” and the kinds of locations that might fit with the descriptions and characteristics of each alternative.

Aspects Common to All Action Alternatives

Each of the action alternatives presents a different way for conserving, interpreting and celebrating aspects of the Chesapeake Bay. Despite these differences, there are some common aspects. Each of the action alternatives:

- Assumes a continuation of existing NPS roles in the Chesapeake Bay as legislatively authorized and funded. In other words, elements of the no action alternative would continue in the same manner under any of the action alternatives, except where specifically changed by new legislation, such as in alternative B. NPS would continue to manage existing units of the National Park System, participate in the Chesapeake Bay Program and coordinate the Chesapeake Bay Gateways Network through 2008;
- Involves extensive cooperative or partnership efforts with a variety of organizations or agencies, though in varying roles, ways and degrees;
- Envisions a unique visitor experience directly engaging people with authentic resources that represent core aspects of the Chesapeake Bay;
- Provides a variety of interpretive and recreational opportunities for visitors to explore, learn about and enjoy the stories of the Chesapeake Bay;
- Encourages conservation of both public and private resources related to the Chesapeake Bay’s natural and cultural history;
- Incorporates strategies for protecting private property rights;
- Plans use of low-impact, sustainable design for any new construction of visitor facilities; and,
- Contributes to, but is by no means the complete solution for, overall conservation and restoration of the Chesapeake Bay and its tributaries.

⁶ Alternative B is based on the existing Chesapeake Bay Gateways Network, a system of more than 140 specific parks, refuges, historic sites, maritime museums and water trails around the Bay watershed. All of these places would continue in the Network under this alternative.

ALTERNATIVE A: TODAY'S PROGRAMS – NO NEW INITIATIVES

This alternative assumes the National Park Service would continue its existing roles related to Chesapeake Bay conservation, restoration and interpretation.⁷ Generally, these roles include:

- Partnership in the Chesapeake Bay Program, the federal/state Bay watershed conservation and restoration effort;
- Management of existing National Park System units in the Chesapeake Bay watershed;
- Coordination of the Chesapeake Bay Gateways Network through 2008;
- Providing technical assistance to communities and organizations to facilitate conservation of watersheds, natural and cultural resources.

A Vision of the Status Quo

Visitors to the Chesapeake Bay region would not find a new national park unit focused on the Bay, but they would find many places that tell a part of the Chesapeake story. They might visit the handful of existing parks in the National Park System located near the Bay – Fort McHenry National Monument and Historic Shrine, Yorktown Battlefield, Jamestown Island. These places provide a small slice of the Bay's history, concentrated in colonial times and the early nineteenth century.

Or for a much broader taste of the Bay, visitors might sample the many parks, refuges, historic sites and water trails that have joined the Chesapeake Bay Gateways Network. These places show off many of the Chesapeake's themes and stories, from one end of the watershed to the other. At the great majority of Chesapeake Bay Gateways, the National Park Service would remain very much behind the scenes, acting only as a coordinator for the overall Network and providing assistance to individual sites. The Gateways Network, and the Park Service coordinating role would remain in place through 2008.

All those with an interest in the Chesapeake Bay would continue to benefit from the Chesapeake Bay Program partnership's efforts to conserve and restore the Bay. The Chesapeake Bay Program would remain the central mechanism for advancing Bay conservation. The National Park Service is just one of many partners in the Bay Program.

Description

Partnership in the Chesapeake Bay Program:

In 1983, the Chesapeake Bay Program was created as a partnership between the federal government (represented by the US Environmental Protection Agency), the states of Maryland, Virginia and Pennsylvania, the District of Columbia, and the Chesapeake Bay Commission to guide efforts to restore and conserve the Chesapeake Bay and its tributaries. The National Park Service joined the partnership in 1993.

⁷ A fourth NPS unit is nearby but actually outside the Chesapeake Bay Watershed – Assateague Island National Seashore along the Atlantic Coast in Maryland and Virginia.

Today, the Chesapeake Bay Program pursues a variety of commitments articulated in the *Chesapeake 2000* agreement. This agreement addresses all aspects of Bay conservation, management and education in the first decade of the 21st century.

Chesapeake 2000 also renewed an emphasis of the program on engaging all citizens in the effort to restore the Chesapeake Bay. Commitments to expand public access and enhance resource interpretation, education and outreach are priorities in order to raise public awareness and promote individual and community stewardship on behalf of the Bay and its watersheds. The National Park Service is currently directly involved in furthering these aspects of the *Chesapeake 2000* agreement through initiatives described below; the National Park Service would continue that involvement under this alternative.

Management of Existing Units of the National Park System in the Chesapeake Bay Watershed

The National Park Service manages 61 park areas within the 64,000 square mile Chesapeake Bay watershed. Most of these areas are parks within the District of Columbia and upper Bay watershed. The sum total acreage of the National Park System units represents less than 0.7% of the Bay watershed.

There are three existing units of the National Park System in close proximity to the Chesapeake Bay⁸ – Colonial National Historical Park (9,349 acres, including Jamestown Island, Yorktown Battlefield, a 23 mile parkway, and the Cape Henry memorial) in Virginia, Fort McHenry National Monument and Historic Shrine (43 acres) in Baltimore, Maryland, and George Washington Birthplace National Monument (550 acres) along the lower Potomac River in Virginia. These small park units all have resources and stories related to and influenced by the Chesapeake Bay, but the Chesapeake is not the primary focus of conservation or resource protection. Moreover, these units also represent only a narrow slice of Bay-related themes and history.

The National Park Service would continue to manage existing park areas within the Bay watershed for their specifically legislated purposes. No new unit of the Park System would be created. In addition, through its partnership in the Chesapeake Bay Program, the National Park Service would continue efforts to manage its park units to further commitments in the *Chesapeake 2000* agreement.



The National Park Service is directly involved in furthering the commitments of the *Chesapeake 2000* agreement by engaging citizens to restore the Bay, enhance interpretation, and raise public awareness.



Fort McHenry National Monument and Historic Shrine in Baltimore, Maryland and Colonial National Historical Park (Jamestown Island pictured) in Virginia are two of the units of the National Park System close to the Bay.

⁸ Though not considered a unit of the National Park System, the National Park Service also owns Lightship 116 “Chesapeake,” currently docked in Baltimore and managed by the Baltimore Maritime Museum through a cooperative agreement between NPS and the City of Baltimore.



The Chesapeake Bay Gateways Network is a broad and diverse group of sites that collectively represent the Bay and its watershed. Pictured here, from top to bottom, are: the Pickering Creek Audubon Center, Easton, Maryland; the Eastern Neck National Wildlife Refuge, Rock Hall, Maryland; the Havre de Grace Decoy Museum, Havre de Grace, Maryland; and the Reedville Fisherman's Museum (Northern Neck Chantey Singers, pictured), Reedville, Virginia.

Coordination of the Chesapeake Bay Gateways Network:

The existing Chesapeake Bay Gateways Network is a partnership system of local, state, federal and non-governmental parks, refuges, maritime museums, historic sites and trails around the Bay watershed. With more than 140 designated Gateways, the Network represents a broad and diverse group of sites that collectively represent the Bay and its watershed. The Gateways Network is coordinated by the National Park Service in cooperation with the Chesapeake Bay Program. The Chesapeake Bay Gateways Network is currently authorized through 2008, though funding must be appropriated annually.

Under this alternative, the Chesapeake Bay Gateways Network would continue to represent the broadest geographic and thematic system of Bay-related sites in the Chesapeake watershed through 2008. Some expansion of the Gateways Network might be expected to continue in under-represented geographic regions or themes. However, this would likely be limited if funding for the Network's programs is not appropriated or eventually reauthorized.

Through the Gateways Network's many partner sites, visitors can explore a remarkably broad range of themes, places and geography. Individual Gateways would likely continue to enhance interpretation at their sites and to enhance public access, depending upon available funds and priorities. However, Gateways Network matching grants have had a substantial influence on Chesapeake Bay interpretive products in recent years. If funding for Network programs is not appropriated or eventually reauthorized, Chesapeake Bay focused interpretive initiatives may become more limited.

Individual Chesapeake Bay Gateways would continue to strive toward setting examples for sustainable stewardship of the Bay watershed's natural, historic, cultural and recreational resources. Managers of individual Gateways would continue to explore and undertake initiatives at their sites toward that end, consistent with available funding.

Technical Assistance for Conserving Watersheds and Natural and Cultural Resources:

The National Park Service would continue to provide technical assistance to communities, organizations and local and state governments to foster conservation of important resources in the Chesapeake Bay watershed. This assistance, provided through the Chesapeake Bay Program Office and the Rivers, Trails and Conservation Assistance Program, is specifically geared to helping achieve goals of the *Chesapeake 2000* agreement. For example, the National Park Service is partnering with the Chesapeake Bay Program for a series of "community watershed dialogue" workshops to engage local governments and community groups in local watershed management. NPS will provide follow-up technical assistance to local areas requesting help with watershed management planning.

Roles

Coordination of the overall Chesapeake Bay watershed conservation and restoration strategy would continue to be led by the Chesapeake Bay Program partnership.

The National Park Service would:

- Continue to participate in the Chesapeake Bay Program, with a focused emphasis on enhancing interpretation, education and outreach and expanding public access as key tools for raising public awareness and promoting individual and community stewardship;
- Continue to manage existing units of the National Park System within the Bay watershed, consistent with their individual legislation and Chesapeake Bay agreements;
- Continue to coordinate the Chesapeake Bay Gateways Network in cooperation with the Chesapeake Bay Program, as long as funding for the Network is authorized and appropriated. This role includes:
 - Guiding Chesapeake Bay Gateways Network development and management in coordination with the Gateways Network Working Group.
 - Developing Network-wide initiatives, media and programs to publicize the Network and advance Bay-watershed-wide interpretation.
 - Providing technical assistance and matching grants to designated Gateways to improve Bay interpretation, enhance public access and conserve Bay resources.
- Continue to provide technical assistance to communities, organizations, and local and state governments to foster conservation of watersheds and natural and cultural resources in the Bay watershed.

ALTERNATIVE B: AN ENHANCED CHESAPEAKE BAY GATEWAYS NETWORK– A PERMANENT WATERSHED-WIDE SYSTEM OF SPECIAL PLACES FOR EXPERIENCING THE CHESAPEAKE

This alternative would enhance and build upon the existing Chesapeake Bay Gateways Network, an extensive partnership system of parks, refuges, maritime museums, historic sites and trails around the Bay watershed. The Chesapeake Bay Gateways Network would retain current core aspects and characteristics, but be enhanced to fill several identified gaps in Bay conservation and restoration. It would:

- Be designated as a permanent program of the National Park System with an on-going funding commitment, giving the Network a continuity limited by current legislation;
- Stimulate the creation of and add two partnership Chesapeake Bay interpretive/education centers; and
- Create a new means of linking Gateways to their surrounding working Bay landscapes.



The Chesapeake Bay is a place of tremendous diversity. It is hard to take in the whole Bay story at one location. The existing Chesapeake Bay Gateways Network, represented here, helps visitors experience the Bay and its watershed with more than 140 parks, refuges, maritime museums, historic sites and hundreds of mile of water trails. This alternative would add to the Gateways Network, enhancing it in several ways.

A Vision of the Enhanced Chesapeake Bay Gateways Network

The Chesapeake Bay is a place of immense complexity and astounding diversity. The region's natural splendor extends from forest to farm field, from small town to big city, from trickling stream to wide-open shipping lane, from New York State to Norfolk and West Virginia to Delaware. So many events unfolded here over the centuries that have proved crucial to the nation's cultural, military, and economic history.

In recent years, the Chesapeake Bay Gateways Network has made important strides in helping people experience the Bay's incredible diversity. More than 140 different sites are already in this one-of-a-kind Network, from the shores of the Bay into the distant reaches of the Chesapeake watershed. A comprehensive web site and an annual map and guide empower the visitors to find their way to all manner of Chesapeake destinations: museums, refuges, historic towns, hundreds of miles of water trails, even sailing ships. And both enable travelers to launch all manner of Chesapeake adventures: hiking, paddling, birding, cycling, strolling, and more.

Of course, the Network is much more than a travel-planning tool. Through visiting Gateways – paddling new water trails, seeing new exhibits, hearing

living stories – people begin to understand the full picture of the Bay, how all of the individual places fit together and why the Bay is so important.

But, this alternative also takes the Gateways Network to a new level. By making a permanent commitment to the Chesapeake Bay Gateways Network, the National Park Service would ensure its long-term viability and enhance the Chesapeake’s status among the country’s national treasures. Through two Chesapeake Bay interpretive and education centers in the northern and southern parts of the Bay visitors would finally find a holistic introduction to this complex region and its watershed. Each center would be a portal through which to view the Bay’s “big picture” stories and themes, and a starting point from which to explore the scores of other Gateways. In addition, the Network would broaden its focus to help interpret and conserve important landscapes linked to existing Gateways. These places already loom large in the public’s image of the Bay; now, visitors will be able to explore them in more depth and with an eye toward a clean future for the Bay.

Key Elements of the Enhanced Chesapeake Bay Gateways Network

Continuing Core Aspects of the Chesapeake Bay Gateways Network that Will Continue:

The Chesapeake Bay Gateways Network would continue as an extensive watershed-wide, partnership system of sites and trails for experiencing the Chesapeake Bay. Chesapeake Bay Gateways would continue to be linked through a comprehensive *Map & Guide* and website, and carry out programs and initiatives to tell the Bay stories associated with each site, provide public access to Bay resources and foster involvement in Bay conservation efforts. The National Park Service would continue to coordinate the Gateways Network and provide technical and financial assistance to designated Gateways, though the sites and trails would continue to be managed by a variety of local, state and federal agencies and non-governmental organizations.

Bay Resources Represented:

The Gateways Network would continue to represent the broadest geographic and thematic system of Bay-related sites in the Chesapeake watershed. The Network would be expected to continue a natural pattern of slow expansion, as new sites are added in under-represented geographic regions or themes. Currently, multiple sites represent each of seven principal Bay themes and the diverse Bay-related resources associated with them, including:

- The Living, Natural Bay
- Peoples of the Bay
- Settlement of the Bay
- The Bay as an Economic Resource: Commerce, Productivity and Transportation
- Military and Naval Presence on the Bay
- The Bay as a Source of Recreation and Renewal
- Environmental Stewardship and Sustainability of the Bay

In addition, scores of sub-themes are represented through more than 140 Gateways.

Experiencing the Chesapeake Bay through the Gateways Network

The Gateways Network would continue to provide the broadest and most diverse way for visitors to experience the Chesapeake Bay and its watershed. Through the Network's many sites, travelers can encounter Bay stories in many ways – while touring picturesque lighthouses, paddling winding creeks, sailing old skipjacks, strolling wooded trails, visiting historical sites and savoring local traditions. The diverse stories and experiences at each of these places fit together like a puzzle, with each new tale adding to the whole. It is through this Network of special places that visitors come to see the breadth of the Bay's influence and the links between all of the Bay's special places. This in turn reconnects people with the importance of individual and joint efforts to conserve and restore the Bay.

Individual Gateways vary greatly in the focus and scope of their visitor services and programs, depending on their specific circumstances. Yet, individual sites and trails would continue to enhance interpretation of Bay stories at their sites and to expand or enhance public access, especially to the water. Scores of new exhibits, wayside panels, programs, water trail maps and guides and access points are already under development or in place. In addition, materials, media and other products for interpreting Bay-wide themes and orienting people to the entire Gateways Network would continue to be developed and distributed.

Conserving and Restoring the Bay

As members of a Network of special Bay places, individual Chesapeake Bay Gateways would continue to strive toward setting examples for sustainable stewardship of the Bay watershed's natural, historic, cultural and recreational resources. Managers of individual Gateways would continue to explore and undertake initiatives at their sites toward that end.

Due to the great variety of organizational mandates and missions of individual Chesapeake Bay Gateways, the types of activities, uses and conservation/restoration efforts at Gateways would continue to be highly diverse. Gateway managers would continue to operate their sites consistent with those missions and the principals of the Gateways Network.

Enhancements to the Chesapeake Bay Gateways Network

The Chesapeake Bay Gateways Network would be enhanced in three key areas to address identified gaps in current interpretation and conservation of the Chesapeake Bay, as follows.

Designating the Chesapeake Bay Gateways Network as a Permanent National Park System Program

The Gateways Network would be authorized as a permanent program of the National Park System. This would not change the management status of individual Gateways; they would continue in existing ownerships and management approaches. Rather, the designation would recognize the national significance of the Chesapeake Bay and the special and necessary role of the National Park Service in facilitating the telling of the Bay story



The National Park Service would coordinate the Chesapeake Bay Gateways Network as a permanent program for the Chesapeake Bay.

through the Gateways Network. Moreover, it would recognize the unique abilities and characteristics of the Chesapeake Bay Gateways Network partnership to address the Bay's breadth, magnitude and diversity. Designation as a permanent program of the National Park System would provide a long-term federal commitment to the unending importance of the Bay story, rather than the current short-term role stemming from the existing Gateways Network legislation which sunsets in 2008.

Chesapeake Bay Interpretive Centers

Two new partnership interpretive centers would be created to fill a key gap in communicating the Bay story – a lack of opportunities for residents and visitors to grasp an introduction to the broadest Bay and watershed-wide themes. These centers would introduce people to those themes and orient visitors to the Network and where to experience its places and stories. Visitors would find a range of interpretive programming, activities and facilities focusing on overarching and principal Bay themes, as well as maps of the entire Network, on-line opportunities to explore other sites and plan trips and physical and interpretive links to nearby sites. In addition, the centers might provide web and television interpretive and educational programming and links as a tool for reaching off-site audiences.

The two centers would be developed through partnerships with other organizations or existing institutions. They could be in existing buildings or possibly expanded or new structures. Regardless, they would be located where a combination of geography, transportation systems and services concentrate large numbers of people at opposite (southern and north-western) portions of the Bay, with a direct view of Bay waters, fulfilling an earlier vision of Gateway hubs in these locations. They would be nearby authentic natural, cultural, historic or recreational Bay resources. In effect, the two centers would be high visitation starting points through which people would get a first impression of the Bay and from which they would begin a longer exploration at other sites. The centers would not attempt to duplicate the experiences available in and around the Chesapeake, but they would help orient visitors to the Bay and other sites and enhance visitors' understanding of the resources they will experience directly.

Working Bay Landscapes

Working farm, forest and maritime landscapes are not currently included within the Chesapeake Bay Gateways Network. However, they clearly provide the setting and context for many of the Network's sites, trails, resources, themes and stories. They also provide opportunities for people to explore the very fabric of the Bay region itself.

This alternative would help extend the benefits of the Gateways Network to working Bay landscapes. Existing designated Gateways would continue to be able to develop tours or programs that address the landscapes around them. In addition, state designated heritage areas and rural historic districts containing designated Gateways, and river corridors along Gateways Network water trails, would be eligible for Gateways Network technical and financial assistance (matching grants) to support conservation efforts. Financial assistance would be targeted at grants for conservation easements and conservation plan development or implementation.



Under Alternative B, two interpretive centers would be added to introduce visitors to Bay-wide themes and orient them to the many sites for experiencing the Bay.



In addition to the existing resource types represented in the Chesapeake Bay Gateways Network, certain landscapes would be eligible for Gateways technical and financial assistance for conservation initiatives.

Roles

The Gateways Network would continue its unique and innovative role as a partnership system of special Bay places, managed by a variety of public and private institutions.

Overall guidance and coordination of the Gateways Network would be carried out in much the same fashion as it is today by the National Park Service in cooperation with a multi-organizational board or coordinating body, similar to the current Chesapeake Bay Gateways Network Working Group. The board or coordinating body would include representatives of the Chesapeake Bay Program, the natural resources, historic resources and tourism agencies of Maryland, Pennsylvania and Virginia, federal agencies managing designated Gateways, representatives of other designated Gateways and key private sector organizations. The board would continue the Working Group's role in coordinating overall policy guidance for the Gateways Network, including: on-going planning for the Network, developing policy and priority recommendations, evaluating additions to the Network and project proposals, and coordinating interagency commitments and programs.

National Park Service roles might include:

- Continuing to lead development of Network-wide orientation and interpretive materials, in partnership with various cooperators;
- Continuing to set standards for Network participation, interpretation and graphics, in consultation with the Gateways Network board and designated Gateways;
- Continuing to provide a range of technical assistance to designated Gateways, including new technical assistance for conservation of working landscapes and maritime communities;
- Maintaining an annual matching grants program to assist designated Gateways in improving interpretation, public access and conservation restoration;
- Providing new grants for conservation planning, conservation easements and public access site acquisition (willing seller only) within designated types of landscapes;
- Partnering with a non-governmental support organization to attract and develop financing for interpretive, education and conservation programs; and,
- Entering into a long-term partnership for each of two Bay interpretive centers. The National Park Service would provide a legislatively set amount of federal 1:1 matching funds (\$2.5 million each) for development of the centers. A priority would be placed on expansion of existing institutions as opposed to new development. The National Park Service would also enter into a partnership agreement addressing operations, programming and interpretation at the centers.

Local and state government, other federal agency and non-governmental organization roles might include the following:

- Continuing to manage designated Gateways to enhance interpretation of Chesapeake Bay watershed themes, improve public access to Bay

resources in a sensible and sustainable manner, and foster conservation and restoration of Bay resources;

- Participating in the coordinating board or body guiding the Chesapeake Bay Gateways Network;
- Providing technical assistance to designated Gateways;
- Partnering on development of the two Bay interpretive centers;
- Partnering on conservation programs within designated types of landscapes.

ALTERNATIVE C: CHESAPEAKE BAY ESTUARY NATIONAL PARK – CONSERVING AND EXPLORING THE BAY’S WATERS

The Chesapeake Bay is a vast estuary – 2,500 square miles of water – internationally known not just for its size, but also its high productivity as a natural system. As the lifeblood of the Chesapeake is water, this alternative would create a primarily water- based national park that exemplifies the larger Bay’s core aquatic, estuarine character, with only limited land resources for context, public access and interpretation. In brief, the national park would:

- Encompass a reasonably large, but still proportionally small water area representative of core aspects of the whole Chesapeake Bay’s estuarine environment and including limited, but related shoreline ecosystems and island environments;
- Protect aquatic and other natural resources within the park area as a high quality natural system, reflecting the Bay’s importance as habitat, breeding ground and refuge for countless species at all points in their lifecycles;
- Provide public access that allows visitors to explore, enjoy and learn about the estuary and its resources while preventing any degradation of the estuary’s natural systems;
- Interpret the Chesapeake Bay as an outstanding natural system, and the importance and influences of human interaction with it, through a land-based visitor orientation/interpretive center and other programming in the park.



The Chesapeake Bay is all about water – over two thousand square miles of it – and the diverse aquatic life it supports. This alternative would create a water-based national park in one portion of the Bay. It would reflect the Chesapeake Bay’s rich estuarine life.

A Vision of a Chesapeake Bay Estuary National Park

At a Chesapeake Bay Estuary National Park, visitors might explore in depth the natural marvels of one of the world’s largest estuaries. They might roam marshlands, stroll beaches, visit islands and paddle open waters. They could admire up close the incredible bounty of the Bay: its fish, its birds, its vegetation, and its beauty. And they would discover firsthand the dynamics of a healthy Bay.

The first stop for visitors to such a park might be an on-shore interpretive & orientation center. Here, with a scenic vista of open Bay waters as a backdrop, the broader Chesapeake story would unfold. Compelling exhibits and innovative programs would focus on the park’s estuarine theme while drawing the whole of the Bay and its watershed into the picture.

Most of the park would be out in the Bay’s open waters, and a key aspect of the park’s mission would be to protect a sample of the Bay’s precious aquatic environment and contribute to restoring the whole Bay’s full health. Still, the public would have numerous opportunities to get out on the water, whether during tours of a Bay island or paddling trips along shore.

The park’s land area would be limited in size, but not in appeal or significance. Here, visitors might explore such critical habitats as wetlands,

marshes, and grasslands. They'd be able to see for themselves why healthy beds of submerged aquatic vegetation are so crucial to crab and oyster populations. They'd learn how diverse aspects of our collective lifestyle can affect the health of the Bay for better and for worse.

The park would not be an isolated destination. Visitors could also learn about other Chesapeake destinations, both near and far. When they depart, they'd do so armed with a new appreciation for how important the Bay is and why they should explore the Chesapeake region in more depth.

Key Elements of the Chesapeake Bay Estuary National Park

Bay Resources Represented:

A national park area focused on the estuary would include resources typical of the Bay's open waters, marshes, islands, beaches, and associated shoreline. Essentially, such a park should include:

- A large contiguous water area that has some recognizable identity as a portion of the larger Bay;
- Estuarine aquatic communities such as submerged aquatic vegetation (SAV) beds, oyster beds, water bird feeding areas, deep and shallow open waters, islands;
- Shoreline tidal ecological communities such as shorelines, beaches and tidal marshes;
- Suitable areas for public access along the shoreline to provide for land and water-based interpretation, education and recreation;
- A suitable location for an interpretive center providing physical and interpretive orientation to the park and the entire Bay and serving as a launching point for interactive experiences in the park and other Chesapeake Bay sites.

The size of the park could vary depending on the specific characteristics of a particular area. Typically national parks are relatively large encompassing a substantial enough area to represent and ensure protection of the core resource base.

Conserving and Sustaining the Park:

A core goal of this alternative would be to conserve, protect, and restore the estuarine environment and natural resources represented within the park area in as close to a pristine condition as possible.

This goal recognizes the significant ecological function of the Bay as a natural system and the importance of protecting certain core areas as close-to-pristine environments. Such an area would provide habitat, breeding ground and refuge for countless species at all points in their lifecycles. Moreover, it would benefit the broader estuary and the millions of people who depend on it. An estuarine park would protect these natural resources through three key principles:

- *Protect and preserve estuarine resources:* The estuarine park's preservation goals would aim towards the level of protection necessary for sustaining the area as a high quality natural system with healthy populations of native species. Public ownership or management of core



By protecting and restoring aquatic resources, a Chesapeake Bay Estuary National Park would reflect the Bay's importance as habitat, breeding ground and refuge for countless species.

estuarine resources would be most compatible with this goal, whereas consumptive, commercial uses might be incompatible. Limited acquisition of existing lands or rights might be needed primarily to provide a base for interpretation and administration on a small area of the shore. With multiple state and federal agencies involved in management of aquatic systems and resources, a cooperative joint management plan would be developed to ensure consistent, integrated science-based approaches to resource protection, management, public access and other aspects of the park. Research and monitoring of natural systems and resources would be encouraged.



The Park would serve as a living laboratory for scientists to learn how to best restore water habitats. Visitors would also have enhanced access to the water to explore the Bay's environment on and in the water.

- *Restore key fragile natural resources:* Given centuries of human use in the Bay, most areas have seen some impacts to key natural resources. The most prominent examples include submerged aquatic vegetation (SAV) and oyster beds. The park would be a focus site for restoration of such key resources through public and voluntary efforts. Restored areas would expand the park's ability to serve as a protected base supporting the overall Bay system. In addition, scientists would use the park as a place for learning how best to restore water habitats, making it a living laboratory for restoration.
- *Provide public access in a manner that encourages learning and enjoyment and does not degrade natural systems:* Public access to Bay resources is critically important to fostering support for and involvement in Bay conservation and stewardship. Within the park, public access would be developed and managed to achieve this fundamental purpose, but also managed to avoid impairment of natural systems. Local, state and federal government and the private sector would be involved in the cooperative joint management planning process to design approaches to meeting this principle. The specific characteristics of public access would be dependent on the resources of a potential park area, but generally, uses such as boating, sailing, canoeing, kayaking, swimming, hiking, and recreational fishing would be expected to be compatible.

Experiencing the Park

A visitor would come to enjoy and understand the Chesapeake Bay as a remarkable natural system through experiencing the waters and estuarine resources of the park. That experience might include:

- *Primary orientation at a land-based interpretive center:* This facility would introduce visitors to the park, its themes and stories, and a series of experiences throughout the park. In addition, it would provide an introduction to overarching Chesapeake Bay themes and further opportunities for exploring the Bay beyond the park. The center should be accessible by multiple forms of transportation (water-based, vehicles, bicycles, pedestrians). It should also be within view of the water and nearby natural or recreational sites.
- *Group tours, planned itineraries and established programs providing visitors with a variety of experiences:* Opportunities would exist for visitors to participate in planned programs or to design their own visit with experiences on the open water, at islands, marshes or along the shore. This might include canoe, kayak and sailing tours and experiences

in the underwater environment, where appropriate, through glass boat tours or scheduled dives. Interactive experiences with researchers and scientists might also be available as appropriate.

- *Access for a variety of populations:* The park would provide access to visitors with varying degrees of physical abilities, available time and desired outcomes. It would accommodate multiple forms of transportation to the park, provide a range of experiences tailored to visitors, and provide a virtual interpretive experience for those who are unable to visit the park first hand, wish to pre-plan activities, or visit the reserve but do not venture out onto the resource.

Through the resource-based experiences, tours, interpretive center, and various sites, visitors would be introduced to and come to recognize:

- The Chesapeake Bay as a vast, diverse, productive and sensitive natural system – the natural, living Bay;
- The lasting dependence of people on the Bay’s natural functions, coupled with the Bay’s dependence on human decisions and actions for its future well-being;
- A range of related themes and sites beyond the park where they can continue their exploration of the Chesapeake Bay.

Roles

As for any park, partnerships with different levels of government, neighboring communities and the private sector would be important to this alternative. Particularly important would be collaborative efforts among the varying agencies involved in management of aquatic systems and resources. Depending on the characteristics of any potential park area, this might involve cooperative management agreements and a cooperative joint management plan.

National Park Service roles might include:

- Entering into cooperative management agreements with other public land management agencies within the park;
- Coordinating and leading park management planning, including any cooperative joint management plans, such as for aquatic resources; a final park management plan(s) would be approved by the Secretary of the Interior;
- Carrying out resource management activities in cooperation with other park partners;
- Developing a comprehensive interpretive plan, in cooperation with other park partners;
- Developing and carrying out interpretive programming;
- Developing and operating the park’s interpretive center;
- Acquiring lands, waters, or development rights necessary to protect resources within the park or provide for public access.

Local and state government, other federal agency and non-governmental organization roles might include the following, depending on the characteristics of any potential park area:

- Participating in management planning for the park;

- Managing existing public lands and waters to meet park management plan objectives;
- Partnering on resource inventories, conservation and restoration programs, and research and monitoring programs;
- Carrying out conservation initiatives and land use planning to mitigate impacts on estuarine resources from waters or lands outside the park;
- Acquiring sensitive resource lands or public access points;
- Developing or providing tours and other services.

ALTERNATIVE D: A CHESAPEAKE BAY NATIONAL RESERVE – PROTECTING THE BAY’S MARITIME AND RURAL HERITAGE

National reserves protect and sustain the working landscape, recognizing the vital role of continued human uses in the heritage and character of a special place. This alternative would create such a national reserve representative of the Chesapeake Bay’s internationally recognized maritime and rural agricultural heritage. Briefly, the reserve would:

- Encompass a reasonably large area of publicly and privately owned lands and waters reflective of the Bay region’s maritime and rural, agricultural heritage;
- Retain the living, working character and pattern of human use of the lands and waters;
- Conserve the reserve landscape, protecting it from sprawl development and the conversion of resource lands to developed uses;
- Protect traditional resource dependent activities (commercial and recreational fishing, crabbing, oystering, agriculture, forestry) and manage the resources for permanently sustainable use;
- Protect high priority, sensitive natural and cultural resources;
- Interpret the Chesapeake Bay’s heritage through media and programming at a central interpretive center and multiple partner sites within and beyond the reserve;
- Be fully dependent on a partnership approach to management, involving local, state and federal government and the private sector.



The Chesapeake's abundance created a working landscape tied to the Bay. Watermen, farmers and residents of maritime communities all depend on the Bay in one way or another. Today, this is part of what makes the Chesapeake a very special place. This alternative focuses on protecting and sustaining that working, living landscape and the traditions it reflects.

A Vision of a Chesapeake Bay National Reserve

A Chesapeake Bay National Reserve would provide visitors and residents with a generous serving of the true Bay landscape and culture. A reserve would not only include memorable scenery and natural abundance in forests, on shores, and along streams. But here, the human dimension of life on the Bay would come to the forefront as well. In addition to natural areas, a reserve would encompass small fishing towns, rural communities, working farmlands, and perhaps even historic factories.

Land in the reserve would be mostly privately owned, just as it is all around the Bay. But the reserve and its resources would be managed through a strategy recognizing the special national significance of this region. Maritime communities inside the reserve would strive to remain living, breathing places where residents remain in touch with traditional ways. Along shorelines in the reserve would sit boatyards where Chesapeake watermen still ply their centuries-old trades. Existing and new visitor sites, tours and events might focus on such aspects of Bay life as the seafood industry, plantation life, small-town life and key historic settlements.

Managed by a partnership between private citizens and local, state and federal governments through a coordinating board, this reserve will also

embrace conservation efforts that focus not just on natural environments, but on cultural and economic ones as well: How can farms thrive in ways consistent with protecting the long-term health of the Bay? What patterns of development offer the best hope for preserving the special qualities of Chesapeake life? What strategies and tools give the commercial fishing industry the best chance to thrive in the decades ahead?

An array of significant natural areas would also be included in this reserve – state parks, refuges and perhaps newly protected sensitive natural sites. Thus, the reserve would also encompass samples of the broad shores, winding riverbanks, deep forests and wetlands that help shape the Bay. Opportunities will abound for visitors and residents to explore the beauty of the Chesapeake region in exhibits, recreational activities, and educational programs—not just at a central interpretive center, but also at numerous partner sites within the reserve’s boundaries.

Key Elements of the Chesapeake Bay National Reserve Concept

Bay Resources Represented

A representative reserve area would include resources typical of the Bay region’s aquatic, rural, maritime and agricultural heritage within one contiguous area. This means it should include:

- One or more waterfront maritime communities and the maritime resources associated with them (e.g. traditional waterfront industries, historic and modern commercial structures, boatyards, fishing piers/wharves, seafood processing operations);
- Agricultural and forest lands;
- Historic and cultural resources representing the Bay’s long maritime and agricultural heritage (e.g. historic settlement sites, plantations, wharves, etc.);
- Bay and Bay tributary shoreline;
- Shoreline tidewater ecological communities (beaches, tidal marshes, and grasslands);
- Estuarine aquatic communities (open Bay waters, submerged aquatic vegetation (SAV), oyster beds, crabbing areas, possibly islands);
- Public access points at Bay and river shorelines;
- Existing protected lands, such as state parks, refuges, natural areas, etc.

The size of the reserve could vary depending on the characteristics of any specific area. Reserves are typically 15,000 acres or much larger in size, encompassing a broad enough area to effectively represent and conserve the characteristic resources.

Conserving and Sustaining the Reserve

A core goal of this alternative would be to conserve and sustain the traditional working landscape, waters and natural and cultural resources within the reserve that reflect the Bay’s heritage.

This goal recognizes that the interaction and interconnectedness of the Bay’s natural environment and human use and settlement over time is what gives



National reserves protect and sustain the working landscape, recognizing the vital role of continued human uses in the heritage and character of a special place.

the Chesapeake its nationally significant character. Historical and modern patterns on the working landscape reflect this - from early American Indian settlements to colonial plantations to maritime communities to today's watermen and crabbing industry. A reserve would conserve and sustain the basis of these patterns and the viability of the landscape through three key principles:

- *Retain the living, working pattern of privately owned lands and human uses of land and water, complemented by protection of key sensitive resource areas:* A reserve would be predominantly privately owned with a mix of traditional uses. Yet it could also include certain protected lands (both public and non-profit) for which private ownership and use is impractical, such as certain high priority sensitive natural areas, recreational or public access sites and certain historic sites.
- *Conserve the reserve landscape, allowing change to occur, but protecting against sprawl development and the conversion of resource lands to developed uses:* A reserve would employ a locally adopted and implemented comprehensive management plan for guiding land use and resource protection on all lands within the reserve. The plan would set guidelines limiting sprawl development and conversion of farm and forest lands to non-resource uses and protecting important natural and cultural landscape features, such as stream corridors and maritime community historic districts.
- *Protect traditional resource dependent activities (commercial fishing, crabbing, oystering, agriculture, forestry) from development pressures and managing resources for sustainable use:* Resource dependent uses are particularly sensitive to development pressures. A reserve would include a purchase of development rights program aimed at protecting resource dependent uses. Purchasing development rights on sensitive farmlands, forests, and fisheries infrastructure sites (picking houses, workboat docks) helps keep these areas in production by removing development pressures and providing the owners with funds to reinvest in their businesses.



The reserve would reflect the Bay's rural and maritime heritage by including and conserving part of the working Bay landscape and waters—maritime communities, farm and forest lands, fisheries and more. The reserve would also support fishing, farming and forestry by helping to keep these traditional Chesapeake Bay uses sustainable well into the future.

Experiencing the Reserve

In the mind's eye, the Chesapeake is a broad expanse of water surrounded by lands farmed and forested for centuries. A multitude of rivers, streams, creeks and wetlands flow through these lands, on which watermen have crabbed and fished for an equal length of time. This is the Bay's working landscape, something that anyone must experience to truly know the Bay. That experience would be guided in several ways:

- *A primary interpretive/education center* would introduce visitors to Chesapeake Bay themes and orient them to a series of experiences and sites throughout the reserve. It would be a true portal to other public and private sites in the reserve that collectively help illustrate the working landscape. The center would accommodate multiple modes of transportation (water-based, vehicles, bicycles, pedestrians) and be located near a complex of natural, cultural and recreational sites, such as on existing public lands or in a maritime community.



Visitors would have enhanced opportunities to experience the authentic Bay. An interpretive center would introduce the Bay's heritage and link people with a variety of existing visitor sites and programs.

- *Self-guided tours, group tours, planned itineraries and established programs* would provide visitors with a variety of experiences on the open water, in the community, at sites and in the broader reserve landscape.
- *Individual sites throughout the reserve* would be primary places for visitors to learn and experience more of the Chesapeake. Parks, refuges, historic sites, trails and water trails within the reserve would provide the site-specific Bay stories and programs, events, festivals, exhibits and tours of the Bay landscape.

Through the landscape, center, tours and sites, visitors would come to recognize:

- The dynamic interconnectedness of water, place, nature and people in the Chesapeake region over time;
- How the Bay region's resources have shaped human use and settlement of the region and conversely, how human use has changed the Bay and the surrounding landscape; and
- The lasting dependence of people on the Bay and its resources, coupled with the Bay's dependence on human decisions and actions for its future well-being.

Roles

This alternative depends on a vital and engaged partnership among local, state, and federal government and the private sector. While the details of such a partnership would vary depending on the size, location and constituents of a reserve, typical roles would be expected to follow certain general patterns.

Overall guidance and coordination would typically be carried out through an appointed multi-partner board or commission. This entity would represent core reserve partners, such as local, state and federal government and the private sector. It would provide the primary forum for addressing reserve-wide planning and implementation. For example, this entity would typically develop a reserve comprehensive management plan in collaboration with the National Park Service, as well as other reserve partners and stakeholders. This entity would also typically set reserve-wide priorities for implementing aspects of the plan.

National Park Service roles might include:

- Providing technical and financial assistance for comprehensive management planning;
- Transmitting the final comprehensive management plan to the Secretary of the Interior for approval;
- In cooperation with state government, providing administrative and logistical support for the coordinating board or commission;
- Developing a comprehensive interpretive plan, in cooperation with other reserve partners;
- Providing 1:1 federal matching funds for development of the reserve's interpretive center;
- Providing interpretive staffing for the interpretive center;
- Giving technical assistance and small matching grants for enhancing interpretation at sites within the reserve;

- Providing technical assistance for conservation of cultural resources within the reserve;
- Providing matching grants to the state(s) for purchase of development rights on sensitive resource lands, or, carrying out a purchase of development rights program for willing sellers when matched by equal funding from another non-federal partner.

Local and state government, other federal agency and non-governmental organization roles might include the following:

- Participating in the board, commission or coordinating body for the reserve in comprehensive management planning and interpretive planning;
- Coordinating and targeting relevant existing technical and financial assistance programs to assist in development and implementation of the reserve;
- Adopting and implementing the comprehensive management plan and ensuring consistency with the plan;
- Continuing to manage existing public lands;
- Partnering on development of the interpretive center and other interpretive projects;
- Partnering on implementing a purchase of development rights program for the reserve.

ALTERNATIVE E: CHESAPEAKE BAY WATERSHED NATIONAL ECOLOGICAL & CULTURAL PRESERVE – A LIVING EXAMPLE FOR THE BAY AND THE NATION

The Chesapeake Bay is fed by over 124,000 miles of rivers and streams from a 64,000 square mile watershed. It is a complex ecological and cultural system where tributaries greatly influence the Bay. This alternative would establish a national ecological and cultural preserve focused on one exemplary Bay tributary – from headwater stream to open Bay and islands – as a representative cross-section of the larger Bay watershed. The preserve would:

- Conserve and restore the tributary ecosystem such that human uses are in optimal balance with natural processes, ensuring a vital, sustainable and clean future;
- Protect key natural resources and river shorelines along a core riparian area of the primary tributary river and some or all of its feeder streams;
- Demonstrate and apply the best in evolving land and resource stewardship practices on public and private lands throughout a resource conservation area encompassing the entire tributary watershed;
- Provide a series of opportunities for visitors to experience and learn about the transition of natural areas from headwaters to Bay and how human actions influence the health of the Bay system;
- Engage the private sector, local, state and federal government as partners in creating a sustained, focused national model of watershed stewardship.

A Vision of a Chesapeake Bay Watershed National Ecological & Cultural Preserve

In a National Ecological & Cultural Preserve, visitors would experience the Chesapeake Bay along the natural flow of a single tributary as it runs from upland headwaters down to the open Bay. Whether taken by car or foot or bicycle or kayak, the journeys available along this corridor would put travelers in direct touch with the diverse places and activities that create, feed and influence a new future for the Chesapeake Bay – the watercourses of the Bay watershed.

Human uses would be visible throughout the preserve, but they would lie lightly on the land. Always, the rivers and their riparian corridors would seem a revered element of the landscape – with forested stream banks and healthy wetlands filled with the sounds of birds and wildlife. Conservation and restoration programs adopted here – in an environment that supports a full range of modern human activity, from farms to residences to towns to businesses–will be an inspiring model for the stewardship of vital natural habitats and the restoration of water quality all across Bay country.

Through a central interpretation/orientation center and out in the preserve, visitors would find a range of exhibits, sites and programs revealing how the elements of the preserve watershed fit into the complex mosaic of the Chesapeake as a whole. Through these experiences visitors might see the way toward a bright future for this national treasure as they learn both how we have influenced the Bay in the past and how we can sustain its vital functions tomorrow.



Water flows into the Chesapeake from hundreds of rivers and streams, altogether draining a vast area of land. How we use and care for that land directly influences the Bay's future. This alternative focuses on caring for one Bay tributary and its surrounding watershed as a national model for sustainable use and stewardship.

Key Elements of the Concept

Bay Resources Represented

The ecological and cultural preserve would track one significant mid-sized (15 to 50 mile) Chesapeake Bay tributary river ending in the main body of the Chesapeake Bay and encompass important components of its surrounding landscape. Within a core riparian area, resources particularly important to be represented include:

- Headwater ecological communities (freshwater marshes, swamps, headwater streams, and upland/headwater forests)
- Riparian ecological communities (shorelines, river beaches and islands, wetlands and tidal marshes)
- Estuarine aquatic communities (submerged aquatic vegetation, oyster beds, deep and shallow open water, islands)

Beyond the core riparian area and extending to the boundary of the watershed, the preserve should encompass an array of land uses. In essence, the sum of the preserve landscape, wildlife, human settlements, and watercourses should offer enough diversity of natural and cultural resources to illustrate watershed ecological processes, historic interaction of humans with the landscape, contemporary land use issues, and emerging, progressive resource stewardship practices.

The overall size of the preserve would vary depending on the characteristics of the specific tributary river, but this preserve would be expected to encompass many square miles.

Conserving and Sustaining the Resource

A core goal of the reserve would be to conserve and restore the tributary ecosystem so that human uses are in optimal balance with natural processes, ensuring a vital and sustainable future. This would be achieved through the following principles, as applied in a core riparian area (encompassing the water and riparian zone of the primary tributary river and some or all of its feeder streams) and a resource protection area (including the remainder of the tributary watershed).

- *Protect and restore vital natural resources within the core riparian area:* Within the core riparian area, vital natural habitats retaining a high degree of integrity would be protected in as near a pristine state as possible. Other important natural habitat types could be conserved even if the integrity is partially compromised; these areas would be the focus of restoration efforts to enhance their habitat value for living resources. Collectively, these natural resource areas would represent a series of habitat types from headwaters to open Bay. Ideally, these natural resource areas would form a core publicly owned series of nodes of the preserve along the tributary. This might be through existing local, state or federal land-holdings. Some fee simple acquisition from willing sellers or land donations may be appropriate. Public lands would also provide public access for experiencing and learning about the preserve (see below).



A national ecological and cultural preserve would follow one Bay tributary from headwater trickle to open Bay, including lands within the tributary's watershed. Visitors could experience the transition from headwaters to Bay, and learn how people influence the Bay system.

- *Conserve riparian shorelines within the core riparian area:* Conservation easements and incentives for applying best management practices would be used to conserve riparian shorelines. The objective of these initiatives would be to establish as near possible a contiguous forested or vegetated riparian buffer along rivers and streams in the core area.
- *Protect and restore water quality throughout the preserve:* Encompassing an entire Bay tributary river's watershed, the reserve would appropriately include a mixed pattern of public/private ownership and land uses. How these lands are managed directly influences water quality and the viability of the tributary ecosystem. Working landscapes within the preserve would continue in economic production, but best management practices would be developed and applied to protect tributary water quality from all point and non-point sources of polluted runoff. This would be coordinated through a watershed management plan developed by state and local government in consultation with the National Park Service. Development of the plan would require the firm commitment of local, state and federal government and the private sector to create and apply incentives, assistance and programs to support best management practices watershed-wide. These might involve a range of options from tax incentives, technical assistance services, local zoning and design review and purchase or transfer of development rights.
- *Illustrate how sustainable management practices can help restore the Chesapeake Bay:* In total, the preserve would be managed to illustrate how sustainable land use management practices can protect water quality and living resources, and thus the environmental and economic viability of our communities. Partnerships would be developed to facilitate public access to and interpretation of managed resource lands of high demonstration value. Opportunities would be sought to demonstrate wastewater treatment technologies, and progressive management techniques such as low impact development, conservation landscaping, nutrient trading, and riparian buffering.

Experiencing the Preserve

The Chesapeake Bay is linked with our national identity. It is big, bold, and has influenced many of the major story-lines of the Nation's history. It illustrates the interdependent relationship we have with an outstanding natural ecosystem. Yet, the Bay is feeling the cumulative effects of hundreds of years of human use and the more than 15 million people living within the watershed. The future of the Chesapeake hangs in the balance – its loss of biodiversity and abundance, symbolic of a national and global pattern. This alternative responds directly to this challenge, by setting an example for conserving and illustrating stewardship of an entire tributary system. The national ecological and cultural preserve would allow visitors to experience the beauty, influence and function of the Bay environment through an entire tributary system. Moreover, visitors would experience a place dedicated to sustainable stewardship and human use of that environment. Unique within the National Park System, this would allow visitors to understand the place and how to ensure its future. The preserve would present a broad array of resource stories and experiences to build this understanding. The experiences would be guided in a number of ways:

- *A primary interpretive/education center* would introduce visitors to Chesapeake Bay watershed themes and resources and orient them to a series of experiences and sites throughout the preserve. The center would accommodate multiple modes of transportation (water-based, vehicular, bike, pedestrian) and be located near a complex of natural resource sites, such as on publicly protected lands with the preserve’s core area. The center would be a “portal” to visit key resource sites throughout the preserve and other resource sites around the Bay. The center would also partner with a wide range of organizations and individuals to present programming on current and evolving stewardship practices.
- *Self-guided and group tours, planned itineraries and established programs* would provide visitors with a variety of experiences along the riparian corridor from headwaters to open Bay and at sites within the preserve’s working landscape.
- *Demonstration sites throughout the preserve* would be primary places for visitors to learn about innovative and sustainable management practices in agriculture, forestry, and commercial and residential development. Visitors would have opportunities to personally participate in traditional practices and conservation and restoration activities.



The preserve would also serve as a national model for stewardship. Throughout the preserve, stewardship efforts would help restore natural systems, continue human uses in sustainable ways, and demonstrate the best in evolving practices.

Through the programming for these experiences, visitors would come to recognize:

- What the Bay was like as a natural system at the time of first European contact and how it has changed since;
- The nature and characteristics of a Bay tributary watershed from headwaters to open Bay waters;
- The interconnected and interdependent relationship and influences between people and the Chesapeake’s natural systems;
- How stewardship of land and water resources is taking place to ensure a sustainable balance between human uses and ecological functions and how those principles and actions can be applied elsewhere.

Roles

Similar to other alternatives, this alternative depends on a vital and engaged partnership among local, state, and federal government and the private sector. While the details of such a partnership would vary depending on the size, location and constituents of a preserve, typical roles would be expected to follow certain general patterns.

Like alternative D, overall guidance and coordination would typically be carried out through an appointed multi-partner board or commission. This entity would represent core preserve partners, such as local, state and federal government and the private sector. It would provide the primary forum for addressing preserve-wide planning and implementation. For example, this entity would typically develop the preserve’s comprehensive watershed management plan in collaboration with the National Park Service, as well as other reserve partners and stakeholders. This entity would also typically set reserve-wide priorities for implementing aspects of the plan.

National Park Service roles might include:

- Providing technical and financial assistance for comprehensive watershed management planning; facilitating strategic planning among the collaborating partners;
- Transmitting the final comprehensive management plan to the Secretary of the Interior for approval;
- In cooperation with state government, providing administrative and logistical support for the coordinating board or commission;
- In cooperation with other preserve partners, developing a comprehensive resource protection plan for key resources within the preserve's core area;
- Acquiring, owning and managing select resources, as appropriate within the preserve's core area;
- Partnering to develop conservation easements for resource protection and interpretive cooperative agreements or memorandums of understanding, as appropriate within the preserve's resource protection area;
- Providing 1:1 matching funds for development of the interpretive/education center and partnering with other institutions to ensure on-going operations;
- Assisting with interpreting key themes and resources, including providing financial and technical assistance, and in some cases providing interpretive personnel at key sites (through MOUs and cooperative agreements);
- Providing financial and technical assistance for resource conservation, restoration and management in a focused geographic area, emphasizing demonstration of innovative and sustainable management practices.

Roles of state and local government, other federal agencies and non-governmental organization partners might include the following:

- Participating in the board, commission or coordinating body for the preserve and in the comprehensive watershed management planning and interpretive planning;
- Partnering with the National Park Service to identify and inventory key resources for protection within the preserve's core area;
- Continuing to manage existing public lands and acquiring and managing select resources, as appropriate within the preserve's core area;
- Adopting and implementing the comprehensive watershed management plan and ensure consistency with the plan; partnering on implementation of the range of stewardship incentives, assistance and programs for the preserve;
- Partnering on funding, development and management of the interpretive/education center;
- Interpret key themes and resources at key sites;
- Demonstrating innovative and sustainable management practices throughout the preserve.

COMPARING ALTERNATIVES AND THEIR ORIGINS

This draft study provides two means of comparing the five conceptual alternatives. Table 4-1 provides a comparison of some of the basic characteristics of the alternatives and how they match with NPS criteria and other factors. Table 5-7 in Section 5 provides a comparison of the environmental impacts of the five alternatives.

Those individuals and organizations who participated in the early stages of the SRS may look at how the conceptual alternatives relate to the 6 initial concepts and the public comments on those initial concepts. The description below provides a brief overview of those connections.

Alternative A: Today's Programs – No New Initiatives

A no-action alternative provides a basis for comparing action alternatives with the status quo. Moreover, a no-action alternative must be included in a draft SRS to meet the requirements of the National Environmental Policy Act.

Alternative B: An Enhanced Chesapeake Bay Gateways Network – A Permanent

Watershed-wide System of Special Bay Places for Experiencing the Chesapeake
Alternative B originated directly out of public comments at the September 2002 public workshops suggesting that the Gateways Network should be permanently sustained as the primary way of experiencing the Chesapeake. The alternative was enhanced to reflect public comments about the need for an interpretive center (initial concept 5) and gaps in landscape conservation. Through expansion of the number of sites represented in the Gateways Network, this alternative could also address comments regarding under-represented themes.

Alternative C: Chesapeake Bay Estuary National Park – Conserving and Exploring the Bay's Waters

Alternative C grew out of initial concept 2 (the Nation's Estuary), but incorporates some elements of initial concepts 5 (Chesapeake Bay Interpretive Center) and 6 (Islands of the Chesapeake). This reflects comments suggesting that the latter initial concepts were limited or problematic by themselves.

Alternative D: A Chesapeake Bay National Reserve – Protecting the Bay's Maritime and Rural Heritage

Alternative D grew partly out of initial concept 3 (Living with the Bay), but with substantial changes to reflect public comments. It incorporated a substantial emphasis on the working landscape and protecting traditional uses and built in elements of initial concepts 1 (Conserved Traditional Working Bay Town), 5, and 6. This alternative also holds many opportunities for incorporating a range of themes related to the Chesapeake's rural and maritime heritage mentioned as under-represented in some public comments.

Alternative E: Chesapeake Bay Watershed National Ecological & Cultural Preserve – A Living Example for the Bay and the Nation

Alternative E grew partly out of initial concept 4, but incorporates some elements of initial concepts 5 and 6.

Table 4-1: Comparison of Alternatives

	Alternative A Today's Programs – No New Initiatives (Status Quo)	Alternative B Enhanced Chesapeake Bay Gateways Network	Alternative C Chesapeake Bay Estuary National Park	Alternative D Chesapeake Bay National Reserve	Alternative E Chesapeake Bay Watershed National Ecological & Cultural Preserve
Core Elements	<ul style="list-style-type: none"> Continue management of existing NPS units. Coordinate Chesapeake Bay Gateways Network through 2008 Continue participation in Chesapeake Bay Program 	<p>Enhance existing Chesapeake Bay Gateways Network through:</p> <ul style="list-style-type: none"> Making it permanent program for exploring and experiencing the Bay watershed Adding 2 partnership interpretive facilities Linking with and providing conservation assistance for designated Bay-related landscapes 	<p>Establish estuarine national park unit:</p> <ul style="list-style-type: none"> Encompassing large water area representative of broader Bay's estuarine environment and limited, related shoreline protecting aquatic resources in close to pristine condition providing public access interpreting Bay as natural system through interpretive center and programming 	<p>Establish national reserve:</p> <ul style="list-style-type: none"> encompassing area of land and water reflecting Bay's rural maritime, agricultural heritage protecting traditional resource dependent activities and working character of landscape conserving reserve landscape interpreting Bay heritage through interpretive center and many partner sites in reserve; using broad partnership approach to management 	<p>Establish ecological & cultural preserve:</p> <ul style="list-style-type: none"> conserving/restoring 1 Bay tributary ecosystem protecting natural resources along riparian area of tributary demonstrating best stewardship practices on lands throughout sub-watershed interpreting stewardship at interpretive center, natural areas and demonstration sites using partnerships for broad range of stewardship incentives
Geographic Scope	<p>Existing NPS units near Bay: Fort McHenry (Baltimore), George Washington Birthplace (Lower Potomac, VA), Colonial (Jamestown & Yorktown, VA)</p> <p>Gateways Network: Through 2008, multiple sites (140+) around watershed</p>	<p>Multiple sites (140+), watershed-wide</p>	<p>Likely a single contiguous area in one location; extensive in size, but proportionately small relative to whole Bay</p>	<p>Likely a single contiguous area; size could vary substantially depending on specifics of location; still, proportionately small relative to whole Bay region.</p>	<p>Focused on one Bay tributary and its sub-watershed.</p>
Resources Represented (see pp. 12-13 for a complete list of typical Bay resource types)	<p>Existing NPS units near Bay: Primarily colonial and early 19th century cultural resources</p> <p>Gateways Network: Through 2008, would represent virtually all types of Bay resources</p>	<p>Virtually all types of Chesapeake Bay resources would be permanently represented through the 140+ sites and trails in the Chesapeake Bay Gateways Network</p>	<p>Primarily aquatic natural resources, with limited shoreline ecological communities</p>	<p>Broad range of natural and cultural resources associated with rural maritime and agricultural landscape and communities</p>	<p>Broad range of natural and cultural resources typically found along Bay tributaries, but with extra emphasis on representing series of sample ecological communities from headwaters to estuary.</p>
Themes Represented (see pp. 13-15 and Appendix A for a complete list of Chesapeake Bay themes)	<p>Existing NPS units near Bay: Primarily settlement and military themes associated with colonial and early 19th century periods</p> <p>Gateways Network: Through 2008, would represent all primary Bay themes and most sub-themes or topics.</p>	<p>All primary Chesapeake Bay themes and most sub-themes or topics would be permanently represented through the 140+ sites in the Chesapeake Bay Gateways Network. Would add comprehensive introductions to overarching and primary themes through interpretive facilities.</p>	<p>Primary themes: Natural, Living Bay</p> <p>Subthemes: Specifics would depend on location, but generally: estuarine ecology, tidal wetlands, natural productivity, biological diversity, native plant communities, finfish & shellfish, wildlife & waterfowl.</p>	<p>Primary themes: Bay as an Economic Resource; Peoples of the Bay; Settlement of the Bay; Natural, Living Bay</p> <p>Subthemes: Specifics would depend on location, but generally: Marine Resources & Harvesters, Agriculture, Trade Relationships, Shipbuilding, Changing Societies & Cultures, Occupations, Settlement Patterns, Estuarine Ecology, Finfish & Shellfish.</p>	<p>Primary themes: Environmental Stewardship & Sustainability, Living, Natural Bay, Settlement of the Bay, Bay as an Economic Resource</p> <p>Subthemes: Would cover a series of topics in each primary theme, with specifics dependent upon the location at which the concept might be applied.</p>
Conservation (See alternatives narrative in Section 4 for more complete description)	<p>Existing NPS units near Bay: Protect natural and cultural resources within three relatively small historical parks</p> <p>Gateways Network: Through 2008, provides matching grants for conservation, interpretation and public access projects at designated Gateways</p> <p>Chesapeake Bay Program: Technical assistance to communities for watershed management planning and related conservation</p>	<p>Making Gateways Network permanent extends technical and financial assistance (matching grants) for conservation and other purposes at Gateways beyond current 2008 sunset.</p> <p>Also extends conservation assistance to certain Bay landscape areas (corridors along water trails, designated heritage areas, rural historic districts).</p> <p>Interprets importance of conservation stewardship broadly as element of all participating Gateways.</p>	<p>Focuses on preserving and restoring aquatic resources within park area as a high-quality natural system. Would involve state and federal agencies in cooperative management plan for aquatic resource protection and restoration, management, and public access. Could serve as living laboratory for science-based restoration and management approaches.</p>	<p>Focuses on conserving the working rural, maritime and agricultural landscape within the reserve. Would: maintain pattern of private lands and human uses; protect against sprawl development and conversion of resource lands to developed uses; provide measures for protecting traditional resource dependent activities from development pressures (e.g. through purchase of development rights); and protecting high priority, sensitive natural and cultural sites.</p>	<p>Focuses on conserving the watershed of one Bay tributary as an example of outstanding stewardship. Would: protect and restore natural resources along a core riparian area of the tributary; enhance water quality throughout the preserve; maintain a mixed pattern of private and public ownership and sustainable land uses; develop a cooperative watershed management strategy with the private sector, local and state government; and create and apply incentives for stewardship and best management practices.</p>

	Alternative A Today's Programs – No New Initiatives (Status Quo)	Alternative B Enhanced Chesapeake Bay Gateways Network	Alternative C Chesapeake Bay Estuary National Park	Alternative D Chesapeake Bay National Reserve	Alternative E Chesapeake Bay Watershed National Ecological & Cultural Preserve
Visitor Experience (See alternatives narrative in Section 4 for more complete description)	Existing NPS units near Bay: Provide a variety of visitor experiences associated with specific themes/resources at three relatively small historical parks Gateways Network: Through 2008, provides a watershed-wide system of multiple sites for experiencing many diverse Bay resources and themes. Also provides technical and financial assistance (matching grants) for improving interpretation and public access at Gateways through 2008 sunset.	Provides permanent watershed-wide system of multiple sites for experiencing virtually all of the Bay's resources and themes. Develops series of system-wide interpretive products for introducing Bay themes. Extends technical and financial assistance (matching grants) for improving interpretation and public access at Gateways beyond current 2008 sunset. Enhances interpretation of Bay-wide themes and visitor orientation by adding two partnership interpretive centers.	Primary visitor experience focuses on Bay as a natural aquatic system and associated compatible recreational opportunities. An NPS developed interpretive center would introduce park themes and orient visitors. Group tours, programs, and opportunities for canoeing, kayaking, boating and other activities would provide opportunities for experiencing park's aquatic environment.	Primary visitor experience focuses on exploring the rural, maritime and agricultural working landscape. A partnership interpretive center would introduce reserve themes and orient visitors to a range of sites and experiences within the reserve. Visitors could explore the reserve at these sites, including smaller parks, refuges, historic sites, museums, water trails, events, festivals, farm stands, etc.	Primary visitor experience focuses on exploring an entire tributary system and how human uses and stewardship influence the Bay. A partnership interpretive center would introduce preserve themes and orient visitors to accessible natural areas at key points along the tributary, opportunities for exploring the preserve by canoe or kayak, and demonstration sites for learning about and participating in stewardship practices.
National Significance (New NPS units must meet national significance criteria. See pp. 5 for discussion of criteria and Bay's significance)	Not applicable	The Gateways Network represents the full breadth of the Chesapeake Bay's national significance due to its extremely broad inclusion of core Chesapeake Bay resources, interpretive themes and recreational opportunities. In addition, multiple member sites are deemed nationally significant in their own right (NPS units, NHLs, NNLs, NWRs).	Concept directly illustrates a core aspect of the Bay's national significance, focusing on the Bay as premier example of an outstanding natural estuarine system. Provides multiple opportunities for water-based public use and scientific study. Specific areas with high degree of integrity clearly exist in Bay region, but site-specific values would need to be evaluated in the future.	Concept directly illustrates a core aspect of the Bay's national significance, focusing on the Bay as an outstanding example of the interrelationship of natural and cultural resources. Concept provides numerous opportunities for interpretation and public enjoyment. Specific areas with high degree of integrity clearly exist in Bay region, but site-specific values would need to be evaluated in the future.	Concept directly illustrates a core aspect of the Bay's national significance, focusing on the Bay as an outstanding example of an ecological system, the human dependency on that system, and its role as a national example and laboratory for sustainable use and conservation. Concept provides numerous opportunities for interpretation and public enjoyment. Specific areas with high degree of integrity clearly exist in Bay region, but site-specific values would need to be evaluated in the future.
Suitability (New NPS units must be suitable for addition to National Park System, representing a natural or cultural theme or type of recreational resource not already adequately represented in the System or not comparably protected for public enjoyment by another land-managing entity.)	Not applicable	Continues and expands existing Chesapeake Bay Gateways Network, taking advantage of ongoing roles and commitments of multiple local, state, federal and non-governmental partners managing member sites. Network is unique and not duplicative of any other initiative or program in Bay watershed. No comparable approach within the National Park System to representing the same or similar resources and themes. Some NPS units are members in Gateways Network, but represent only a narrow segment of overall resources, themes and geographic scope.	No comparable park concept in the Chesapeake Bay today. Concept is broader in scope and effect (size, public accessibility, interpretation, open estuary, range of resources) than existing designated marine conservation areas involving aquatic resources (e.g. National Estuarine Research Reserves and some National Wildlife Refuges). Within NPS, Biscayne National Park (FL) is similar in its focus on aquatic resources, but the nature of the Bay's estuarine environment and themes is quite different.	No comparable concept in the Chesapeake Bay today. Concept is broader in scope and effect than existing heritage areas in Bay region, in that it incorporates strategies for protection of traditional uses and landscape conservation; also broader than existing institutions conserving or interpreting individual aspects of Bay maritime and agricultural heritage (parks, maritime museums, historic sites). Within or associated with NPS, there are other national reserves (Ebey's Landing National Historical Reserve, WA; Pinelands National Reserve, NJ), but no units illustrating resources and themes associated with Chesapeake's nationally significant role as maritime driven economic resource.	No fully comparable concept in the Chesapeake Bay today. In one focused concept and tributary, combines and expands upon elements that are at work in various areas around the Bay watershed, including: watershed management planning, land conservation, river corridor conservation, and public accessibility. Adds a substantial interpretive element focusing on stewardship. Within NPS, core theme and resource is not represented as primary purpose of any unit. Other preserves with some physical similarities exist (Timucuan Ecological & Historic Preserve, FL), but also include substantial differences.

	Alternative A Today's Programs – No New Initiatives (Status Quo)	Alternative B Enhanced Chesapeake Bay Gateways Network	Alternative C Chesapeake Bay Estuary National Park	Alternative D Chesapeake Bay National Reserve	Alternative E Chesapeake Bay Watershed National Ecological & Cultural Preserve
Feasibility <i>(New NPS units must be feasible additions to the National Park System. An area's natural systems and/or historic settings must be of sufficient size and configuration to ensure long-term protection of resources and to accommodate public use. It must have potential for efficient administration at a reasonable cost.)</i>	Not applicable	Overall, the Chesapeake Bay Gateways Network is not feasible as unit of the National Park System, as it consists of 140+ sites many of which are not administered by NPS. Consequently, alternative proposes concept as permanent program of NPS. Some individual sites in Gateways Network already are managed as NPS units; others (NHLs, NNILs, proposed interpretive center) might be feasible, depending upon site specific analysis, but none are proposed in this alternative.	Concept is fundamentally feasible to implement. However, specific assessment of feasibility would be dependent upon range of factors associated with any particular geographic location eventually considered for applying the concept.	Concept is fundamentally feasible to implement. However, specific assessment of feasibility would be dependent upon range of factors associated with any particular geographic location eventually considered for applying the concept.	Concept is fundamentally feasible to implement. However, specific assessment of feasibility would be dependent upon range of factors associated with any particular geographic location eventually considered for applying the concept.
Management Alternatives	Not applicable	Geographic scope of Bay watershed and Chesapeake Bay Gateways Network (6 states and DC) requires direct federal involvement in partnership management strategies. This already exists in Gateways Network and is proposed to continue in this enhanced alternative. NPS is best equipped to coordinate watershed-wide integration of diverse natural, cultural and recreational resources and themes in interpretive, public access and conservation mission of Gateways Network.	As proposed, concept would involve and require partnership roles, particularly related to management of aquatic resources. Also, depending upon whether location to which concept might eventually be applied includes existing resource management areas, those managing entities could have key partnership roles.	As proposed, concept would involve and require extensive partnerships in most areas of management and implementation. Also, depending upon whether location to which concept might eventually be applied includes existing resource management areas, those managing entities could have key partnership roles.	As proposed, concept would involve and require extensive partnerships in many areas of management and implementation. Also, depending upon whether location to which concept might eventually be applied includes existing resource management areas, those managing entities could have key partnership roles.
Gaps Addressed <i>(See pp. 20-25 for discussion of gaps in Bay conservation and interpretation)</i>	Not applicable	Making NPS role in Gateways Network permanent fills significant anticipated future gap when Network authorization expires in 2008. Proposed partnership interpretive centers fill identified gap in interpreting and orienting visitors to broad Chesapeake Bay themes. Proposed tie-in with select Bay landscapes contributes to filling gap in interpretation and conservation of working landscapes. Overall Network interpretive and public access initiatives contribute directly to meeting Chesapeake Bay Program commitments in education and public access.	Enhances aquatic resource conservation beyond existing mechanisms. Contributes to Chesapeake Bay Program commitments on living resource protection. Interpretive and public access components contribute to commitments for education and public access.	Enhances recognition, conservation and interpretation of broad cultural resource areas (working landscapes, traditional water dependent communities) that integrate both natural and cultural characteristics of the Bay. Contributes to Chesapeake Bay Program commitments on sound land use. Interpretive and public access components contribute to commitments for education and public access.	Enhances natural resource conservation beyond existing mechanisms within a particular area; enhances interpretation and conservation of areas that fully represent both natural and cultural characteristics of the Bay. Contributes to Chesapeake Bay Program commitments on sound land use. Interpretive and public access components contribute to commitments for education and public access.

		Alternative A Today's Programs – No New Initiatives (Status Quo)		Alternative B Enhanced Chesapeake Bay Gateways Network		Alternative C Chesapeake Bay Estuary National Park		Alternative D Chesapeake Bay National Reserve		Alternative E Chesapeake Bay Watershed National Ecological & Cultural Preserve	
Initial One-Time Costs	Notes	Costs	Notes	Costs	Notes	Costs	Notes	Costs	Notes	Costs	Notes
Interpretive Center(s)	Not applicable		Two at \$2,500,000 each. Fixed NPS contribution requiring 1:1 match from partner.	\$5,000,000	One, developed by NPS. Estimated at 10,000 SF new construction. Use of existing structure possible, but less likely than in B, D or E.	\$3,000,000 to \$4,000,000	One, developed by NPS with partner; requires 1:1 match. Estimated as 50% of 10,000 SF new construction cost. Use of existing structure possible depending on availability.	\$1,500,000- \$2,000,000	One, developed by NPS with partner; requires 1:1 match. Estimated as 50% of 10,000 SF new construction cost. Use of existing structure possible depending on availability.	\$1,500,000- \$2,000,000	One, developed by NPS with partner; requires 1:1 match. Estimated as 50% of 10,000 SF new construction cost. Use of existing structure possible depending on availability.
Planning and Design⁹	Not applicable			\$750,000		\$450,000- \$600,000		\$225,000- \$300,000		\$225,000- \$300,000	
Direct Land Conservation (easement purchases, fee simple purchases, grants for state PDRs)	Not applicable		Some direct land conservation would occur through Gateways grants program.	Included in NPS Grants line below	Could vary substantially depending upon size and characteristics of park.	If concept is selected, estimate would be prepared at time park boundary is determined.	Could vary substantially depending on size and characteristics of reserve and conservation strategy developed in management plan.	If concept is selected, estimate would be prepared at time reserve boundary is determined.	Could vary substantially depending on size and characteristics of preserve and conservation strategy developed in management plan.	If concept is selected, estimate would be prepared at time preserve boundary is determined.	Could vary substantially depending on size and characteristics of preserve and conservation strategy developed in management plan.
Sub-total of Initial One-Time Costs	Not applicable			\$5,250,000- \$5,500,000	Does not include land conservation costs	\$3,450,000- \$4,600,000	Does not include land conservation costs	1,725,000- \$2,300,000	Does not include land conservation costs	\$1,725,000- \$2,300,000	Does not include land conservation costs
Recurring Annual Costs	Notes	Costs	Notes	Costs	Notes	Costs	Notes	Costs	Notes	Costs	Notes
Operations and Management		\$450,000		\$450,000		\$450,000		\$450,000		\$450,000	
		Not applicable	Two NPS staff at each interpretive center and additional staff support at CBPO	\$500,000	Varies by size of park	\$1,000,000- \$3,000,000	Varies by size of park	\$1,000,000- \$2,000,000	Varies by size of park	\$1,000,000- \$2,000,000	Varies by size of park
	Network-wide service (1:3 ratio to grants); part of \$3million authorization	\$750,000	Network-wide services (1:3 ratio to grants)	\$750,000							
NPS Grants	Gateways grants; other part of \$3million authorization	\$2,250,000	Gateways Grants (watershed-wide); includes conservation assistance	\$2,250,000			Matching grants for enhancing interpretation and interpretation within reserve	\$800,000	Matching grants for enhancing interpretation, conservation, sustainable practices within preserve	\$800,000	Matching grants for enhancing interpretation, conservation, sustainable practices within preserve
Sub-total of Recurring Annual Costs¹⁰		\$3,450,000		\$3,950,000		\$3,250,000		\$3,250,000		\$3,250,000	

⁹ The National Park Service estimates actual costs with additional 18% for supervision, contingencies and supplementary services such as environmental compliance. The estimates in this chart are intended for comparing alternatives and should not be used for budgetary purposes. More detailed cost estimates will be prepared if a specific alternative is selected.

¹⁰ Recurring costs, with the exception of grants, would be expected to increase over the lifetime of the park and its facilities due to inflation. More detailed analysis of life cycle costs would be prepared in the future.

PUBLIC COMMENTS

The *Chesapeake Bay Special Resource Study and Draft Environmental Impact Statement* stimulated comments from the public by mail, fax, email and the internet, as well as at the public open houses in summer 2003. In total, there were more than 3000 comments submitted - 52 from agencies and organizations, 935 from public open house comment cards, and 2107 from individual comments via the website, email, mail, and fax. Formal responses to the agencies' comments can be found in Section 8 of this report. Copies of the agency letters are provided in Appendix B; originals can be obtained from the NPS Chesapeake Bay Program Office.

Public comments focused on the five alternatives outlined in the draft report, each of which describe a different way the National Park Service might contribute to the partnership effort to conserve and celebrate the Chesapeake Bay. Specific places that were mentioned as locations where an alternative concept might be applied are listed in Appendix C, though no formal proposals were received.

The draft study and the five alternatives generated comments with several overarching messages and consistent themes. People:

- view the Chesapeake Bay as an overwhelmingly significant place where natural and cultural resources and themes are both paramount;
- are concerned about how the Bay is doing and want to see it restored;
- support the National Park Service having a long-term role in the Chesapeake – over 92% of comments supported doing more than just the status quo (alternative A);
- have a strong preference for combining elements of the initial concepts, rather than picking any single concept by itself; no single concept can adequately represent the size and diversity of the Bay.

Public comments expressed overwhelming support for an enhanced National Park Service role in the Bay, though there was no clear consensus on picking one of the single park concepts (alternatives C, D, E) as the sole alternative to pursue. Many people expressed support for each of these alternatives individually, but the majority of comments advocated some combination of approaches, merging two or more action alternatives (alternatives B-E) into a final National Park Service recommendation.

Generally, the most numerous comments support:

- making the National Park Service commitment to the Chesapeake Bay Gateways Network permanent (as in alternative B);
- almost all respondents at open houses said they would visit one or more Gateways Network sites (see www.baygateways.net) and supported the addition of two interpretive centers; and
- establishing a "park unit/NPS role" that encompasses at least one of alternatives C, D or E, but preferably elements of all three.

A number of comments also advocated combining these elements with a Chesapeake Bay National Water Trail linking sites around the Bay. The

comments strongly rejected the status quo, with many people saying more efforts were needed to improve public access to the Bay and to educate the public so that they have a greater appreciation of the entire Bay watershed.

The comments listed below are excerpted as samples of some of the perspectives expressed by individuals and organizations.

“The Chesapeake Bay Gateways Network--alternative B--is the essential building block of a NPS Chesapeake Bay Program contribution. A national trail system on the Chesapeake should be an added alternative. I can easily envision the national trail and alternatives C, D, and E being built into an ‘alternative F’ in the long run. Please give serious consideration to focusing on the importance of the ‘health and stewardship of the bay’ as the fundamental theme behind the chosen alternative. Reaching the broadest possible audience with this is critical.”

“The Gateways are great, but should be expanded with the other (C, D, and E) alternatives as well. Do it. The Chesapeake is the primordial soup of my land ethic.”

“After reviewing these ideas, my main thoughts are as follows: 1) Please make the Gateways Network permanent! These are individual gems; 2) I wholly support celebrating, interpreting, and protecting both the land and water of the Bay. Alternative D would advance the heritage of the Bay's traditional working landscape and go far to ensure its future; 3) Alternative E is fascinating - in combination with alternatives D and C would be an innovation in education and outreach, and a tremendous step in laying the groundwork for the watershed's future.”

“Each of these alternatives certainly shows merit. I would think that all are equally worthy of action. Therefore, I would hope that the NPS would consider rolling all of the alternatives into a ‘large-scale’ initiative incorporating each of the elements into an overall program. This estuary is in my mind the heartland of America and the efforts for instituting a park service unit around this special geographic setting should reflect each of the components listed as alternatives.”

“Love the idea of a fixed place to visit and bring friends and relatives. Have visited many National Park sites through the U.S. and love them. I would love their presence in my ‘backyard.’”

“While I would pick the Gateways if I could only choose one, it is a good point that the alternatives are not mutually exclusive. They are all good ideas, and I would have no problem with combinations from the various plans. I would only suggest those decisions be made in a framework of what is best for the Bay. An inclusive approach dedicated to reaching as much of the watershed as possible and providing opportunities to appreciate and conserve all the aspects of Bay life, human and wild, commercial and recreational, should be the goal.”

“Each of the individual alternatives has merit; however, I don't feel that in isolation they will reflect the history and value of the Chesapeake Bay, nor will they provide for the conservation and preservation of the Bay's resources. Perhaps a combination of the alternatives would create a better representation of all the Bay encompasses, historically, naturally, etc.”

“I grew up fishing, crabbing and playing in the Chesapeake Bay and tributaries. This is a very exciting and much needed effort. I have my ‘preferred alternative’ (C), but I think that any of the 4 action alternatives will bring greater focus and effort toward protecting the natural and cultural resources of the Bay.”

“[Alternatives] A and B keep the states involved through the Chesapeake Bay Program. This is necessary to keep local involvement - ideas and impact - at the center of activities to promote and protect the Bay. The legislators of each state, as the elected public policy makers, need to be involved in the Bay’s future. It seems alternatives A and B provide all parties, federal, state and local, the opportunity to chart the best course for the Bay’s future.”

“This alternative (C) should be implemented because it would have a huge impact on the ecology of the Bay. Estuaries not only support birds in their flights from north to south but estuaries also support water habitats for a variety of plant and animal life.”

“[Alternative D] is great--I love that it integrates the many facets of the watershed-- water and land, environment and economy, history/tradition and the future.”

“The Chesapeake Bay is clearly a significant natural and cultural resource. It deserves strong and continuing recognition and interpretation by the NPS in partnership with the states and others.”

SELECTION OF PREFERRED ALTERNATIVE

Key Findings

In formulating a preferred alternative, the National Park Service makes findings relative to four key criteria for new units of the National Park System. The final study’s findings are described below.

National Significance:

The Chesapeake Bay is an outstanding example of a unique set of ecological and cultural elements with long-standing and expansive influence on the history and development of the United States. The Chesapeake is unquestionably nationally significant and a major part of the nation’s heritage which the National Park System strives to represent and interpret.

While the Chesapeake can be independently viewed as a significant natural resource, a significant historic and cultural resource, and an area of outstanding recreational opportunities, it can only truly be understood as an interconnected and interdependent mosaic. The Bay’s natural resources are the basis of a rich cultural history and multitude of recreational opportunities. The region’s cultural history in turn affects the natural environment. The Bay proper is dramatically influenced by its watershed. Many cultural patterns of the upper watershed developed because of connections with the Bay.

Real understanding of the Chesapeake Bay comes by viewing all elements through their context and interrelationships. The Chesapeake is truly a

system where each part's individual importance contributes to the overwhelming significance of the whole.

As President Ronald Reagan wrote in 1984, "the Chesapeake Bay is a national treasure that is worth preserving for its own sake." The Congress reiterated this statement in Public Law 106-457, finding that "the Chesapeake Bay is a national treasure and a resource of world-wide significance."

Suitability:

Areas being considered for potential inclusion within the National Park System must meet a suitability criterion – they must represent a natural or cultural theme or type of recreational resource that is not already adequately represented in the National Park System, or is not comparably represented and protected for public enjoyment by another land-managing entity.

In spite of many organized efforts to protect and enhance the Bay, the study finds there are certain clear gaps – not filled by any other entity – that could be filled through National Park Service roles consistent with the agency's mission. As described in Sections 3 and 4 of the Chesapeake Bay Special Resource Study and Environmental Impact Statement, the "action" alternative concepts (alternatives B, C, D & E) presented in the study focus directly on these gaps. These concepts, and the Chesapeake Bay resources they address, were also identified in the study as not already represented within the National Park System. Public and agency comments on the draft study support these findings. Accordingly, alternatives B, C, D & E meet the suitability criterion.

Feasibility:

Areas being considered for potential inclusion within the National Park System must also meet a feasibility criterion. An area's natural systems and/or historic settings must be of sufficient size and configuration to ensure long-term protection of resources and to accommodate public use. It must have potential for efficient administration at a reasonable cost.

Among other feasibility factors, this study places a premium on partnerships and support as a key ingredient for each of the alternative concepts.

One concept – alternative B (Enhanced Gateways Network) – already has that support fully in place. Specifically, through the Chesapeake Bay Gateways Network, the National Park Service has assembled a partnership system of 140 parks, refuges, historic sites, museums and trails around the Bay watershed where people can have Chesapeake experiences. This system pulls together federal, state, local and private resources in a coordinated approach to interpreting the Chesapeake. This allows NPS to play a unique role in the overall Bay restoration strategy – coordinating efforts to connect the public with the vast and diverse Chesapeake story. Public understanding and involvement is a key Bay restoration goal. Alternative B – which builds on and enhances the existing Network – is clearly feasible.

The three other action alternatives (alternatives C, D & E) exist at this time only as concepts. Comments submitted during public review of the draft study indicate support at the conceptual level for some combination of these

concepts' elements. However, a specific finding of feasibility depends upon evaluating a range of factors associated with particular site-specific proposals. No detailed, broadly supported site-specific proposals for these concepts yet exist. Thus, these alternatives are not feasible unless and until a viable proposal comes forward.

Management Alternatives:

Areas being considered for potential inclusion within the National Park System must be evaluated for whether there are effective alternatives to direct National Park Service management. Such alternatives might include continued management by other entities, assistance from established programs or cooperative management between the National Park Service and other entities.

This study's suitability findings indicate that each of the action alternatives responds to an identified gap in Chesapeake conservation and interpretation. While this alone does not indicate a National Park Service role is necessary, it does have a strong bearing on management alternatives.

More importantly however, this study incorporates an exploration of management alternatives into the fundamentals of the alternative concepts it describes. None of the action alternatives contemplate sole management by the National Park Service. Each of the action alternatives inherently integrates cooperative management among other entities and the National Park Service. These management roles are described in the key elements section of each alternative. The varying roles are woven into the alternative concepts to maximize the efficiencies and effectiveness of each partner and role. Ultimately, this is intended to make each whole concept greater than the sum of its parts. The National Park Service role in each alternative is carefully crafted to fill the gaps not addressed by other entities, and consistent with the National Park Service mission.

THE NPS PREFERRED ALTERNATIVE

A final special resource study is required to "identify what alternative or combination of alternatives would in the professional judgment of the Director of the National Park Service be most effective and efficient in protecting significant resources and providing for public enjoyment."¹ This standard guides the identification of a "preferred alternative."

Several factors combine to make the Chesapeake Bay Special Resource Study different from typical "new area studies" – and ultimately shape the most effective and efficient approach for a National Park Service role in the Chesapeake:

1. As a natural and cultural resource and source of recreational opportunities, the Chesapeake's scope is immense in significance, size and diversity.
2. The region has a wide range and variety of established institutions involved in various aspects of resource conservation, interpretation

¹ Public Law 105-391.

and recreation, including the Chesapeake Bay Program's guidance of a multi-faceted regional strategy for restoring water quality.

3. Through an extensive partnership system of multiple sites – the Chesapeake Bay Gateways Network – the National Park Service has a unique existing role in interpreting the Chesapeake, enhancing public access, and stimulating involvement in Bay restoration.
4. While there appears to be strong interest in the role a unit of the National Park System could play in contributing to Bay conservation and interpretation, there is not yet a site-specific park proposal within the study area.

These factors and the findings above point to a most effective and efficient approach combining elements of several alternatives in two principal outcomes:

The Chesapeake Bay Gateways Network should be enhanced and made permanent:

The existing partnership system of Chesapeake Bay Gateways represents the most comprehensive approach for visitors to experience the diversity of the Chesapeake Bay. The Gateways Network links Chesapeake sites throughout the watershed, enhancing their interpretation, improving public access to Bay resources, and stimulating citizen involvement in conservation. In addition to scores of sites are twenty designated water trails, extending well over 1100 linear miles – with outstanding potential for an integrated and nationally recognized Chesapeake Bay water trail system.

Though the Gateways Network exists today, under current law the National Park Service – the coordinating agency for the entire Network – would cease its involvement in 2008. This sunset date should be eliminated if the Gateways Network is to continue to function.

The National Park Service plays the core, integrating role in the Gateways Network: drawing together 140 independent sites in 5 states and the District of Columbia; coordinating overall planning for the Network with the states and other partners; providing technical and financial assistance to partner sites; and carrying out a range of Network-wide initiatives. The National Park Service role in the Gateways Network is unique – not duplicated by any other organization. However, it is fully consistent with legislation and precedent for key federal roles in the federal-state Chesapeake Bay watershed partnership.

Continuation of the Gateways Network and the National Park Service role is broadly supported by public and organizational comments – summarized as follows in comments by the Virginia Department of Historic Resources:

With millions of visitors coming to enjoy the Bay watershed each year...a permanent commitment by the nation and NPS to the Gateways Network is instrumental to sound tourism, conservation and stewardship efforts. NPS's direct involvement in partnership with the states and regional and local conservation partners is critical. . . . The Bay is a vast resource representing several states, many diverse

interests, multiple geographic locations, and a wide range of related sites and site types. The Gateways Network seems to be the most flexible option for providing for full recognition, assistance and interpretation of the vast array of sites that are related to the Bay. Furthermore, it seems the most efficient to implement, and the most fiscally responsible.

The Chesapeake Bay Gateways Network should be a permanent partnership system for experiencing the Chesapeake. For this to occur, alternative B would be implemented in its entirety: the Gateways Network would be designated a permanent program of the National Park System with an on-going funding commitment; creation of two partnership Chesapeake Bay interpretive/education facilities would be stimulated through two 1:1 matching grants (NPS grant share capped at \$2.5 million each); and the Gateways Network would enhance links to surrounding working landscapes.

Alternative B represents a remarkably efficient and effective approach to advancing public understanding and enjoyment of Chesapeake resources and stimulating resource conservation.

The park/reserve/preserve concepts (or combination of alternatives C, D & E) meet NPS criteria and fill a key gap in protection and public enjoyment of Bay resources:

While the Bay is large and diverse, with many ongoing protection and interpretation efforts (including the Gateways Network), some key gaps in those efforts remain. Those gaps relate to certain types of resources and themes – representative of the Bay – that are encompassed within the scopes of alternatives C, D and/or E.

At some time in the future, a unit of the National Park System encompassing either one or several of these alternative concepts could make a significant contribution to protection and public enjoyment of the Chesapeake Bay. While the alternatives are described in this study as individual concepts, many who commented on the draft study correctly observed that several concepts could be linked together. There are models for this at other locations within the National Park System, where several different sub-units are managed by the National Park Service, or a partner in association with the Park Service, as part of a larger unit. The sub-units typically protect and interpret key under-represented natural and cultural themes of the region. Existing park units neighboring the Bay (Fort McHenry National Monument, Colonial National Historical Park, and George Washington Birthplace, which each represent a narrow spectrum of Bay cultural themes) could be viewed as initial elements of such an approach.

However, there are no detailed, broadly supported site-specific proposals for any of alternatives C, D or E, or a combination thereof, at this time. As noted in the findings above, a finding on the feasibility of a potential future unit is wholly dependent upon site-specific analysis.

No further consideration and evaluation of these concepts as a potential Chesapeake Bay focused unit of the National Park System is necessary unless and until a specific proposal enjoying demonstrated state and local government, Chesapeake Executive Council¹² and public support is advanced. Proposals suitable for future consideration would focus on those concepts (C, D & E) and their core resources, or a combination of those concepts, determined through this study to preliminarily meet National Park Service criteria. Such proposals would clearly articulate how the key elements of the relevant concepts described in this study are met. The National Park Service would ultimately consider and offer a finding on any such proposal relative to new unit criteria – with a particular emphasis on feasibility and management alternatives – and this study’s findings and relevant concept descriptions.

¹² The Chesapeake Executive Council – which guides the Chesapeake Bay Program – consists of the Governors of Maryland, Pennsylvania and Virginia, Mayor of the District of Columbia, Chair of the Chesapeake Bay Commission and Administrator of the Environmental Protection Agency.

Section 5: Affected Environment

The National Environmental Policy Act (NEPA) requires that documents such as this special resource study and environmental impact statement include a description of the environment of the area affected by the alternatives under consideration. This description of existing environmental conditions is called the “Affected Environment.” It describes the natural, cultural, and socioeconomic environments of the Chesapeake Bay and its watershed in terms of resources that may experience or cause impact or be affected if one or more of the alternatives presented in Section 4 are implemented. A summary of the resources identified as “impact topics” associated with this project follows. An impact topic is defined as the resource discipline likely to be affected by a proposed action (e.g., aquatic resources, terrestrial resources, cultural resources, etc.). These impact topics and this section provide a basis for evaluating the potential effects of each alternative; this is presented in Section 6.

NATURAL ENVIRONMENT Aquatic Resources

Watershed

The Chesapeake Bay watershed is a 64,000-square-mile drainage basin encompassing portions of six northeastern states (Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia) and the District of Columbia (see Figure 5-1). A vast number of rivers and tributaries and the region’s surface water runoff collect in the Chesapeake. The headwaters of the Susquehanna River, the largest Bay tributary, begin near Cooperstown, New York. The Bay proper is approximately 200 miles long, stretching from the mouth of the Susquehanna at Havre de Grace, Maryland, to Norfolk, Virginia. It varies in width from about 3.4 miles near Aberdeen, Maryland, to 35 miles at its widest point, near the mouth of the Potomac River. Including its tidal tributaries, the Bay has approximately 11,684 miles of shoreline (USGS, 2002a, b). Although the Bay lies totally within the Atlantic Coastal Plain, the watershed includes parts of the Piedmont and the Appalachian Provinces. The combination of waters from tributaries and the Atlantic Ocean provides a mixture of waters with a broad geochemical range (Grumet, 2000).

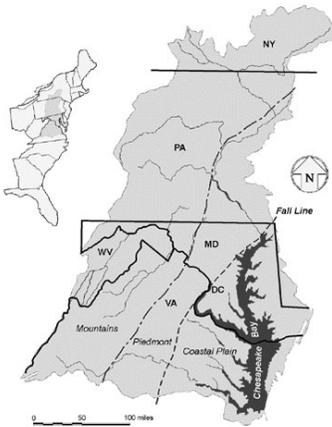


Figure 5-1: The Chesapeake Bay Watershed

Streams and Rivers

There are an estimated 111,000 miles of perennial and intermittent streams in the watershed (Matuszeski, 2000). There are more than 50 major rivers flowing through this region. Five rivers (Susquehanna, Potomac, Rappahannock, York, and James) provide 90 percent of the Bay’s freshwater volume. The largest, the Susquehanna, accounts for fully half of the freshwater discharged into the Chesapeake Bay.

Estuarine Environment

The Bay itself is an estuary—a place where fresh river water mixes with the salty Atlantic Ocean currents. It is the largest estuary in the United States and

one of the largest in the world. The sheer volume of freshwater that flows into the Bay makes its salinity, on average, 10 percent less than the water in the nearby Atlantic Ocean. The Bay was formed at the end of the last Ice Age, when melting glaciers caused sea levels to rise worldwide. Its deepest portions trace what in ancient times was the path of the Susquehanna River; its shallower parts were formed when land was flooded by rising ocean waters. Deeper waters are home to many species of fish, shellfish, and, on occasion, visiting ocean fish and aquatic mammals. Vast meadows of submerged aquatic vegetation, great banks of clams and oysters, sizable populations of blue crabs, young fish not ready for the open water, migratory waterfowl, clouds of diatoms, dinoflagellates, and other plankton also reside in the Chesapeake Bay (NPS, 1999; Grumet, 2000).

Fish

The fish in the Bay region fall into two categories: resident and migratory. Of the 295 species of fish known to inhabit the Chesapeake Bay region, 32 species are year-round residents of the Bay. Resident fish tend to be smaller than migratory species and often occur in shallow waters, where they feed on a variety of invertebrates. The resident Bay anchovy, for example, is the most abundant fish in the Bay waters and consequently forms a critical link in the food web because it serves as the dietary basis for many other species, including some species of birds and mammals. In the winter, it remains in the deep waters of the Bay, but, in the warmer seasons, it clings to shoreline areas, swimming in schools and feeding on zooplankton. The Bay anchovy spawns at night from April through September in warm areas of the estuary, where the temperature is above 54 degrees Fahrenheit (Chesapeake Bay Program Office, 2002a).

Migratory fish fall into two categories: catadromous or anadromous. Catadromous fish live in freshwater, but travel to the high-salinity ocean waters to spawn. The only catadromous species in the Bay ecosystem is the American eel, or *Anguilla rostrata*, which leaves its habitat in the Bay to spawn in the Sargasso Sea. Anadromous fish (fish whose incubation and juvenile state is in freshwater, maturation state is at sea, and later as adult, migrate into rivers for reproduction) such as the American shad and the blueback herring, travel from the high salinity waters of the lower Bay or Atlantic Ocean to spawn in the Bay watershed's freshwater rivers and streams. Other anadromous fish travel shorter distances to spawn and occupy a narrower range of salinities. For example, white perch journey from the middle Bay, which is not as salty as the ocean, to freshwater areas of the upper Bay and tributaries to spawn (Chesapeake Bay Program Office, 2002a).

Shallow Water and Littoral Zones

The shallow water, or littoral zone, is a unique habitat found at the edge of the shoreline. These waters continuously shift with the tides and thus undergo extreme environmental fluctuations throughout the year. In the summer, the waters become very hot with little moderation in temperature. In winter, ice often covers the water, making these zones much cooler than deeper areas. Shallow waters are constantly being affected by climatic change, in the form of wind and storms, which suspend sediments throughout the water column. Spring rains lead to the runoff of sediment and

nutrients from the land, which clouds the shallow waters even more. These heavy rainstorms also constantly change the salinity of the shallow waters.

Aquatic Life

A tremendous diversity of aquatic life inhabits shallow water environments. Rich plant communities that grow in the shallow waters, such as submerged aquatic vegetation and tidal marshes, provide key habitats for many invertebrates, fish, and waterfowl in various life stages. Shrimp, killifish, and juveniles of larger fish species use submerged aquatic vegetation, tidal marshes, and shallow shoreline margins as nursery areas and for refuge. Vulnerable shedding blue crabs also find protection in submerged aquatic vegetation beds. Predators (including blue crabs, spot, striped bass, waterfowl, colonial waterbirds, and raptors) forage for food here. Nearly 30 species of waterfowl visit the Bay during the winter (Grumet, 2000). Along the shoreline, fallen trees and limbs also give cover to small aquatic animals. Even unvegetated areas, exposed at low tide, are productive feeding areas. Microscopic plants cycle nutrients and are fed upon by crabs and fish.

Wetlands

Only 4 percent (1.6 million acres) of the 64,000-square-mile watershed is wetlands (Chesapeake Bay Program Office, 2002b). Two types of wetlands are present in the watershed: tidal estuarine (flooded by salty or brackish water) and palustrine (freshwater) wetlands. Most of the wetlands in the Bay are tidal. The Bay wetlands provide particularly crucial habitat for fish, shellfish, various waterfowl, shorebirds, wading birds, and several mammals. Striped bass, menhaden, flounder, oysters, and blue crabs are among the most commercially important fish and shellfish that depend on estuarine wetlands.

An important component of the Chesapeake Bay wetland ecosystem is submerged aquatic vegetation (SAV) – vascular plants that grow entirely under water. SAV provides habitat and food for fish, waterfowl, shellfish, and other invertebrates. Sixteen species of SAV are commonly found in the Chesapeake Bay or nearby rivers. Salinity is the primary factor affecting submerged aquatic vegetation distribution. Historically, 200,000 acres of Bay grasses grew along the shoreline; only 38,000 acres remained in 1984. The loss is due primarily to increased turbidity, which prevents light penetration to the plants, thus reducing photosynthesis; sedimentation that covers the plants; and increased nutrients in the water, which increases the algae population and also reduces light penetration (Chesapeake Bay Program Office, 2001a). The primary source of this loss is runoff from agriculture, new development, and industry. Because of restoration and conservation efforts in the Bay and the watershed, the area of SAV had increased to 85,000 acres by 2001 (USEPA, 2002).

Terrestrial Resources

Physiographic Provinces

This region contains distinct, occasionally overlapping environmental areas often called physiographic provinces (Lower Coastal Plain, Upper Coastal Plain, Piedmont, Blue Ridge, Valley and Ridge, and Appalachian Plateau) (see Figure 5-2). The Bay watershed lies within the Coastal Plain and the

Piedmont Provinces. Each province is a unique and complex environment that both supports and is influenced by living things. The Bay environment consists of deep and shallow open saltwaters and the brackish waters of the lower tidal portions of rivers. Chesapeake Bay waters flow into the Atlantic Ocean near Norfolk at the Bay's southeastern end. This diverse landscape, with its varied topography and surface geology, has profound effects on the abundance and types of ecosystems throughout the watershed (USGS, 2002a).

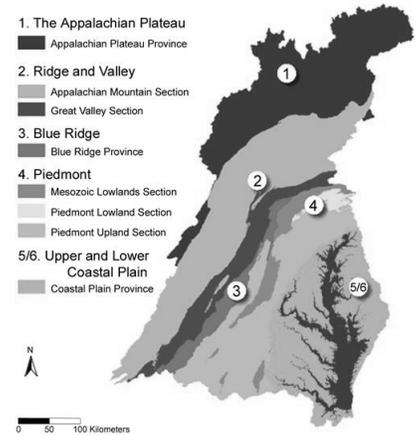
Coastal Plain Province

The Coastal Plain bordering on the Bay consists of beaches, marshes, forests, and grasslands growing on generally sandy or gravelly soils. This area is often divided into the Upper and Lower Coastal Plain. The Lower Coastal Plain is called the tidewater region because the waters coursing along its shore, rise and fall with the tide (see Figure 5-2). Coastal Plain sections on the Bay's eastern and southern shores generally tend to be flat and are drained by salty or brackish waters. Bluffs and low rolling hills drained by brackish or freshwater streams are located on the western shore and in the more interior parts of this region (Grumet, 2000).

Coastal Plain Wildlife, Habitats, and Forest Communities

The Coastal Plain consists of beaches, saltwater and brackish marshes, freshwater swamps, and forests. The region straddles an environmental borderland marking the southernmost extent of many northern species and the most northerly limits of many southern plants and animals. Tidewater beaches support distinct communities of shellfish, insects, and migratory birds. Plants that are resistant to salt spray, including salt grass, salt meadow cordgrass, and American holly, provide food and shelter to a wide variety of insects, mammals and birds and stabilize dunes and bluffs above the high tide mark, keeping them from eroding quickly into the Bay. Areas closest to the Bay are also home to low-lying salt marshes, which are flooded twice a day by the tides. Plant communities dominated by salt marsh cordgrass and other species able to withstand extended periods of immersion live in these areas. In contrast, areas of salt marsh that only are covered by water at high tide are dominated by salt meadow cordgrass and other less water-tolerant species. Just inland, common reeds, white perch, common snapping turtles, northern water snakes, great blue herons and other waterfowl, rice rats, and raccoons are among the many plants and animals making their homes in tidewater swamps and other brackish water wetlands (Grumet, 2000).

Further inland, freshwater marshes and swamps are home to bald cypress, red maple, green ash, sweet gum, loblolly pine, poison ivy, giant water bugs, north black racers, bullfrogs, eastern mud turtles, barred owls, wood ducks, marsh rabbits, Virginia opossums, muskrats, river otters, beavers, and many other species. In addition, the Upper Coastal Plain is populated by diverse mixed hardwood and softwood forests. Each community reflects variations in local weather, water, and soil conditions (Grumet, 2000).



Source: GIS lab/Smithsonian Environmental Research Center

Figure 5-2: Physiographic Provinces of the Chesapeake Bay Watershed

Piedmont Province

The Piedmont (literally “foot hills”) is a region of mixed hardwood forests and softwood barrenlands bordering on swift-running freshwater rivers and streams. Low mountain chains and isolated hills of hard rock, resistant to eroding power of these waters, rise above broad valleys covered by soft clay soils. A low-lying ridge chain, known as the fall line, runs through the region from Conowingo Falls on the Susquehanna River to Baltimore, Washington, and Richmond. The fall line separates the Piedmont uplands from the tidal lowlands of the Coastal Plain. Rapids flowing over this ridgeline mark the uppermost limits of navigation for ships sailing up the region's rivers. These distances vary from less than five miles on the Susquehanna River to well over 100 miles on the James River (Grumet, 2000).

In the Chesapeake Bay watershed, wildlife, fish, and plant life compete for land and water resources with approximately 15 million people. Forests originally covered as much as 95 percent of the Chesapeake Bay watershed. By 1900, though, less than 50 percent of the watershed was forested. Currently, about 41.25 million acres, or about 59 percent of the watershed, are forested (Chesapeake Bay Program Office, 2001b). Population growth and development constantly threaten the watershed's forests (USGS, 2000a).

Piedmont Wildlife, Habitats, and Forest Communities

Species most commonly found in southern softwood forests blend in with plants that flourish in more northerly mixed softwood-hardwood forests. Mountain laurel, ferns, and grasses flourish on Piedmont forest floors. Poison ivy, Virginia creeper, and other epiphytic clinging vines wind their ways around tree trunks that push their roots deep into the Piedmont's clayey soils. Low mountain chains and isolated hills of hard rock resistant to the eroding power of these waters rise above broad valleys covered by these soft clay soils.

White oaks, beeches, hickories, tulip trees, and, until decimated by blight, chestnuts dominate mature mesosere forest communities. Red oaks prosper in northerly parts of the region; black oaks tend to be more common in southern sections. American hornbeam, flowering dogwood, blueberries, shadbush, and maple leaf viburnum live in lower forest canopies. A wide variety of insects, amphibians, reptiles, birds, and mammals also make their homes in these forests (Grumet, 2000).

Chestnut oak, red oak, flowering dogwood, dwarf chinquapin oak, and Virginia pine are the dominant trees in dry xerosere forests. Blackjack oak and, more rarely, arborvitae, are found in extremely dry Piedmont barren lands. Blueberries, mountain laurel, and a variety of shrubs and grasses grow in upland xeric habitats. A relatively small number of animal species adapted to drier and harsher conditions make their homes in this zone (Grumet, 2000).

Riparian Forest

Areas of forested land adjacent to a body of water, stream, river, marsh, or shoreline, which form the transition between the aquatic and the terrestrial environment are referred to as riparian forest. The interconnected streams, rivers, wetlands, and their riparian areas serve as a "circulatory system" for

the Chesapeake Bay. Forests are the natural riparian vegetation in the Bay region. Although they comprise only about 5 to 10 percent of the land in the watershed, riparian areas play an extremely important role in maintaining the health of the Bay (Chesapeake Bay Program Office, 2001c). In the Piedmont swamps and streams, silver maple, sycamore, bitternut hickory, swamp white oak, hornbeam, box elder, hackberry, sweet gum, green ash, river birch, and, formerly, the American elm dominate the forests. Pawpaw, poison ivy, wild grape, wild azalea, witch hazel, and spicebush thrive on the forest floors in this zone. In contrast to its other habitats, Piedmont wetlands support some of the largest communities of insects, crustaceans, mollusks, fish, amphibians, reptiles, birds, and mammals in the Chesapeake region (Grumet, 2000).

Threatened, Endangered, and Rare Species and Natural Communities

There are approximately 40 federally-listed threatened or endangered species within the Chesapeake Bay watershed. These species depend on a variety of habitats, many of which are being lost or degraded from development. The species include the bald eagle, piping plover, bog turtle, loggerhead sea turtle, several tiger beetles, northeastern bulrush, and small whorled pogonia. In addition, there are several hundred state-listed species protected by Maryland, Virginia, Pennsylvania, New Jersey, New York, Delaware, and West Virginia.

The following table (Table 5-1) is a partial list of protected species found in the Chesapeake Bay watershed.

Table 5-1 Partial List of Federally Listed Threatened and Endangered Species in the Chesapeake Bay Watershed		
Scientific Name	Common Name	Status
Plants		
<i>Aeschynomene virginica</i>	Sensitive joint-vetch	Threatened
<i>Agalinis acuta</i>	Sandplain gerardia	Endangered
<i>Amaranthus pumilus</i>	Seabeach amaranth	Threatened
<i>Helonias bullata</i>	Swamp pink	Threatened
<i>Isotria medeoloides</i>	Small whorled pogonia	Threatened
<i>Oxypolis canbyi</i>	Canby's dropwort	Endangered
<i>Ptilimnium nodosum</i>	Harperella	Endangered
<i>Schwalbea americana</i>	Chaffseed	Endangered
<i>Scirpus ancistrochaetus</i>	Northeastern bulrush	Endangered
Mollusks		
<i>Alasmidonta heterodon</i>	Dwarf wedge mussel	Endangered
Insects		
<i>Cicindela dorsalis dorsalis</i>	Northeastern beach tiger beetle	Threatened
<i>Neonympha mitchellii</i>	Mitchell's satyr	Endangered
<i>Nicrophorus americanus</i>	American burying beetle	Endangered
Fishes		
<i>Acipenser brevirostrum</i>	Shortnose sturgeon	Endangered
<i>Etheostoma sellare</i>	Maryland darter	Endangered
Reptiles		
<i>Caretta caretta</i>	Atlantic loggerhead turtle	Threatened
<i>Chelonia mydas</i>	Atlantic green turtle	Threatened
<i>Clemmys muhlenbergii</i>	Bog turtle	Threatened

Table 5-1 Partial List of Federally Listed Threatened and Endangered Species in the Chesapeake Bay Watershed		
Scientific Name	Common Name	Status
<i>Dermochelys coriacea</i>	Atlantic leatherback turtle	Endangered
<i>Eretmochelys imbricata</i>	Atlantic hawksbill turtle	Endangered
<i>Lepidochelys kempii</i>	Atlantic ridley turtle	Endangered
Birds		
<i>Charadrius melodus</i>	Piping plover	Threatened
<i>Haliaeetus leucocephalus</i>	Bald eagle	Threatened
<i>Numenius borealis</i>	Eskimo curlew	Endangered
<i>Sterna dougallii</i>	Roseate tern	Endangered
Mammals		
<i>Myotis sodalis</i>	Indiana bat	Endangered
<i>Sciurus niger cinereus</i>	Delmarva fox squirrel	Endangered

Air Quality



**Figure 5-3: Principal NOx
Airshed for the Chesapeake Bay**

The airshed for the Chesapeake Bay extends over a much larger area than the watershed. The nitrogen oxide (NO_x) airshed covers approximately 420,000 square miles, approximately 6 times the size of the watershed (Figure 5-3). The airshed extends south to South Carolina, west into Indiana, and northwest and north into Ontario and Quebec, respectively.

Nitrogen oxides from air emissions are a major source of nutrients for the Chesapeake Bay (USEPA, 1999). Air quality is affected regionally by fossil-fueled power plants, factories, and motorized vehicles. Local air quality is influenced by emissions from power plants, factories, and vehicles, as well as small engines, agricultural practices, and construction activities. Industrial operations and vehicles are major sources of nitrogen oxides and volatile organic compounds. These react together in sunlight to form ozone, which can be a major pollutant in highly urbanized areas.

Air quality within the watershed boundaries is generally good; however, four areas have been designated as ozone non-attainment areas: metropolitan Washington, D.C.; Baltimore, Maryland; Kent and Queen Anne's counties in Maryland; and Lancaster County, Pennsylvania. The metropolitan Washington D.C. area includes Washington, D.C., the Virginia counties of Arlington, Fairfax, Prince William, Loudoun, and Stafford; the cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park; and the Maryland counties of Charles, Prince George's, Calvert, Montgomery, and Frederick. The Baltimore area includes Baltimore City and the counties of Anne Arundel, Baltimore, Carroll, Harford, and Howard.

CULTURAL ENVIRONMENT

Cultural resources for the purposes of this Environmental Impact Statement are characterized as historical context, historic properties, archeological resources, and ethnographic resources.

“Historic properties,” as defined by the implementing regulations of the National Historic Preservation Act (36 CFR 800), are defined as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places. This term includes artifacts, records, and the remains that are related to and located within such properties, as well as traditional and culturally significant Native American sites and historic landscapes. The term “eligible for inclusion in the National Register” includes both properties formally determined eligible and all other properties that meet National Register listing criteria.

Properties may be eligible for the National Register for contributions at the national, state, or local level. Ordinarily, properties achieving significance within the last 50 years are not considered eligible unless they are integral parts of historic districts or unless they are of exceptional importance; the most common types of properties less than 50 years old listed on the National Register are works of modern architecture or scientific facilities. Additionally, in order for a structure or building to be listed in the National Register, it must possess historic integrity of those features necessary to convey its significance (i.e., location, design, setting, workmanship, materials, feeling, and association - see National Register Bulletin #15, *How to Apply the National Register Criteria for Evaluation*).

The majority of information found in this section was compiled from a National Park Service publication titled *Bay, Plain, and Piedmont: A Landscape History of the Chesapeake Heartland from 1.3 Billion Years Ago to 2000* (Grumet, 2000) and the study team’s experience on similar projects in the Chesapeake Bay watershed.

Historical Context

For untold millennia, humans have lived and died in the Chesapeake Bay region. Today, one of America’s densest concentrations of people lives here, side by side with thousands of plant and animal species.

Paleo-Indian Origins (16,000-8,000 B.C.)

Neither scientific archaeologists nor native traditionalists have conclusively discovered the identity of the earliest inhabitants of the Chesapeake Bay region. However, some ancestors of modern Native Americans, known as Paleo-Indians, did enter North America across the Bering Sea during a time when many coastal shelves had been exposed by low sea levels (<http://www.chesapeakebay.net/info/hist2.cfm>). Generation after generation, they spread across the continent by gathering wild plant foods and hunting great Pleistocene mammals. Armed with stone projectiles hurled with a throwing stick, or "atlatl," they followed herds of elk, bison, mammoth, and mastodon into the Bay area roughly 11,500 years ago.

The Chesapeake Bay as we know it did not exist during Ice-Age times. Instead, it was part of a wide, flat coastal plain. The often-shifting channels of the ancestral Susquehanna, Potomac, Rappahannock, and James Rivers meandered widely, and the region became a place of shallow swamps, lagoons, and grasslands as the glaciers retreated. As part of this process, sea levels were rising and the current outline of the Bay began to develop about 9,900 years ago. Many plant and animal species were replaced during this environmental change and this very likely affected local human subsistence.

Most archaeologists divide this earliest human occupation of the Chesapeake region into three overlapping phases. Each is noted by distinctive styles of stone projectile points. The Early Paleo-Indian phase, from 11,500 to 10,400 years ago, is marked by Clovis points (named for the New Mexico site where they were first identified). Sites associated with the Middle Paleo-Indian phase, between 10,800 and 10,200 years ago, tend to contain both Clovis and other forms of fluted and unfluted, lance-like points. Dalton points, or small fluted and unfluted, side notched projectiles with deeply curved concave bases, are considered a key diagnostic marker for the Late Paleo-Indian phase, dating from 10,400 to 9,900 years ago.

Hunters-Gatherers (8,000 B.C.-A.D. 1000)

Beginning about 10,000 years ago with the start of Holocene climatic conditions, the Chesapeake region became increasingly warmer and drier. Between 5,000 and 3,000 years ago, the climate continued to moderate and the many estuaries of the region gradually widened to form the current outlines of the Bay. Archaeological evidence confirms that local populations began exploiting this new bay and its tributaries to a much greater degree than in the previous period. These changes were significant and altered the way of life across the region. Increasingly larger populations began using new types of tools, site locations, and subsistence patterns - ways better suited to life in the new mixed hardwood forests. This period of cultural adjustment from big-game hunting to mixed-resource use is known as the Archaic period in North American archeology.

Native American peoples apparently prospered in the Chesapeake Bay watershed area, but most especially during the latter phases of the Archaic period. These early peoples resourcefully exploited food sources found in the forests and streams during their semi-nomadic 'seasonal rounds.' Nuts and tubers were gathered and turkey, deer, small mammals, and fish were also harvested for food and clothing (<http://www.chesapeakebay.net/info/hist2.cfm>). Though winters were always hard, this hunter-gatherer way of life persisted successfully for centuries and by the Late Archaic phase, larger and more stable populations apparently diversified their subsistence base.

The following Woodland period marks the final phases of independent Native American development in the Bay area. In the early Woodland phase, from 2,700 and 2,300 years ago, many new influential technologies were developed in the region. Grit-tempered and cord-marked pottery were introduced from the north, copper beads came in from the northwest, and tubular slate smoking pipes marked the influence of Midwestern peoples. Many of these artifacts are either direct imports or local copies of artifacts

belonging to the Adena culture centered in the Ohio River Valley. During the Middle Woodland phase, dating from 2,300 to 1,000 years ago, there was apparently a significant drop in the numbers and types of diagnostic artifacts, perhaps indicating a drop in local populations

Towns and Villages (A.D. 1000-1500)

While it appears that informal agriculture began along the Atlantic seaboard by 1000 B.C., it took until 600 to 900 A.D. before corn, beans, and squash were established as foundation crops across the Chesapeake's Piedmont and Coastal Plain Provinces (<http://www.chesapeakebay.net/info/hist2.cfm>). In addition, the bow and arrow were introduced approximately 1,000 years ago. Along with the activity surrounding the storage of food supplies against a winter's deprivation, people started to spend part of the year living together in formal villages. Some of these were also palisaded, or fortified, with a defensive boundary of saplings set in the ground in postholes.

In the Coastal Plain, most towns consisted of collections of structures that seem to have been irregularly placed, more 'organic' than 'formal' in layout. Piedmont towns, on the other hand, were more often 'planned' communities, laid out in a circle around an open plaza area, and very similar to the larger towns of the Mississippian cultures of the Midwest and South. These fortifications mark the beginnings of political competition and formal warfare, and indicate the social maturation and economic diversification of local Native American cultures.

These developments took place during the Late Woodland phase, from 1,100 to 500 years ago, and mark major changes over the preceding Middle Woodland times. Foremost, it appears that significant numbers of people were living in the Chesapeake Bay area, but most of these were beginning to congregate into larger villages located along major tributaries at the centers of major resource zones. Native Americans also began to harvest many of the Bay's signature species, including migratory waterfowl, shellfish, and anadromous fish, such as shad and herring.

European Colonization (A.D. 1500-1775)

European contact began with Spanish and French explorers in the early and middle 1500s. The English were relative late-comers to the Chesapeake. Starting about 1560, the Spanish adventurers had substantial and repeated altercations with Chesapeake Native Americans. The Spaniards took a young boy to Europe where he became a Catholic and was renamed Don Luis de Velasco. He was returned to his tribe when they established a Jesuit mission, probably on the York River, in 1570. Native Americans exterminated the Jesuits, except for one Spanish boy, who was eventually liberated, but not without the killing or capture of more Native Americans.

The "planting" of a successful Virginia colony came still more than two decades later when Capt. Christopher Newport and his fleet of adventurers sailed under the lee of what they named Cape Henry in April 1607. John Smith was aboard, but confined under accusation of political intrigue. It was only when sealed orders from the Virginia Company were opened upon their arrival, Smith was found and named as one of the ruling council. While it took until June 1607 for them to grudgingly admit him to the council, his

remarkable adventures as explorer, soldier, cartographer and "sometime Gouverneur" in the New World had begun.

The population around the Bay in 1607 was perhaps 25,000 or 30,000, and there may have been a total of some 100,000 or so spread over the basin's 64,000 square miles (<http://www.chesapeakebay.net/info/hist2.cfm>).

Native Americans were legitimately concerned about these unwashed Europeans and their great white winged "canoes." The Powhatan confederation of chiefdoms, dominant around the lower Western Shore, already knew these interlopers were a present danger to their way of life. Some archaeologists believe that diseases carried by the Europeans on the earliest visits to the Chesapeake and the Carolinas spread and killed large segments of the Native American population.

In 1607, the English "seated" their plantation at Jamestown, a marshy island some miles up the Chesapeake's third greatest river (behind Susquehanna and Potomac), and the closest one to the sea. They called this tributary "King James, His River." Some feel this island may have been the only land Powhatan would let them have. It was a good choice for the Native Americans, but, for the English, it was a disadvantage with marshy malarial ground and unhealthy brackish water.

The Calverts, wealthy English Roman Catholics, obtained a grant for a colony to be named Maryland from Charles II. George Calvert formed a London Company and, in 1634, planted his settlement near the mouth of the Potomac. This colony, and good relations with neighboring Piscataway tribes, provided a strong human foundation that eventually overcame a massive number of deaths from "the seasoning," and assured a permanent English presence on the Chesapeake.

The first disruptions to this Colonial agrarian economy and the Bay were triggered by political upheaval in Europe and failures in Continental tobacco markets. These events began in the late 17th Century and accelerated in the 18th century. The repercussions, compounded by English taxation of the Colonies, made Americans realize they would have to provide for themselves. Grain, particularly wheat, became an important crop. With grain came a technological innovation that would revolutionize the practice of Chesapeake agriculture, and forever change the face of this continent. It was the iron moldboard plow, which turns the soil rather than just breaking ground. The European ideal of "high farming" was touted by an increasing circulation of magazines and manuals: rectangular fields, straight furrows plowed by draft animals far stronger than men with hoes, and repeated deep tillage of the soil. Tillage was often straight downhill, with gravity assisting the animals' work. Subsequent rains coursed downhill as well.

Land in essentially permanent tillage broke the cycle of reforestation and tore up the natural fabric of the forest floor, a web of fungal, bacterial, and rooted plant species. The land ecosystem became "leaky" and vastly increased levels of nutrients leached from the soils and headed straight for the Bay and its food chain. For a while, it is likely that the Bay's living resources were stimulated, with the network of plants and animals actually "fed" by these inputs. Not being under heavy harvest pressure, fish and shellfish flourished.

Over the next 150 years this continuing excess of nutrients became the greatest pollution problem facing Chesapeake Bay.

Before 1776, only 21 percent of households in Charles County, Maryland, owned plows and just 2 percent of the land had been cleared. After 1776, 73 percent of landholders and tenants owned plows and exposed soils rose to 40% of the county's area. The result was soil erosion on a never-anticipated scale. As land all around the Coastal Plain was deforested and put under the plow, population pressure pushed agriculture up onto the Piedmont and, by the late 1700s, into the Appalachian valleys. The nation was expanding westward, and the Bay region's Native American world, with its stable agrarian economy, had all but disappeared.

The population of European colonists and African slaves around the Maryland Chesapeake Bay area went from 150 in 1640 to 34,000 in 1700. By 1740, it was 100,000, and by the Revolution in 1776, a quarter million. The United States was growing, but heavy mechanical plowing carried from the Coastal Plain onto steep, eroding piedmont soils was a disaster. Above the river fall-lines and in Pennsylvania, where settlement was also spreading west into the Chesapeake Basin from a growing Philadelphia, some farms lost all their topsoil in 25 years.

From the 1750s to the 1770s, ports for ocean going vessels all around the Bay were filled in by eroded sediments and became too shallow for navigation. Mattawoman Creek and the Port Tobacco River on the Potomac, Upper Marlboro on the Patuxent, Elkridge on the Patapsco, and Joppatown north of Baltimore were all lost.

The starvation and diseases of the early Colonial period were gone and, by 1750, because of good nutrition, Marylanders were in stature among the tallest people in the world. Emphasis on the land and agriculture meant a great deal of domestic meat was available and the pressure for seafood harvesting was actually reduced by 1750.

Independence and Expansion (A.D. 1776-1825)

The conclusion of the War for Independence between Great Britain and the United States significantly altered peoples' lives throughout the Chesapeake Bay. Although opinions about the war were divided, all people in the region suffered from shortages caused by the British blockade begun in 1776. However, the response to this blockade led to the development of many new types of sailing vessels and practices such as 'privateering' or officially sanctioned piracy. The Chesapeake Bay region, even today, maintains a rich naval history and shipbuilding and repair industry.

By 1812, St. Michaels was home to six shipyards and the birthplace of the famous, sleek Baltimore clippers. The clippers came into their own during the War of 1812 by skillfully evading the British blockade and roaming the Atlantic as privateers. They would not, however, prevent the burning of Norfolk and Washington, D.C., and the bombardment of Fort McHenry near Baltimore, an event that inspired Francis Scott Key to write "The Star-Spangled Banner."

The region's population grew from 700,000 in 1775 to more than 1.3 million by 1820 and commercial seaport towns like Annapolis, Norfolk, and Chestertown prospered as never before, and river communities like Alexandria and Petersburg attracted large numbers of French immigrants fleeing revolution and revolt in Europe. Free and enslaved African Americans, many of whom entered the nation from ships docking at Bay ports, made up a large percentage of the Bay's population, in the cities and on farms. Baltimore was home to the second-largest group of free blacks in the U.S. and many participated in the Bay's economy as oystermen, sailors, and tradespeople. In contrast, Native American populations were mostly limited to tiny rural enclaves in unwanted swamplands and pine barrens, and generally declined in numbers due to poverty and disease. Fewer than 500 Native Americans likely remained in the region by 1820.

Industry and Urbanism (A.D. 1826-1950)

The Chesapeake Bay region split into a free labor market in the north and a slave labor economy farther south. Waterways in the Bay region were used by slaves attempting escapes to freedom along the Underground Railroad. The region was devastated by the violence of the Civil war and many of the undisturbed landscapes were changed forever. Every level of government built fortifications, expanded and modernized navy yards, raised armies and established elaborate logistics networks.

In the latter part of the 19th century, industrial development continued on, while the Bay remained the source of industries centered on the extraction of natural resources. Over-extraction by commercial fisheries in the late nineteenth century led to the creation of fish hatcheries and limitations on extraction.

The region's population doubled from 2.5 million in 1880, to 5 million by 1930. Many of these people settled in established urban centers such as Baltimore, Washington, Richmond, and Norfolk. Important technological innovations fueled this massive rise in population. First, innovators increased the efficiency of earlier technologies based on wind, water, wood, and coal. Gas engines and electric motors replaced wind and other traditional power sources by the 1930s. Powered by steam boilers at the beginning of the period, ships, tractors, and a host of other contraptions and conveyances were propelled by internal combustion engines running on gasoline and diesel fuel at its end. Culturally, the heritage of centuries of slave-based economy led to 20th century issues of segregation and racial violence in the region, and ultimately to pioneering efforts in the modern Civil Rights Movement.

Post 1950 and Bay Restoration

Despite increasing environmental awareness and concern, the over-harvesting of the Bay resources threatened economically and ecologically important fish, shellfish, and wildfowl. With the passing of the Clean Water Act of 1972 and the establishment of the Chesapeake Bay Program in 1983, efforts to protect and restore the region's environment took shape. However, the growing population and increased strain on the natural environment have continued to affect the Bay.

Archeological Resources

The Chesapeake Bay

From the mysterious shipwreck lying off the tip of Tangier Island (possibly dating from the 16th century) to the Coast Guard cutter *Cuyahoga* that sank after slamming into a freighter in 1978, more than 1,800 different vessels have met their end in the Bay's waters (<http://www.chesapeakebay.net/info/shipwrck.cfm>).

Certain areas in the Bay are known for their treacherous shoals or exposure to dangerous storms. The area at the mouth of the Bay between Capes Henry and Charles is particularly infamous for its shifting sand bars: it is so well known, in fact, that it has earned a proper name, the Middle Ground.

During wars, calamities of battle heightened the usual hazards of ship travel. Many of the shipwrecks in the Bay were casualties of the Revolutionary War, the War of 1812, and the Civil War. Direct hits from cannons, explosives and torpedoes brought down many of the ships, but fires and collisions also played a role.

By the latter part of the 1800s, steamboats became a popular means of traveling around the Bay. These boats were vulnerable to the whims of hurricanes or nor'easter storms, especially if caught in the open Bay with no cover. In October 1878, a steamer on the Potomac Transportation Line named *Express* was working her way north in the main Bay channel when a storm struck with gale force winds. Unable to make safe harbor and with anchor chains snapped, the steamer felt the full brunt of the storm's swell. *Express* capsized, forcing her passengers to cling to bits of floating debris to save their lives. Lifeboats from another steamer driven aground that night rescued many of the victims, but 16 of the 31 on board lost their lives.

Marine archaeologists use whatever records may be available, including old news reports, to help locate wrecks of possible historic interest. The Calvert Marine Museum sponsored excavation of the remains of a ship in the Patuxent River known as the "Turtle Shell Wreck." The excavation team removed the sediment from the river bottom and found the well-preserved wreck and a variety of artifacts 4.5 feet below the surface. Information retrieved from the river bottom confirmed that the ship had belonged to the Chesapeake Flotilla, which was mobilized by Commander Joshua Barney against the British during the War of 1812.

Because the Chesapeake Bay is actually a drowned river valley, a significant portion of what is currently underwater was originally dry land. Many prehistoric archaeological sites likely remain intact along the bottom of the Bay, and along ancient river terraces. Underwater archaeology has only recently begun to assess these hidden resources with new recovery techniques and predictive locational models. In fact, the absence of so many early sites would be accounted for by the fact that archaeologists have been looking in the wrong place.

The Chesapeake Plain

A wide variety of archeological resources, however, nevertheless remains on dry land, and most especially on the broad coastal plain surrounding the Bay. As these lands were most often occupied by sedentary agriculturists, and given the fact that these people tended to aggregate into larger settlements with more material remains, the Tidewater areas of the Chesapeake are likely the richest source of archaeological resources. Unfortunately, these resources are also in the closest proximity to modern populations and the forces of development, and they remain most at risk in the region.

Scientists estimate there are at least 100,000 archeological sites scattered around the Bay with only a small percentage documented. Most are susceptible to a variety of destructive factors, both natural and manmade, which imperil their existence. With development consuming land around the Bay at a rapid pace, undocumented sites may be bulldozed before their valuable information comes to light. When farmers plow their fields, they can inadvertently destroy artifacts from a Native American tribe long gone. As sea level rises, as it has for many thousands of years, shoreline erosion will continue to destroy many sites. Minimal till practices limit the likelihood of artifact dislocation, while shoreline stabilization projects help protect sites from wave erosion.

Recorded history of the Bay area Native Americans began just prior to 1600 A.D. with the records kept by the newly-arrived European settlers. John Smith, who explored the Bay in 1608, found primarily Algonquian-speaking Native Americans inhabiting the shores. At the north end of the Bay lived the Susquehannocks, members of the feared Iroquois nation. Many distinct tribes with their own “wiroance,” or chief, lived around the Bay, but they often grouped into large confederations. The Powhatan Confederation in Virginia, is named for its leader (Pocohantas' father), and was one of the most powerful of the time. Despite their strength and savvy, however, the Native American Bay population dropped catastrophically after the settlers' arrival due to murder, European diseases and migration.

The Chesapeake Piedmont

The archaeological resources of the Piedmont areas of the Chesapeake Bay region are less densely-packed than the low lying Coastal Plain, due to the less intensive utilization of these lands over the long haul of prehistory. However, because of the increased slopes in these areas, more damage is expected to the extant archaeological record.

Many of the prehistoric archaeological resources of the Piedmont region pertain to the earliest phases of human occupation, when the subsistence base for these people included wide ranging areas for resource collection and extraction activities. Quarries, hunting camps, and trade routes to other areas outside the region all potentially lie within the Bay's uplands. Many of these sites are widely dispersed, reflecting a generally low prehistoric settlement density. However, with the coming of European settlements, many of these areas are likely to contain a variety of mining, milling, or military sites, in addition to myriad homesteads that have been lost to time.

In sum, many of the Piedmont archaeological resources are crucial to our understanding of the numerous transport and trade activities of the Bay's people, historic and prehistoric, as they knitted the Chesapeake watershed into an ever-growing and truly continental economy with increasing ties to the Midwest and beyond.

Historic Structures/Sites

Three main periods can be recognized for the historic structures and sites located in the Chesapeake Bay region: Colonial, Industrial, and Modern. Each of these periods has ample examples scattered across the several states that make up the watershed. The National Register of Historic Places contains detailed records on literally hundreds of properties within the area of consideration, and scores more remain either eligible or potentially eligible for listing on the register. In addition, the Chesapeake Bay area contains a significant number of National Historic Landmarks.

Colonial period structures and sites display the character of the early development of the United States. Numerous examples may be found in the area, ranging from large Historic Districts, such as in Annapolis (ca. 1760s), to private homes, such as Montpelier (ca. 1745) in Prince George's County. Still scattered around the Eastern and Western Shores are several other prime examples of Georgian mansions, formal gardens and grounds, and architectural gems from the late Colonial/early Republic era.

Industrial period structures in the Bay region illustrate many of the important locations in the nation's industrial history, including the B&O Railroad (ca. 1827), the C&O canal (ca. 1815), and the smelting stacks at Principio, Maryland (ca. 1820). Still other locations mark the rise in economic importance of the region, and its major industries located in urban centers, such as Baltimore and Richmond. Similarly, a wide variety of historic houses pertaining to this period are located around the Bay, from palatial estates to humble workers' homes. In many ways, the historic structures and sites of this period are some of the Chesapeake Bay's richest resources.

Modern period architecture has its place in the Chesapeake Bay's cultural heritage as well. Many architects and planners developed new and different approaches in the Bay region. From one of the first planned communities, Greenbelt, Maryland, to one of the first enclosed shopping malls such as Wheaton Plaza, many 'modern' individuals set about modifying the Chesapeake landscape.

In sum, the Chesapeake Bay region is endowed with a wide array of historic structures and sites, and the efforts to identify and protect these invaluable resources continue today.

Ethnographic Resources

Three main categories of ethnographic resources can be recognized in the Chesapeake Bay region: point-specific, regional, and seasonal. Each of these types of resources relates to different people (e.g., Native Americans, ethnic enclaves, traditional watermen), and at different times (e.g., mythical, prehistoric, historic), but they remain important aspects of our shared cultural heritage.

Point-specific ethnographic resources are usually single locations of specific importance to an identifiable group of people or routes used by escaping slaves along the Underground Railroad. Included in this category would be sacred sites, such as traditional burial grounds, Indian spiritual locations, or 'lookout points.' Many of these types of ethnographic resources are identifiable from extant features (i.e., graves), but some may require extensive consultation and local research to locate and record these properties.

Regional ethnographic resources often include wide-spread areas for resource acquisition and/or transport, and include rock quarries, Indian trails and traditional hunting or fishing territories. In many cases, these resources may be claimed by different and competing groups of people, but nevertheless, these remain important cultural resources to the Bay's history.

Seasonal ethnographic resources primarily include areas traditionally used for collecting seasonally-available resources, such as anadromous fish runs, deer hunting grounds, or ripening fruits and flowering plants. While arguably the most difficult to identify and protect, to many Native Americans, these resources define their traditional existence.

SOCIOECONOMIC ENVIRONMENT

Land Use (including Jurisdictional Boundaries)



Figure 5-4: The Chesapeake Bay watershed includes the states of Virginia, Maryland, Pennsylvania, West Virginia, New York, Delaware, and the District of Columbia.

Land uses throughout the Chesapeake Bay area vary from highly agrarian to highly developed, particularly in the metropolitan areas of Washington DC, Baltimore, and Hampton Roads. According to the Multi-Resolution Land Characteristic Consortium, only 9.3% of the land area in the Chesapeake Bay watershed is intensely developed, with 15.2% and 75.5% with commercial development or low intensity development respectively. Land cover across the large watershed area has the following breakdown: 3.6% developed, 28.5% agriculture, 60.1% forested; 4.3% water, 2.6% wetland, and 0.9% barren.

The Chesapeake Bay watershed includes the states of Virginia, Maryland, Pennsylvania, West Virginia, New York, and Delaware, and the District of Columbia, as shown in Figure 5-4. In 1983 and 1987, the states of Virginia, Chesapeake Bay Commission, and the U.S. Environmental Protection Agency (representing the Federal Government) signed historic agreements that established the Chesapeake Bay Program partnership to protect and restore the Chesapeake Bay's ecosystem. The Chesapeake Bay Program is a unique regional partnership that directs and conducts the restoration of the

Chesapeake Bay. Since its inception in 1983, this organization's highest priority has been the restoration of the Bay's living resources (e.g., finfish, shellfish, Bay grasses, and other aquatic life and wildlife). Improvements include fisheries and habitat restoration, recovery of Bay grasses, nutrient and toxic reduction, and significant advances in estuarine science.

Considered a national and international model for estuarine research and restoration programs, the Chesapeake Bay Program is a partnership led by the Chesapeake Executive Council. The members of the Executive Council are the governors of Maryland, Virginia, and Pennsylvania; the mayor of the District of Columbia; the administrator of the U.S. Environmental Protection Agency; and the chair of the Chesapeake Bay Commission. The Executive Council meets annually to establish the policy direction for the Program.

The Chesapeake Bay Agreement of 1987, created by the Executive Council, set a goal to reduce the nitrogen and phosphorous entering the Bay by 40 percent by 2000. In 1992, the Bay Program partners agreed to continue the 40 percent reduction goal beyond 2000, as well as to target nutrients at their source, upstream in the Bay's tributaries. As a result, Pennsylvania, Maryland, Virginia, and the District of Columbia began developing tributary strategies to achieve nutrient reduction targets.

On June 28, 2000, the Chesapeake Bay Program partners signed the new *Chesapeake 2000* Agreement, which guides the next decade of restoration and protection efforts throughout the Bay watershed. The agreement commits to protecting and restoring living resources, vital habitats, and water quality of the Bay and its watershed.

Population

In 1970, the Bay watershed's population was 11,342,157; by 2000, that figure had grown to 15,710,840, an increase of 38 percent (USEPA, 2002). By 2020, it is expected that nearly 18 million people will live in the region. Table 5-2 shows the population within the watershed from each state, as well as projected population up to the year 2020. In order to accommodate these new residents, more homes will be built. If the current development pattern holds, many of these new houses will be located farther away from existing infrastructure, such as schools, businesses, and wastewater treatment facilities. From the 1970s through 2000, the number of households in the basin increased 17.5 percent (from 4.5 to 5.3 million). Household numbers have increased at a faster rate than the population due to a reduction in household size between 1980 and 1990 (Chesapeake Bay Program Office, 2002c).

Table 5-2: Population Estimates and Projections for Portions of States in the Chesapeake Bay Drainage Basin							
State	Population						
	1990	1995	2000	2005	2010	2015	2020
DC	606,900	554,255	536,750	547,375	576,924	607,211	636,380
DE	68,283	76,179	82,845	88,027	92,321	95,962	99,178
MD	4,731,408	4,987,703	5,256,268	5,485,176	5,675,036	5,867,451	6,052,542
NY	659,981	655,187	665,129	669,472	672,319	675,166	678,014
PA	3,277,323	3,386,069	3,433,056	3,485,046	3,537,020	3,568,973	3,600,916
VA	4,749,928	5,128,609	5,415,573	5,672,734	5,929,948	6,193,662	6,457,412
WV	180,828	196,661	204,620	215,318	225,255	234,343	242,188
TOTAL	14,274,651	14,984,663	15,594,241	16,163,148	16,708,823	17,242,768	17,766,630

Source: Chesapeake Bay Program Office, 2002c

In Maryland, the average lot size per household has increased (Chesapeake Bay Program Office, 2002c). An increase in household numbers coupled with an increase in lot size results in land being consumed for development at a faster rate than the population increase. In Maryland, population increased 35 percent between 1970 and 2000. Between 1973 and 2000, land consumed for residential development increased 66 percent.

A national study, *Weighing Sprawl Factors in Large U.S. Cities* by NumbersUSA provides a consistent means of quantifying the role of population growth in sprawl. According to U.S. Census data, increased per capita land consumption was associated with about 55 percent of the sprawl in a given watershed, and population growth was associated with about 45 percent of the sprawl. There is, however, a great variation among the different “Urbanized Areas” of the Chesapeake Bay watershed (Sprawl City, 2003). An “Urbanized Area” is defined by the U.S. Census Bureau as a contiguous developed land of the central city and its suburbs. Table 5-3, derived from this study, shows nine urbanized areas in the Bay watershed and the sprawl in terms of land area as it relates to population growth and growth in per capita land consumption.

Table 5- 3 Urban Sprawl in the Chesapeake Bay Watershed			
Urbanized Areas	Sprawl in Square Miles from 1970-1990	Percent of Total Sprawl related to Population Growth	Percent of Total Sprawl related to Growth in per Capita Land Consumption
Baltimore, MD	282.9	28%	72%
Hagerstown MD-PA-WV	4.8	47%	53%
Harrisburg, PA	71.4	30%	70%
Lynchburg, VA	65.7	32%	68%
Norfolk- Virginia Beach, VA ¹	221.4	85%	15%
Petersburg, VA	24.4	6%	94%
Richmond, VA	158.1	47%	53%
Scranton- Wilkes-Barre, PA ²	20.4	0%	100%
Washington, DC-MD, VA ³	450.1	47%	53%
Totals	1299.2	45%	55%
Source: http://www.sprawlcity.org/studyVA/chesapeake.pdf			
¹ Includes Hampton, Newport News, Norfolk, Portsmouth, Suffolk, and Virginia Beach.			
² Prior to 1980, Scranton and Wilkes-Barre were separate Urbanized Areas.			
³ Includes District of Columbia, Maryland and Virginia Suburbs and Arlington CDP (Census Designated Place).			
⁴ Data range covers 1980 to 1990			

The Chesapeake Bay Watershed is divided into eight smaller watersheds. These include the Susquehanna, Patuxent River, the Eastern Shore, the Rappahannock, Maryland Western Shore, James, York, and Potomac River. The upper section of the Bay includes the Susquehanna and Maryland Western Shore Watersheds. The areas in these watersheds located along the Chesapeake Bay are industrial and commercial, such as the city of Annapolis, Baltimore, and Havre de Grace, Maryland. However, the southern portion of the Maryland Western Shore Watershed consists of forestland. Directly along the Bay, these areas have well-developed infrastructure of roads and are heavily populated (Chesapeake Bay Program Office, 2002e). This area showed an increase in population from 1990 to 2000, and projections anticipate a continual increase in population through the year 2020 (Chesapeake Bay Program Office, 2002e).

The middle section of the Bay consists of the Eastern Shore, Patuxent River, and Potomac River Watersheds. The areas located along the Chesapeake Bay within these watersheds consist mainly of forest and agricultural land. Still, areas highly developed with residential and commercial uses exist sporadically along the Chesapeake Bay (Chesapeake Bay Program Office, 2002e). These areas have a well developed infrastructure of roads. Populations, along the Bay, within these watersheds are denser than in other areas. An increase in population from 1990 to 2000 has occurred and projections anticipate a continual increase in population through the year 2020 (Chesapeake Bay Program Office, 2002e). This is especially seen in Prince George's, Anne Arundel, and Montgomery Counties, Maryland.

The lower section of the Chesapeake Bay includes the York, Rappahannock, and the James Watersheds. The area in these watersheds is mostly

agricultural and forested, with a little residential and commercial development interspersed. Populations in these areas are lower than in other areas of the Bay (Chesapeake Bay Program Office, 2002e). There was an increase in population from 1990 to 2000, and it is anticipated that there will be a continual increase in population through the year 2020 (Chesapeake Bay Program Office, 2002e). The area along the Bay is not anticipated to have a well-developed infrastructure of roads. The exception is seen in and around Norfolk, where there is a large concentration of development, population, and infrastructure (Chesapeake Bay Program Office, 2002e).

Economy

The economic mainstays of the Chesapeake Bay region since the late 1800s have been ports with their import and export, the seafood industry, agriculture, tourism, the military, and shipbuilding and repair (Chesapeake Bay Program Office, 2002d). Major ports in the Chesapeake Bay include the City of Baltimore and the City of Norfolk, transporting container cargo and products such as coal, grain, tobacco, cocoa beans, and rubber.

The seafood industry remains a major factor in the economic life of the Chesapeake Bay. The long-term outlook for the seafood industry is in question however, as over-fishing and pollution of the Bay and rivers have caused a decrease in marine life populations and a destruction of habitat. The Chesapeake Bay is the largest producer of crabs in the United States. More than one third of the blue crab harvest in the United States comes from the Bay (Chesapeake Bay Program Office, 2001b).

Agriculture plays an important part in the Chesapeake Bay Watershed. For example, in Virginia, statistics show that, over the past 40 years, farm production has increased 63 percent, while agricultural land use decreased 47 percent and labor decreased by 89 percent. Production of broiler chickens is the state's leading agricultural commodity, followed by milk, cattle, turkeys, tobacco, greenhouse and nursery plants, soybeans, eggs, winter wheat, and corn. Cotton is making a comeback with the new demand for natural fibers, and, in 1996, a new record was set for cotton production at 160,000 bales.

Tourism continues to play a key role in the economy of the Chesapeake Bay region. For instance, Maryland tourism reports show that visitors to the state in 2001 spent almost 7.7 billion dollars on goods and services, generated 646 million dollars in tax revenue, and indirectly provided more than 103,000 jobs. In Virginia, 275 historic attractions host more than 6.5 million visitors annually, with another 25 million annual visits to National Park Service areas.

The Chesapeake Bay economy is greatly influenced by a large military presence. A number of military bases border the bay or its tributaries. For example, at the mouth of the Bay, the Norfolk Naval Base contributes significantly to the economy in the tidewater area. Other bases on the Chesapeake Bay contribute to the local economies. They include but are not limited to Aberdeen Proving Grounds on the northern end of the Bay and Langley Airforce Base near the southern end. Nearly a third of the region's workers earn a paycheck from the Department of Defense or a defense contractor. Norfolk has the world's largest Navy base, and Portsmouth is

home to the world's biggest ship-repair yard (Chesapeake Bay Program Office, 2002d).

Transportation

Only two bridges truly cross the Chesapeake Bay: the Chesapeake Bay Bridge-Tunnel and the William Preston Lane Jr. Memorial Bridge (commonly referred to as the Chesapeake Bay Bridge). The Chesapeake Bay Bridge-Tunnel crosses the mouth of the Chesapeake Bay and connects the City of Virginia Beach to Cape Charles in North Hampton County on the Virginia Eastern Shore. It is 17.6 miles long from shore to shore, crossing what is essentially an ocean strait. Including land approach highways, the overall facility is 23 miles long, and it carries highway traffic on US-13, the major arterial highway serving the corridor between Norfolk, Virginia, and Wilmington, Delaware (Kozel, 2002)

The Chesapeake Bay Bridge, officially the William Preston Lane, Jr., Memorial Bridge, crosses the Chesapeake Bay near Annapolis as part of US-50/US-301. The bridge's dual spans connect Maryland's Eastern Shore recreational and ocean regions to the metropolitan areas of Baltimore, Annapolis, and Washington, D.C. The bridge also forms part of an alternative route from the Delaware Memorial Bridge to the nation's capital (Kozel, 2002). The 4.3-mile Bay Bridge is a prominent and important element of the State of Maryland's transportation infrastructure. Carrying more than 23 million vehicles a year, the bridge consists of two separate spans with roadways running 186 feet above the water. The original span was built in 1952 and provides a two-lane roadway for eastbound traffic. The parallel structure opened in 1973 and has three lanes for westbound travelers.

The Bay's ports and waterways are critical to the world's commerce. Approximately 90 million tons of imports and exports pass through the major ports of Baltimore and Hampton Roads each year (The Mariner's Museum, 2002).

Parks and Recreation

There are many parks and recreation areas in the Chesapeake Bay watershed area. The Chesapeake Bay Gateways Network, a partnership system of sites, land trails, and water trails, around the Chesapeake Bay watershed, represents a broad cross-section of Bay area parks. The Gateways Network includes more than 140 parks, refuges, historic ports, museums, and trails. More specifically, it includes 21 state parks, 8 units of the National Park System, 5 national wildlife refuges, 18 museums, an Indian reservation, 17 water trails, and a number of other sites (Chesapeake Bay Gateways Network, 2002). In addition to the Chesapeake Bay Gateways Network, there are other local parks and over 500 public access sites which are catalogued through the *Public Access Guide-Chesapeake Bay, Susquehanna River, & Tidal tributaries* (<http://www.chesapeakebay.net/visit.htm>).

Visitor Use

The study area is a destination for local, regional, and out-of-state visitors. While tourism and visitor use statistics are often misleading due to double-counting and the undifferentiated economic impacts of local visitors versus those from out-of town, it is important to understand the magnitude of visitation throughout the area and at specific sites. Statewide tourism statistics are not available due to the difficulty in gathering such data. With a variety of destinations serving many different populations, the District of Columbia, Maryland and Virginia all have a wide variety of visitor attractions.

From a regional perspective, Table 5-4 shows 2002 visitation statistics for National Park Service sites in each state in the Chesapeake Bay watershed as well as the increase or decrease in visitation from 2001. The District of Columbia, Virginia, and Pennsylvania rank in the top five states for national park unit visitation.

The Chesapeake Bay region has many historic and cultural resources that attract local, regional and national visitors. Table 5-5 outlines several major attractions by urban area and their annual visitation statistics. It is evident that the region is a hub for a variety of tourist activities.

Table 5-4 Visits to National Park Units by State and Percent Change from 2001 to 2002			
	Visits 2002	Visits 2001	Percent Change
District of Columbia	24.4 Million	28.8 Million	-15.4 %
Virginia	25.0 Million	24.6 Million	1.6%
New York	15.7 Million	16.6 Million	-5.4 %
Pennsylvania	8.3 Million	8.1 Million	2.8%
Maryland	3.3 Million	3.4 Million	-3.6%
West Virginia	1.9 Million	2.1 Million	-7.7%
Delaware ³	0	0	0

Table 5-5 Visits to Major Attractions by Chesapeake Bay Urban Area		
Metro Area	Attraction	Visits per year
District of Columbia	Lincoln Memorial The White House	3.55 Million 178,000
Baltimore, Maryland	The National Aquarium	1.6 Million
Hampton Roads, Virginia	Virginia Air & Space Center	250,000
Annapolis, Maryland	Maryland State House/Capitol Visitor Center United States Naval Academy	170,000 1.5 Million

The visitation rates at several different types and sizes of resources within the Chesapeake Bay Gateways Network serve as a proxy for the tourist activity at state parks, museums, and historic sites. The annual visitation rates, as illustrated in Table 5-6, vary widely.

³ Delaware does not have any National Park System units.

Table 5-6 Visits to Other Chesapeake Bay Gateways Sites		
Gateways Site	Location	Visits per year
Gunpowder Falls State Park	Kingsville, Maryland	543,000
First Landing State Park	Norfolk, Virginia	1 Million
Blackwater NWR	Cambridge, Maryland	120,000
Chesapeake Bay Maritime Museum	St. Michaels, Maryland	95,000
Fort McHenry NMHS	Baltimore, Maryland	673,000
Colonial NHP	Yorktown/Jamestown, Virginia	3.3 Million

Section 6:

Environmental Consequences

INTRODUCTION

The National Environmental Policy Act requires that environmental impact statements describe the potential environmental consequences of proposed federal actions and alternatives. In this case, the “proposed federal action” would be the adoption of one of the alternatives described in this Special Resource Study for the Chesapeake Bay watershed. This chapter describes the potential impacts associated with the five alternatives. By assessing the environmental consequences of all the alternatives on an equivalent basis, the NPS and other decision-makers can decide which alternative creates the most desirable combination of beneficial results with the fewest adverse effects on the environment.

The alternatives in this SRS provide broad management directions. The environmental consequences associated with the proposed actions are analyzed on a qualitative level because of the general nature of each proposed action. Thus, this environmental impact statement should be considered a programmatic analysis. If any action is eventually implemented, the NPS, in accordance with the National Environmental Policy Act, would conduct additional environmental analyses with appropriate documentation before implementing site-specific actions. The impacts for each alternative are briefly summarized in Table 6-1 at the end of this section.

METHODOLOGY FOR ASSESSING IMPACTS

Potential impacts are described in terms of type (adverse or beneficial), intensity (negligible, minor, moderate, or major), duration (short-term or long-term), context (site-specific, local, bay-wide, or watershed-wide) and direct versus indirect. Clarification for each of these concepts is provided below.

Impact Type

For each impact topic, the effects of the proposed action would be either adverse or beneficial. In some cases, the actions would result in both adverse and beneficial impacts for the same impact topic.

Intensity

This evaluation uses the approach for defining intensity (or magnitude) for an impact as presented in *Director’s Order # 12: Conservation Planning, Environmental Impact Analysis and Decision-Making* (NPS, 2001b). Analyses of the potential intensity were derived from the available literature on the Chesapeake Bay and the professional judgment of the NPS study team based on similar projects. The thresholds of change for the intensity of impacts are defined as follows:

- *Negligible* - The impact is localized and not measurable or at the lowest level of detection.
- *Minor* - The impact is localized and slight, but detectable.

- *Moderate* - The impact is readily apparent and appreciable.
- *Major* - The impact is severe or beneficial and highly noticeable

In some cases, more specific impact intensity thresholds are provided for the impact topic. If intensity thresholds are not provided, the intensity levels are similar to those stated in this section. Most of the intensities are expressed qualitatively because this SRS is considered a programmatic document.

Duration

The planning horizon for this SRS is similar to that of a General Management Plan but the designation and creation of a National Park Service unit would be in perpetuity. Within the planning timeframe, impacts that would occur within five years or less were classified as short-term. Long-term effects would last for more than five years.

Context

The context of each impact is described in terms of site-specific, localized, bay-wide or watershed-wide. For instance, the construction of a new interpretive center may have localized adverse impacts to terrestrial resources while National Park Service technical and financial assistance would have watershed-wide benefits to terrestrial resources.

Direct Versus Indirect Impacts

A direct impact would be caused by an action at the same time and place as the action. An indirect impact would be an impact that is reasonably foreseeable, but occurs later in time at another place, or to another resource. For example, the removal of vegetation (direct impact) would cause soil erosion and sedimentation, thereby affecting the water quality (indirect impact) of a nearby waterway.

Cumulative Impacts

The Council on Environmental Quality Regulations, which implements the National Environmental Policy Act, requires assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions” (40 CFR 1508.7). Cumulative impacts are considered for all alternatives and are presented at the end of this section. Cumulative impacts were determined by combining the impacts of the proposed action with other past, present, and reasonably foreseeable future actions. Cumulative impacts are discussed at the end of this section.

IMPACT ANALYSIS: NATURAL ENVIRONMENT

Aquatic Resources

Methodology

For the impact assessment for aquatic resources, the study team focused on changes to the levels of protection and conservation from the creation of a new park unit or implementation of a new program or policy. The NPS also considered the physical impacts associated with any new development plans, such as the construction of an interpretive center and anticipated visitor uses typical of each park unit (e.g., canoeing, hiking, etc.). Aquatic resources include waterways, wetlands, floodplains, water quality, coastal resources, and aquatic flora and fauna (plants and animals such as submerged aquatic vegetation, emergent vegetation, fish, crabs, and sea turtles). For this programmatic study, the impacts discussed are primarily qualitative because the alternatives are conceptual and quantification of site-specific impacts is difficult.

The alternatives considered in the SRS/EIS have the potential to be in and impact the state's coastal zone. In as much as the Chesapeake Bay SRS/EIS is a programmatic study, the National Park Service will further evaluate the potential impact on the state's coastal zones as site specific information becomes available in later phases of the project and then make a Federal consistency determination that will be submitted to the state's Coastal Zone Management Program for review and concurrence.

The intensity of impact is mostly dependent on the future visitation and existing site characteristics, which have not been identified.

Alternative A – No Action

Rather than adding a new Chesapeake Bay-focused unit of the National Park Service, the No Action Alternative assumes the NPS would simply continue its role related to Chesapeake Bay conservation, restoration, education, and interpretation. Through promoting the Gateways Network, educating the public, and providing technical and financial assistance to communities and organizations, the NPS facilitates conservation of the Bay's vital resources. Hence, the continuation of the Gateways Network in coordination with the Chesapeake Bay Program would result in minor, short-term, beneficial impacts to aquatic resources within the entire Chesapeake Bay watershed. A long-term, indirect, adverse impact would occur to aquatic resources if funding for the Gateways Network is not appropriated past 2008 because of the reduction/elimination of the National Park Service's technical and financial assistance to the Gateways. This adverse impact would be watershed-wide.

Alternative B – An Enhanced Chesapeake Bay Gateways Network

The Enhanced Chesapeake Bay Gateways Network Alternative makes permanent the watershed-wide partnership of sites and trails within the Chesapeake Bay watershed, while expanding certain NPS roles related to Chesapeake Bay interpretation and conservation. A minor, indirect, long-term, watershed-wide, beneficial impact would occur to aquatic resources

through extending long-term technical and financial assistance to local organizations and cooperating Gateways.

The NPS, in partnership with other entities, would create two Chesapeake Bay interpretive centers in proximity to the Bay. The two interpretive centers would educate visitors about the Bay and their role in protecting and conserving the Bay's vital aquatic resources. This educational function would result in a minor to moderate, indirect, long-term, watershed-wide beneficial impact to aquatic resources.

The interpretive centers would be developed within either existing structures or new construction (new or expanded structure). If the centers are constructed within an existing structure, direct impacts to aquatic resources would be negligible. New construction of two centers and associated roads, parking, and support facilities would have localized, adverse impacts on nearby aquatic resources. Impacts typically associated with construction of a new building near the Bay include minor fill in the 100-year floodplains and sediment runoff into nearby waterways from the earth disturbance. However, the degree of impact is largely dependent on the site characteristics and site design, which have not been identified. Impacts would be minimized to the extent practical in accordance with the National Park Service's *Management Policies 2001* (NPS, 2000), *Director's Order #2 Park Planning* (NPS, 1998), and *Director's Order #12 Conservation Planning, Environmental Impact Analysis, and Decision-Making* (NPS, 2002b).

Visitor use at the Chesapeake Bay interpretive centers and on the surrounding lands would also have a minor, localized, long-term, adverse impact on aquatic resources as some species do not adapt or become stressed when humans are present in their environment. However, the alternative anticipates the two interpretive centers would be placed in previously developed or urbanized area already subject to human disruptions; therefore the impacts would be negligible.

Alternative C – Chesapeake Bay Estuary National Park

The core goal of the estuarine National Park would be to conserve, protect, and restore the estuarine environment and natural resources in the park as a high quality natural system. The creation of an estuarine National Park would have a minor to moderate, long-term, beneficial impact on aquatic resources throughout the area of the bay within the park boundaries. Because the direct benefit would be realized in the area local to the park, only a small portion of the Bay is affected by the added protection, enhancement, and restoration of resources. Populations of aquatic biota, such as submerged aquatic vegetation, oysters, crabs, and fish, would be expected to improve because of the efforts typically afforded by park operations. Protection would occur in the forms of reduced commercial harvests, and resource management to facilitate population recovery (e.g., submerged aquatic vegetation).

The NPS would also build a land-based interpretive/orientation center. The construction of the center and associated roads, parking, and facilities would have adverse impacts on nearby aquatic resources. The direct impacts would be localized to the footprint of the facilities and surrounding area where the human activities would take place. Direct impacts associated with new

construction near the Bay would include minor fill in the 100-year floodplains and indirect impacts would include sediment runoff into nearby waterways from the earth disturbance. The degree of impact is largely dependent on the site characteristics and site design, which have not been identified. The impacts would be minimized to the extent practical in accordance with the National Park Service's *Management Policies 2001* (NPS, 2000), *Director's Order #2 Park Planning* (NPS, 1998), and *Director's Order #12 Conservation Planning, Environmental Impact Analysis, and Decision-Making* (NPS, 2002b).

Visitor uses at water-based national parks tend to include recreational uses such as recreational fishing, boating, sailing, kayaking, canoeing, and picnicking. These uses would have a minor, long-term, localized, adverse impact on aquatic resources because of human disruption to the aquatic environment. Some species do not adapt or become stressed when humans are present in their environment. In addition, the park would attract visitors to the area and this increase in visitation would have an indirect, moderate, long-term, adverse impact on aquatic resources because of human disruption to the aquatic environment such as an increase in noise levels from increased traffic or wave action from boat use. The degree of the impact is largely dependent on the park's size, location, and level of visitation. Additional planning such as a general management plan would help balance visitor use to minimize the environmental impacts.

Alternative D – A Chesapeake Bay National Reserve

The core goal of this alternative would be to conserve and sustain the traditional working landscape, waters, and natural and cultural resources within the reserve that reflect the Bay's heritage. The national reserve would help protect traditional resource dependent activities such as commercial fishing, crabbing, oystering, agriculture, and forestry from development pressure and for sustainable use. Land conservation and incentives programs to use best management practices for industries such as agriculture and forestry would offer protection to aquatic resources. A moderate, long-term, beneficial impact to aquatic resources would occur through the technical and financial assistance, comprehensive planning and conservation measures of the reserve. The benefits would be mainly localized to the reserve and surrounding area.

The reserve would include development of an interpretive/orientation center within either an existing structure or new construction (new or expanded structure). If within an existing structure, direct impacts to aquatic resources would be negligible. New construction of a center and associated roads, parking, and facilities would have localized adverse impacts on nearby aquatic resources. Impacts typically associated with new construction near the Bay include minor fill in the 100-year floodplains and sediment runoff into nearby waterways from the earth disturbance. The degree of impact is largely dependent on the site characteristics and site design, which have not been identified. The impacts would be minimized to the extent practical in accordance with the National Park Service's *Management Policies 2001* (NPS, 2000), *Director's Order #2 Park Planning* (NPS, 1998), and *Director's Order #12 Conservation Planning, Environmental Impact Analysis, and Decision-Making* (NPS, 2002b).

Visitor use at the interpretive/orientation center and/or increased visitation in the reserve and its component visitor sites would also have a minor, localized, long-term, adverse impact on aquatic resources because of human disruption to the aquatic environment. Some species do not adapt or become stressed when humans are present in their environment. The degree of the impact is largely dependent on the reserve's size, location, and level of visitation. Additional planning such as a general management plan would help balance visitor use to minimize the environmental impacts.

Alternative E – Chesapeake Bay Watershed National Ecological and Cultural Preserve

The core goal of the preserve would be to conserve and restore a tributary ecosystem so that human uses are in optimal balance with the natural process, ensuring a vital and sustainable future. This would include conservation of natural resources within a core riparian area and planning and incentives for conservation, sustainable development and best management practices within the tributary watershed. For example, incentives might assist landowners in restoring and maintaining riparian buffer areas to reduce sediment runoff improving water quality in nearby streams. The measures would have a long-term, tributary watershed-wide, beneficial impact on aquatic resources because of added protection and restoration efforts. The degree of impact would be dependent on the size of the preserve, current development pressures, and the amount of previous impairment; however, the study team anticipates that the beneficial impact would be moderate to major. Similarly, the overall direct impact on Bay-wide aquatic resources would also be dependent upon these factors, though the intensity would be lower as this would be only one of many Bay tributaries. However, interpretation and education of conservation stewardship is a key goal of the preserve concept; the interpretive programming would result in a minor to moderate, indirect, long-term, Bay watershed-wide beneficial impact to aquatic resources.

The preserve would include development of an interpretive/orientation center within either an existing structure or new construction (new or expanded structure). If within an existing structure, direct impacts to aquatic resources would be negligible, or beneficial, as remediation measures are incorporated into the design. New construction of a center and associated roads, parking, and facilities would have localized adverse impacts on nearby aquatic resources. Impacts typically associated with new construction near the Bay include minor fill in the 100-year floodplains and sediment runoff into nearby waterways from the earth disturbance. The degree of impact is largely dependent on the site characteristics and site design, which have not been identified. The impacts would be minimized to the extent practical in accordance with the National Park Service's *Management Policies 2001* (NPS, 2000), *Director's Order #2 Park Planning* (NPS, 1998), and *Director's Order #12 Conservation Planning, Environmental Impact Analysis, and Decision-Making* (NPS, 2002b). Moreover, the core goals of this alternative would place a priority on use of the center as an example of stewardship practices, causing the ultimate structure to incorporate many sustainable design measures.

Visitor use at the interpretive/orientation center and/or increased visitation in the reserve and its component visitor sites would also have a minor, localized, long-term, adverse impact on aquatic resources because of human disruption to the aquatic environment. Some species do not adapt or become stressed when humans are present in their environment. The degree of the impact is largely dependent on the preserve's size, location, and level of visitation. Additional planning such as a general management plan would help balance visitor use to minimize the environmental impacts.

Terrestrial Resources

Methodology

For the impact assessment of terrestrial resources, the NPS study team focused on changes in levels of protection and conservation from the creation of a new park unit or implementation of a new program or policy. The NPS also considered the physical impacts associated with any new development plans, such as an interpretive center and anticipated visitor uses typical of each park unit (e.g., canoeing, hiking, etc.). For this study, terrestrial resources include wildlife, neotropical birds, vegetation, land cover, prime farmlands, soils, geology, forests, and upland flora and fauna. For this programmatic study, the impacts discussed are mostly qualitative because the alternatives are conceptual. The intensity of impact is mostly dependent on the future visitation and existing site characteristics, which have not been identified.

Alternative A – No Action

The No Action Alternative assumes the NPS would simply continue its role related to Chesapeake Bay conservation, restoration and interpretation. Through educating the public, and providing technical and financial assistance to communities and organizations, the NPS facilitates conservation of the Bay's vital resources. The continuation of the Gateways Network in coordination with the Chesapeake Bay Program would result in minor, short-term, beneficial impacts to terrestrial resources within the entire Chesapeake Bay watershed. Long-term, minor indirect, adverse impacts would occur related to terrestrial resources if funding for the Gateways Network is not appropriated past 2008 because of the reduction/elimination of the National Park Service's technical and financial assistance to Gateways.

Alternative B – An Enhanced Chesapeake Bay Gateways Network

The Enhanced Chesapeake Bay Gateways Network Alternative makes permanent the watershed-wide partnership of sites and trails within the Chesapeake Bay watershed, while expanding NPS roles related to Chesapeake Bay interpretation and conservation. An indirect, long-term, beneficial impact would occur related to terrestrial resources because of technical and financial assistance to local organizations and cooperating Gateways. The two Chesapeake Bay interpretive centers would also help educate visitors of their role in protecting and conserving the Bay's terrestrial resources. The beneficial impact would be watershed wide.

The NPS, in partnership with other entities, would create two Chesapeake Bay interpretive centers in proximity to the Bay. The two interpretive centers

would educate visitors about the Bay and their role in protecting and conserving the Bay's vital terrestrial resources. This educational function would result in a minor to moderate, indirect, long-term, watershed-wide beneficial impact to terrestrial resources.

The interpretive centers would be developed within either existing structures or new construction (new or expanded structure). If within an existing structure, direct impacts to terrestrial resources would be negligible. The construction of two Chesapeake Bay interpretive centers and associated roads, parking, and support facilities would have long-term adverse impacts on terrestrial resources on and adjacent to the construction sites. The impact would result from land disturbance of forest, vegetation or other terrestrial resources, which is potential habitat to animals and birds. However, the degree of impact is largely dependent on the site characteristics and site design, which have not been identified. The impacts would be minimized to the extent practical in accordance with the National Park Service's *Management Policies 2001* (NPS, 2000), *Director's Order #2 Park Planning* (NPS, 1998), and *Director's Order #12 Conservation Planning, Environmental Impact Analysis, and Decision-Making* (NPS, 2002b).

Visitor uses at the Chesapeake Bay interpretive centers and on the surrounding land would also have a localized, long-term, adverse impact on terrestrial resources in the immediate vicinity of the interpretive centers. Some species do not readily adapt or become stressed when humans are present in their environment. In addition, the park would attract visitors to the area and this increase in visitation would have an indirect, moderate, long-term, adverse impact on terrestrial resources because of disruption to the terrestrial environment such as an increase in noise levels from increased traffic. However, it is anticipated that the two interpretive centers would be placed in previously developed or urbanized areas already subject to human disruptions; therefore, the impacts the impacts would be negligible.

Alternative C – Chesapeake Bay Estuary National Park

The goal of the estuarine National Park would be to conserve, protect, and restore the estuarine environment and natural resources in the park as a high quality natural system. The creation of a national park would have a long-term, beneficial impact on adjacent terrestrial resources because the NPS would offer added protection, enhancement, and restoration to resources within the boundaries of the park. Populations of terrestrial biota, such as forests, coastal vegetation, neotropical birds, and water birds, would be expected to improve because of the efforts typically afforded by park operations. Protection would occur in the forms of managed recreational extractions and resource management. Long-term, localized, beneficial impacts would occur within the park boundaries from protection of the land activities in the park. However, the beneficial impacts to terrestrial resources would be minor because the majority of the park would be water based.

Under this alternative, the NPS would build a land-based interpretive center. The construction of the interpretive center and associated roads, parking, and facilities would have localized, adverse impacts on terrestrial resources. The impact would result from land disturbance of forest, vegetation, or other terrestrial resources, which is potential habitat to animals and birds. The

study team anticipates the impact to be minor to moderate; however, the degree of impact is largely dependent on the site characteristics and site design, which have not been identified. The impacts would be minimized to the extent practical in accordance with the National Park Service's *Management Policies 2001*, *Director's Order #2 Park Planning* (NPS, 1998), and *Director's Order #12 Conservation Planning, Environmental Impact Analysis, and Decision-making* (NPS, 2002b).

Visitor use at water-based national parks tends to include recreational uses such as hiking, picnicking, canoeing, and kayaking. These low impact uses would also have a minor, long-term, localized, adverse impact on terrestrial resources because of human disruption to the terrestrial environment. For instance, national parks typically have trails and paths that allow visitors to hike into the terrestrial environment. Hiking results in a physical disturbance to vegetation and soils. In addition, some species do not readily adapt or become stressed when humans are present in their environment. Furthermore, the park would attract visitors to the area, and this increase in visitation would have an indirect, moderate, long-term, adverse impact on terrestrial resources because of human disruption to the environment such as an increase in noise levels from increased traffic. The degree of the impact is largely dependent on the park's size, location and level of visitation. Additional planning, such as a general management plan, would help balance visitor use to minimize the environmental impacts.

Alternative D – A Chesapeake Bay National Reserve

The core goal of this alternative would be to conserve and sustain the traditional working landscape, waters, and natural and cultural resources within the reserve to reflect the Bay's heritage. The NPS would help protect traditional resource dependent activities such as agriculture and forestry from development pressures and for sustainable use. A moderate, long-term, beneficial impact on terrestrial resources would occur from the technical and financial assistance provided by the NPS for comprehensive planning for the reserve. The beneficial impact is likely to be moderate locally while having a minor impact to the watershed as a whole. For instance, the comprehensive plan could set in effect strategies for reducing conversion of farm and forestlands to non-resource uses, thereby protecting soils of statewide importance, prime farmlands, and other significant terrestrial resources.

The reserve would include development of an interpretive/orientation center within either an existing structure or new construction (new or expanded structure). If within an existing structure, direct impacts to terrestrial resources would be negligible. New construction of a center and associated roads, parking, and facilities would have localized, adverse impacts on nearby terrestrial resources. The impact would result from land disturbance of forest, vegetation, or other terrestrial resources, which is potential habitat to animals and birds. The impact would be anticipated to be minor to moderate; however, the degree of impact is largely dependent on the site characteristics and site design, which have not been identified. The impacts would be minimized to the extent practical in accordance with the National Park Service's *Management Policies 2001* (NPS, 2000), *Director's Order #2 Park Planning* (NPS, 1998), and *Director's Order #12 Conservation Planning, Environmental Impact Analysis, and Decision-Making* (NPS, 2002b).

Visitor use at the interpretive center and/or increased visitation in the reserve and its component visitor sites would also have a minor, long-term, localized, adverse impact on terrestrial resources in the immediate vicinity of the activities because of human disruption to the terrestrial environment. In addition, the park would attract visitors to the area, and this increase in visitation would have an indirect, minor, long-term, adverse impact on terrestrial resources because of disruption to the terrestrial environment, such as an increase in noise levels from increased traffic.

Alternative E – Chesapeake Bay Watershed National Ecological and Cultural Preserve

The core goal of the preserve would be to conserve and restore a tributary ecosystem so that human uses are in optimal balance with natural processes, ensuring a vital and sustainable future. The NPS, in partnership with other state and local agencies, would develop a program to protect and restore natural resources within the core riparian area. These efforts would have a regional, long-term, beneficial impact on terrestrial resources within a Bay tributary. The impact would be anticipated to be moderate within the preserve; however, the degree of the impact would be dependent on the size of the preserve, current development pressures, and the amount of previous impairment.

The NPS, through partnerships, would provide demonstration sites throughout the preserve to educate visitors about innovative and sustainable management practices in agriculture, forestry, and commercial and residential development. Visitor education would indirectly have a watershed-wide, beneficial impact on terrestrial resources, such as soils because of the implementation of modern erosion and stormwater control practices. In addition, incentives for conservation easements and resource protection zones would offer benefits to protect terrestrial resources in the watershed.

The preserve would include development of an interpretive/orientation center within either an existing structure or new construction (new or expanded structure). If within an existing structure, direct impacts to terrestrial resources would be negligible, or beneficial, as remediation measures are incorporated into the design. New construction of a center and associated roads, parking, and facilities would have localized, adverse impacts on nearby terrestrial resources. The impact would result from land disturbance of forest, vegetation, or other terrestrial resources, which is potential habitat to animals and birds. The impact would be anticipated to be minor to moderate; however, the degree of impact is largely dependent on the site characteristics and site design, which have not been identified. The impacts would be minimized to the extent practical in accordance with the National Park Service's *Management Policies 2001* (NPS, 2000), *Director's Order #2 Park Planning* (NPS, 1998), and *Director's Order #12 Conservation Planning, Environmental Impact Analysis, and Decision-Making* (NPS, 2002b). Moreover, the core goals of this alternative would place a priority on use of the center as an example of stewardship practices, causing the ultimate structure to incorporate many sustainable design measures.

Visitor use at the interpretive/orientation and/or increased visitation in the reserve and its component visitor sites would also have a minor, long-term, adverse impact on terrestrial resources in the immediate vicinity of the activities because of human disruption to the terrestrial environment. In addition, the park would attract visitors to the area and this increase in visitation would have an indirect, localized, long-term, adverse impact on terrestrial resources because of disruption to the terrestrial environment, such as an increase in noise levels from increased traffic. The impacts would be minor.

Threatened, Endangered, and Rare Species and Natural Communities

Methodology

In the impact assessment for threatened, endangered, and rare species and natural communities, the NPS study team focused on changes to levels of protection and conservation from the creation of a new park unit or implementation of a new program or policy. The NPS also considered the physical impacts associated with any new development plans and anticipated visitor uses. The impact analysis of threatened, endangered, and rare species and natural communities is defined to encompass all federally and state listed protected species, critical habitats, candidate species, and protected ecological community types within the Chesapeake Bay watershed. This includes aquatic and terrestrial species and habitats listed by the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and designated agencies in the six states and the District of Columbia that are part of the watershed. For this programmatic study, the impacts discussed are mostly qualitative because the alternatives are conceptual. The intensity of impact is mostly dependent on the future visitation, location, and existing site characteristics, which have not been identified.

Definition of Intensity Levels

Analyses of the potential intensity of threatened, endangered, and rare species and natural communities were derived from the available literature on the Chesapeake Bay. The thresholds of change for the intensity of impacts are defined as follows:

- *Negligible* – The impact would be expected to have an insignificant and discountable effect on special status species and their habitat.
- *Minor* - The impact is localized and slight, but detectable.
- *Moderate* - The impact is readily apparent and appreciable. The impact to listed species or their habitat is likely to be adverse or beneficial.
- *Major* - The impact is severe or beneficial and highly noticeable. The determination according to Section 7 of the Threatened and Endangered Species Act would be an adverse effect.

Alternative A – No Action

The No Action Alternative assumes the NPS would simply continue its role related to Chesapeake Bay conservation, restoration, and interpretation. Through promoting the Gateways Network, educating the public, and providing technical and financial assistance to communities and organizations, the NPS facilitates conservation of the Bay's vital resources. As a result, continuation of the Gateways Network, in coordination with the

Chesapeake Bay Program, would result in minor, short-term, beneficial impacts on protected species within the entire Chesapeake Bay watershed. Long-term, indirect, adverse impacts would occur to threatened, endangered, and rare species and natural communities if funding for the Gateways Network is not appropriated past 2008 because of the reduction/elimination of the National Park Service's technical and financial assistance to help the Gateways to continue to protect these species.

Alternative B – An Enhanced Chesapeake Bay Gateways Network

The Enhanced Chesapeake Bay Gateways Network Alternative makes permanent the watershed-wide partnership of sites and trails within the Chesapeake Bay watershed, while expanding NPS roles related to Chesapeake Bay interpretation and conservation. Thus, there would be an indirect, long-term, beneficial impact on protected species through technical and financial assistance to local organizations and cooperating Gateways. The two interpretive centers would also help educate visitors of their role in protecting and conserving threatened, endangered, and rare species and natural communities.

The National Park Service, in partnership with other entities, would create two Chesapeake Bay interpretive centers in proximity to the Bay. The two interpretive centers would educate visitors about their Bay and their role in protecting and conserving the Bay's unique species. This educational function would result in a minor to moderate, indirect, long-term, watershed-wide beneficial impact to rare, threatened, and endangered species.

The interpretive centers would be developed within either existing structures or new construction (new or expanded structure). If within an existing structure, direct impacts to threatened, endangered, and rare species would be negligible. The construction of two Chesapeake Bay interpretive centers and associated roads, parking, and support facilities would have minor adverse impacts on threatened, endangered, and rare species and natural communities located on and adjacent to the construction sites. The impact would result from the disturbance to the specie or its habitat from the construction related activities, such as earth disturbance. The degree of impact is largely dependent on the site location and characteristics, which have not been identified. The impacts would be minimized to the extent practical in accordance with the National Park Service's *Management Policies 2001* (NPS, 2000), *Director's Order #2 Park Planning* (NPS, 1998), and *Director's Order #12 Conservation Planning, Environmental Impact Analysis, and Decision-Making* (NPS, 2002b). Section 7 coordination under the Endangered Species Act would be conducted with the U. S. Fish and Wildlife Service, the National Marine Fisheries Service, and appropriate state resource agencies prior to implementation of any alternative.

Visitor use at Chesapeake Bay interpretive centers and surrounding land would have a minor, long-term, adverse impact on protected species in the immediate vicinity of the interpretive centers because of human disruption to the environment. However, this alternative anticipates the two interpretive centers would be placed in previously developed or urbanized areas already subject to human disruptions; therefore the impacts would be negligible.

Alternative C – Chesapeake Bay Estuary National Park

The goal of an estuarine National Park would be to conserve, protect, and restore the estuarine environment and natural resources in the park as a high quality natural system. The creation of a national park would have a long-term, beneficial impact on protected species and habitats because the NPS would offer added protection, enhancement, and restoration to resources within the boundaries of the park. Populations of protected species can be expected to be sustained or increased because of the efforts typically afforded by park operations. Protection would occur because of managed recreational fishing and extractions, habitat management to facilitate population recovery, and land acquisition/easements to control habitat disturbances (e.g., forestry, commercial development).

Under Alternative C, the NPS would build a land-based interpretive center. The construction of the interpretive center and associated roads, parking, and facilities would have adverse impacts on threatened or endangered species on and adjacent to the sites. The impact would result from the disturbance to a species or its habitat from construction related activities such as earth disturbance. The degree of impact is largely dependent on the site characteristics and site design, which have not been identified. The impacts would be minimized to the extent practical in accordance with the National Park Service's *Management Policies 2001* (NPS, 2000), *Director's Order #2 Park Planning* (NPS, 1998), and *Director's Order #12 Conservation Planning, Environmental Impact Analysis, and Decision-Making* (NPS, 2002b). Section 7 coordination under the Endangered Species Act would be conducted with the U. S. Fish and Wildlife Service, the National Marine Fisheries Service, and appropriate state resource agencies prior to implementation of the alternative.

Visitor use at water-based national parks tends to include recreational uses such as hiking, picnicking, canoeing, and other low impact uses. These low impact uses could also have a minor, long-term, adverse impact near the activity because of the human disruption. The degree of the impact is largely dependent on the park's size, location, and site design. Additional planning, such as a general management plan and implementation of mitigation measures, which would be identified in later studies, would help balance visitor use to minimize the impacts on protected species.

Alternative D – A Chesapeake Bay National Reserve

The primary goal of this alternative would be to conserve and sustain the traditional working landscape, waters, and natural and cultural resources within the reserve that reflects the Bay's heritage. As part of this goal, NPS would help protect sensitive natural and cultural resource sites, which could include habitat for threatened, endangered and rare species and natural communities. Hence, a moderate, long-term, regional, beneficial impact on threatened, endangered, and rare species and natural communities would occur comprehensive planning and direct conservation.

Under Alternative D, the NPS, in partnership with other government entities, would build a primary interpretive center in close proximity to the Bay. The construction of an interpretive center and associated roads, parking, and

facilities would have adverse impacts on any protected species present at the construction site. The impact would result from the disturbance to the species or its habitat from construction related activities, such as earth disturbance. The degree of impact is largely dependent on the site characteristics and site design, which have not been identified. The impacts would be minimized to the extent practical in accordance with the National Park Service's *Management Policies 2001* (NPS, 2000), *Director's Order #2 Park Planning* (NPS, 1998), and *Director's Order #12 Conservation Planning, Environmental Impact Analysis, and Decision-Making* (NPS, 2002b). Section 7 coordination under the Endangered Species Act would be conducted with the U. S. Fish and Wildlife Service, the National Marine Fisheries Service, and appropriate state resource agencies prior to implementation of this alternative.

Visitor use at the interpretive center and surrounding land would have minor, long-term, adverse impacts on any protected species present. Human disruption of habitat is the primary source of impacts. Recreational activities, including low-impact activities such as kayaking, hunting, and fishing would be restricted in areas where identified threatened, endangered, and rare species and natural communities occur.

Alternative E – Chesapeake Bay Watershed National Ecological and Cultural Preserve

The goal of the preserve would be to conserve and restore a tributary ecosystem so that human uses are in optimal balance with the natural environment, ensuring a vital and sustainable future. The NPS, in partnership with other state and local agencies, would develop a program to protect and restore natural resources in the core riparian area. These efforts would have a minor to moderate, long-term, regional, beneficial impact on threatened, endangered, and rare species and natural communities along the tributary to the Bay. The degree of the impact would be dependent on the size of the preserve, current development pressures, and the amount of previous impairment.

The preserve would include development of an interpretive/orientation center within either an existing structure or new construction (new or expanded structure). If within an existing structure, direct impacts to RTE species would be negligible, or beneficial, as remediation measures are incorporated into the design. The new construction of an interpretive center and associated roads, parking and facilities would have direct adverse impacts on protected species at the site of the construction. The impact would result from the physical disruption to the species from construction or from the reduction of habitat. The degree of impact is largely dependent on the site characteristics and site design, which have not been identified. The impacts would be minimized to the extent practical in accordance with the National Park Service's *Management Policies 2001* (NPS, 2000), *Director's Order #2 Park Planning* (NPS, 1998), and *Director's Order #12 Conservation Planning, Environmental Impact Analysis, and Decision-Making* (NPS, 2002b). Section 7 coordination under the Endangered Species Act would be conducted with the U. S. Fish and Wildlife Service, the National Marine Fisheries Service, and appropriate state resource agencies prior to implementation of the alternative.

Visitor use at the interpretive center and other demonstration sites would have a minor, long-term, adverse impact on any protected species present. Human disruption of habitat is the primary source of impacts. Recreational activities, including low-impact activities such as hiking, hunting, and fishing, would be restricted in areas where threatened, endangered, and rare species and natural communities are known to exist.

Air Quality

Methodology

In the impact assessment for air quality, the NPS study team focused on changes to levels of protection and conservation from the creation of a new park unit or implementation of a new program or policy. The NPS also considered the physical impacts associated with any new development plans and anticipated visitor uses. The context of the evaluation was the airshed of the Chesapeake Bay. For this programmatic study, the impacts discussed are mostly qualitative because the alternatives are conceptual. Attainment or non-attainment status is discussed in the affected environment; however, for this programmatic document, the potential impacts on the National Ambient Air Quality Standards (NAAQS) cannot be determined because the analysis would be highly dependent on the location of the park unit and anticipated visitation levels, which have not been determined.

Definition of Intensity Levels

Analyses of the potential intensity levels resulting from each alternative on air quality were derived from the available information from the region. Definitions for the thresholds of change for the intensity of impacts on air quality are as follows:

- *Negligible* - The impact is localized and not measurable or at the lowest level of detection.
- *Minor* - The impact is localized and slight, but detectable. The impact would have no effect on the ability to comply with NAAQS.
- *Moderate* - The impact is readily apparent and appreciable. The impact would have an effect when added to other planned projects in the area on the ability to comply with NAAQS.
- *Major* - The impact is severe or beneficial and highly noticeable. The impact would have an effect on the ability to comply with NAAQS.

Alternative A – No Action

The No Action Alternative assumes the NPS would simply continue its role related to Chesapeake Bay conservation, restoration, and interpretation. The National Park Service's continuance of the Gateways Networks would result in no impacts to air quality in the Chesapeake Bay watershed.

Alternative B – An Enhanced Chesapeake Bay Gateways Network

The Enhanced Chesapeake Bay Gateways Network Alternative would expand and extend the National Park Service's coordination with Gateways and local organizations, which would result in minor, long-term, in-direct, beneficial impacts on air quality. The benefits would occur through added financial and technical assistance for education, interpretation, protection, and conservation of the Bay's resources that are important to good air quality.

The NPS, in partnership with other entities, would create two Chesapeake Bay interpretive centers in proximity to the Bay. The two interpretive centers would educate visitors about the Bay and their role in protecting and conserving the Bay's vital resources and the indirect effects on air quality. This educational function would result in minor, indirect, long-term, watershed-wide beneficial impact to air quality.

The interpretive centers would be developed within either existing structures or new construction (new or expanded structure). If within existing structures, direct impacts to air quality would be negligible. The construction of two Chesapeake Bay interpretive centers and associated roads, parking, and support facilities would have direct, short-term, localized, minor, adverse impacts on air quality from emissions and fugitive dust generated from construction activities. The degree of impact is largely dependent on the size of the facilities, which have not been identified. The impacts would be minimized to the extent practical in accordance with the National Park Service's *Management Policies 2001* (NPS, 2000), *Director's Order #2 Park Planning* (NPS, 1998), and *Director's Order #12 (Conservation Planning, Environmental Impact Analysis, and Decision-Making)* (NPS, 2002b) and through compliance with the National Ambient Air Quality Standards.

Visitor use at the Chesapeake Bay interpretive centers and on the surrounding lands would also have a minor, localized, long-term, adverse impact on air quality. However, this alternative anticipates the two interpretive centers would be placed in previously developed or urbanized areas already subject to human disruptions; therefore the impacts would be negligible.

Alternative C – Chesapeake Bay Estuary National Park

The creation of a national park would have a long-term, beneficial impact on air quality because, within the boundaries of the park, the NPS would limit land use, commercial facilities, and other activities that would be sources of air emissions. However, the impact is site-specific and negligible to minor because under this alternative, the land base encompasses a relatively small area focused on providing access the Chesapeake Bay.

Under Alternative C, the NPS, in partnership with other entities, would create a land-based Chesapeake Bay interpretive center. The construction of the Chesapeake Bay interpretive center and associated roads, parking, and support facilities would have direct, short-term, localized, adverse impacts on air quality from emissions and fugitive dust generated from construction activities. The degree of impact is largely dependent on the site characteristics and site design, which have not been identified. The impacts would be minimized to the extent practical in accordance with the National Park Service's *Management Policies 2001* (NPS, 2000), *Director's Order #2 Park Planning* (NPS, 1998), and *Director's Order #12 Conservation Planning, Environmental Impact Analysis, and Decision-Making* (NPS, 2002b) and through compliance with the National Ambient Air Quality Standards.

Increased visitation to the surrounding area because of the creation of the new national park would increase emissions from visitors' vehicle and boat

trips. The increased emissions would be expected to have a minor to moderate long-term, adverse impact on air quality from emissions. The degree of the impact would be dependent on visitation levels and more specifically, vehicle/boat trips to and from the site.

Alternative D – A Chesapeake Bay National Reserve

A minor, long-term, beneficial impact to air quality would occur through technical and financial assistance provided by the NPS for comprehensive planning and the implementation of sustainable practices within the reserve. The NPS, through partnerships, would provide technical assistance to help local communities within the reserve to adopt and implement a comprehensive plan whose purpose is conservation of the reserve landscape and protection against urban sprawl and development, thereby limiting the sources of air emissions.

The reserve would include development of an interpretive/orientation center within either an existing structure or new construction (new or expanded structure). If within an existing structure, direct impacts to air quality would be negligible. New construction of a center and associated roads, parking, and facilities would have localized adverse impacts on air quality. Increased visitation and visitor use at the interpretive center and surrounding land area would have a minor, long-term, adverse impact to the air quality from vehicle emissions. The degree of impact is largely dependent on the visitation levels, and site location, which have not been identified. The impacts would be minimized to the extent practical in accordance with the National Park Service's *Management Policies 2001* (NPS, 2000), *Director's Order #2 Park Planning* (NPS, 2002), and *Director's Order #12 Conservation Planning, Environmental Impact Analysis, and Decision-Making* (NPS, 2002b) and through compliance with the National Ambient Air Quality Standards.

Alternative E – Chesapeake Bay Watershed National Ecological and Cultural Preserve

A minor, long-term, beneficial impact on air quality would occur from technical and financial assistance provided by the NPS to state, local, and private entities within a preserve type setting. The NPS, through partnerships, would educate visitors about innovative and sustainable management practices in agriculture, forestry, and commercial and residential development. The preserve would indirectly have a beneficial impact on air quality from incentives for conservation easements and resource protection zones that offer benefits to reduce sprawl and residential and commercial development within the preserve's boundaries.

The preserve would include development of an interpretive/orientation center within either an existing structure or new construction (new or expanded structure). If within an existing structure, direct impacts to air quality resources would be negligible, or beneficial, as remediation measures are incorporated into the design. New construction of a center and associated roads, parking, and facilities would have localized adverse impacts on local air quality.

Increased visitation and visitor use at the interpretive center and surrounding area would have a minor, long-term, adverse impact on the air quality from

vehicle emissions. The degree of impact is largely dependent on visitation levels, site characteristics, and site design, which have not been identified. The impacts would be minimized to the extent practical in accordance with the National Park Service's *Management Policies 2001* (NPS, 2000), *Director's Order #2 Park Planning* (NPS, 1998), and *Director's Order #12 Conservation Planning, Environmental Impact Analysis, and Decision-Making* (NPS, 2002b) and through compliance with the National Ambient Air Quality Standards.

IMPACT ANALYSIS: CULTURAL ENVIRONMENT

Section 101(b)(4) of the National Environmental Policy Act of 1969 (P.L. 91-190), as amended, directs the federal government to coordinate and plan its actions to, among other goals, "preserve important historic, cultural and natural aspects of our national heritage..." The Council on Environmental Quality's implementing regulations also require that federal impacts on historic and cultural resources be included as part of the National Environmental Policy Act process. The NPS is mandated to preserve and protect its cultural resources through the Organic Act of 1916 (USC title 16) and such specific legislation as the Antiquities Act of 1906 (16 USC 431); the National Historic Preservation Act of 1966, as amended (16 USC 470); the National Environmental Policy Act of 1969, as amended (42 USC 4321, 4331, 4332); the Archaeological Resources Protection Act of 1979 (16 USC 470); and the Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001). The management of cultural resources is also generally guided by the Advisory Council on Historic Preservation (36 CFR 800), and specifically, by the "Protection of Historic Properties" under Section 106 of the National Historic Preservation Act. Therefore, as part of the Chesapeake Bay Special Resource Study, the NPS will evaluate the potential impacts of several different alternatives upon the local cultural environment.

Impacts on Cultural Resources

Methodology

For the purposes of this programmatic analysis, all cultural resources, including archeological sites, historic structures, cultural landscapes, and ethnographic resources, are grouped together because many of the potential impacts or benefits to these resources are operationally similar. However, they are individually described with reference to their defining characteristics to allow subsequent consideration for potential impacts.

In order for an archeological site or historic structure to be eligible for the National Register of Historic Places, it must meet one or more of the following criteria of significance:

- Associated with events that have made a significant contribution to the broad patterns of our history;
- Associated with the lives of significant persons in our past;
- Embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic value, or represent a significant and distinguishable entity whose components may lack individual distinction; and/or
- Yielded, or may be likely to yield, information important in prehistory or history.

In addition, archeological sites and historic structures must also possess integrity of location, design, setting, materials, workmanship, feeling, and/or association (*National Register Bulletin, Guidelines for Evaluating and Registering Archeological Properties*). The Chesapeake Bay region contains a vast array of archaeological sites and historic structures already listed on the National Register, and untold numbers remain to be identified in the future.

A cultural landscape is defined by the NPS *Cultural Resource Management Guideline* (Director's Order #28) as, "...a reflection of human adaptation and use of natural resources and often expressed in the way land is organized and divided, patterns of settlement, land use, systems of circulation, and the types of structures built. The character of a cultural landscape is defined both by physical materials, such as roads, buildings, walls, and vegetation, and by uses reflecting cultural values and traditions." A wide variety of cultural landscapes, both prehistoric and historic, likely exist within the region defined as the Chesapeake Bay watershed.

An ethnographic resource is defined by the NPS as any "site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it" (DO-28, Cultural Resource Management Guidelines, p. 191). Unfortunately, most ethnographic resources remain undocumented for the Chesapeake Bay area; however, with Native American consultation and historic economic research, many such resources are likely to be identified within the region.

Definition of Intensity Levels

To provide consistency with requirements of the National Environmental Policy Act, the effects on any of the above cultural resources are described in terms of intensities intended to convey the nature and duration of any potential impact. For these purposes, the intensity of an impact is defined as follows:

- *Negligible* - The impact is at the lowest levels of detection, barely perceptible and therefore not measurable.
- *Minor* - The impact is perceptible and measurable, but would not affect the character-defining features of an eligible or listed National Register of Historic Places site, structure or building.
- *Moderate* - The impact is readily apparent and appreciable and sufficient to alter a character-defining feature(s) of the site, structure, or building, but would not diminish the integrity of the resource to the extent that its National Register eligibility is jeopardized.
- *Major* - The impact results in a severe or beneficial and highly noticeable change to some character defining feature(s) of a site or structure, diminishing the integrity of the resource such that it is no longer eligible to be listed in the National Register.

The NPS study team focused on changes to levels of protection, conservation, and land use to assess the potential impacts from the creation of a new park unit and/or the implementation of new programs or policy. The National Park Service also considered the physical impacts associated

with any new development plans, such as an interpretive center and anticipated visitor uses typical of each park unit. Specific impacts are highly dependent on the future visitation, size, and location of the park unit, and its facilities in reference to existing cultural resources, which have not yet been identified.

Alternative A – No Action

Under the No Action Alternative, the NPS would continue to promote the Gateways Network, educate the public, and provide technical and financial assistance to communities and organizations for the conservation of the Bay's vital resources through 2008. This assistance includes interpretive materials for many of the Bay's cultural resources and assists in cultural resource conservation projects. There would be a minor, short-term, beneficial impact on the cultural resources in the Chesapeake region because of the technical and financial assistance for protection of cultural resources; impacts may be both direct and indirect depending upon location. However if funding is not appropriated past 2008, then potentially a negligible, adverse, impact on cultural resources would likely result from the discontinuance of the Gateways Network.

NPS management of National Park System units such as the George Washington Birthplace and the Fort McHenry National Monument and Historic Shrine would continue. Impacts of existing NPS unit management decisions are independent of this SRS and are assessed through site-specific environmental analysis.

Alternative B – An Enhanced Chesapeake Bay Gateways Network

Implementation of an Enhanced Chesapeake Bay Gateway Networks Alternative would extend financial and technical assistance to designated Gateways for conserving and restoring cultural resources. Two interpretive centers would educate visitors on the historic significance of various cultural resources in the Bay's watershed. As a result, a moderate, long-term, indirect, beneficial impact on cultural resources would occur from the restoration and education aspects of this alternative.

The NPS, in partnership with other entities, would create two Chesapeake Bay interpretive centers in proximity to the Bay. The two interpretive centers would educate visitors about the Bay and their role in protecting and conserving the Bay's cultural resources. This educational function would result in a minor to moderate, indirect, long-term, watershed-wide beneficial impact to cultural resources as conservation and interpretation efforts are enhanced.

The interpretive centers would be developed within either existing structures or new construction (new or expanded structure). If constructed within an existing non-historic structure, direct impacts to cultural resources would be negligible. Construction of two new interpretive centers would result in an adverse impact on cultural resources if the location of the surrounding cultural resources were within the area of potential effect. The NPS would minimize impacts on historic structures, cultural landscapes, and archeological resources to the extent practical through adherence to National Park Service's *Management Policies 2001* (NPS, 2000), *Director's*

Order #2 Park Planning (NPS, 1998), and *Director's Order #12 (Conservation Planning, Environmental Impact Analysis, and Decision-Making)* (NPS, 2002b). The planning and design of the interpretive centers would consider surrounding archeology and historic resources listed or eligible for listing in the National Register of Historic Places in accordance with the National Historic Preservation Act, *Secretary of the Interior's Standards for the Treatment for Historic Properties*, and *Director's Order #28: Cultural Resource Management* (1998b). The NPS would coordinate with the State Historic Preservation Office and appropriate federal agencies. Additional study would occur during the planning process for each center.

Alternative C – Chesapeake Bay Estuary National Park

The creation of an estuary national park would have a minor, long-term, beneficial impact on cultural resources. NPS would protect cultural resources within the boundaries of the park. However, the water-based focus of this concept is likely to result in a reduced number of cultural resources present within the park relative to the amount of cultural resources present in other alternatives.

The reserve would include development of an interpretive/orientation center within either an existing structure or new construction (new or expanded structure). New construction of an interpretive center and associated roads, parking, and facilities would have localized adverse impacts on nearby cultural resources. The NPS would minimize impacts to archeological resources, historic structures, cultural landscapes, and ethnographic resources to the extent practical through adherence to the National Park Service's *Management Policies 2001* (NPS, 2000), *Director's Order #2 Park Planning* (NPS, 1998), and *Director's Order #12 (Conservation Planning, Environmental Impact Analysis, and Decision-Making)* (NPS, 2002b). The planning and design of the interpretive centers would consider surrounding archeology and historic resources listed or eligible for listing in the National Register of Historic Places in accordance with the National Historic Preservation Act, *Secretary of the Interior's Standards for the Treatment for Historic Properties*, and *Director's Order #28: Cultural Resource Management* (1998b). The NPS would coordinate with the State Historic Preservation Office and appropriate federal agencies. Additional study would occur prior to implementing this alternative.

Alternative D – A Chesapeake Bay National Reserve

The Bay resources for the Chesapeake Bay National Reserve would include one or more waterfront maritime communities and associated resources, such as historic and cultural resources representing the Bay's long maritime and agricultural heritage. The goal of the reserve is to protect and sustain the working landscape, and conserve the reserve landscape including cultural resources. The implementation of the primary interpretive center would help educate visitors to the significance of historic and archeological sites along the Bay. The technical and financial assistance to help conserve, interpret, and protect sensitive cultural resources would have a moderate long-term, and both direct and indirect, beneficial impact on cultural resources in the reserve.

As with Alternative C, the reserve would include development of an interpretive/orientation center within either an existing structure or new construction (new or expanded structure). If constructed within an existing structure, the interpretive center would have direct but negligible impacts to cultural resources. New construction of a center and associated roads, parking, and facilities would have localized adverse impacts on nearby cultural resources located within the area of potential effect. The NPS would minimize impacts on archeological resources, historic structures, cultural landscapes, and ethnographic resources to the extent practical through adherence to the National Park Service's *Management Policies 2001* (NPS, 2000), *Director's Order #2 Park Planning* (NPS, 1998), and *Director's Order #12 (Conservation Planning, Environmental Impact Analysis, and Decision-Making)* (NPS, 2002b). The planning and design of the interpretive center would consider surrounding archeology and historic resources listed or eligible for listing in the National Register of Historic Places in accordance with the National Historic Preservation Act, *Secretary of the Interior's Standards for the Treatment for Historic Properties*, and *Director's Order #28: Cultural Resource Management* (1998b). The NPS would coordinate with the State Historic Preservation Office and appropriate federal agencies. Additional study would occur prior to implementing this alternative.

Alternative E – Chesapeake Bay Watershed National Ecological and Cultural Preserve

Under Alternative E, the NPS would provide financial and technical assistance to help the preserve partners with their comprehensive watershed management planning and the development of a comprehensive, preserve-wide, watershed management plan. Although this plan would be highly focused on ecological resources, the plan would also include cultural resource protection. The NPS would help acquire, own, and manage, select resources in cooperation with other preserve partners and set up conservation easements for resource protection and interpretive cooperative agreements. Furthermore, the NPS would provide matching funding for the development of the interpretive educational center. A moderate, long-term, beneficial impact on cultural resources would occur from the added resource protection.

The preserve would include development of an interpretive/orientation center within either an existing structure or new construction (new or expanded structure). If it is constructed within an existing structure, direct impacts to cultural resources would be negligible or beneficial, as remediation measures are incorporated into the design. However, as with Alternative D, the construction of any interpretive center would result in an adverse impact on cultural resources if the location of the surrounding cultural resources were within the area of potential effect. The NPS would minimize impacts on archeological resources, historic structures, cultural landscapes, and ethnographic resources to the extent practical through adherence to the National Park Service's *Management Policies 2001* (NPS, 2000), *Director's Order #2 Park Planning* (NPS, 1998), and *Director's Order #12 (Conservation Planning, Environmental Impact Analysis, and Decision-Making)* (NPS, 2002b). The planning and design of the interpretive center would consider surrounding archeology and historic resources listed or eligible for listing in the National Register of Historic Places in accordance

with the National Historic Preservation Act, *Secretary of the Interior's Standards for the Treatment for Historic Properties* and *Director's Order #28: Cultural Resource Management* (1998b). The NPS would coordinate with the State Historic Preservation Office and appropriate federal agencies. Additional study would occur prior to implementing this alternative.

IMPACT ANALYSIS: SOCIOECONOMIC ENVIRONMENT

Land Use (including Jurisdictional Boundaries)

Methodology

In the impact assessment for land use and changes in jurisdictional boundaries, the NPS study team focused on changes to land use from the creation of a new park unit or implementation of a new program or policy. For this programmatic study, the impacts discussed are mostly qualitative because the alternatives are conceptual. The intensity of impact is for the most part dependent on the location and size of the park unit, which have not been identified.

Alternative A – No Action

Rather than adding a new Chesapeake Bay-focused unit of the National Park Service, the No Action Alternative assumes the NPS would simply continue its role related to Chesapeake Bay conservation, restoration, and interpretation. Some minor, very localized, beneficial, direct land use changes may occur associated with Chesapeake Bay Gateways grants projects funded through 2008. These would generally be changes to enhance interpretation, conservation or public access to the Bay consistent with Chesapeake Bay Program land use and education goals. No changes to jurisdictional boundaries would be anticipated as part of this alternative.

Alternative B – An Enhanced Chesapeake Bay Gateways Network

The Enhanced Chesapeake Bay Gateways Network Alternative makes permanent the watershed-wide partnership of sites and trails within the Chesapeake Bay watershed, while expanding certain NPS roles related to Chesapeake Bay interpretation and conservation. Minor, localized, beneficial, land use and jurisdictional changes would occur as a direct or indirect result of Chesapeake Bay Gateways technical and financial assistance. These changes would generally enhance interpretation, conservation or public access consistent with Chesapeake Bay Program land use and education goals. The sum total of these changes would result in minor to moderate beneficial impacts watershed-wide, given the number of Chesapeake Bay Gateways.

The NPS, in partnership with other entities, would create two Chesapeake Bay interpretive centers in proximity to the Bay. The interpretive centers would be developed within either existing structures or new construction (new or expanded structure). A minor, localized change in land use or jurisdictional boundaries is possible under either scenario. However, the alternative anticipates the two interpretive centers would be placed in

previously developed or urbanized area already subject to human disruptions, therefore minimizing impacts to important resource lands.

Alternative C – Chesapeake Bay Estuary National Park

The core goal of the estuarine National Park would be to conserve, protect, and restore the estuarine environment and natural resources in the park as a high quality natural system. Public ownership or management would be most compatible with this goal, whereas consumptive, commercial uses would be less so. Under this alternative, limited public lands and extensive public waters would be required for the park, interpretive center and public access sites. There would be a conversion of land use designations and changes in jurisdictional boundaries. Generally, the alternative presumes that any existing public land and water resource management entities within the park would continue to have a key role in managing those resources, limiting jurisdictional changes to some degree. The impact to land use would generally be presumed to be beneficial to achieving several categories of Chesapeake Bay Program commitments. Conversions for visitor uses would be either beneficial or adverse, depending on the site design, surrounding site characteristics, and size and location of the park.

The NPS acquires lands or interests in land when authorized to do so by an act of Congress establishing a unit of the National Park System. There is no single statute authorizing land acquisition that is applicable system-wide, and park-specific legislation varies widely in setting detailed parameters for land acquisition. Additional study and planning is always required to guide land acquisition if and when it is legislatively authorized. The NPS land acquisition and protection process would comply with all applicable legislation, Congressional guidelines, Executive Orders, and Department of Interior policies, and will be in accordance with the NPS *Management Policies 2001* (NPS, 2000), *Section 3.5 Boundary Adjustments*, *Section 3.6 Land Acquisition* and *Section 3.7 Land Acquisition Funding*.

Alternative D – A Chesapeake Bay National Reserve

A representative reserve area would include resources typical of the Bay's aquatic, rural, maritime, and agricultural heritage. This alternative depends highly on both the continuation of traditional private economic uses such as fishing, agriculture and forestry and on a vital and engaged partnership among local, state, and federal governments and the private sector. The NPS would not acquire lands outright, but rather provide matching grants to the state(s) for purchases of development rights on sensitive resource lands or carry out a purchase of development rights program for willing sellers when matched by equal funding from another non-federal partner. A limited transfer in property rights would occur on some lands, but would be expected to have negligible or minor impacts on existing land use designations and changes to jurisdictional boundaries, as the goal would be to continue and sustain traditional uses. The degree of the impact is dependent on existing conditions but it is expected that the impact would be beneficial within the reserve, contributing to Chesapeake Bay Program land use commitments.

The potential impacts associated with the development of an interpretive/orientation center on land use or jurisdictional boundaries

would be the same as described for Alternative C, and would be dependent on whether or not land acquisition is conducted. It is possible that there would be no impact on land use or changes in jurisdictional boundaries if the NPS, in partnership with state or local government, leased or co-occupied publicly-owned facilities for the interpretive center.

Alternative E – Chesapeake Bay Watershed National Ecological and Cultural Preserve

The potential impact on jurisdictional boundaries for the creation of a national preserve and construction and use of a primary interpretive center would be similar to that described in Alternative D.

Population

Methodology

The study team focused on potential changes to the environment that may influence population, such as development, and programs that may trigger increased jobs or economic development or result in displacements. For this programmatic study, the impacts discussed are mostly qualitative because the alternatives are conceptual.

Alternative A – No Action

Under the No Action Alternative, there would be no changes in population because maintaining the existing Gateways Network through 2008 would not likely affect visitation levels or the economy to the degree that would result in a change in local or watershed-wide population.

Alternative B – An Enhanced Chesapeake Bay Gateways Network

A permanent and enhanced Chesapeake Bay Gateways Network would be expected to affect visitation levels and the economy as described under the visitor use section below. However, given the existing overall high levels of visitation and population in the Chesapeake Bay watershed, it is likely the incremental increases in visitation would have only a negligible or minor impact on population. It is also unlikely that the two visitor centers would result in the displacements or have any effect on existing population levels.

Alternative C – Chesapeake Bay Estuary National Park

Typically, national parks encompass a large public land area. In this alternative, the great bulk of the park would be water based; moreover, a relatively undeveloped area would be required to meet the intended resource characteristics. Consequently, no reduction in population would be expected to occur as a result of the park. In contrast, national parks can attract a large numbers of visitors resulting in an increased demand for park staff and concession services. This demand can result in added jobs and an increase in population to the local area. The change in population is dependent on the level of visitation. The impact is expected to be minor, again because the park will be mainly water based with only limited land to provide access to the Bay.

Alternative D – A Chesapeake Bay National Reserve

This alternative depends highly on both the continuation of traditional private economic uses such as fishing, agriculture and forestry and on a vital and sustained population to support the traditional economies. A limited transfer in property rights would occur on some lands, but would be expected to have negligible or minor impacts on population, as the goal would be to continue and sustain traditional uses and lifestyles. The visitation for the reserve would not be expected to have more than a negligible effect on population. However, the reserve may attract some residents and businesses, possibly resulting in a relatively small change in worker and resident population. There would not be the level of change in the economy that would cause either a significant increase or decrease in local population to meet the employment demand. Landscape conservation measures would limit sprawl development, further mitigating changes in population.

Alternative E – Chesapeake Bay Watershed National Ecological and Cultural Preserve

This alternative depends highly on both the continuation of traditional private economic uses and lifestyles and the continued and enhanced stewardship of the land and water. A limited transfer in property rights would occur on some lands, but would be expected to have negligible or minor impacts on population, as the goal would be to continue existing land uses but focus on watershed conservation and stewardship. The visitation for the preserve would not be expected to have more than a negligible effect on population. There would not be the level of change in the economy that would cause either a significant increase or decrease in local population to meet the employment demand. Landscape conservation measures would limit sprawl development, further mitigating changes in population.

Economy

Methodology

For the economic impact assessment, the study team focused on changes to the economy from increased visitation/tourism, new programs or policies, and NPS capital and operational investments. For this programmatic study, the impacts discussed are qualitative because the alternatives are conceptual and the level of visitation is subject to several variables. Typically, impacts on the economy associated with new park units or changes in the NPS designation are dependent on the levels of visitation, percentage of overnight stays, average visitor spending, and existing economic conditions of the local area – none of which have been identified at this stage of the study. Prior to implementation of any of the alternatives, more detailed evaluation of the potential economic impact to the local economy would be considered in the decision-making process.

Alternative A – No Action

Under the No Action Alternative, the NPS would continue coordination of the Gateways Network through 2008. Use of the Network by visitors is expected to increase as the Network becomes more well-known. This would lead to minor to moderate, beneficial impacts to the localities around Gateways. However, if the Network is not continued past 2008, a long-term, adverse impact to the economy would occur from the loss of coordinated

joint marketing and promotions and other services that exist for the 140+ Gateway Network sites.

The NPS would maintain an annual matching grants program to assist designated Gateways in improving interpretation, public access, and conservation restoration through 2008. The continuation of the grants program has a minor, long-term, beneficial impact to the local communities that use the grants for financial assistance. The annual matching program has beneficial impacts throughout the watershed.

Alternative B – An Enhanced Chesapeake Bay Gateways Network

Under this alternative, the NPS would permanently continue its role in coordinating the Chesapeake Bay Gateways Network. The enhanced Gateways Network would be expected to attract and disperse additional visitors to the area over time. The increased visitation would ultimately have long-term, direct and indirect, beneficial impacts on the local economy. Promotional and educational services offered in the two interpretive centers would be expected to draw added visitation and then direct visitors to other Bay Gateways, thus generating direct and indirect tourism benefits for the community. The degree of the impact would be expected to be long-term, moderate and bay-wide, but is largely dependent on increased visitation levels and the location of the two centers.

Under Alternative B, the NPS would offer added financial assistance through the annual matching grants program to assist designated Gateways in improving interpretation, public access and conservation and restoration, including new grants for conserving Bay landscapes. The expanded program would be expected to have a moderate, beneficial impact to the economy through the financial assistance. The economic benefits would be distributed throughout the entire watershed.

The NPS would provide matching funds up to three million dollars for the creation of each of the two Chesapeake Bay interpretive centers. When considering the size of the Bay, its resources, and existing efforts to restore the bay, this expenditure by the NPS would be minor. The upfront capital investment for the two interpretive centers and associated improvements would have a beneficial impact to the local community and any operational expenditures would have a long-term, beneficial impact on the local community. The degree of the impact would be expected to be minor but is dependent on the existing economic conditions. Lastly, if a public entity were to acquire private land for the interpretive centers, there would be the potential for the loss of tax revenue for the local jurisdiction. This adverse impact would be negligible.

Alternative C – Chesapeake Bay Estuary National Park

The estuarine park would have a long-term, beneficial impact on economics attributed to additional visitors to the Chesapeake Bay area. The designation as a NPS unit signals the significance and likely character of the potential visitor's experience, and thus may alone have a substantial effect on the level of visitation. It may have substantial effects on local visitation because the change in designation may imply (real or perceived) differences in availability of services, promotional expenditures by the NPS, allowable land uses, or

uniquely attractive features of the site (Colorado State University, 2001). The increased visitation/tourism would have a direct impact through increased patronage to local business resulting in additional revenue and an indirect impact to other business that may provide services or supplies to those businesses. The benefits would be moderate and affect the business communities who service the area surrounding the park.

The park may also have an adverse impact on the area economy because of limits placed on commercial fishing within the park. The degree of this impact would vary depending on the location, existing use and size of the park, though the impact to the overall economy would be expected to be limited. If land is acquired by the NPS, a potential loss of tax revenue for the local jurisdiction is anticipated. This adverse impact is expected to be minor because the land acquired would be expected to be small, as in this concept the park would be mostly water.

The NPS would develop and operate a park interpretive/orientation center. When considering the size of the bay, its resources, and existing efforts to restore the bay, this expenditure by the NPS would be minor. The upfront capital investment for the interpretive center and associated facilities and improvements would have a beneficial impact to the local community and operational expenditure would have a long-term, beneficial impact on the local community. The degree of the impact would be expected to be minor but is dependent on the existing economic conditions. If a public entity were to acquire private land for the interpretive center, there would be the potential for the loss of tax revenue for the local jurisdiction. This adverse impact would be negligible.

Alternative D – A Chesapeake Bay National Reserve

Under this alternative, a national reserve would be established to protect and sustain the Bay's maritime, rural, and agricultural heritage. The designation as a NPS unit signals the significance and likely character of the potential visitor's experience, and thus may alone have a substantial effect on the level of visitation. It may have substantial effects on local visitation because the change in designation may imply (real or perceived) differences in availability of services, promotional expenditures by the NPS, or uniquely attractive features of the site (Colorado State University, 2001). The increased visitation/tourism would have a direct impact through increased patronage to local business resulting in additional revenue and an indirect impact to other business that may provide services or supplies to those businesses. The degree of the beneficial impact would be expected to be long-term and moderate but is dependent on the existing economic conditions.

One unique attribute of this alternative is the emphasis on protecting traditional resource dependent activities (commercial fishing, crabbing, oystering, agriculture and forestry) from adverse development pressures. The reserve would create a purchase of development rights (PDR) program aimed at protecting resource lands and uses. This would have a moderate, beneficial impact to these industries within the reserve, though it may limit the economic growth of an area from other forms of development. The purchase of development rights would also limit future growth of local jurisdiction tax revenues as the properties would not be converted to more development-

intensive uses. This adverse impact is expected to be localized and minor due to the pattern of PDR lands and the fact that such lands do remain on the tax rolls.

The reserve would include an interpretive/orientation center, with NPS matching funds provided for its development. When considering the size of the bay, its resources, and existing efforts to restore the bay, this expenditure by the NPS would be minor. The upfront capital investment for the interpretive center and associated facilities and improvements would have a beneficial impact to the local community and operational expenditures would have a long-term, beneficial impact on the local community. The degree of the impact would be expected to be minor but is dependent on the existing economic conditions. If a public entity were to acquire private land for the interpretive center, there would be the potential for the loss of tax revenue for the local jurisdiction. This adverse impact would be negligible.

Alternative E – Chesapeake Bay Watershed National Ecological and Cultural Preserve

This alternative would create a NPS unit focused on conserving and restoring a Bay tributary ecosystem so that human uses are in optimal balance with the natural process to conserve the Bay resources and values for future generations. The designation as a NPS Unit signals the significance and likely character of the potential visitor's experience, and thus may alone have a substantial effect on the level of visitation. It may have substantial effects on local visitation because the change in designation may imply (real or perceived) differences in availability of services, promotional expenditures by the NPS, or uniquely attractive features of the site (Colorado State University, 2001). The increased visitation/tourism would have a direct impact through increased patronage to local business resulting in additional revenue and an indirect impact to other business that may provide services or supplies to those businesses. The degree of the impact is dependent on the existing economic conditions; however, the benefits are expected to be long-term, watershed-wide, and moderate.

In this alternative, economic uses within the preserve landscape would continue; however, best management practices would be developed and implemented to protect water quality and the range of ecosystems. A range of options and incentives to encourage the use of best management practices might be employed (such as tax incentives, technical assistance, local zoning, and design reviews and purchase or transfer of development rights) depending on the unique characteristics of the area. The degree of economic impact is largely dependent on the site-specific economic conditions, types of economic uses within the preserve, and types of management practices applied.

If lands or interests in lands were acquired along the riparian corridor by a public entity, there would be a potential loss of tax revenue for the local jurisdiction. This adverse impact is expected to be localized and minor due to the limited role of outright land acquisition and the fact that any purchase of development rights programs leaves the underlying lands on the tax rolls.

The reserve would include an interpretive/orientation center, with NPS matching funds provided for its development. When considering the size of the bay, its resources, and existing efforts to restore the bay, this expenditure by the NPS would be minor. The upfront capital investment for the interpretive center and associated facilities and improvements would have a beneficial impact to the local community and operational expenditures would have a long-term, beneficial impact on the local community. The degree of the impact would be expected to be minor but is dependent on the existing economic conditions. If a public entity were to acquire private land for the interpretive center, there would be the potential for the loss of tax revenue for the local jurisdiction. This adverse impact would be negligible.

Parks and Recreation

Methodology

In the impact assessment for parks and recreation, the study team focused on changes to the levels of recreation activities and experiences at nearby parks or recreational areas from the creation of a new park unit or implementation of a new program or policy. The NPS also considered the physical attributes associated with any new development plans such as the construction of an interpretive center and anticipated visitor uses typical of each park unit. For this programmatic study, the impacts discussed are mostly qualitative because the alternatives are conceptual. The intensity of impact is mostly dependent on the future visitation, location of park unit in the context of other parks, and available recreational activities, which have not yet been identified.

Alternative A – No Action

Under the No Action Alternative, the NPS would continue to manage existing units of the National Park System and to coordinate the Chesapeake Bay Gateways Network through 2008. There would be minor to major, short-term, beneficial impacts to parks and recreation sites participating in the Network as a result of the Network's technical and financial assistance programs. If the Gateways Network is not reauthorized and funded subsequent to 2008, there would be a moderate to major, long-term, adverse impact to parks and recreation sites previously participating in the Network or potentially eligible to do so.

Alternative B – An Enhanced Chesapeake Bay Gateways Network

Under this alternative, the NPS would permanently continue its role in coordinating the Chesapeake Bay Gateways Network, which currently includes more than 140 parks and recreation sites for experiencing the Bay and its watershed. The NPS would offer added financial assistance through the annual matching grants program to assist designated Gateways in improving interpretation, public access and conservation and restoration, including new grants for conserving Bay landscapes. The impacts to parks and recreation sites in the Gateways Network would range from minor to major, long-term, beneficial effects due to Gateways Network influenced improvements. For instance, educational resources at Gateway sites would be improved causing a beneficial impact because the visitor experience would be enhanced, making the visit more enjoyable or rewarding. Long-term, these improvements would increase visitation to Gateway sites.

Through the creation of two Chesapeake Bay interpretive centers, the National Park Service, in partnership with other government entities, would provide visitors with two centralized locations to introduce a multitude of Bay themes and resources. Promotional and educational services offered in the centers would be expected to draw added visitation and then direct visitors to other Bay Gateways. The degree of the impact would be expected to be long-term, moderate and bay-wide, but is largely dependent on increased visitation levels and the location of the two centers.

Alternative C – Chesapeake Bay Estuary National Park

The creation of an estuarine National Park would provide visitors with a park focused on interpreting the Chesapeake Bay as an outstanding natural system. Through a land-based interpretive/orientation center, the NPS would provide interpretive educational materials stressing the importance and influences of human interaction on the Bay's health. The park would provide visitors with access to the Chesapeake Bay. Group tours, planned itineraries, and established programs would provide visitors with a variety of experiences on the open water, at islands, marshes, or along the shore ecosystem. Uses such as sailing, boating, kayaking, hiking and picnicking would be available to visitors. As a result of the visitor experience and increased access to the Bay, there would be a major, long-term, beneficial impact to the availability of Chesapeake Bay parks and recreation sites.

Implementation of this alternative may have a negative impact on some existing parks should visitation be taken away from other parks in the area; conversely, the impact would be beneficial if visitation to parks overall rose from an increase of visitors to the entire Chesapeake Bay area.

Alternative D – A Chesapeake Bay National Reserve

Implementation of a Chesapeake Bay National Reserve alternative would provide visitors with a reserve focused on protecting and sustaining the Bay's maritime, rural, and agricultural heritage. Through a land-based interpretive center and programs, the reserve would provide visitors with a variety of experiences such as enjoying an open water setting, experiencing a maritime or rural community, visiting significant heritage sites, and learning about the reserve's working landscape. Because of the enhanced visitor experience, there would be a moderate, long-term, beneficial impact to parks and recreation. The impact would be localized to the area of the reserve.

Under this alternative, existing parks and recreation sites would likely be encompassed within the national reserve designation. This designation alone may increase visitation at the existing parks, as a certain quality of resources and visitor experiences are signaled by the association with the NPS arrowhead. In contrast, the creation of a reserve would have a negative impact on parks and recreation sites in the surrounding area should visitation be drawn away from them and funneled to the reserve. However, the actual type and degree of impact is highly dependent on the location of any potential reserve, something that is not known at this time.

Alternative E – Chesapeake Bay Watershed National Ecological and Cultural Preserve

The core goal of a Chesapeake Bay Watershed National Ecological and Cultural Preserve would be to conserve and restore the tributary ecosystem so that human uses are in optimal balance with the natural processes in order to conserve the Bay resources and values for future generations. The preserve would provide opportunities for visitors to experience and learn about the transition of natural areas from the headwaters to the Bay and how human actions affect the health of the Bay. At an interpretive center, visitors would be introduced to watershed themes and would orient themselves to a series of experiences and sites throughout the preserve. Group tours, planned itineraries, and established programs would provide visitors with a variety of experiences along the riparian corridor. As a result of the visitor experience, there would be a moderate, long-term, beneficial impact to parks and recreation.

Under this alternative, existing parks and recreation sites would likely be encompassed within the national reserve designation. This designation alone may increase visitation at the existing parks, as a certain quality of resources and visitor experiences are signaled by the association with the NPS arrowhead. In contrast, the creation of a preserve would have a negative impact on parks and recreation sites in the surrounding area should visitation be drawn away from them and drawn only to the reserve. However, the actual type and degree of impact is highly dependent on the location of any potential preserve, something that is not known at this time.

Transportation

Methodology

Regarding the impact assessment for transportation, the study team focused on the physical impacts associated with any new development plans, such as the construction of an interpretive center and anticipated visitor uses typical of each park unit. For this programmatic study, the impacts discussed are qualitative because the alternatives are conceptual. The intensity of impact is dependent on the future visitation and existing site characteristics, which have not been identified

Definition of Intensity Levels

Analyses of the potential intensity of transportation (i.e., traffic) were derived from the available information for the Chesapeake Bay region, and the professional judgment of the study team. Definitions for the thresholds of change for the intensity of impacts on transportation are as follows:

- *Negligible* - Traffic would not be affected, or the effects would be at the lower levels of detection and would not have an appreciable effect on traffic flow. There would be no changes in the level of service.
- *Minor* - The effect would be detectable, but would be of a magnitude that would not have an appreciable effect on traffic flow. There would be no noticeable changes in the traffic congestion or level of service. If mitigation was needed to offset adverse effects, it would be simple and likely successful.
- *Moderate* - The effects would be readily apparent, and would result in a substantial change in traffic flow patterns, congestion, and/or level of

service, in a manner noticeable to the public. Mitigation would be necessary to offset adverse effects and would likely be successful.

- *Major* - The effects would be severe or beneficial, readily apparent, and would result in a substantial change in traffic flow in a manner noticeable to the public and markedly different from the current traffic flow patterns and levels of service. Mitigation measures to offset adverse effect would be needed and extensive, and their success would not be guaranteed.

Alternative A – No Action

Under the No Action Alternative, there may be some local, minor impacts to transportation in the vicinity of some existing Chesapeake Bay Gateways, due to possible increases in visitation. These impacts would be moderated by the limited duration of the Gateways Network, which expires in 2008.

Alternative B – An Enhanced Chesapeake Bay Gateways Network

Through the creation of two Chesapeake Bay interpretive centers, this alternative would attract visitors to two centralized locations at opposite ends of the Bay. The centers are intended for high-traffic volume areas with existing transportation systems capable of supporting increased visitation. However, increased visitation would have a localized, minor to moderate adverse impact because the increased number of visitors would add traffic to nearby transportation routes. Secondly, the increased visitation to existing Gateway sites would increase traffic demands at some sites. Because the traffic would be dispersed over the 140+ sites, the adverse impact would be negligible on a regional scale. The degree of impact is largely dependent on the visitation levels, site characteristics, and site design, which have not been identified. The impacts would be minimized to the extent practical in accordance with the National Park Service's *Management Policies 2001* (NPS, 2000), *Director's Order #2 Park Planning* (NPS, 1998), and *Director's Order #12 (Conservation Planning, Environmental Impact Analysis, and Decision-Making)* (NPS, 2002b).

Alternative C – Chesapeake Bay Estuary National Park

The creation of an estuarine National Park would have anywhere from a minor to major adverse impact on transportation, due to an increased number of visitors adding traffic to nearby transportation routes. The degree of impact is largely dependent on the visitation levels, site characteristics and site design, which have not been identified. The impacts would be minimized to the extent practical in accordance with the National Park Service's *Management Policies 2001* (NPS, 2000), *Director's Order #2 Park Planning* (NPS, 1998), and *Director's Order #12 (Conservation Planning, Environmental Impact Analysis, and Decision-Making)* (NPS, 2002b).

Alternative D – A Chesapeake Bay National Reserve

Implementation of the Chesapeake Bay National Reserve Alternative would have a minor to moderate, long-term, adverse impact on transportation. The reserve would attract additional recreational visitors to the area adding traffic on nearby transportation routes. The impact would be localized to areas surrounding the interpretive center, other heritage sites and tour routes. The degree of impact is largely dependent on the site characteristics and design, which have not been identified. The impacts would be minimized to the

extent practical in accordance with the National Park Service's *Management Policies 2001* (NPS, 2000), *Director's Order #2 Park Planning* (NPS, 1998), and *Director's Order #12 (Conservation Planning, Environmental Impact Analysis, and Decision-Making)* (NPS, 2002b).

Alternative E – Chesapeake Bay Watershed National Ecological and Cultural Preserve

Implementation of the Chesapeake Bay Watershed National Ecological and Cultural Preserve Alternative would have a minor to moderate, long-term, adverse impact on transportation. The preserve would attract additional recreational visitors to the area adding traffic to nearby transportation routes. The impact would be localized to areas surrounding the interpretive center, tour routes, and demonstration sites. The degree of impact is largely dependent on the site characteristics and design, which have not been identified. The impacts would be minimized to the extent practical in accordance with the NPS *Management Policies 2001* (NPS, 2000), *Director's Order #2 Park Planning* (NPS, 1998), and *Director's Order #12 (Conservation Planning, Environmental Impact Analysis, and Decision-Making)* (NPS, 2002b).

Visitor Experience and Use

Methodology

For the impact assessment for visitor experience and use, the study team focused on recreational, educational and interpretive experiences for each park unit or program. The NPS also considered the physical attributes conceptualized for each alternative, such as the interpretive center. In addition, anticipated visitor uses typical of each park unit were considered. For this programmatic study, the impacts discussed are qualitative because the alternatives are conceptual. The intensity of impact is dependent on the size of the park unit and resources when compared to the visitation levels and existing site characteristics, which have not been identified.

Definition of Intensity Levels

The thresholds of change for the intensity of impacts on visitor experience and use are defined as follows:

- *Negligible* - The impact would be a change that would not be perceptible or would be barely perceptible by most visitors.
- *Minor* - The impact would change a few visitors' experiences, which would be noticeable, but would result in little distraction or improvements in the quality of the experience.
- *Moderate* - The impact would change a large number of visitors' experiences that would result in a noticeable decrease or improvement in the quality of the experience. This would be indicated by a temporary change in frustration level or inconvenience.
- *Major* - The impact has a substantial improvement in many visitors' experiences or a severe drop in the quality of many visitors' experiences, such as the addition or elimination of a recreational opportunity or a permanent change to an area.

Alternative A – No Action

Under Alternative A, the Chesapeake Bay Gateways Networks would continue to represent the broadest geographic and thematic system of Bay-related sites in the watershed, but only through 2008. During this period, the Gateways Network would continue to promote the 140+ designated Gateways and provide financial assistance for Chesapeake Bay interpretive services and products, thereby helping visitors learn more about how to explore the diverse range of themes, places, and geography existing in the Chesapeake Bay. If the program were not sustained, a moderate, long-term, watershed-wide adverse impact on visitor experience and use would occur because of the loss of the Gateways Network's important role in providing promotional services, interpretive products, and financial assistance to the Gateways members.

Alternative B – An Enhanced Chesapeake Bay Gateways Network

In this alternative the National Park Service would permanently continue its role in coordinating the Chesapeake Bay Gateways Network and its various programs. Two visitor/orientation centers would also be developed to introduce visitors to the multitude of Chesapeake Bay themes, and resources, helping visitors to explore these themes and resources at existing Gateway sites. This combination of enhancements would result in a moderate to major, long-term, watershed-wide, beneficial impact on visitor experiences in the Bay region through enhanced interpretation and visitor experiences. At individual Gateway sites, the intensity of impacts would range from minor to major depending on the sites' use of Network technical and financial assistance services.

Alternative C – Chesapeake Bay Estuary National Park

The creation of an estuarine National Park would provide visitors with a park focused on interpreting the Chesapeake Bay as an outstanding natural system. Through a land-based interpretive center, the NPS would provide visitors with interpretive and educational materials stressing the importance and influences of human interaction on the Bay's health. The national park would provide visitors with direct access to the Bay and locations representing different Bay natural areas, from island environments to shoreline ecosystems. Group tours, planned itineraries, and established programs would provide visitors with a variety of experiences on the open water, at islands, marshes, or along the shore ecosystem. In addition, uses such as boating, kayaking, hiking, sailing, and picnicking would attract visitors and enhance the overall visitor experience. The magnitude of the impact on visitor use would be dependent on the park's location and accessibility. In general, national parks have high recreational visits; therefore, Alternative C would be expected to have a moderate to major, long-term, beneficial impact on the visitor experience because of added recreational activities and interpretive programs available to the public. The context of the impact would be local and regional.

Alternative D – A Chesapeake Bay National Reserve

The creation of a Chesapeake Bay National Reserve would provide visitors with a reserve focused on protecting and sustaining the Bay's maritime, rural, and agricultural heritage. Through a land based interpretive center and programming, the reserve would provide visitors with interpretive and

educational materials stressing the Bay's heritage. Group tours, planned itineraries, and established programs would provide visitors with a variety of experiences on the open water, in the community, at significant heritage sites, and on the reserve working landscape. In general, the creation of a national reserve would have a moderate, long-term, beneficial impact on the visitor experience. The context of the impact would be local and regional. Similar to the national park, the magnitude of the impact on visitor use would be dependent on the reserve's location and accessibility to major transportation routes.

Alternative E – Chesapeake Bay Watershed National Ecological and Cultural Preserve

The core goal of a Chesapeake Bay Watershed National Ecological and Cultural Preserve would be to conserve and restore the tributary ecosystem so that human uses are in optimal balance with the natural process to conserve the Bay resources and values for future generations. The NPS and its partners, through a primary interpretive/ education center, would provide opportunities for visitors to experience and learn about the transition of natural areas from the headwaters to the Bay and how human actions affect the health of the Bay. At the interpretive center, visitors would be introduced to watershed themes and would orient themselves to a series of experiences and sites throughout the preserve.

Group tours, planned itineraries, and established programs would provide visitors with a variety of experiences along the riparian corridor. In general, the creation of a national preserve would have a moderate, long-term, beneficial impact. The context of the impact would be local and regional. Similar to the other alternatives, the magnitude of the impact on visitor use would be dependent on the preserve's location and accessibility of the preserve and its interpretive center to major transportation routes.

CUMULATIVE IMPACTS

Impacts on the environment can result from the incremental impact of actions when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such actions. Cumulative impacts can also result from individually minor, but collectively significant, actions taking place over a period of time. For this programmatic analysis, the NPS defined a broad geographic area (the Chesapeake Bay watershed) to be analyzed for most impact topics. (Air quality considers the entire airshed.) Regional plans, policies, and program were considered. Site-specific projects were not identified or studied for this programmatic analysis because the location of each alternative has not been identified. Site-specific plans and projects will be considered and documented in future planning studies by the NPS prior to implementation. The cumulative impact section for this study focused on the potential cumulative impacts to other regional initiatives such as the goals outlined in the Chesapeake Bay Agreement, county and state watershed management planning, wetland protections programs, and state wetlands programs.

The National Park Service considered cumulative impacts for each impact topic; however, because the cumulative impacts are similar for many of the impact topics, the cumulative impacts are briefly summarized in this section.

Other Chesapeake or Regional Plans, Policies, and Programs

Chesapeake Bay Program

The Chesapeake Bay Program is a unique regional partnership that directs and conducts the restoration of the Chesapeake Bay. Since its inception in 1983, the Chesapeake Bay Program's highest priority has been the restoration of the Bay's living resources (finfish, shellfish, Bay grasses, and other aquatic life and wildlife). Improvements include fisheries and habitat restoration, recovery of Bay grasses, nutrient and toxic reduction, and significant advances in estuarine science.

Chesapeake 2000 Agreement

In the 1987 Chesapeake Bay Agreement, the Executive Council set a goal to reduce the nutrients such as nitrogen and phosphorous entering the Bay by 40 percent by 2000. In 1992, the Bay Program partners agreed to continue the 40 percent reduction goal beyond 2000, as well as, to attack nutrients at their source; upstream in the Bay's tributaries. As a result, Pennsylvania, Maryland, Virginia, and the District of Columbia began developing tributary strategies to achieve nutrient reduction targets. On June 28, 2000, the Chesapeake Bay Program partners signed the new *Chesapeake 2000 agreement*, which will guide the next decade of restoration and protection efforts throughout the Bay watershed.

State, County, and Municipal Wetlands and Watershed Programs

All the states within the watershed have agencies and programs dedicated to water quality and wetland protection, including special initiatives for the Chesapeake Bay. In addition, as a result of the initiative to reduce pollutants from entering the Bay, many counties and municipal governments within the watershed have developed or are developing watershed management plans and programs. From the Chesapeake Bay Preservation Act (VA) and Critical Areas Act (MD), most counties have created development ordinances that establish riparian buffer requirements and limit development in the Chesapeake Bay critical areas.

Urban Sprawl and Development

The relationship between population growth and sprawl can be quantified by comparing rates of change in population and urbanized land area over the same time period. Based on U.S. Census Bureau Data from 1970 to 1990, increased per capita land consumption was associated with about 55 percent of the sprawl in the watershed and population growth was associated with about 45 percent of the sprawl, although there is great variation among the "Urbanized Areas" of the Chesapeake Bay watershed. These numbers demonstrate that population growth and increased land consumption are expanding "Urbanized Areas" in the watershed (Sprawl City, 2003). The land development associated with urban sprawl such as wastewater generation, groundwater use, and land clearing generally has an adverse impact on land use, aquatic resources, terrestrial resources, and cultural resources. This adverse impact comes from issues such as land clearing activities, the creation of additional impervious surfaces, etc. A number of the states have "Smart Growth" initiatives, which are focused on reducing urban sprawl and revitalizing existing urban areas.

Agriculture and Forestry

In the 1960s and 1970s, there were significant changes in farming practices with the heavy use of chemical fertilizers and pesticides. These practices had a significant impact on Bay grasses and other submerged aquatic vegetation (Maryland Marine Notes, Volume 18 May-August 2001). Significant steps have been taken over the last decade through regulations and incentive programs to reduce nutrient and chemical runoff associated with farming operations, and to reduce land clearing and sedimentation associated with forestry. Programs, such as the United States Department of Agriculture's Conservation Restoration Enhancement Program, provide monetary incentives for farmers to take land out of production, and use the land to construct wetlands or riparian forests, and/or place the land into conservation easements. Past farming and forestry practices have had a major adverse impact on the Bay. Current and future agriculture and forestry programs can potentially have a beneficial impact through sustainable practices and restoration initiatives.

Other Plans, Programs, and Policies

A vast number of other plans, programs, and policies exist within the watershed, which have not been listed above. The NPS would consider more site-specific plans and programs prior to implementation of any of the alternatives as part of another study.

Cumulative Impact Analysis

The protection, conservation, and restoration efforts described under Alternatives A, B, C, D, and E, when added to other environmental protection programs, such as the wetlands protection programs implemented by the U.S. Army Corps of Engineers, water quality control programs implemented by the states and the U.S. Environmental Protection Agency, and the Chesapeake Bay Program, would have a beneficial, long-term cumulative impact on aquatic resources, terrestrial resources, threatened and endangered species, air quality, and cultural resources within the region. The incremental change resulting from the implementation of Alternatives B, C, D, or E would be expected to be minor when combined with other federal and state programs. As a result, the cumulative impacts are anticipated to be minor.

Under Alternatives B, C, D, and E, the potential adverse impact from the construction of the interpretive center(s) and associated roads, parking, and facilities, when added to other past and future development associated with urban sprawl would have a long-term cumulative adverse impact to aquatic resources, terrestrial resources, threatened and endangered species, cultural resources, transportation, and ethnographic resources. The incremental change resulting from the implementation of Alternatives B, C, D, or E would be expected to be minor when combined with other federal and state programs. As a result, the cumulative impacts are anticipated to be minor.

The associated visitor use under Alternative B, C, D, and E, when added to urban sprawl and development, would have an adverse cumulative impact on natural resources, cultural resources, transportation, and socio-economics to

the region. The incremental change resulting from the implementation of Alternatives B, C, D, or E would be expected to be minor when combined with other federal and state programs. As a result, the cumulative impacts are anticipated to be minor.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The National Park Service considered in the decision making process whether the alternative will have an irreversible or irretrievable commitment of resources. Resource in this case would refer to money and labor invested in the project, or more importantly, resources in the environment, such as threatened and endangered species, mature forest, prime farmlands, etc. Typically, these resources cannot be easily or readily replaced. In general, the irreversible and irretrievable commitment of resources for the concepts discussed in each alternative would include funding for the construction of the interpretive center(s) discussed in Alternatives B, C, D and E; land acquisition; and grants to increase financial and technical assistance.

IMPAIRMENT TO PARK RESOURCES

The National Park Service's *Management Policies, 2001* (2000) require analysis of potential effects to determine whether actions would impair park resources. The fundamental purpose of the National Park System, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. Generally, environmental impact statements developed by the National Park Service assess the potential effects to the existing park's resources; however, in the case of this programmatic study, the specific park resources and boundaries have not been identified; therefore, this section is not applicable to the study.

Table 6-1 Comparison of Impacts by Alternative

Impact Topic	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
<p>Please Note: The Chesapeake Bay Special Resource Study is a programmatic study; therefore, the analysis was very qualitative. The project team determined the intensity levels throughout this document based on the professional judgment on past experience with projects of similar scope. However, the degree of the impact is largely dependent on a variety of factors which have not yet been determined (e.g. size and location, site design, visitation levels, and local conditions). Thus in some instances, the degree of the impact is somewhat speculative and in some cases simply not determined. For this study, the project team assumed typical site conditions that might be expected based on the desired resources described for each alternative. The project team also assumed that the National Park Service would minimize impacts to the degree practical in accordance with the National Park Service's <i>Management Policies 2001</i> (NPS, 2000), Director's Order #2 <i>Park Planning</i> (NPS, 1998), and Director's Order #12 <i>Conservation Planning, Environmental Impact Analysis and Decision-Making</i> (NPS, 2002b). If a particular alternative were to be selected for implementation, the National Park Service would conduct additional environmental analysis as a part of any management or development planning. This would help further quantify impacts that are site specific in nature and determine appropriate mitigation measures if needed. In general, National Park Service designations and associated developments are typically "net positive" to the environment due to NEPA compliance and environmentally-sensitive construction techniques.</p>					
<p>Natural Environment</p>					
<p>Aquatic Resources</p>	<p>Through 2008, the Gateways Network would result in minor, short-term, watershed-wide, beneficial impacts to aquatic resources because of interpretive and financial assistance to existing Gateways. A long-term, indirect, adverse impact to the watershed would occur throughout the watershed if funding is not appropriated past 2008 and the Gateways Network program is not sustained.</p>	<p>A minor, indirect, long-term, beneficial impact would occur to aquatic resources throughout the watershed because of the National Park Service's technical and financial assistance to designated Gateways, local communities and other organizations. The educational function of the interpretive centers would result in a minor to moderate, indirect, long-term, watershed-wide beneficial impact to aquatic resources. If the interpretive centers were constructed within an existing structure, direct impacts to aquatic resources would be negligible. New construction of two centers and associated roads, parking, and support facilities would have localized, adverse impacts on nearby aquatic resources although it is expected that the centers would be developed in previously disturbed urban areas. Impacts from visitor use would be negligible.</p>	<p>The creation of a park would have a minor to moderate, long-term, beneficial impact on aquatic resources throughout the portion of the Bay within the park boundaries because of the National Park Service's conservation and restoration efforts associated with the management of National Parks. The construction of the land-based interpretive center and associated roads, parking, and facilities could have direct, local, adverse impacts on nearby aquatic resources. The increase in visitation could have an indirect, moderate, long-term, adverse impact on aquatic resources because of human disruption to the aquatic environment such as an increase in noise levels from increased traffic or wave action from boat use.</p>	<p>A minor to moderate, localized, long-term, beneficial impact to aquatic resources would occur likely as a result of comprehensive planning and site specific conservation measures. Through technical and financial assistance to local communities for comprehensive planning and resource protection. Construction of an interpretive center within an existing structure would have negligible direct impacts to aquatic resources. New construction and associated roads, parking, and facilities would have localized adverse impacts on nearby aquatic resources. Visitor use at the interpretive center and surrounding land could have a minor, long-term, adverse impact. An increase in the number of visitors to the area would have an indirect, minor, long-term, adverse impact because of minor human disruptions to the aquatic environment.</p>	<p>A moderate, tributary watershed-wide, long-term beneficial impact to aquatic resources would likely occur as a result of restoration, stewardship and land conservation efforts. The interpretive programming would result in a minor to moderate, indirect, long-term, tributary watershed-wide beneficial impact to aquatic resources. Construction of an interpretive center within an existing structure would have negligible or beneficial direct impacts as remediation measures would be incorporated into the design. New construction and associated roads, parking, and facilities would have localized adverse impacts on nearby aquatic resources. Visitor use at the interpretive center and surrounding land could have a minor, long-term, localized, adverse impact. An increase in the number of visitors to the area would have a minor, localized, long-term, adverse impact.</p>
<p>Terrestrial Resources</p>	<p>Through 2008, the Gateways Network would result in minor, short-term, beneficial impacts to terrestrial resources throughout the watershed because of interpretive and financial assistance to existing Gateways. Minor, long-term, indirect, adverse impacts would occur throughout the watershed if funding is not appropriated past 2008 and the Gateways Network program is not sustained.</p>	<p>An indirect, long-term, beneficial impact would occur to terrestrial resources throughout the watershed because of the National Park Service's technical and financial assistance to designated Gateways, local communities and other organizations. The educational function of the interpretive centers would result in a minor to moderate, indirect, long-term, watershed-wide beneficial impact to aquatic resources. If the interpretive centers were constructed within an existing structure, direct impacts of to terrestrial resources would be negligible. New construction of two Chesapeake Bay interpretive centers and associated roads, parking, and support facilities would have long-term adverse impacts on terrestrial resources on and adjacent to the construction sites. Visitor use at the centers and surrounding land would also have a minor, localized, long-term, adverse impact due to habitat disturbances. However, it is expected the centers would be developed in previously disturbed urban areas.</p>	<p>The creation of a park would have a minor, long-term, beneficial impact on terrestrial resources at the park and surrounding areas because of the National Park Service's conservation and restoration efforts associated with the management of National Parks. Construction of an interpretive center would be expected to have minor to moderate, localized, adverse impacts. Visitor uses would have a minor, long-term, localized, adverse impact. An increased number of visitors to the area would have an indirect, moderate, long-term, adverse impact due to habitat disturbances.</p>	<p>The creation of a reserve would have a moderate, long-term, beneficial impact to terrestrial resources as a result of comprehensive planning and site-specific conservation of sensitive natural resource sites. Through technical and financial assistance to local communities for comprehensive planning. The beneficial impact is likely to be moderate locally while having a minor impact to the watershed as a whole. If the construction of the interpretive center occurs within an existing structure, direct impacts to terrestrial resources would be negligible. New construction of a center and associated roads, parking, and facilities would have localized, adverse impacts on nearby terrestrial resources. Visitor use at the interpretive center and surrounding land would have a minor, long-term, localized, adverse impact. An increase in the number of visitors to the area would have an indirect, minor, long-term, adverse impact due to habitat disturbances.</p>	<p>The creation of a preserve would have a regional, long-term, moderate, beneficial impact on terrestrial resources as a result of restoration, stewardship and land conservation efforts. Through technical and financial assistance within the watershed. If the interpretive centers were constructed within an existing structure, direct impacts to terrestrial resources would be negligible, or beneficial, as remediation measures would be incorporated into the design. New construction of a center and associated roads, parking, and facilities would have localized, adverse impacts on nearby terrestrial resources. Visitor use at the interpretive center and surrounding land would have a minor, localized, long-term, adverse impact. An increase in the number of visitors to the area would have an indirect, localized, minor, long-term, adverse impact due to habitat disturbances.</p>

Table: 6-1 Comparison of Impacts by Alternative

Impact Topic	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Threatened, Endangered, and Rare Species and Natural Communities	Through 2008, the Gateways Network would result in minor, short-term, beneficial impacts to protected species natural communities because of interpretive and financial assistance to existing Gateways. A long-term, indirect, adverse impact would occur if funding is not appropriated past 2008 and the Gateways Network program is not sustained.	An indirect, long-term, beneficial impact would occur to threatened, endangered, and rare species and natural communities throughout the watershed because of the National Park Service's technical and financial assistance to designated Gateways, local communities and other organizations. The educational function of the interpretive centers would result in a minor to moderate, indirect, long-term, watershed-wide beneficial impact to rare, threatened, and endangered species. If the interpretive centers were developed within existing structures direct impacts to threatened, endangered, and rare species would be negligible. New construction of two Chesapeake Bay interpretive centers and associated roads, parking, and support facilities would have minor adverse impacts. Visitor use and increased visitation would have a minor, long-term, adverse impact. However, it is expected that the centers would be developed in previously disturbed urban areas.	The creation of a park would have a minor, long-term, beneficial impact on protected species and habitats at the park and surrounding areas because of conservation and restoration efforts associated with the management of National Parks. The construction of the interpretive center and associated roads and parking would have an adverse impact. The degree of the impact would be dependent on existing conditions. Visitor use and increased visitation would have a minor, localized, long-term, adverse impact near activity areas.	The creation of a reserve would have a minor to moderate, long-term, regional, beneficial impact to threatened, endangered, and rare species and natural communities as a result of comprehensive planning and site-specific conservation of sensitive natural resource sites. through the technical and financial assistance to local communities for comprehensive planning. If the interpretive centers were developed within existing structures direct impacts to threatened, endangered, and rare species would be negligible. The construction of the interpretive center and associated roads and parking would have an adverse impact on RTE species present at the construction site. The degree of the impact would be dependent on existing conditions. Visitor use at the interpretive center and surrounding land would have a minor, long-term, adverse impact.	A preserve would have a minor to moderate, long-term, regional, beneficial impact on threatened, endangered, and rare species and natural communities. If the interpretive centers were developed within existing structures direct impacts to threatened, endangered, and rare species would be negligible. The construction of the interpretive center and associated roads and parking would have an adverse impact. The degree of the impact would be dependent on existing conditions. Visitor use at the interpretive center and surrounding land would have a minor, long-term, adverse impact.
Air Quality	The Gateways Network would result in no impact to air quality between now and its sunset in 2008.	The creation of an enhanced Gateways Network would have a minor, regional, long-term, beneficial impact to air quality because of a continually expanded educational program with designated Gateways. The educational function of the interpretive centers would result in a minor to moderate, indirect, long-term, watershed-wide beneficial impact to air quality. If the interpretive centers were placed within existing structures, direct impacts to air quality would be negligible. The construction of two Chesapeake Bay interpretive centers in new buildings and associated roads, parking, and support facilities would have direct, short-term, localized, minor, adverse impacts on air quality from emissions and fugitive dust generated from construction activities. Increased visitation would have a long-term, indirect, adverse impact from emissions. Visitor use and increased visitation would have a minor, long-term, adverse impact.	The creation of a park would have a negligible to minor, site-specific, long-term, beneficial impact on air quality because of the National Park Service management policies. 's conservation and restoration efforts associated with the management of National Parks. This impact would be expected to be minor and site-specific. New construction for the interpretive center would have a direct, short-term, localized, adverse impact on air quality from emissions and fugitive dust generated from construction activities. Increased visitation could also have a minor to moderate, long-term, adverse impact from emissions.	The creation of a reserve would have a minor, long-term, indirect beneficial impact to air quality within the reserve as a result of comprehensive planning and limits on sprawl development through technical and financial assistance to local communities for comprehensive planning. If the interpretive centers were placed within existing structures, direct impacts to air quality would be negligible or beneficial, as remediation measures would be incorporated into the design. New construction for the interpretive center would have a direct, short-term, localized, adverse impact on air quality from emissions and fugitive dust generated from construction activities. Visitor use and increased visitation at the interpretive center and surrounding land would have a minor, long-term, adverse impact.	A preserve would have an indirect minor, long-term, local, beneficial impact to air quality as a result of from technical and financial assistance stewardship and land conservation efforts.. If within an existing structure, direct impacts to air quality from an interpretive center would be negligible or beneficial, as remediation measures would be incorporated into the design. New construction for the interpretive center would have a direct, short-term, localized, adverse impact on air quality from emissions and fugitive dust generated from construction activities. Visitor use and increased visitation at the interpretive center and surrounding land would have a minor, long-term, adverse impact on air quality from vehicle emissions.
Cultural Environment	Through 2008, the Gateways Network would result in a minor, short-term, indirect or direct (based on location), beneficial impact to cultural resources throughout the region because of technical and financial assistance for protection of cultural resources. However, if funding is not appropriated past 2008 and the Gateways Network program is not sustained, then a negligible, adverse impact would occur throughout the watershed.	A moderate, long-term, indirect, beneficial impact would occur to cultural resources throughout the watershed from the restoration and education aspects of this alternative. The educational function would result in a minor to moderate, indirect, long-term, watershed-wide beneficial impact to cultural resources as conservation and interpretation efforts are enhance. If the interpretive centers were constructed within non-historic, existing structures, direct impacts to cultural resources would be negligible. Construction of two new interpretive centers would result in an adverse impact on cultural resources if the location of the surrounding cultural resources were within the area of potential effect.	The creation of a park would have a minor, long-term, localized, beneficial impact on cultural resources through limiting disturbances and bringing about restoration efforts. The impact is minor due to the limited amount of cultural resources expected in this type of park. land use, commercial facilities, and land disturbing activities within the park. New construction of a center and associated roads, parking, and facilities would have localized adverse impacts if the location of the surrounding cultural resources were within the area of potential effect.	The technical and financial assistance to help conserve, interpret, and protect sensitive cultural resources would have a moderate, long-term, direct and indirect, beneficial impact on cultural resources in the reserve. If the interpretive center were developed within an existing non-historic structure, direct impacts to cultural resources would be negligible. New construction of a center and associated roads, parking, and facilities would have localized adverse impacts if the location of the surrounding cultural resources were within the area of potential effect.	A moderate, long-term, beneficial impact on cultural resources would occur throughout the reserve from added resource protection. If the interpretive center were developed within a non-historic existing structure, direct impacts to cultural resources would be negligible or beneficial as remediation measures are incorporated. The construction of an interpretive center would result in an adverse impact if the location of the surrounding cultural resources were within the area of potential effect.

Table: 6-1 Comparison of Impacts by Alternative

		Alternative E			
		Alternative D		Alternative C	
		Alternative B		Alternative A	
Socio-economic Environment					
Impact Topic	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Land Use/Jurisdictional Boundaries	Some minor, very localized, beneficial, direct land use changes may occur associated with Chesapeake Bay Gateways grants projects funded through 2008. There would be no changes to jurisdictional boundaries.	If the interpretive centers were developed within either existing structures or new construction (new or expanded structure), a minor, localized change in land use or jurisdictional boundaries is possible. However, this alternative anticipates the two interpretive centers would be placed in previously developed or urbanized area already subject to human disruptions, therefore minimizing impacts to important resource lands.	The impact to land use would generally be presumed to be beneficial to achieving several categories of Chesapeake Bay Program commitments. Conversions for visitor uses would be either beneficial or adverse, depending on the site design, surrounding site characteristics, and size and location of the park.	A limited transfer in property rights would occur on some lands, but would be expected to have negligible or minor impacts on existing land use designations and changes to jurisdictional boundaries, as the goal would be to continue and sustain traditional uses. The degree of the impact is dependent on existing conditions but it is expected that the impact would be beneficial within the reserve, contributing to Chesapeake Bay Program land use commitments. It is possible that there would be no impact on land use or changes in jurisdictional boundaries if the NPS, in partnership with state or local government, leased or co-occupied publicly-owned facilities for the interpretive center.	Negligible to A preserve would increase conservation and stewardship measures on lands along the riparian corridor. This would bring about some changes in existing land use over time, but the minor impacts on existing land use designations and changes to jurisdictional boundaries would be expected. The degree of the impact is dependent on existing conditions. However, , but it is expected that the impact would be beneficial within the reserve. It is possible that there would be no impact on land use or changes in jurisdictional boundaries if the NPS, in partnership with state or local government, leased or co-occupied publicly-owned facilities for the interpretive center.
Population	No impacts to population would occur.	No displacements or adverse impacts on existing population levels would be likely to occur. Incremental increases in visitation would have a negligible or minor impact on population.	The impact is expected to be minor; however, the degree of the impact is dependent on the level of visitation and local conditions.	Negligible or minor impacts on population would occur.	Negligible or minor impacts on population would occur.
Economy	Greater recognition and use of the Gateways Network would result in a minor to moderate, beneficial impact to the local economies around the Gateways site. If the program was not continued past 2008 a long-term, adverse impact would occur from the loss of joint marketing services to designated Gateways and the grants program.	Increased visitation would have a long-term, direct and indirect, beneficial impact on the local economy. The increased tourism from the visitor centers and other promotional activities would have long-term, direct and indirect, beneficial impacts on the local economy. The degree of the impact would be expected to be long-term, moderate and Bay-wide, but is dependent on visitation levels. The added financial assistance offered by the National Park Service would have minor to moderate beneficial impacts on local areas watershed-wide. The upfront capital investment and operational expenditures for the two interpretive centers would have long-term, beneficial impacts on the local communities. The degree of the impact would be expected to be minor, but is dependent on the existing economic conditions. Any loss of tax revenue from a public entity's land acquisition would have a negligible impact.	The park would have a long-term, moderate, beneficial impact on economics attributed to increased visitation. There would be a direct, beneficial impact on the local economies through increased tourism numbers and an indirect, beneficial impact on local businesses that supply the local tourism industry. The park may also have an adverse impact on economics because of limits placed on commercial fishing. The adverse impact of a loss of tax revenue from a public entity's land acquisition would be minor. The upfront capital investment and operational expenditures for the interpretive center would have long-term, beneficial impacts on the local community. The degree of the impact would be expected to be minor, but is dependent on the existing economic conditions.	A reserve would have a long-term, moderate, beneficial impact on economics attributed to increased visitation. There would be a direct, beneficial impact on the local economies through increased tourism numbers and an indirect, beneficial impact on local businesses that supply the local the tourism industry. Protection of traditional, resource-dependent activities would have a moderate beneficial impact to these industries within the reserve. However, the purchase of development rights may limit future growth of local jurisdiction tax revenues. This adverse impact is expected to be localized and minor. The upfront capital investment and operational expenditures for the interpretive center would have beneficial impacts on the local community. The degree of the impact would be expected to be minor, but is dependent on the purchase of conservation easements or limited lands may limit future growth of local jurisdiction tax revenues, however this adverse impact is expected to be localized and minor. The adverse impact of a loss of tax revenue from a public entity's land acquisition would be minor.	The preserve would have a long-term, regional, watershed-wide, moderate, beneficial impact on economics because of an increase in visitors to the area. The upfront capital investment and operational expenditures for the interpretive center would have beneficial impacts on the local community. The degree of the impact would be expected to be minor, but is dependent on the purchase of conservation easements or limited lands may limit future growth of local jurisdiction tax revenues, however this adverse impact is expected to be localized and minor. The adverse impact of a loss of tax revenue from a public entity's land acquisition would be minor.
Parks and Recreation	There would be minor to major, short-term, beneficial impacts to parks and recreation sites participating in the Network as a result of the Network's technical and financial assistance programs. If the Gateways Network is not reauthorized and funded subsequent to 2008, there would be a moderate to major, long-term, adverse impact to parks and recreation sites previously participating in the Network or potentially eligible to do so.	The impacts to parks and recreation sites in the Gateways Network would range from minor to major, long-term, beneficial effects due to Gateways Network influenced improvements. For instance, educational resources at Gateway sites would be improved causing a beneficial impact because the visitor experience would be enhanced, making the visit more enjoyable or rewarding. Long-term, these improvements would increase visitation to Gateway sites. With two new interpretive centers to introduce visitors to the Bay and promote other Gateway sites, the degree of the impact would be expected to be long-term, moderate and Bay-wide, but is largely dependent on increased visitation levels and the location of the two centers.	The addition of a variety of visitor activities would have a major, long-term, beneficial impact to the availability of parks and recreation sites. This designation alone may increase visitation at the existing parks. In contrast, the creation of a national park reserve would also have a negative impact on parks and recreation sites in the area should visitation be drawn away from them and funneled to the reserve. However, the actual type and degree of impact is highly dependent on the location of any potential park reserve, something that is not known at this time.	Because of the enhanced visitor experience, there would be a moderate, long-term, beneficial impact to parks and recreation. The impact would be localized to the area of the reserve. Under this alternative, existing parks and recreation sites would likely be encompassed within the national reserve designation. This designation alone may increase visitation at the existing parks. In contrast, the creation of a reserve could have a negative impact on parks and recreation sites in the surrounding area should visitation be drawn away from them and funneled to the reserve. However, the actual type and degree of impact is highly dependent on the location of any potential reserve, something that is not known at this time.	As a result of the enhanced visitor experience, a moderate, long-term, beneficial impact to parks and recreation sites would occur within the preserve. Under this alternative, existing parks and recreation sites would likely be encompassed within the national preserve designation. This designation alone may increase visitation at the existing parks. In contrast, the creation of a preserve could have a negative impact on parks and recreation sites in the surrounding area should visitation be drawn away from them and funneled to the reserve. However, the actual type and degree of impact is highly dependent on the location of any potential reserve, something that is not known at this time.

Table: 6-1 Comparison of Impacts by Alternative

Impact Topic	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
<p>Transportation</p>	<p>Local, minor impacts to transportation in the vicinity of some existing Gateways sites may occur.</p>	<p>Traffic around the two interpretive centers would have a minor to moderate, localized, long-term, adverse impact on transportation routes because of increased visitation. Also, the increased visitation would increase traffic resulting in a negligible adverse impact on a regional scale.</p>	<p>The creation of the park would have a minor to major adverse impact on transportation because of increased visitation to the area resulting in more traffic. The degree of the impact is dependent on visitation levels, site characteristics, and site design, which have not been identified.</p>	<p>Increased visitation associated with the interpretive center would have a minor to moderate, long-term, adverse impact on local traffic. The degree of the impact is dependent on visitation levels, site characteristics, and site design, which have not been identified. The impact would be localized to areas surrounding the interpretive center, tour routes, and other visitor sites.</p>	<p>Increased visitation associated with the interpretive center would have a minor to moderate, long-term, adverse impact on local traffic. The degree of the impact is dependent on visitation levels, site characteristics, and site design, which have not been identified. The impact would be localized to areas surrounding the interpretive center, tour routes, and demonstration sites.</p>
<p>Visitor Experience and Use</p>	<p>A moderate, watershed-wide, long-term, adverse impact to the visitor experience would occur if funding is not appropriated past 2008 and the Gateways Network program is not sustained.</p>	<p>The combination of enhancements to the visitor experience would result in a moderate to major, long-term, watershed-wide, beneficial impact on visitor experiences in the Bay region through enhanced interpretation and visitor experiences. At individual Gateway sites, the intensity of impacts would range from minor to major depending on the sites' use of Network technical and financial assistance services. A moderate, long-term, beneficial impact to the visitor experience would occur throughout the watershed because of expanded interpretive services including the working landscape.</p>	<p>The park would have a moderate to major, long-term, beneficial impact on the visitor experience because of added recreational activities and interpretive programs available to the public. The impact would be local and regional. The magnitude of the impact on visitor use would be dependent on the reserve's location and accessibility.</p>	<p>The reserve would have a moderate, long-term, beneficial impact on the visitor experience. The impact would be local and regional. The magnitude of the impact on visitor use would be dependent on the reserve's location and accessibility.</p>	<p>The preserve would have a moderate, long-term, beneficial impact on visitor experience and use. The impact would be local and regional but the magnitude is largely dependent on the location and accessibility.</p>

Section 7:

Environmentally Preferred Alternative

In accordance with Director's Order # 12, the National Park Service is required to identify the "environmentally preferred alternative" in all environmental documents, including environmental impact statements.

Identifying the environmentally preferred alternative is not the same as selecting a "preferred alternative" for implementation. The National Park Service is not required to select the environmentally preferred alternative as the final preferred course of action. The study's preferred course of action is described on pages 65-67.

An environmentally preferred alternative is determined by applying the criteria suggested in the National Environmental Policy Act of 1969, which is guided by the Council on Environmental Quality. The Council on Environmental Quality provides direction that "[t]he environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in Section 101 of the National Environmental Policy Act," which considers:

- Fulfilling the responsibilities of each generation as trustee of the environment for succeeding generations;
- Assuring for all generations safe, healthful, productive, and esthetically and culturally pleasing surroundings;
- Attaining the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;
- Preserving important historic, cultural and natural aspects of our national heritage and maintaining, wherever possible, an environment that supports diversity and variety of individual choice;
- Achieving a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and
- Enhancing the quality of renewable resources and approaching the maximum attainable recycling of depletable resources (National Environmental Policy Act, Section 101)."

METHODOLOGY

Choosing the environmentally preferred alternative(s) for this study is difficult because the degree of the impact is largely dependent on the design and layout of the park unit, local conditions, and visitation levels, which have not been determined at this point of the study. For this programmatic study, the National Park Service study team evaluated:

- Changes to the levels of protection, conservation and education from the creation of a new park unit or implementation of a new program or policy,
- The effects of any new development plans, such as the construction of an interpretive center and related improvements; and
- The anticipated visitor levels and visitor uses typical of each park unit proposed.

Each alternative has a different focus or objective: the Enhanced Gateways Network is focused on telling the whole Bay story through a permanent system of more than 140 designated Chesapeake Bay Gateways; the Chesapeake Bay Estuary National Park focuses on the aquatic and estuarine character of the Chesapeake Bay; the National Reserve is directed towards the working maritime and agricultural landscape; and the National Ecological and Cultural Preserve highlights one exemplary Bay tributary and its watershed management. Therefore, a key consideration in choosing the environmentally preferred alternative is weighing the potential benefits or impacts associated with the protection, conservation, education and technical and financial assistance offered by each of the alternatives.

To assist in this evaluation, the gap analysis described in Section 3 was considered in determining intensity levels for the changes in levels of protection, conservation, education and technical and financial assistance. For instance, the gap analysis identified niches for potential park concepts in: (a) Expanded natural resource conservation, especially aquatic resources, in a focused area that complements and goes beyond current programs; and (b) enhanced recognition, conservation and interpretation of broad cultural resource areas, specifically working landscapes and traditional water dependent communities. While both niches reflect gaps, there is a higher degree of existing state and local programming providing significant protection to natural and aquatic resources than for working landscapes. Therefore, the degree of potential environmental benefit or gain might be higher for a concept protecting Bay landscapes than for a concept offering additional protection for aquatic resources. Another key consideration was the context of the impact. Does the program or policy have localized, bay-wide or watershed-wide benefits or impacts?

The study team also considered other potential impacts in selecting the environmentally preferred alternative, in which the gap analysis had no bearing on the intensity levels. The impacts generally resulted from capital improvements such as the construction of an interpretive center, anticipated visitor uses typical of each park unit, and an increase in visitation to the area.

ANALYSIS

It is anticipated that the No Action Alternative, Alternative A, would not have considerable benefits compared to the other action alternatives. In comparison to Alternative B, an enhanced Chesapeake Bay Gateways Network, the benefits are considerably less. All the action alternatives offer benefits in the areas of conservation, restoration, education, and interpretation and therefore, all alternatives are consistent with fulfilling criteria 1, 2, 3, 4, 5, and 6 listed under Section 101 of NEPA.

The Enhanced Gateways Network (Alternative B) has by far the broadest geographic and thematic scope and approach to education, protection, and conservation. Alternative B addresses sites, resources and themes throughout the Bay watershed at more than 140 different sites. Especially in terms of interpretation, education and public access, this alternative goes farther than the others. In terms of conservation and restoration, this alternative may provide less direct impacts than a new single site-focused park unit, as most

Gateway sites already exist. However, expanding conservation assistance to certain Bay landscapes would provide a new degree of beneficial effects.

Alternative C, the Chesapeake Bay Estuary National Park, has a narrower focus – the conservation and interpretation of a specific representative example of the Bay’s aquatic, estuarine environment. While this concept goes beyond existing models in the Bay region, there are existing federal, state and local programs specifically focusing on conservation and restoration of aquatic resources. Thus, the conservation benefit may be incrementally less than that in alternatives D and E. Alternative C would provide distinct educational, interpretive and public access opportunities at the park. These site-specific benefits would not be as sizeable as the watershed-wide educational and interpretive opportunities of Alternative B.

Alternatives D (National Reserve) and E (National Ecological and Cultural Preserve) each have a narrower focus than B, but a broader one than C. In different ways, each of them incorporate land and water resources and natural and cultural themes, going beyond the solely natural systems focus of alternative C. Moreover, D and E encompass different strategies and emphases in conserving fairly broad sets of resources making up a whole landscape or sub-watershed (respectively). Because they address conservation and stewardship of land resources – the greatest source of Bay pollutants – they would have higher conservation benefits than alternative C. However, like alternative C, they both address a single contiguous area. Even if the areas are fairly large, the geographic and thematic scope of D and E remains small relative to alternative B.

The degree of adverse impacts associated with the new interpretive center(s) and associated improvements (in alternatives B, C, D & E) is dependent on existing site conditions. It is expected that impacts would be minimized to the extent practical through existing NPS practices and management policies. One noticeable difference exists when looking at the four action alternatives. Under Alternative B, the interpretive/orientation center would be located in an existing high-traffic area, most likely near or in an urbanized environment. The centers in the other alternatives would likely be in less developed areas, though not necessarily on undeveloped land. Thus, the adverse impact from the development of an interpretive center under Alternative B would most likely have less long-term, adverse impacts to the terrestrial and aquatic resources when compared to Alternative C, D, and E. Also, under Alternative B there may be more opportunities for enhancing, redeveloping, co-leasing, or restoring an existing site, which would be consistent with the NPS sustainability management practices.

Lastly, each of the action alternatives is expected to draw added tourism and increased visitation. Increased visitation would have beneficial impacts such as increased revenues to local businesses or adverse impacts such as added demands on existing transportation systems. The degree of the impact is highly dependent on the park unit’s carrying capacity and surrounding conditions; however, each alternative is expected to meet criterion 5 “Achieving a balance between population and resource use....”

One difference associated with increased visitation is the number of visitors anticipated under Alternative B would be dispersed amongst the 140+ Gateway sites, whereas, the visitor use in Alternatives C, D, and E would be

localized to an area that may not have been previously adapted to such uses. Under Alternative B, it is assumed that the carrying capacity and site amenities would be adequate to handle any increases to each site because the overall increased visitation would be dispersed over the entire Gateways Network; therefore, the impact would be negligible to the natural and socio-economic environment surrounding each site. In this case, there would be no impairment to the existing Gateways' resources and values as a result of implementing Alternative B.

ENVIRONMENTALLY PREFERRED ALTERNATIVE(S)

At the conceptual level of this study, a clear distinction cannot be made between the overall benefit of Alternatives B, D and E. However, each of these three alternatives has greater environmental benefits than alternatives C and A. Accordingly, these three alternatives are the environmentally preferred alternatives.¹⁴

Alternative B provides conservation, interpretive, educational and public access benefits over a broader scope and regional context (watershed-wide) than the other alternatives. In addition, the construction of the interpretive centers and associated improvements under Alternative B would have fewer impacts to the environment because any construction/development would occur in more developed areas than in the other alternatives.

However, alternatives D and E, though not watershed-wide in scope, have broader scope and environmental benefits than alternative C (which is solely focused on the aquatic system) and alternative A, a core part of which expires in 2008. Moreover, these alternatives have a direct conservation benefit through land conservation strategies that is more specific than in alternative B.

Weighing the differing environmental benefits of alternatives B, D & E suggests the overall benefits may be roughly equivalent.

¹⁴ It bears repeating that the environmentally preferred alternative is not the same as selecting a "preferred alternative" for implementation. The National Park Service is not required to select the environmentally preferred alternative as the final preferred course of action. This study's final preferred course of action is indicated on pages 65-67.

Section 8: Consultation and Coordination

INTRODUCTION

Public involvement is essential in exploring whether a Chesapeake Bay focused unit of the National Park System should be created. This chapter describes the study's public involvement, agency coordination, and consultation procedures, in compliance with National Environmental Policy Act of 1969 (NEPA).

NEPA requires that federal agencies plan and carry out their activities “so as to protect and enhance the quality of the environment. Such activities shall include those directed to controlling pollution and enhancing the environment.”

The requirements of the act are fulfilled when extensive public involvement in the planning and development of any proposed federal actions and consideration of potential impacts to the cultural, natural, and socioeconomic environment have taken place. The latter is accomplished through the environmental impact statement (EIS) included in this document.¹⁵

The public involvement requirement of NEPA is fulfilled through formal steps, as well as through the informal consultations which have taken place throughout this study. The formal NEPA requirements were initiated with publication of a “Notice of Intent to prepare an Environmental Impact Statement and hold public meetings for the Chesapeake Bay Special Resource Study” in the Federal Register on September 23, 2002. Public meetings (workshops) were held in September 2002 and Summer 2003 as described below.

A draft environmental impact statement (DEIS) and study report for the Chesapeake Bay SRS was available for public review for 60 days in summer 2003, during which time agencies and the public commented. Copies of letters from Federal, State, and Local government agencies and nongovernmental organizations are provided in Appendix B. Letters from individuals are available for review by appointment during normal business hours at the NPS Chesapeake Bay Program Office.

This final study report and environmental impact statement were prepared following the public review period and include a summary of public comments and any modifications to the report resulting from those comments. After a 30-day no-action period, a Record of Decision (ROD) will

¹⁵ This EIS is essentially a programmatic statement, presenting an overview of potential impacts relating to the proposed program for each alternative. More detailed plans would be developed for individual actions prior to implementation if any of the alternatives are to be implemented. Any document associated with these plans will be tiered to this programmatic statement.

be prepared to document the selected alternative and set forth any stipulations for implementation.

PROJECT SCOPING

Public and stakeholder involvement in this special resource study has been coordinated by the National Park Service's Chesapeake Bay Program Office, with assistance from the NPS Northeast Regional Office and Washington Office, and close coordination with the Chesapeake Bay Program.

Since initiating preliminary planning for this study in Fall 2000, the project team has engaged interested individuals and organizations. The study team conducted worksessions with project partners and stakeholders and hosted public scoping meetings in an effort to better understand the national significance of the Chesapeake Bay and the gaps in existing protection and interpretation. A website was maintained with pertinent background information and a forum for receiving public comment. At the time of this report, four newsletters were produced to communicate with a broad public audience.

Public Involvement and Stakeholder Workshops

Two sets of public meetings and open houses have been conducted to communicate and solicit input from a broad public audience regarding the Chesapeake Bay SRS/EIS. Along with members of the general public, representatives from the National Park Service, states of Maryland and Virginia, the District of Columbia, natural and cultural resource managers, and the planning consultants attended the meetings. Meeting notices were sent to individuals and organizations listed in a database of stakeholders compiled from previously existing mailing lists from the Chesapeake Bay Gateways Network, the Chesapeake Bay Program, and other NPS resources. Information was also posted on the website. All meeting participants were added to the database, which in turn was used to inform interested parties of future meetings and other project-related information. Press releases to regional media were issued prior to each meeting. Individuals who were unable to attend meetings were able to provide comments through the website or mail.

The public scoping meetings were held in September 2002 at four locations in the study area. At each meeting, the project team introduced the background and purpose of the project and gave a brief of overview of the results of the gap analysis. Following the general presentation, three groups were formed to discuss preliminary concepts and to generate ideas for new concepts. The public was given the opportunity in a small group setting to identify issues and opportunities related to each preliminary concept and the general idea of a Chesapeake Bay-focused NPS unit. The public was also asked to submit new concepts or combinations of existing concepts.

Following release of the draft SRS/EIS and during the public comment period, five open-house style public meetings were held around the Chesapeake Bay in July 2003. At each meeting, the project team welcomed visitors and encouraged them to view the large-scale displays that illustrated the conceptual alternatives. The team encouraged the participants to view the

exhibits at their own pace and to engage team members in discussion. Participants were asked to comment on the study in general and each alternative.

Specific Workshops, Meetings and Publications:

- Stakeholder Worksession #1-October 30, 2001, Gap Analysis
- Newsletter #1- August 2002
- Project Brochure- August 2002
- Public Scoping Meeting #1-September 16, 2002, Newport News, Virginia, Main Street Library
- Public Scoping Meeting #2-September 17, 2002, Salisbury, Maryland, Salisbury University Guerrieri University Center
- Public Scoping Meeting #3-September, 24, 2002, North East, Maryland, Cecil Community College Conference Center
- Public Scoping Meeting #4-September 26, 2002, Annapolis, Maryland, Maryland Hall for the Creative Arts
- Maryland Public Television Call-In Broadcast, October 10, 2002
- Stakeholder Worksession #2-October 22, 2002, Alternatives Worksession
- Newsletter #2- November 2002
- Newsletter 3/Executive Summary – June 2003
- Public meeting (open house) #5—July 12, 2003, Annapolis, Maryland, City Dock
- Public meeting (open house) #6—July 17, 2003, Cambridge, Maryland, Sailwinds Visitor Center
- Public meeting (open house) #7—July 23, 2003, Newport News, Virginia, Mariners' Museum
- Public meeting (open house) #8—July 24, 2003, Yorktown, Virginia, Yorktown Visitor Center
- Public meeting (open house) #9—July 27, 2003, Baltimore, Maryland, Fort McHenry National Monument and Historic Shrine
- Public, Stakeholder and Agency review of draft report/EIS—June 25, 2003 through September 17, 2003
- Newsletter #4- January 2004
- Distribution of final report/EIS—Upon Release

PUBLIC REVIEW OF THE DRAFT SRS/EIS

Availability of the Draft SRS/EIS was announced in the *Federal Register* on June 25, 2003. The official 60-day public review and comment period closed on September 17, 2003. Comments were made by Federal, State, and Local agencies, nongovernmental organizations, and private individuals. Public comment on the draft study was expressed in four ways:

- by written statement made during one of the five open houses held in July 2003;
- through written letters, electronic mail, or website comment forms submitted by individual citizens;
- through written letters, electronic mail, or website comment forms submitted by nongovernmental organizations or special interest groups;
- through written letters submitted by Federal, State, and local government agencies.

Comment Summary

In total, there were more than 3000 comments submitted—approximately 935 public open house comments cards, 52 from agencies and organizations, and 2107 from individual comments via the website, email, mail, and fax. The comments primarily reflected individuals' support for the study and the idea of a "Chesapeake Bay National Park" and/or a preference for one or more of the alternatives. The comments had several overarching messages and consistent themes. An analysis of the public response to the draft plan resulted in several general observations. People:

- view the Chesapeake Bay as an overwhelmingly significant place where both natural and cultural resources and themes are paramount;
- are concerned about how the Bay is doing and want to see it restored;
- support the National Park Service having a long-term role in the Chesapeake—over 92% of comments supported doing more than the status quo (Alternative A);
- have a strong preference for combining elements of the initial concepts, rather than picking any single concept by itself; no single concept can adequately represent the size and diversity of the Bay;
- support making the National Park Service commitment to the Chesapeake Bay Gateways Network permanent (as in alternative B); almost all respondents at open houses said they would visit one or more Gateways Network sites (see www.baygateways.net) and supported the addition of two interpretive centers; and
- establishing a "park unit/NPS role" that encompasses at least one of alternatives C, D or E, but preferably elements of all three.

The comments strongly rejected the status quo, with many people saying more efforts were needed to improve public access to the Bay and to educate the public so that they have a greater appreciation of the entire Bay watershed.

A summary of the public comments was broadly distributed through the fourth issue of the study newsletter in January 2004 and is provided in Section 4 of this report.

Comment Analysis

After the closure of the official comment period, the NPS planning team analyzed the content of the public comments and all other written responses to the Draft SRS/EIS. The comments were categorized into three response categories:

1. out-of-scope
2. in-scope and substantive
3. in-scope but non-substantive

Out-of-Scope

Concerns were classified as falling within the scope of decision making or falling outside the scope. The Council on Environmental Quality (CEQ) regulations define the “scope of decision making” as the range of connected, cumulative, or similar actions, the alternatives and mitigation measures, and the direct, indirect, and cumulative impacts to be considered in the EIS.

Generally, concerns considered out-of-scope are those that:

- Do not address the purpose, need, or goals of the Special Resource Study.
- Address issues or concerns that are already decided by law and policy.
- Suggest an action not appropriate for the current level of planning.
- Recommend only minor editorial corrections.

In-Scope and Substantive

Concerns within the scope of decision-making were further classified as in-scope and substantive or in-scope but nonsubstantive. NPS policy and NEPA guidelines define substantive comments as those that:

- Question the reasonable basis, the accuracy or the information in the EIS.
- Question, with reasonable basis, the adequacy of the environmental analysis.
- Present reasonable alternatives other than those presented in the EIS.
- Cause changes or revisions to the proposal.

In-Scope but Nonsubstantive

In-scope but nonsubstantive comments include those that simply state a position in favor of or against the proposed alternative, merely agree or disagree with NPS policy, or otherwise express an unsupported personal preference or opinion.

Response to Comments

The in-scope and substantive concerns were re-examined and appropriate responses prepared. Responses to in-scope and substantive comments often resulted in changes to the text of the Final SRS/EIS, often for clarification purposes. NPS is required to respond only to in-scope, substantive comments. However, in some cases, responses were prepared for selected out-of-scope and in-scope but nonsubstantive concerns if the planning team thought providing a response enhanced public understanding of the decision-making process.

- I. **Concern:** The Draft SRS/EIS is programmatic in nature and provides an excellent overview of the concepts and expected environmental impacts. Site specific activities will require future NEPA documentation and review. (EPA Region III-NEPA and Section 309 Review Comments)

Response: The National Park Service concurs with the EPA (EPA Region III-NEPA and Section 309 Review Comments) recommendations for future environmental analysis for site specific

activities and implementation. Once a proposal is chosen for implementation, the National Park Service will incorporate EPA's recommendations into future planning and environmental analysis. As for the editorial comments at the end of EPA's Technical Comments, the National Park Service has reviewed and incorporated the recommended changes into the Final SRS/EIS, as appropriate and feasible. The National Park Service appreciates the request for updated statistical information on the Chesapeake Bay. However, this updated information does not change any of the outcomes or impacts in this SRS/EIS, and where this information could be readily obtained, the information was updated and incorporated into the document.

2. **Concern:** The Draft SRS/EIS is a conceptual document and specific federal consistency determination may be premature in the current phase of the study. The final SRS/EIS should include a general commitment that the NPS's activities pursuant to the SRS/EIS and any resulting Congressional authorization will be consistent with the Virginia Coastal Resources Management Program (VCP). NPS should also submit a consistency determination prior to undertaking any activities. (Commonwealth of Virginia Department of Environmental Quality)

Response: Text has been added under the Water Resources Section describing the Federal Consistency determination. At this time, a Federal consistency determination pursuant to the state's Coastal Zone Management regulations is premature; however, we concur that the National Park Service should acknowledge its requirements and commit to compliance with the state's Coastal Zone Management Act during the next phase of environmental analysis associated with any implementation of a preferred alternative.

3. **Concern:** An enhanced Gateways Network or any other NPS role in the Chesapeake Bay must have adequate and permanent funding, planning support, and staffing. (Commonwealth of Virginia Department of Conservation and Recreation and Commonwealth of Virginia Department of Historic Resources)

The NPS concurs that adequate and permanent funding, planning support, and staffing are necessary and should be part of implementing any selected alternative.

4. **Concern:** The National Park Service should create the Harriet Tubman National Park. (The Harriet Tubman Museum and Educational Center, Inc., The Ad Hoc Committee for the Harriet Tubman National Park, and the National Association for the Advancement of Colored People)

Response: As described in Section 3: Analysis of Opportunities of the draft SRS/EIS, many ideas were generated throughout the study. In September 2002, prior to the development of alternatives, six initial concepts were presented at public workshops. These sessions generated a variety of public comments, including some suggested

new ideas, including a Harriet Tubman National Park (page 18). A formal alternative based on this concept was not developed as part of this study because of a separate pending National Park Service study.

The National Park Service is currently conducting a Special Resource Study explicitly for the purpose of evaluating options for protecting and interpreting important sites related to the life of Harriet Tubman. The Harriet Tubman SRS, referenced in the Chesapeake Bay SRS/EIS on page 18, is expected to make findings and recommendations regarding any National Park Service role in presenting the Harriet Tubman story. A Harriet Tubman park proposal is far more appropriately considered in the context of the Harriet Tubman SRS than through this study. Resources associated with Harriet Tubman extend far beyond the study area of the Chesapeake SRS/EIS. It is simply not feasible to adequately address those resources within the context of this more geographically limited study.

The National Park Service agrees there are certain themes and resources that may have relationships to both the Chesapeake Bay study and the Harriet Tubman SRS; the same is true for two other similar pending studies with some Chesapeake connections, both cited on pages 18-19 of this report. Pending the final recommendations of the Harriet Tubman SRS, there may be opportunities for linking aspects of interpretation and resource protection associated with the Chesapeake Bay and Harriet Tubman.

5. **Concern:** The draft SRS/EIS omits an important part of the region's cultural history. The five alternatives do not address the need for historic preservation or a new historical park that focuses on influential events in the history of the region. (The Harriet Tubman Museum and Educational Center, Inc., The Ad Hoc Committee for the Harriet Tubman National Park, and the National Association for the Advancement of Colored People and Many Rivers Community History Network)

Response: Text has been added, as suggested, to the National Significance and Affected Environment sections. The National Park Service anticipates that all of the four action alternatives would incorporate some degree of both conservation and interpretation of various aspects of the region's rich cultural heritage. In particular, alternatives B and D both have cultural heritage as a central focus, with alternative B addressing a broader range of themes and alternative D targeting themes associated with the Chesapeake's rural and maritime history. Specific plans (such as interpretive plans) for addressing key resources and themes would be prepared as part of the implementation of a selected alternative.

6. **Concern:** A Chesapeake Bay National Water Trail would tie together the Bay's Gateway Communities and its rich variety of historic sites, wildlife refuges, parks, greenways, and wetlands and support each of the SRS alternatives. (Friends of the Chesapeake Bay National Water

Trail, the Izaak Walton League of America, and the National Geographic Society)

Response: The National Park Service concurs that water trails are an important means of linking Chesapeake Bay resources. Under the designation and technical and financial assistance authorities of the Chesapeake Bay Gateways Network, 21 water trails – totaling well over 1100 miles in combined length – already exist or are under development in the Chesapeake Bay watershed. The draft SRS stated on pages 35-36 that “park unit concepts could complement this effort [water trail development and management], but creation of a unit for this purpose alone would be redundant with ongoing efforts unless it adds new elements not possible through existing authorities.” Further development and linking of Chesapeake Bay water trails could occur through a preferred alternative incorporating alternative B, which, among other components, provides outstanding potential for an integrated and nationally recognized Chesapeake Bay water trail system.

7. **Concern:** A new park unit should encompass a truly representative sample of resources that make the Chesapeake Bay a unique place. The final recommendations should include a plan that combines elements of the alternatives and focuses on conserving meaningful examples of waterways, riparian zones, estuarine waters, and wildlife while also supporting the traditional working landscapes of the Bay watershed. (The Wilderness Society)

Response: NPS concurs that it is the combination of significant resources that makes the Chesapeake Bay a unique and special place. While the alternatives are presented in a discreet manner, NPS acknowledges that the alternatives are not mutually exclusive. The preferred alternative described on pages 65-67 outlines an approach that could ultimately embrace multiple elements.

8. **Concern:** Alternatives B-E all include requirements for public/private land acquisition without details about the federal regulatory constraints that would result in such acquisition. None of the alternatives include cost estimates or time frames for implementation. (Maryland State Builders Association and Maryland Saltwater Sportfishermen’s Association, Inc.)

Response: NPS prepared a class C cost estimate for each alternative on page 60. These estimates are consistent with the level of detail possible for conceptual alternatives where no sites have been identified. The estimates represent order of magnitude costs for planning and design, interpretive centers, and recurring annual costs for operations and management. Direct land conservation costs for alternatives C, D and E cannot be estimated in the abstract without reference to a particular site-specific proposal. Estimates would be prepared when and if a more detailed concept is formulated. NPS is not aware of any regulatory constraints associated with land acquisition.

9. **Concern:** NPS should consider a Chesapeake Bay National Heritage Area either in partnership with the Chesapeake Bay Gateways Network or as a separate alternative. (Maryland Heritage Areas including Annapolis, London Town and South County Heritage Area, Baltimore City Heritage Area, and Caroline, Kent, Queen Anne's and Talbot County Heritage Area)

Response: The Chesapeake Bay watershed already encompasses 17 designated state heritage areas: 11 heritage areas in Maryland, 5 heritage regions in Pennsylvania and 1 urban cultural park in New York. Many, if not all of these heritage areas address regional themes with direct or indirect relationships to the Chesapeake Bay. Several of the Maryland heritage areas adjoin the main-stem of the Bay itself. The existing Chesapeake Bay Gateways Network, while substantially different, does support initiatives complementary to many heritage areas, but addresses them across a broader geographic area. The National Park Service believes that creation of a Chesapeake Bay National Heritage Area would be redundant with these existing programs. Moreover, the scale and magnitude of the Chesapeake Bay watershed – 64,000 square miles in 6 states and the District of Columbia – would make the planning and management requirements of national heritage areas impracticable.

10. **Concern:** One of the action alternatives should be a “full-fledged national park”, as opposed to the other types of park units described in the alternatives. (Many Rivers Community History Network).

Response: The National Park System consists of more than 388 units. They go by many names - national parks, monuments, historic sites, historical parks, seashores, recreation areas, and many others. In total there are more than 20 different "titles" within the Park System. These numerous designations sometimes confuse visitors and, in fact, the titles have not been used consistently over the years. In 1970, Congress passed legislation saying all units of the system have equal legal standing in a national system.

The titles chosen for each of the action alternatives are derived from matching the types of resources and intended conditions associated with each concept with the most typical description found among existing units of the National Park System. Alternative C is thus a national park focused on the Chesapeake Bay Estuary.

BRIEFINGS AND CONSULTATIONS

In addition to the sessions noted above, the study team has provided briefings and consultations, upon request, to federal, state and local jurisdictions, stakeholder agencies and organizations, resource managers, and other officials. The following is a list of organizations and agencies with which briefings and consultations have been held up until the publication date of this study. Additional briefings and consultations will continue to be held upon request through the end of the study.

01/24/02	Regional Director's Briefing
02/28/02	NOAA Chesapeake Bay Office
03/05/02	US EPA, Chesapeake Bay Program Office
03/07/02	NPS Directorate Briefing
03/07/02	Alliance for the Chesapeake Bay
03/26/02	NPS Director's Briefing
04/24/02	NPS Natural Resources Staff Briefing
05/10/02	Office of Congressman Wayne Gilchrest
05/10/02	Office of Congresswoman Jo Ann Davis
05/14/02	Chesapeake Bay Commission
05/23/02	Chesapeake Bay Foundation
05/24/02	Office of Congressman Steny Hoyer
07/01/02	Virginia Secretary of Natural Resources, Virginia Department of Conservation and Recreation, Virginia Tourism Corporation, Virginia Department of Historic Resources
07/03/02	Office of Senator George Allen; Office of Senator John Warner
07/03/02	Office of Congressman Ed Schrock
07/03/02	Office of Congressman Robert Scott
07/05/02	Office of Congressman Robert Ehrlich
07/10/02	Maryland Historical Trust
07/30/02	Office of Congressman Ben Cardin
08/12/02	Maryland Office of Tourism Development
08/13/02	Maryland Department of Natural Resources
08/15/02	US Environmental Protection Agency, Chesapeake Bay Program Office
08/16/02	Citizens Advisory Committee, Chesapeake Bay Program
08/21/02	USDA Forest Service, Chesapeake Bay Office
08/27/02	US Fish & Wildlife Service, Blackwater National Wildlife Refuge; Friends of Blackwater National Wildlife Refuge
09/04/02	Chesapeake Bay Program Office Staff
09/05/02	Ad Hoc Committee for Harriet Tubman National Park
09/10/02	Tidewater Farmers Club
09/12/02	Local Government Advisory Committee, Chesapeake Bay Program
09/19/02	Implementation Committee, Chesapeake Bay Program
09/23/02	US Army Corps of Engineers, Baltimore District
09/25/02	Principals Staff Committee, Chesapeake Bay Program
11/03/02	Maryland Watermen's Association
11/08/02	Virginia Department of Conservation and Recreation
11/18/02	Maryland Department of Natural Resources
12/19/02	NPS National Capital Region
12/19/02	National Parks Conservation Association
01/02/03	Chesapeake Bay Commission
01/24/03	Chesapeake Bay Gateways, Annapolis Area
01/24/03	Chesapeake Bay Gateways, Kent Island/Mid-Eastern Shore Area
01/27/03	Chesapeake Bay Gateways, Central Eastern Shore
01/29/03	Chesapeake Bay Gateways, James and York Rivers Area
02/05/03	Office of Senator Paul Sarbanes
02/12/03	Chesapeake Bay Gateways Network Working Group

02/20/03 Chesapeake Bay Gateways, Southern Maryland Area
 02/24/03 Chesapeake Bay Gateways, Northern Neck Area
 02/27/03 Chesapeake Bay Gateways, Hampton Roads Area
 02/28/03 Chesapeake Bay Gateways, Pennsylvania, New York & W. Virginia
 03/03/03 Chesapeake Bay Gateways, Baltimore Area
 03/04/03 Chesapeake Bay Gateways, South Central Eastern Shore Group
 03/05/03 Chesapeake Bay Gateways, Washington DC/Potomac Area
 03/07/03 Chesapeake Bay Gateways, Upper Bay Area
 03/26/03 Sierra Club, Montgomery County MD Chapter
 04/22/03 Chesapeake Bay Foundation
 5/13/03 Virginia Tourism Corporation
 5/13/03 Office of the Secretary, U.S. Department of Interior
 5/21/03 Chesapeake Bay Commission
 5/22/03 Office of Congressman Ed Shrock
 5/22/03 Office of Congressman Robert Scott
 5/22/03 Office of Congresswoman JoAnn Davis
 5/28/03 Office of Congressman Wayne Gilchrest
 5/28/03 Office of Congressman Dutch Ruppersberger
 6/02/03 Office of Congressman Steny Hoyer
 6/02/03 Office of Senator John Warner
 6/02/03 Office of Senator George Allen
 6/20/03 Office of Senator Barbara Mikulski
 6/24/03 Talbot County Council (MD)
 7/7/03 Maryland Department of Natural Resources
 7/9/03 Chesapeake Bay Gateways Network Working Group
 7/14/03 Chesapeake Bay Program Office Staff
 7/23/03 Middle Peninsula Planning District Commission (VA)
 7/25/03 Office of Congressman Ed Shrock
 8/7/03 Towson MD Rotary Club
 8/9/03 Citizens' Advisory Committee, Chesapeake Bay Program
 8/11/03 Middle Peninsula Land Trust (VA)
 8/13/03 National Parks Conservation Association
 8/19/03 Annapolis MD Rotary Club
 8/21/03 Maryland Saltwater Sportfishing Association
 10/27/03 Northeast Regional Director, NPS
 11/6/03 Town Hall Meeting, Chesapeake Bay Gateways Network
 12/18/03 The Conservation Fund
 2/6/04 NPS Directorate
 2/6/04 Office of the Assistant Secretary, Fish, Wildlife & Parks, DOI
 2/17/04 Office of Governor Robert Ehrlich, Maryland
 3/3/04 Maryland Office of Tourism Development
 3/18/04 Implementation Committee, Chesapeake Bay Program
 3/29 - 4/2/04 New Gateways, Chesapeake Bay Gateways Network Orientations

COMPLIANCE WITH LAWS AND REGULATIONS

The following laws and associated regulations provided direction for the project alternatives and the analysis of impacts:

National Environmental Policy Act of 1969 (Title 42 U.S. Code Sections 4321 to 4370 [42 USC 4321-470]). The purposes of National Environmental Policy Act include encouraging “harmony between [humans] and their environment and promote efforts which will prevent or eliminate damage to the environment...and stimulate the health and welfare of [humanity].” The purposes of the National Environmental Policy Act are accomplished by evaluating the effects of federal actions. The results of these evaluations are presented to the public, federal agencies, and public officials in document format (e.g., environmental assessments and environmental impact statements) for consideration prior to taking official action or making official decisions. Implementing regulations for the National Environmental Policy Act are contained in Part 1500 to 1515 of Title 40 of the U.S. Code of Federal Regulations (40 CFR 1500-1515).

Endangered Species Act of 1973, as amended (16 USC 1531-1544). The purposes of the Endangered Species Act include providing “a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved.” According to the Endangered Species Act, “all Federal departments and agencies shall seek to conserve endangered species and threatened species; and “[e]ach Federal agency shall...insure that any action authorized, funded, or carried out by such agency...is not likely to jeopardize the continues existence of any endangered species or threatened species.” The U.S. Fish and Wildlife Service (non-marine species and the National Marine Fisheries Service (marine species, including anadromous fish and marine mammals) administer the Endangered Species Act. The effects of any agency action that may affect endangered, threatened, or proposed species must be evaluated in consultation with either the U.S. Fish and Wildlife Service or National Marine Fisheries Service, as appropriate. Implementing regulations that describe procedures for interagency cooperation to determine the effects of actions on endangered, threatened, or proposed species are contained in 50 CFR 402.

National Historic Preservation Act of 1966, as amended (16 USC 470 *et sequentia*). Congressional policy set forth in the National Historic Preservation Act includes preserving “the historical and cultural foundations of the Nation” and preserving irreplaceable examples important to our national heritage to maintain “cultural, educational, aesthetic, inspirational, economic, and energy benefits.” The National Historic Preservation Act also established the National Register of Historic Places composed of “districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering, and culture.” Section 106 of the National Historic Preservation Act requires that federal agencies take into account the effects of their actions on properties eligible for or included in the National Register of Historic Places and coordinate such actions with State Historic Preservation Offices. The National Historic Preservation Act also requires federal agencies, in consultation with the State Historic Preservation Office, to locate, inventory, and nominate all properties that appear to qualify for the National Register of Historic Places, including

National Historic Landmarks. Further, it requires federal agencies to document those properties in the case of an adverse effect and propose alternatives to those actions, in accordance with the National Environmental Policy Act.

Clean Water Act of 1972, as amended (33 USC 1251-1387). The purpose of the Clean Water Act is to “restore and maintain the chemical, physical and biological integrity of the Nation’s waters.” The U.S. Army Corps of Engineers has been charged with evaluating federal actions that result in the potential degradation of the waters of the United States and issuing permits for actions consistent with the Clean Water Act. In some cases, state governments help administer the program through a joint permitting process.

Section 10 of the Rivers and Harbor Act of 1899 (33 USC 403). Section 10 of the Rivers and Harbor Act regulates activities in navigable waters of the United States. The Corps of Engineers is the regulatory agency responsible for Section 10 reviews. Section 10 states “That the creation of any obstruction not affirmatively authorized by Congress, to the navigable capacity of any of the waters of the United States is hereby prohibited; and it shall not be lawful to build or commence the building of any wharf, pier, dolphin, boom, weir, breakwater, bulkhead, jetty, or other structures in any port, roadstead, haven, harbor, canal, navigable river, or other water of the United States, outside established harbor lines, or where no harbor lines have been established, except on plans recommended by the Chief of Engineers and authorized by the Secretary of War; and it shall not be lawful to excavate or fill, or in any manner to alter or modify the course, location, condition, or capacity of, any port, roadstead, haven, harbor, canal, lake, harbor of refuge, or enclosure within the limits of any breakwater, or of the channel of any navigable water of the United States, unless the work has been recommended by the Chief of Engineers and authorized by the Secretary of War prior to beginning the same (USACE, 2002).”

Coastal Zone Management Act of 1972 (16 USC 1451-1464). The Coastal Zone Management Act presents a Congressional declaration to ‘preserve, protect, develop, and where possible, to restore or enhance, the resources of the Nation’s coastal zone for this and succeeding generations.’ The Act also encourages “states to exercise effectively their responsibilities in the coastal zone through the development and implementation of management programs to achieve wise use of the land and water resources of the coastal zone.” All actions proposed by federal, state, and local agencies must be consistent with the Coastal Zone Management Plan, as determined by the implementing state.

Pursuant to the Coastal Zone Management Act, the National Oceanic and Atmospheric Administration approved Maryland’s and Virginia’s Coastal Resources Management Programs. Accordingly, federal activities which are reasonably likely to affect any land or water use or natural resources of the state’s designated coastal resources management area must be consistent with the enforceable policies of the state’s Coastal Resources Management Program.” All federal development projects inside the coastal zone are automatically subject to consistency and require a Consistency Determination.

The alternatives considered in the SRS/EIS have the potential to be in and impact the state's coastal zone. In as much as the Chesapeake Bay SRS/EIS is a programmatic study, the National Park Service will further evaluate the potential impact on the state's coastal zones as site specific information becomes available in later phases of the project and then make a Federal consistency determination that will be submitted to the state's Coastal Zone Management Program for review and concurrence.

Chesapeake Bay Critical Area Law (COMAR 14.15) and Virginia Chesapeake Bay Environmental Preservation Act of 1988. In 1986, the State of Maryland approved the final regulation and guideline for the establishment of the Critical Area Commission, (Subtitle 8-1801-1816) and criteria for the Chesapeake Bay Critical Area Law (COMAR 14.15). The purpose of the law is to regulate activities within 1,000 feet of tidal waters of the Chesapeake Bay with the intent of improving the water quality and habitat in the Bay (MDE, 2002). Virginia has enacted similar legislation in the Chesapeake Bay Environmental Preservation Act of 1988 that requires local governments to designate and protect Chesapeake Bay Preservation Areas. These areas include Resource Protection Areas (RPAs)-extremely sensitive areas such as streams, rivers, lakes, and wetlands and a 100-foot buffer surrounding them -- and Resource Management Areas (RMAs) - areas in which improper development can also degrade water quality.

Chesapeake Bay Restoration Act of 2000. In 2000, Congress passed legislation that further committed the signatories of the Chesapeake Bay Agreement to a comprehensive cooperative program to improve water quality and the productivity of living resources in the Bay and continue federal support.

The Chesapeake Bay Initiative of 1998 (as amended). This is the enabling legislation for the Chesapeake Bay Gateways Network. Recognizing the importance of the Chesapeake Bay, Congress passed this initiative to enhance education, interpretation, public access, and conservation of natural, cultural and recreational resources associated with the Chesapeake Bay. The Act authorizes technical and financial assistance for a series of gateways, trails, and other connections linking sites. The program also provides grants to federal, state, and local partners, non-profit and private entities to conserve and interpret the Chesapeake Bay. The Gateways Network sunsets in 2008.

LIST OF RECIPIENTS OF THE DRAFT AND FINAL REPORT

The draft SRS/EIS was published in two forms: a 32-page Executive Summary and the complete 159-page draft study report. The Executive Summary, which contained complete descriptions of the study alternatives, was broadly distributed to the entire study mailing list, including county and local governments along the Chesapeake Bay. The full study report was mailed to the state and federal agencies and members of Congress listed below. Copies of both the Executive Summary and the full study report were also available on the study website www.chesapeakestudy.org.

U.S. Senator Paul Sarbanes, MD
U.S. Senator Barbara Mikulski, MD

U.S. Senator Arlen Specter, PA
U.S. Senator Rick Santorum, PA
U.S. Senator John Warner, VA
U.S. Senator George Allen, VA
Congresswoman Eleanor Holmes Norton, DC
Congressman Wayne Gilchrest, MD - District 1
Congressman Steny Hoyer, MD - District 5
Congressman Benjamin Cardin, MD - District 3
Congressman Dutch Ruppersburger, MD - District 2
Congressman Elijah Cummings, MD - District 7
Congresswoman Jo Ann Davis, VA - District 1
Congressman Edward Schrock, VA - District 2
Congressman Robert Scott, VA - District 3
Congressman J. Randy Forbes, VA - District 4
Americorps National Civilian Community Corps
Commander, Navy Region Mid-Atlantic
Defense Logistics Agency
Federal Highway Administration
General Services Administration
MD Farm Service Agency
National Aeronautics and Space Administration
National Capital Planning Commission
National Oceanic and Atmospheric Administration
Natural Resources Conservation Service
US Air Force
US Army
US Army Corps of Engineers
US Army Environmental Center
US Coast Guard
US DOT - Maritime Administration
US Environmental Protection Agency
USDA Agricultural Research Service
USDA Forest Service
USDOI Fish and Wildlife Service
USDOI Geological Survey
USDOI National Park Service
US Marine Corps
US Postal Service
MD Dept. of Housing & Community Development, Maryland Historical
Trust
MD Dept. of Natural Resources
MD Dept. of Business & Economic Development, Office of Tourism
Development
MD Office of Planning
PA Department of Conservation and Natural Resources
PA Fish & Boat Commission
VA Department of Conservation and Recreation
VA Department of Historic Resources
VA Tourism Corporation
VA Dept. of Environmental Quality

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Section 9: References

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Appendix A: Sub-Themes Associated with the Chesapeake Bay

THE LIVING, NATURAL BAY

- Geology & Formation of the Bay
- Bay Geography & Topography
- Area Mineral Deposits
- The Bay's Waters
- Estuarine Ecology
- Tidal Wetlands
- Natural Productivity & Abundance of the Bay
- Biological Diversity
- Native Plant Communities
- Finfish & Shellfish
- Wildlife & Waterfowl
- Bird Migration Patterns
- Natural Disasters

PEOPLES OF THE BAY

- 13,000 Years of Immigration & Diversity
- History of Changing Societies & Cultures
- Occupations of Bay Inhabitants
- Heritage Tourism
- Racial & Ethnic Heritage

SETTLEMENT OF THE BAY

- Indigenous Communities
- European Exploration & Settlement
- Africans & African Americans
- The Built Environment of the Bay
- The Growth of Regional Population Centers

AN ECONOMIC RESOURCE

- Marine Resources Harvesting & Harvesters
- Land & Mineral Resources
- Agriculture in the Chesapeake Bay
- Trade Relationships & the Bay
- The Bay & Its Tributaries as Highways
- The Evolution of Transportation
- Shipbuilding
- Throughout the Region & to & from the Nation
- Recreation & Tourism in the Bay
- Area Manufacturing & Industrialization
- The Bay Economy in the Twenty-First Century

MILITARY & NAVAL PRESENCE

- Battles & Impact of the Revolutionary War
- The Chesapeake in The War of 1812
- The Civil War in a Divided Region
- Bay Installations in Twentieth Century Wars
- Naval Ports & Military Installations
- Naval Shipbuilding, Design & Weaponry

RECREATION & RENEWAL

- Water Sports in the Bay
- Fishing
- Exploring the Bay's Terrain
- The Bay in Art
- Decoy Carving
- Birding & Wildlife Viewing
- Heritage Tourism & Ecotourism
- Regional Music & Folklore

STEWARDSHIP & SUSTAINABILITY

- Changing Perspectives on the Bay
- Changing Attitudes & Behaviors
- Living Resource Restoration & Protection
- Vital Habitat Restoration & Protection
- Water Quality Restoration & Protection
- Sound Land Use in the Bay Area
- Individual Responsibility for the Bay
- Community Stewardship Engagement

**Appendix B:
Comments from Federal, State and
Local Government Agencies and
Nongovernmental Organizations**



DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, U.S. ARMY CORPS OF ENGINEERS
P. O. BOX 1715
BALTIMORE, MARYLAND 21203-1715

REPLY TO
ATTENTION OF

Planning Division

August 7, 2003

Mr. Jonathan L. Doherty
Director, Chesapeake Bay Program Office
National Park Service
410 Severn Avenue, Suite 109
Annapolis, Maryland 21402

Dear Mr. Doherty:

The purpose of this letter is to provide you with the U.S. Army Corps of Engineers, Baltimore District, Planning Division's comments on the National Park Service's *Draft Chesapeake Bay Special Resource Study and Environmental Impact Statement*. The comments provided below address the Corps areas of concern, including direct and indirect impacts on existing and/or proposed Corps projects and proximity to and impacts on floodplains.

Based upon our review of the draft report, due to the nature of the study, it is not anticipated that Corps projects within the region or the floodplains within the Chesapeake Bay watershed will be adversely impacted.

If you have any questions regarding this matter, please contact Ms. Kara Deutch at (410) 962-8160.

Sincerely,

Robert F. Gore
Chief, Planning and Environmental
Services Branch



Citizens Advisory Committee to the Chesapeake Executive Council

Jonathan Doherty
National Park Service
410 Severn Avenue, Suite 109
Annapolis, MD 21403

September 10, 2003

Dear Jonathan:

The Citizens Advisory Committee (CAC) commends you and your staff on the efforts to explore a new unit of the National Park System focusing on the Chesapeake Bay. You have done a tremendous amount of work in developing the 5 options and soliciting public comments. The Chesapeake Bay is a natural resource worthy of this type of study. Additional Chesapeake Bay resources within the National Park System make tremendous sense and will advance partnership efforts to conserve and celebrate the Chesapeake Bay. Education and access should be important pieces of your decision process.

CAC is formally submitting their comments per your request. In reviewing the five options, our recommendation is a combination of Alternative B: "An Enhanced Chesapeake Bay Gateways Network", and Alternative D: "A Chesapeake Bay National Reserve". It is crucial that the Bay's maritime and rural heritage is protected, while also establishing a permanent watershed-wide system of places for our citizens to enjoy and experience the Chesapeake Bay.

We wish you the best of luck pulling the comments together to develop the study report.

Sincerely,

Roy A. Hoagland, CAC Chair

Cc: Secretary Tayloe Murphy, PSC Chair
Cc: Ellen Moyer, LGAC Chair
Cc: Dr. Carl Hershner, STAC Chair

Alliance for the Chesapeake Bay

CHAIR
Roy A. Hoagland
Engineer

VIC-CHAIR
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FAIRFAX COUNTY PARK AUTHORITY

12055 Government Center Parkway, Suite 927
Fairfax, VA 22035-1118



September 9, 2003

Mr. Jonathan Doherty
Director, Chesapeake Bay Program Office
National Park Service
410 Severn Avenue, Suite 109
Annapolis, MD 21403

Dear Mr. Doherty:

In response to your request for public comments and based on the options given, Alternatives B or D would be the preferred choices of the Park Authority.

We support Alternative B with the understanding that the National Park Service would expand the current Gateways program to be permanent with increased funding. The new program would include the construction of two major interpretive facilities within the Chesapeake Bay watershed, one to the north and one to the south.

We also endorse Alternative D, which represents a bolder and more challenging approach. The National Reserve concept recognizes and preserves the bay's maritime and rural agricultural heritage. Significant effort would be made to protect the traditional livelihood of bay fishermen, farmers and foresters, etc., by restricting urban sprawl to preserve the natural/cultural landscape. The 'reserve' would be a smaller watershed community within the bay that would be representative of and reflect the bay's heritage - like taking a picture of the past and preserving it for future generations to see, learn and appreciate. A single interpretive center would be constructed that would provide the visitor with the learning tools for seeing and understanding a whole host of bay themes and conservation issues. Subsequently, visiting various sites within the 'reserve' would help the visitor reinforce their stewardship responsibilities. The partnership efforts with local, state and federal government and the private sector would help to bring a clearer focus on the bay's conservation issues and inspire higher awareness and cooperation toward protection and preservation of bay resources.

The Park Authority endorses both alternatives, but would suggest Alternative D, since it offers the added dimension of a demonstration 'reserve' which enables the visitor to recognize the dramatic differences between thoughtful conservation efforts and development patterns that threaten the heritage of the bay.

Yours truly,

Michael A. Kane
Director

703-324-8700 • TTY: 703-324-3988 • ONLINE: www.fairfaxcounty.gov/parks • E-MAIL: parkmail@fairfaxcounty.gov

If accommodations and/or alternative formats are needed, please call (703) 324-8652, at least 10 working days in advance of the registration deadline or event. TTY: (703) 803-3354



Organizational Comment Submitted via Website Comment Form

Comment from: Dwight Williams (Calvert County Parks, including 3 Gateways)

General Comments:

Comments on Alternative A:

Current program is very good but new initiatives continue to breathe life into such a program and today's program is due to end in a few years.

Comments on Alternative B:

At a minimum, this program should be made to be permanent to reflect the significance of the Chesapeake Bay and the importance a coordinated approach to educating future generations.

Comments on Alternative C:

Perhaps desirable but could likely turn into an over used recreation area. I could see public demanding access for jet skis and other power vessels and then you have a problem like Yellowstone with the snowmobiles.

Comments on Alternative D:

I view this alternative as highly desirable as long as it does not replace the existing program.

Comments on Alternative E:

I view this as desirable but not as likely to become a reality. We need to educate people why it is important to protect these areas and maybe existing preservation programs like The Nature Conservancy and The Conservation Fund are better avenues to take on such a task.



Chesapeake Bay Commission
Policy for the Bay · www.chesbay.state.va.us

September 11, 2003

Mr. Jonathan Doherty
Chesapeake Bay Special Resource Study Director
National Park Service
Chesapeake Bay Program Office
410 Severn Avenue, Suite 109
Annapolis, MD 21403

Dear Mr. Doherty:

Thank you for the opportunity to comment on the draft Chesapeake Bay Special Resource Study. The Chesapeake Bay Commission wholeheartedly endorses the recognition of the Chesapeake Bay and its watershed as a unique national resource deserving of protection as one of America's treasured places. In fact, the diversity of the Bay's ecological, cultural and historical resources makes it difficult to select any one of the four "action alternatives" described in the Special Resource Study. For that reason, we would like to comment upon the focus, priorities and goals that a Chesapeake Bay National Park unit should incorporate to best advance partnership efforts to conserve and celebrate the Chesapeake Bay, regardless of the option selected.

As one of the partners in the Bay restoration, you are well aware of the political, fiscal and technical challenges associated with attaining the commitments outlined in Chesapeake 2000, our blueprint for restoring and sustaining the Bay's ecosystem. The creation of a Chesapeake Bay National Park unit would provide invaluable assistance in meeting these goals. In particular, the Commission recommends that technical and financial assistance be directed toward the following components, to be included as important features of any selected alternative:

- > Land conservation
- > Habitat restoration and protection
- > Enhanced interpretation, education, and stewardship opportunities
- > Increased public access to water resources
- > Support for the use and demonstration of best management practices for reducing pollution and improving water quality

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PHONE 804.786.4849 · FAX 804.371.0659 PHONE 717.332.1103 · FAX 717.232.1104

By focusing national attention upon the inherent beauty and abundance of the Bay and its rich cultural and historic values, a National Park Service unit would also educate and motivate visitors to protect this unique resource. As part of the experience of visiting and exploring the Bay, the Chesapeake Bay Commission supports the concept of a Chesapeake Bay National Water Trail tied to the 400th anniversary of the founding of Jamestown and the expeditions of Captain John Smith. In the mix of alternatives considered under the Special Resource Study, such a trail would be linked to the Bay's existing water trails and Gateway sites. The Chesapeake Bay National Water Trail would add an important element to any successful national park for the Bay region.

We applaud your efforts to date to flesh out the image of what a Chesapeake Bay National Park might look like and what it would offer in terms of recreation, education, conservation and stewardship. The possibilities are quite exciting and the Chesapeake Bay Commission looks forward to continuing our close working relationship with you and our other Bay partners in working to ensure long-term enjoyment and livelihood from the land and water resources of our cherished Chesapeake Bay. It has been a pleasure to work with you.

Sincerely,

Robert S. Bloxom
Robert Bloxom, Chairman
Virginia House of Delegates

J. Lowell Stoltzfus
Lowell Stoltzfus, Vice-Chairman
Senate of Maryland

Russ Fairchild
Russ Fairchild, Vice-Chairman
Pennsylvania House of Representatives

RE: Comment Deadline on Bay Study Coming Up

Jonathan Doherty (CIMS)

From: Katherine Magruder [KMagruder@qac.org]
Sent: Monday, August 18, 2003 12:49 PM
To: 'Jonathan Doherty (CIMS)'
Subject: RE: Comment Deadline on Bay Study Coming Up

Jonathan,
I sent comments but want to add an idea. Could NPS operate a service to provide transportation from various sites on the bay to others as interpreted tours? This would manage access and impacts and make the Bay itself somewhat the park. Could have a base of operations at the Manapeake Maritime Center on Kent Island as well as other sites around the Bay?

I. Katherine Magruder, Director
Queen Anne's County Department of Business & Tourism
425 Piney Narrows Road
Chester, MD 21619
(410)604-2100 fax:(410)604-2101
kmagruder@qac.org

-----Original Message-----
From: Jonathan Doherty (CIMS) [mailto:JDoherty@CHESAPEAKEBAY.NET]
Sent: Friday, August 15, 2003 3:01 PM
To: GATEWAYS@LISTSERV.CHEAPEAKEBAY.NET
Subject: Comment Deadline on Bay Study Coming Up

Please remember to submit your comments on the Chesapeake Bay Special Resource Study by Friday August 29.

The study outlines alternatives for how the National Park Service might better help conserve and celebrate the Chesapeake Bay. Some alternatives address the Chesapeake Bay Gateways Network. Your opinions are important!

You can submit comments:
- on-line through the study website at www.chesapeakestudy.org
- via email to spstudy@chesapeakebay.net
- by mail or fax to the address below.

Remember, comments are due soon. If you've already submitted comments, thanks!

Jonathan Doherty
Director, Chesapeake Bay Program Office
National Park Service
410 Severn Avenue, Suite 109
Annapolis MD 21403
410 267 5725

Organizational Comment Submitted via Website Comment Form

Comment from: I. Katherine Magruder (Queen Anne's County - Chesapeake Exploration Center)

General Comments:

I am interested in where you might locate a CB Interpretive Center and how accessible/visible it would be to the public.

I am concerned that targeting just one river or one island would render the rest less special somehow.

Neither would an assembled "habitat" represent the diversity of the watershed environment or cultural landscape except in the most artificial way.

It may be necessary to have an assemblage of sites which brings you back full circle to Option B.

I would ask NPS planners to start with the interpretive themes or cultural stories that need to be told about the Bay or somehow preserved, and flesh out projects that would accomplish that goal.

Like the vanishing Skippacks and oyster industry, the migratory waterfowl that were once abundant in the watershed, the colonization of the nation through the various Ports of Entry towns, etc.

Thanks for the opportunity to comment!

Comments on Alternative A:

Comments on Alternative B:

This seems to be most compatible with all other efforts and initiatives underway. Particularly Maryland Heritage Areas program. NPS Gateways could support interpretive work and collections management at sites like the Chesapeake Bay Maritime Museum or the Chesapeake Exploration Center or Chesapeake Bay Environmental Center, etc. Rather than trying to find just the right site to re-invent the wheel. Sites like Eastern Neck and Blackwater could be targeted for improved interpretive programming. NPS could market this network, as it does now.

Comments on Alternative C:

Comments on Alternative D:

Comments on Alternative E:

Chesapeake Research Consortium, Inc.
645 Conches Wharf Road
Edgewater, MD 21037
(410) 798-1283
(301) 361-4500
FAX: (410) 798-0816
www.chesapeake.org



The Johns Hopkins University
University of Maryland
Smithsonian Institution
The College of William & Mary
The Academy of Natural Sciences
Old Dominion University

21 August 2003

Dr. Jonathan L. Doherty
Director, NPS CRCPO
410 Severn Avenue, Suite 109
Annapolis, MD 21402

Dear Dr. Doherty:

I just completed the Executive Summary of the NPS Special Resource Study on alternatives for an expanded NPS Chesapeake Bay program. I found the summary extremely enlightening on present activities. And more importantly, the alternatives presented in the Summary are even more intriguing and potentially offer the regional research and management communities excellent opportunities for expanding restoration efforts in Bay areas that might be included in whichever alternative the NPS selects to move forward on over the next several years.

Our organization, the Chesapeake Research Consortium (CRC), is a partnership of six major research institutions in the watershed (see enclosure) with specific goals to expand multi-disciplinary research on Bay watershed processes and transfer these results to the management community in an understandable manner to assist in formulation of regional management policies based on sound science. As our institutions are committed to the collection of relevant, sound field and experimental evidence on basin-wide processes in the air, land, and water, exemplified by the on-going project that includes the NPS and several of our member institutions ("Chesapeake Watershed Cooperative Ecosystem Study Unit"), two of the alternatives outlined in the NPS study could provide critical sites not only for outreach and education of park visitors to the Bay's habitats, living resources, and culture but ideal field locations for assessments of various restoration approaches now employed or potentially implemented over the next several years to address *Chesapeake 2000* goals. They could be 'living laboratories' for assisting expanded health of the Bay.

The CRC therefore encourages adoption of Alternatives C or E. Alternative C, the Estuary Park, would provide sites for critical assessments of effectiveness of marine resource protected areas or preserves for several important biotic assemblages like SAV and its associated fauna ('nursery ground', 'refuge') as well as oyster reefs and their faunal assemblage. Text on p. 15 specifically refers to these two groups, but these are

-2-

-Comment, NPS Chesapeake Bay-

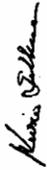
actually assemblages of the 'fragile' species and the fauna they support, ingredients of a diverse, healthy, and productive estuary. Further, marshes that border the Estuary Park would provide similar field sites for the investigation of marsh-mediated nutrient management, particularly if the marshes bordered a variety of different land uses. I would volunteer that the research community of the CRC and the larger regional community would eagerly work with the NPS in designing, establishing, and monitoring MPAs or preserves for these two assemblages, across the Estuary Park so as to insure replication and comparative analysis; similarly, assessing marsh-bordering land use impacts on nutrient fluxes into the estuary could be readily completed. The results, in turn, would benefit the greater community in defining successful approaches to restoring valued resources and potentially foster adoption of the approaches across the multiple jurisdictions of the watershed. Through the interpretive center and virtual interpretive capability that might be set up at the center, value of the MPAs, preserves, or marshes could be broadcast across the numerous museum and education centers of the watershed, familiarizing our citizens with the practical ways to bring our resources back through responsible, focused management and the benefit of these resources to the Bay's water quality, potential production possible for sustainable fisheries, and aesthetics.

Alternative E, Watershed, offers the same options at the mouth of the creek or river entering the larger estuary. However, estuarine sites might be more limited due to reduced acreage of given salinities since the system extends from the estuary to headwaters of the watershed. The salinity gradient provides a suite of land-water interfaces for exploring a large number of pressing problems in our basin, and therefore a natural experimental system permitting rigorous assessments of a number of processes governed by land use and soil conditions on one side of riparian strips, for example, and receiving waters on the other. Based on the cited dependence on a watershed management plan (p. 27) perhaps co-drafted by interested researchers, critically important processes could be investigated in the Watershed. For example, through focused field studies of feeder creeks in the watershed, comparing loads and characteristics of creeks under one land use pattern versus other land uses possible in the watershed, it would be possible to further refine and quantify land use impacts on many similar systems of the watershed. For those areas with predominantly agricultural activities, loads versus soil nutrient content and local hydrology (surface and subsurface), meteorology, and fertilizer application could be further assessed, a huge problem for the entire watershed. Efficiencies of Best Management Practices in agricultural and non-agricultural land uses could also be determined, a huge deficiency in our regional comprehension of reducing nutrient enrichment to our eutrophic waters. The practices, procedures, and results associated with all of these studies could be viewed by Park visitors in the field and the interpretive/education center, and using the visual experience capability likely possible in today's web-based society, provide real-time output and distribution across the basin.

As you are aware through the "Chesapeake Watershed Cooperative Ecosystem Study Unit" project focusing on integrated ecosystem management, the CRC institutions have developed renowned research expertise in a number of the areas I referenced above and hence, we through the CRC volunteer to assist the NPS as it moves forward in the development of science-based management plans and associated field research efforts to explore some of the topics outlined. Many of our living resources and habitats are compromised in the Bay and its many tributary watersheds and NPS parks developed in the estuary or a watershed would provide excellent controlled sites for rigorously assessing restoration potential for some of our problem species. Further, the land-water linkage, through hydrology, meteorology, soil characteristics, and land use, could be monitored through time and managed change, providing invaluable information for effective management throughout other watersheds of the larger basin.

Please consider these recommendations as modest but important means for science-based management and assessment in the expanding NPS options for the Chesapeake Bay. I can visit with you at your convenience to discuss some of the areas I have outlined as well as identify researchers in the regional community who would eagerly help you and the NPS as your program moves forward. The NPS alternatives would be excellent opportunities to further restore our increasingly debilitated Bay.

Respectfully,



Kevin G. Sellner
Executive Director

encl.
file



Chesapeake Research Consortium

CRC MISSION

The Chesapeake Research Consortium, Inc. supports research, education, and service activities in the Chesapeake Bay region, its watershed, and the Middle Atlantic Bight. Further, CRC may support programs and projects whose findings or activities can be linked to issues or problems throughout the basin.

The Chesapeake Research Consortium is an incorporated, non-profit association of six academic and research institutions from the Chesapeake Bay region. Established in 1972, the CRC represents the Academy of Natural Sciences of Philadelphia, Old Dominion University, Smithsonian Institution, The Johns Hopkins University, University System of Maryland, and Virginia Institute of Marine Science. As an association of some of the most active research centers in the U.S., a primary goal is to ensure continued long-term support for basic and applied research for coastal issues, from land-based watershed considerations through rigorous investigation of water quality and living resources in its aquatic ecosystems. Of equal importance to the CRC is the incorporation of these research results into management and policy decisions for the Bay, its tributaries, its surrounding lands, and the biota that inhabit the system. CRC is committed to familiarizing public officials from local, state, regional, and Federal agencies with the latest research results for at a minimum, acknowledgement of alternatives for managing our resources, to direct inclusion of the research results in management of our threatened waters and living resources. Through this focus, CRC eagerly identifies critically needed research for our most urgent regional concerns and provides an overview of the regional research expertise for guiding public policy decisions.

CRC has historically encouraged new research initiatives, from the airshed, through the watershed, to tidal and non-tidal waters of the Bay and its tributaries. This has included expanding information exchange through workshops, colloquia, publications, the internet, and videos at the local, regional, and national level. It administers the Scientific and Technical Advisory Committee of the Chesapeake Bay Program, ensuring delivery of expert opinion on all topics pertinent to the system. It maintains a Fellowship Program, bringing in bright, enthusiastic staff to assist the Chesapeake Bay Program in many oversight and policy making activities as well as ensuring professional development for the next generation's decision makers. Through collaboration with other institutions and programs, such as the Sea Grant institutions in Maryland and Virginia, it expands community knowledge and furthers representation of this knowledge in many management groups in the region, from individual jurisdictions to regional advisory boards. In summary, the CRC not only seeks continued research in the Chesapeake watershed but is a regional resource to ensure the transfer of this accumulating information to those in the regional jurisdictions required to manage our air, lands, and waters.

Dr. Kevin Sellner, an active researcher in plankton ecology in the Chesapeake and other coastal environments for over 20 years, currently directs CRC activities from its base in Edgewater, MD. Sellner is strongly dedicated to providing and translating recent research results into comprehensible information for public officials. As a former researcher in the region, Sellner is familiar with most institutions and the research community, the State and Federal agencies and staffs focusing on Bay watershed-related problems, and easily and eagerly communicates with the scientists and public officials active in the area. As an oceanographer, Sellner interprets Bay issues with a multi-disciplinary and ecosystem approach, acknowledging the interdependence of land, water, and atmosphere processes and socio-economic demands in regulating water quality, dynamics, and stocks of the Bay and its tributaries. His rapport with the research community and Federal and State agencies and a strong willingness to assist in providing critically needed new information for management of all coastal resources ensures that the CRC will expand public management opportunities to include new, innovative alternatives based on state-of-the-art research.

Besides the expertise housed in the researchers within the member institutions of the consortium, the CRC is providing a number of services to its members and to the larger regional community. Besides its administrative role for the Scientific and Technical Advisory Committee and its own Fellowship Program described above, its staff includes an experienced modeler familiar with the Ecopath with Ecosim (EwE) modeling software, and hence a regional resource for development and application of a Chesapeake Bay EwE model of great importance for multispecies fisheries management. It is also overseeing an extended partnership between 20 organizations and institutions in the region focusing on expanding research and restoration technology advancements for freshwater submerged aquatic vegetation (Freshwater SAV Partnership). It's largest and newest effort, the Chesapeake Community Model Program, has been implemented to compile and, via the web, distribute models of the Bay, its watershed, and lands to complement the modeling activities of the Chesapeake Bay Program, thereby providing model code for system hydrodynamics, the food web, and surrounding water and airsheds. As a user friendly resource for the region's research and management communities, these models will offer opportunities not only for expanding research in these areas but addressing impacts of various management decisions on the system and its environs.

The CRC and Dr. Sellner can be contacted at any time to provide information, suggest experts, or assist regional officials in developing future policies dependent on inclusion of the most current scientific information. The CRC member institutions have the expertise and commitment to clearly identify critical information for most decisions impacting our regional environment through its extensive multi-disciplinary research capacity. As a regional and national resource, research within the CRC member institutions is unsurpassed, highly recognized, and supported.

For specific information on the Consortium or its ability to assist regional researchers, managers, or policy teams, please call 410-798-1283 or 301-261-4500 or explore our website <http://www.chesapeake.org>.

Kevin Sellner, Ph.D., Executive Director, Chesapeake Research Consortium, 645 Conices Wharf Road, Edgewater, MD 21037. sellnerk@csi.edu



September 17, 2003

Mr. Jonathan Doherty
Director, Chesapeake Bay Program Office
National Park Service
410 Severn Avenue, Suite 109
Annapolis, MD 21403

Dear Jonathan,

Thank you for the opportunity to comment on the alternatives outlined in the Draft Chesapeake Bay Special Resource Study and Environmental Impact Statement. I have outlined my comments and suggestions in the enclosed document. If you have any questions, or if you need more information, please contact me at 410.767.6286.

Sincerely,

Marci Wolff Ross

Marci Wolff Ross
Resource Development Manager
Maryland Office of Tourism Development

Enclosure

Maryland Office of Tourism Development, 217 East Radwood Street, 9th Floor, Baltimore, MD 21202
Tel: 410.767.3400/Web: www.mdwelcome.org

COMMENTS AND SUGGESTIONS ON ALTERNATIVES OUTLINED IN THE
DRAFT CHESAPEAKE BAY SPECIAL RESOURCES STUDY AND
ENVIRONMENTAL IMPACT STATEMENT

Comments on Alternatives:

Having reviewed the five Alternative concepts outlined in the SRS, the Maryland Office of Tourism Development (OTD) recommends a combination of Alternatives B and C as the preferred methodology for how the National Park System might best represent the national significance of the Chesapeake Bay. These two Alternatives, when combined, offer the best long-term opportunities to enhance the existing efforts to conserve restore and celebrate the Bay. The results of this action would provide visitors with a variety of optimal experiences and it would provide the NPS and other stakeholders with the greatest opportunity to educate the public to the importance of the Bay as a cultural and natural resource.

From an infrastructure standpoint, Alternatives B & C provide the physical and intellectual connections that best express the significance of the entire watershed. While the enhanced Gateways Network reaches far beyond any one site, it needs a "crown jewel" such as Estuary Park directly on the Bay to complete the overall product mix it has to offer. The Estuary Park is the core from which the entire identity of the Network would extend because of its water-based location and it's role as an interpretive/orientation center.

In looking at Alternatives D & E, they, too, could become the "crown jewel" in the Gateways Network but in the long run, they do not have the identity impact as that of the Estuary Park. Additionally, each element of these Alternatives is eligible for designation onto the Gateways Network thus resulting in a collection of Gateways that could ultimately accomplish the some of the same objectives.

Editorial Comments and Recommendations on the Draft Study:

- Page 25 - Add more "ing" activities to Recreational Opportunities such as Biking, Hiking and Wildlife Viewing, as is the list seems incomplete.
- Page 21, first paragraph, and Page 31, second to last paragraph - Each refers to Chesapeake 2000 but on page 23 it says 94 goals and on page 31 says 93 commitments. This is confusing... goals or commitments?...94 or 93? Or are these really two different things adding up to a combination of 187 goals and commitments?
- Page 45 - Existing Units of the NPS - Does not mention the Potomac Heritage National Scenic Trail or the Network To Freedom but there is considerable overlap physically and potential overlap interpretively. Should there be some mention in the study of these two initiatives? Maybe include them in the footnotes.
- Page 51 - Change to *Chesapeake Bay Interpretive and Orientation Centers*. In thinking of the vast expanse of the watershed and ultimately the Network, orienting users is going to be at least half (if not more) of what these centers will do.
- Page 67, fourth paragraph, seventh sentence - change "war" to "Civil War"

- Page 91, last paragraph, second sentence - missing some states or the wording is awkward
- Page 97, Visitor Use - add "international" to the end of the first sentence in both the first paragraph and third paragraph. Instead of local, regional and out-of-state, may want to use "domestic" as an alternative. Second sentence, first paragraph, change to "In this context, tourism and visitor use may be misleading..." As written, the language is misleading, or worse, untrue.
- In All Alternatives, add to both NPS and Partner Roles where applicable, actions that focus on marketing and measuring performance. For NPS Roles, editorial could read something like, "Coordinating with state and local organizations to market (Network, Park, Reserve, Preserve) to visitors and to measure the economic and other impacts as a result of increased visitation to the area." These performance measures will go a long way in attracting partner dollars to construct Interpretive/Orientations Centers.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Mr. Jonathan Doherty
Chesapeake Bay Program Office
410 Severn Avenue, Suite 109
Annapolis, Maryland 21403

SEP 14 2008

RE: Draft Chesapeake Bay Special Resource Study
and Environmental Impact Statement
CEQ #

Dear Mr. Doherty:

In accordance with the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act (CAA), EPA has reviewed the Draft Chesapeake Bay Special Resource Study (SRS) and Environmental Impact Statement. Based on our review we have assigned a rating of LO (Lack of Objections) because we believe that all proposed Alternatives (B, C, D, E) except the No Action Alternative (Alternative A) can individually or collectively support and enhance EPA's Chesapeake Bay Program efforts to restore water quality and living resources of the Chesapeake Bay. The EPA ranking scale can be found on EPA's website <http://www.epa.gov/compliance/ceqa/comments/ratings.html>. We wholeheartedly agree with the statement on Page 66 of the SRS, "The future of the Chesapeake Bay hangs in the balance - it's loss of biodiversity and abundance is symbolic of a national and global pattern". Which is why EPA firmly supports the implementation of any individual or combination of Alternatives B, C, D, and/or E. We clearly feel that Alternative A with the loss of the funding for the National Park Service Chesapeake Bay Gateways Network in FY 2008 would be detrimental to the future welfare of the Bay. EPA believes that it is paramount that the Chesapeake Bay receive recognition through designation under the National Park System. Therefore, we believe that some effort be made to modify Alternative B the Enhanced Gateways Network to include a more traditional NPS recognition/protection or combine Alternative B with another Alternative which provides the Bay with a NPS designation.

EPA believes that given the programmatic nature of the Draft SRS/EIS, the document provides an excellent overview of the expected environmental impacts. As with any programmatic EIS, after the Record of Decision selecting an alternative(s), EPA would like to participate in the review of future NEPA documentation for site specific activities as appropriate. Site specific project level impact analysis may require more detail than provided in this programmatic EIS on some resource issues whether provided in an EA/FONSI or an EIS/ROD for a particular project. Some examples are provided in the technical comments for your consideration on future documentation.

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In closing, each of the alternatives (B, C, D, E) specifically highlights a key quality or resource found within the Chesapeake Bay Watershed. While individually these alternatives can provide a benefit to the part of the watershed, implemented collectively, they would ultimately bring protection and enhancement to all the pieces and link the natural, cultural, aquatic and terrestrial resources of the Bay Watershed.

Thank you for providing EPA with the opportunity to comment on this document. Detailed comments are attached for your consideration. If you have any questions regarding our comments, feel free to contact Ms. Denise Rigney at 215-814-2726.

Sincerely,


William Arguto
NEPA Team Leader

EPA Technical Comments
Draft Chesapeake Bay Special Resource Study
and Environmental Impact Statement
9/17/03

The Chesapeake Bay Program Office (CBPO) is offering the technical comments below in an effort to facilitate a coordinated review of the NPS Chesapeake Bay Resource Study DEIS.

The Park Service has undertaken a systematic Study Process in developing both the Purpose and Need Statement and in preparing a draft study with alternative concepts. The product they have developed provides the reviewer with ample information and a clear factual basis for understanding the document. The rigorous outreach efforts NPS undertook (outlined in pages 38-40) have ensured that the alternatives encompass an impressive range of options, and each is supported with ample examples. The National Park Service is to be complimented for a thoughtful and comprehensive effort.

Alternatives Analysis

The DEIS evaluates several alternatives to gather feedback about whether the NPS should include some portion of the Chesapeake Bay as a unit of the Park Service. The draft document is programmatic, describing the general elements that would be included in various alternative scenarios. Should a preferred alternative be selected, the NPS would be expected to provide the appropriate NEPA documentation for project proposals providing specific details and a more complete analysis of expected impacts (an obligation explicitly recognized by NPS on p.11). As the authors note, identifying the environmentally preferable alternative is difficult "because the degree of the impact is largely dependent on the design and layout of the park unit, local conditions, and visitations levels, which have not been determined at this point of the study" (p. 11). Given the conceptual nature of the current draft, however, it provides an excellent overview of the expected environmental impacts. Similarly, it provides a thorough analysis of alternatives, including the "no action" alternative (Alternative A: *Today's Programs - No New Initiatives*) which is a continuation of the NPS's current Bay-related activities.

Environmental Consequences

As the authors note, Alternative A (*Today's Programs - No New Initiatives*) has the potential to provide adverse impact, as this does not provide for the continuation of the Gateways Network beyond 2008 (p. 101). This program facilitates conservation and education opportunities to the community for a limited time. This Alternative does not fulfill the purpose and need.

Each of the "action" alternatives has clear environmental benefits. Alternative B (*An Enhanced Chesapeake Bay Gateways Network - A Permanent Watershed-wide System of Special Bay Places for Experiencing the Chesapeake*) is different from the other action alternatives in that it would not technically be labeled as a unit of the National Park Service (p. 41). If this proposal is chosen for implementation it may require an assessment to determine if additional



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gateways may result in increased adverse environmental impacts to the Bay watershed. Other issues that might be considered in a NEPA document for the implementation of Alternative B are discussed in the sentences below. For example, will there be construction of new partnership interpretive centers (a question raised on page 102)? Will new water trails be developed? Might these activities increase turbidity, harm to submerged aquatic vegetation, shoreline erosion, or other detrimental effects that may accompany boat access areas? Because the Gateways are designed primarily for "low-impact" activities such as educational/interpretive displays and activities such as canoeing and kayaking, these adverse effects would likely be minimal, but a more complete analysis of impacts would be appropriate. Such an analysis might include information essential for an effective review, e.g.,

- Total number and location of Gateways anticipated in the expanded Network
- Total number and expected concentration of Gateway users
- Are new Gateways sites currently in use and they are merely becoming part of the Network? Or are they new sites? Both?
- Will Gateway sites have a common set of Best Management Practices associated with them? What will they be?
- Will the expanded Gateways Network attract new users to the Bay and its tributaries? How many?
- Will additional infrastructure be needed to accommodate the expanded Network? Will near-shore facilities be designed to minimize shoreline and water quality impacts?

A coherent Network of Gateways that have taken advantage of numerous existing sites has the potential to add educational, cultural and recreational opportunities to Bay visitors, while the least impact to aquatic resources. EPA encourages that this alternative to use existing sites over new construction. A Network that brings Best Management Practices and a stewardship ethic to sites across the Bay regional would likely even have a net positive impact on the environment, but more detail is needed on the nature of the Network and the potential cumulative environmental impacts of the various gateway sites.

All of the remaining alternatives would appear to raise some of the same issues, but all would likely have an unambiguous environmental benefit. Each would require a more detailed analysis of any new facilities that might be built to support the interpretive and cultural exhibits and visitor center activities. Typical impacts that will need to be analyzed include those generally associated with a construction project including potential impacts on wetlands, floodplains, water resources, terrestrial impacts, historical and cultural resource impacts, traffic, etc.

Generally speaking, however, the alternatives that would result in an additional unit in the National Park Service demonstrate clear environmental advantages (Alternative C: *Chesapeake Bay Estuary National Park - Conserving and Exploring the Bay's Waters*, Alternative D: *Chesapeake Bay National Reserve - Protecting Bay Maritime & Rural Heritage*, and Alternative E: *Chesapeake Bay Watershed National Ecological and Cultural Preserve - A Living Example for the Bay and the Nation*).

A National Park (Alternative C) would preserve a selected location, providing the special protections normally afforded these sites. Water quality and living resources (from oysters and crabs to fin fish and SAV) and terrestrial resources (e.g., forest, coastal vegetation, neotropical

bird, and water birds), would likely improve in a Park setting (pp 102-103, 106-107, 110-111, 114). Alternative C has the possibility of a new visitor's center versus use of an existing structure (p. 102). As with Alternative B, the EPA suggests that the encouragement for these alternatives to use existing structures should be part of each of those alternatives.

Additionally, Alternative C could minimize impacts related to wave action by instilling a no-wake policy (p. 103). Also, by reducing use of vehicles or encourage low emission boat engines for boat tours, air quality impacts could be reduced (p. 114).

Even more significant environmental improvements would be expected from Alternatives D and E. Because these alternatives recognize the importance of how activities on the land impact water quality, the benefits to the affected waters are likely to be even more beneficial than National Park status. Naturally the benefits to local landscapes would also be heightened (see pp. 102-116).

Alternatives D and E especially support the Environmental Protection Agency's special mission concerning the Chesapeake Bay. For 20 years the Agency has supported a special Bay Program Office in recognition of the special status conferred upon this unique area. The alternatives naturally support EPA's primary mission of protecting our air, water and lands, and doing so in a manner that fosters stewardship of our resources. In addition, these alternatives provide special support to many of the key commitments made in the multi-state/Agency landmark Chesapeake 2000 (C2K) Agreement. That agreement calls for vital habitat protection and restoration, including the Bay watershed and forests. Alternatives D and E are especially responsive in this area. Similarly Alternatives C, D and E would enhance Bay water quality, a keystone commitment in the C2K Agreement (although presumably the affected areas in options D and E would be significantly larger than that in option C). Fostering stewardship and community engagement are encompassed in all the alternatives, but again, especially in Alternatives D and E.

Finally, Alternatives D and E provide direct benefits in another C2K category: sound land use. Both of these options are predicated on the understanding that activities on the land dramatically influence water quality and the living resources found there. These options provide the clearest example of how the human interplay of commerce and daily activities can be harmonized with the Agency's lofty goals of protection human health and the environment.

Environmentally Preferred Alternative

The NPS identifies Alternatives B, D and E as the environmentally preferred alternatives. The document indicates that Alternative C probably provides fewer environmental benefits than the other action alternatives, largely based on the assumption that it is smaller in scope and regional context (p. 145). If the Expanded Gateways Network (Alternative B) is only slightly larger than its current configuration, however, it may not rise to the level of Alternatives D and E. Similarly, although it is unlikely, an expansive Bay Estuary National Park (Alternative C) on the order of the Biscayne Bay National Park's 173,000 acres, might provide environmental benefits that approach those of the National Reserve (D) or Ecological and Cultural Preserve (E), even with its overwhelming focus on the aquatic system.

Recommended Preferred Alternative

The EPA Chesapeake Bay Program Office recommends Alternative E, in combination with Alternative B as our recommended alternative. The Gateways Network provides tremendous benefits to the Bay currently that should be continued. However, Alternative B alone would not fulfill the purpose and need statement. Alternative B in combination with the National and Ecological and Cultural Preserve (Alternative E) would provide the continuation of tremendous benefits that the Chesapeake Bay currently experiences with the added benefit of the establishment and maintenance of a more watershed-based model to fulfill the Chesapeake Bay Program vision. EPA wholeheartedly agrees with the authors statement "The future of the Chesapeake hangs in the balance—its loss of biodiversity and abundance is symbolic of a national and global pattern. [Alternative E] response directly to this challenge, by setting an example for conserving and illustrating stewardship of an entire tributary system (p.66)." As has been established among several scientific experts representing government, academia and non-profit organizations across the Bay community, improving the ecological conditions of the Bay is an urgent need.

There can be little argument that Alternative D would also meet the Purpose and Need statement, provide exceptional environmental benefits, and be in keeping with the aggressive efforts already underway to protect and preserve the Chesapeake Bay. The Preserve and Reserve concepts are therefore appropriately identified as among the environmentally preferred alternatives and are superior to the rather limited Estuary National Park (Alternative C) described in the conceptual descriptions. While Alternative E in combination with Alternative B is our preferred alternative, Alternative B in combination with either an expanded C, or with D or E would serve the purpose and need for the proposals.

Editorial Comments

1. Page 18, last paragraph - Strike the word "watershed" in this sentence: "Approximately 2,700 species of plants have been inventoried in the Chesapeake Bay watershed..." 2,700 is the number of plant species inventoried in Bay waters, not in the watershed.
2. Page 77, next to last paragraph - replace 600,000 acres with 200,000 acres, replace 41,000 with 38,000 acres and 1978 with 1984 in this sentence: "Historically, 600,000 acres of Bay grasses grew along the shoreline; only 41,000 acres remained in 1978." 38,000 acres in 1984 is the low point for SAV surveys and 225,000 acres is the revised estimate of actual acres of grasses that may have existed. 600,000 acres represents an old estimate of potential habitat for grasses - not potential acres of grasses.
3. Page 77, next to last paragraph - Replace 69,000 with 85,000 acres and 2000 with 2001 in this sentence: "...the area of SAV had increased to 69,000 acres by 2000." The most recent survey results are 85,000 acres in 2001 (and we will have 2002 results at the end of August).
4. Page 79, second paragraph - recommend using acres instead of hectares for forest land cover (for consistency, since the rest of the document refers to acres).
5. Page 80, Table 5-5. Add the subheader "Reptiles" in front of *Caretta caretta*. (Turtles are not fishes as indicated in current iteration of table).
6. Page 81, first paragraph (after table) - Replace "it" with "The nitrogen oxide (Nox) airshed". This airshed size and discussion is specific to the NOx airshed. Airsheds for other pollutants have different sizes.
7. Page 87, "Post 1959 and Bay Restoration" section - consider adding info from the STAC Chesapeake Futures report related to the increase in fertilizer use post-World War 2.

bird, and water birds), would likely improve in a Park setting (pp 102-103, 106-107, 110-111, 114). Alternative C has the possibility of a new visitor's center versus use of an existing structure (p. 102). As with Alternative B, the EPA suggests that the encouragement for these alternatives to use existing structures should be part of each of those alternatives.

Additionally, Alternative C could minimize impacts related to wave action by instilling a no-wake policy (p. 103). Also, by reducing use of vehicles or encourage low emission boat engines for boat tours, air quality impacts could be reduced (p. 114).

Even more significant environmental improvements would be expected from Alternatives D and E. Because these alternatives recognize the importance of how activities on the land impact water quality, the benefits to the affected waters are likely to be even more beneficial than National Park status. Naturally the benefits to local landscapes would also be heightened (see pp. 102-116).

Alternatives D and E especially support the Environmental Protection Agency's special mission concerning the Chesapeake Bay. For 20 years the Agency has supported a special Bay Program Office in recognition of the special status conferred upon this unique area. The alternatives naturally support EPA's primary mission of protecting our air, water and lands, and doing so in a manner that fosters stewardship of our resources. In addition, these alternatives provide special support to many of the key commitments made in the multi-state/Agency landmark Chesapeake 2000 (C2K) Agreement. That agreement calls for vital habitat protection and restoration, including the Bay watershed and forests. Alternatives D and E are especially responsive in this area. Similarly Alternatives C, D and E would enhance Bay water quality, a keystone commitment in the C2K Agreement (although presumably the affected areas in options D and E would be significantly larger than that in option C). Fostering stewardship and community engagement are encompassed in all the alternatives, but again, especially in Alternatives D and E.

Finally, Alternatives D and E provide direct benefits in another C2K category: sound land use. Both of these options are predicated on the understanding that activities on the land dramatically influence water quality and the living resources found there. These options provide the clearest example of how the human interplay of commerce and daily activities can be harmonized with the Agency's lofty goals of protection human health and the environment.

Environmentally Preferred Alternative

The NPS identifies Alternatives B, D and E as the environmentally preferred alternatives. The document indicates that Alternative C probably provides fewer environmental benefits than the other action alternatives, largely based on the assumption that it is smaller in scope and regional context (p. 145). If the Expanded Gateways Network (Alternative B) is only slightly larger than its current configuration, however, it may not rise to the level of Alternatives D and E. Similarly, although it is unlikely, an expansive Bay Estuary National Park (Alternative C) on the order of the Biscayne Bay National Park's 173,000 acres, might provide environmental benefits that approach those of the National Reserve (D) or Ecological and Cultural Preserve (E), even with its overwhelming focus on the aquatic system.

Recommended Preferred Alternative

Much of the Bay's degradation since the 1950s has been attributed to this increase in fertilizer use.

8. Page 91, last paragraph - missing some text between "Virginia" and "Commission".
9. Page 92, last paragraph - Specify the timeframe in this sentence: "During the same timeframe, the number of households in the basin increased....". The timeframe should be 1970s - 2000. Since you also discuss population growth through 2020 in the paragraph, it is not clear by simply stating "during the same timeframe" whether you mean 1970s - 2000 or 1970s to 2020.
10. Page 93, Table 5-2 - this table can be updated. Contact Brian Burch, EPA, 410-267-5736 or Peter Chaggett, USGS at 410 267-5771 for most recent data.
11. Page 93, first paragraph, first sentence - strike "One example of this is" and "where and simply start sentence with "In Maryland, the average lot size....". Also, the info featured later on can be updated. Maryland population increased 35% between 1970 and 2000 while land consumed for residential development increased 66% between 1973 and 1997. Strike the last three sentences in this paragraph as recent data is not able to confirm that trends related to low-density development between 1973 and 1990 still exist. 2000 data indicates that lot sizes actually began to level off rather than continuing the upward trend seen through the 70s, 80s and 90s.
12. Page 93, second paragraph - Recommend replacing "the" with "a" (unless the national study refers specifically to the Chesapeake Bay watershed) in this sentence: "...55% of the sprawl in the watershed, and population growth was associated..."



FAIRFAX COUNTY PARK AUTHORITY

12055 Government Center Parkway, Suite 927
Fairfax, VA 22035-1118



September 9, 2003

Mr. Jonathan Doherty
Director, Chesapeake Bay Program Office
National Park Service
410 Severn Avenue, Suite 109
Annapolis, MD 21403

Dear Mr. Doherty:

In response to your request for public comments and based on the options given, Alternatives B or D would be the preferred choices of the Park Authority.

We support Alternative B with the understanding that the National Park Service would expand the current Gateways program to be permanent with increased funding. The new program would include the construction of two major interpretive facilities within the Chesapeake Bay watershed, one to the north and one to the south.

We also endorse Alternative D, which represents a bolder and more challenging approach. The National Reserve concept recognizes and preserves the bay's maritime and rural agricultural heritage. Significant effort would be made to protect the traditional livelihood of bay fishermen, farmers and foresters, etc., by restricting urban sprawl to preserve the natural/cultural landscape. The 'reserve' would be a smaller watershed community within the bay that would be representative of and reflect the bay's heritage - like taking a picture of the past and preserving it for future generations to see, learn and appreciate. A single interpretive center would be constructed that would provide the visitor with the learning tools for seeing and understanding a whole host of bay themes and conservation issues. Subsequently, visiting various sites within the 'reserve' would help the visitor reinforce their stewardship responsibilities. The partnership efforts with local, state and federal government and the private sector would help to bring a clearer focus on the bay's conservation issues and inspire higher awareness and cooperation toward protection and preservation of bay resources.

The Park Authority endorses both alternatives, but would suggest Alternative D, since it offers the added dimension of a demonstration 'reserve' which enables the visitor to recognize the dramatic differences between thoughtful conservation efforts and development patterns that threaten the heritage of the bay.

Yours truly,

Michael A. Kane
Director

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1607 - 2007

**FRIENDS OF THE
CHESAPEAKE BAY NATIONAL WATER TRAIL**

Retracing the Voyages of Captain John Smith

July 1, 2003

Mr. Jonathan Doherty
Chesapeake Bay Special Resources Study Director
National Park Service
Chesapeake Bay Program Office
410 Severn Avenue, Suite 109
Annapolis, MD 21403

Dear Mr. Doherty:

Thank you for the opportunity to comment on the National Park Service's recent Chesapeake Bay Special Resource Study. The Chesapeake Bay is indeed a spectacular national treasure—rich in cultural, natural, historical and recreational resources—and should be recognized for its singular expression of our outdoor heritage. It is long overdue that this extraordinary resource, as grand as Yellowstone or Yosemite, be included in the National Park Service system.

Capturing the diverse resources, stories, and themes of the Chesapeake Bay within the National Park system, is no small challenge. While the five alternatives proposed in the Resource Study include many important attributes that will advance conservation efforts for the Bay, we believe there is one additional component that will significantly enhance any path selected by the National Park Service. A Chesapeake Bay National Water Trail would leverage and strengthen many of the proposed park concepts including Enhanced Gateways, Reserves, and Preserves.

Water trails, one of the nation's newest and most popular ways to enjoy the outdoors, provide paddlers and sailors with opportunities to travel rivers, streams and coastlines. Like greenways on land, water trails, also known as blueways, are corridors. Continuity and length contribute to their value to boaters. A Chesapeake Bay National Water Trail, with connections to the rivers that surround the Bay, would allow voyagers to travel from the distant headwaters to the open Bay—an accomplishment that would make a modern explorer proud and an opportunity that would generate national participation. Increasing the water trail network within the Bay region is one of the goals of the Chesapeake Bay 2000 Agreement.

Our three organizations, each deeply committed to the Chesapeake Bay, have joined together in an unprecedented partnership to assist the National Park Service to do more in the effort to conserve the Chesapeake Bay. We believe that a National Water Trail, that is part of a new

national park system, represents a singular opportunity for us to restore and conserve the Bay's watershed and interpret this unique ecosystem to the world. Indeed, it represents a new model of public-private partnerships that will form the basis for how we care for our national treasures in the 21st Century.

Attached is a draft concept paper that further explains this idea and a draft trail map that is one possible route for the trail. We look forward to working with the National Park Service as we create a Chesapeake Bay legacy worthy of future generations.

Sincerely,



William C. Baker
President
Chesapeake Bay Foundation



Gilbert M. Grovesnor
Chairman
National Geographic Society



Patrick F. Noonan
Chairman
The Conservation Fund

CC: Fran P. Mainella, Director, NPS

Organizational Comment Submitted via Website Comment Form

Comment from: Carol Steele (Gloucester Beach Park - Town of Gloucester VA)

General Comments:

I am concerned about the Bay and appreciate this effort. I believe there will be some political concerns with acquisition and any restrictions put on land users or appearance of restrictions. This may make approval of some alternatives difficult.

We are a Gateway site and want to see the program authorized permanently. I would like the existing sites and resources to be promoted no matter which alternative is selected.

Comments on Alternative A:

Comments on Alternative B:

Comments on Alternative C:

Comments on Alternative D:

Comments on Alternative E:



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Patricia A. Jackson
Executive Director

September 16, 2003

Mr. Jonathan Doherty
National Park Service
410 Severn Avenue
Suite 109
Annapolis, MD 21403

Dear Mr. Doherty:

The James River Association (JRA) would like to voice our support for a specific alternative listed in the *Chesapeake Bay Special Resource Study* and the options that it presents. JRA supports "Alternative B: An Enhanced Chesapeake Bay Gateways Network" as the best option to utilize existing resources of the National Park Service and to provide an effective means to educate the public and further conserve the Chesapeake Bay's natural resources.

While the other alternatives available offer certain merits to consider, Alternative B would take an already-existing and effective resource, the Chesapeake Bay Gateways Network, and establish it as a permanent fixture in the National Park Service to conserve the resources of the Bay. The current Gateways Network, comprised of hundreds of partnered museums, parks, and water trails throughout the Bay Watershed, already provides a Federal funding source and a Watershed-wide method to highlight the various and diverse components of the Chesapeake Bay. Not only do the Network partners educate the public about the Bay, but they actively work to conserve Bay landscapes through funding. Selecting Alternative B to establish and enhance the existing Gateways Network will provide a worthy model for the combination of public education and active conservation of resources in order to restore the Chesapeake Bay.

We support "Alternative B: An Enhanced Chesapeake Bay Gateways Network" as the most viable and effective alternative in the *Chesapeake Bay Natural Resource Study*. Should you have any further questions, please feel free to contact me at (804) 730-2898 or at plackson@jamesriverassociation.org.

Sincerely,


Patricia A. Jackson
Executive Director

JAMES RIVER ASSOCIATION • P.O. BOX 909 MECHANICSVILLE, VIRGINIA 23111
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website: www.jamesriverassociation.org



THE IZAAK WALTON LEAGUE OF AMERICA

August 26, 2003

Mr. Jonathan Doherty
Chesapeake Bay Special Resources Study Director
National Park Service
Chesapeake Bay Program Office
410 Severn Avenue, Suite 109
Annapolis, MD 21403

Dear Mr. Doherty,

On behalf of the B-CC Chapter of the Izaak Walton League of America, I am writing to comment on the draft Chesapeake Bay Special Resource Study. The League considers the Chesapeake Bay a resource of great national significance rivaling the well-known National Parks of the American west.

The creation of a new Chesapeake Bay National Water Trail would tie together the Bay's Gateway Communities and its rich variety of historic sites, wildlife refuges, parks, greenways and wetlands and support each of the Chesapeake Bay Special Resource Study alternatives. A water trail is a marked interpretive trail along a stretch of creek, river or shoreline with public areas that include historical and ecological information for the paddler and small boater sailor. Such a trail, roughly retracing Captain John Smith's explorations of almost 400 years ago could run the length of the Bay and link existing and future water trails on the rivers that feed the Bay, would foster greater access and provide a means for low-impact visitation.

Involving communities, non-governmental organizations, public agencies, businesses and private landowners, in establishing the Water Trail would demonstrate a new model for the public-private partnerships that will form the basis for how we care for our national treasures in the 21st Century. The League believes that not only will the National Water Trail add another layer of protection to the Bay, but it will also foster enhanced understanding of the national significance of the Bay.

A Chesapeake Bay National Water Trail following Captain John Smith's expeditions would be a crucial element of any successful national park for the Bay region and should be added to the final Chesapeake Bay Special Resource Study.

Sincerely,


Paul Lea
President, B-CC Chapter

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THE IZAAK WALTON LEAGUE OF AMERICA

August 19, 2003

Mr. Jonathan Doherty
Chesapeake Bay Special Resources Study Director
National Park Service
Chesapeake Bay Program Office
410 Severn Avenue, Suite 109
Annapolis, MD 21403

Dear Mr. Doherty,

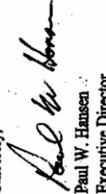
On behalf of the Izaak Walton League of America, I am writing to comment on the draft Chesapeake Bay Special Resource Study. The League considers the Chesapeake Bay a resource of great national significance rivaling the well-known National Parks of the American west.

The creation of a new Chesapeake Bay National Water Trail would tie together the Bay's Gateway Communities and its rich variety of historic sites, wildlife refuges, parks, greenways and wetlands and support each of the Chesapeake Bay Special Resource Study alternatives. A water trail is a marked interpretive trail along a stretch of creek, river or shoreline with public areas that include historical and ecological information for the paddler and small boater sailor. Such a trail, roughly retracing Captain John Smith's explorations of almost 400 years ago could run the length of the Bay and link existing and future water trails on the rivers that feed the Bay, would foster greater access and provide a means for low-impact visitation.

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A Chesapeake Bay National Water Trail following Captain John Smith's expeditions would be a crucial element of any successful national park for the Bay region and should be added to the final Chesapeake Bay Special Resource Study.

Sincerely,


Paul W. Hansen
Executive Director

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THE IZAAK WALTON LEAGUE OF AMERICA

August 26, 2003

Mr. Jonathan Doherty
Chesapeake Bay Special Resources Study Director
National Park Service
Chesapeake Bay Program Office
410 Severn Avenue, Suite 109
Annapolis, MD 21403

Dear Mr. Doherty,

On behalf of the Navphabase Chapter of the Izaak Walton League of America, I am writing to comment on the draft Chesapeake Bay Special Resource Study. The League considers the Chesapeake Bay a resource of great national significance rivaling the well-known National Parks of the American west.

The creation of a new Chesapeake Bay National Water Trail would tie together the Bay's Gateway Communities and its rich variety of historic sites, wildlife refuges, parks, greenways and wetlands and support each of the Chesapeake Bay Special Resource Study alternatives. A water trail is a marked interpretive trail along a stretch of creek, river or shoreline with public areas that include historical and ecological information for the paddler and small boater sailor. Such a trail, roughly retracing Captain John Smith's explorations of almost 400 years ago could run the length of the Bay and link existing and future water trails on the rivers that feed the Bay, would foster greater access and provide a means for low-impact visitation.

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A Chesapeake Bay National Water Trail following Captain John Smith's expeditions would be a crucial element of any successful national park for the Bay region and should be added to the final Chesapeake Bay Special Resource Study.

Sincerely,


John Hill
President, Navphabase Chapter

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THE IZAAK WALTON LEAGUE OF AMERICA

August 26, 2003

Mr. Jonathan Doherty
Chesapeake Bay Special Resources Study Director
National Park Service
Chesapeake Bay Program Office
410 Severn Avenue, Suite 109
Annapolis, MD 21403

Dear Mr. Doherty,

On behalf of the Norfolk-Chesapeake Chapter of the Izaak Walton League of America, I am writing to comment on the draft Chesapeake Bay Special Resource Study. The League considers the Chesapeake Bay a resource of great national significance rivaling the well-known National Parks of the American west.

The creation of a new Chesapeake Bay National Water Trail would tie together the Bay's Gateway Communities and its rich variety of historic sites, wildlife refuges, parks, greenways and wetlands and support each of the Chesapeake Bay Special Resource Study alternatives. A water trail is a marked interpretive trail along a stretch of creek, river or shoreline with public areas that include historical and ecological information for the paddler and small boater sailor. Such a trail, roughly retracing Captain John Smith's explorations of almost 400 years ago could run the length of the Bay and link existing and future water trails on the rivers that feed the Bay, would foster greater access and provide a means for low-impact visitation.

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A Chesapeake Bay National Water Trail following Captain John Smith's expeditions would be a crucial element of any successful national park for the Bay region and should be added to the final Chesapeake Bay Special Resource Study.

Sincerely,


Douglas Johnson
President, Norfolk-Chesapeake Chapter

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THE IZAAK WALTON LEAGUE OF AMERICA

August 26, 2003

Mr. Jonathan Doherty
Chesapeake Bay Special Resources Study Director
National Park Service
Chesapeake Bay Program Office
410 Severn Avenue, Suite 109
Annapolis, MD 21403

Dear Mr. Doherty,

On behalf of the Sportsman's Chapter of the Izaak Walton League of America, I am writing to comment on the draft Chesapeake Bay Special Resource Study. The League considers the Chesapeake Bay a resource of great national significance rivaling the well-known National Parks of the American west.

The creation of a new Chesapeake Bay National Water Trail would tie together the Bay's Gateway Communities and its rich variety of historic sites, wildlife refuges, parks, greenways and wetlands and support each of the Chesapeake Bay Special Resource Study alternatives. A water trail is a marked interpretive trail along a stretch of creek, river or shoreline with public areas that include historical and ecological information for the paddler and small boater sailor. Such a trail, roughly retracing Captain John Smith's explorations of almost 400 years ago could run the length of the Bay and link existing and future water trails on the rivers that feed the Bay, would foster greater access and provide a means for low-impact visitation.

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A Chesapeake Bay National Water Trail following Captain John Smith's expeditions would be a crucial element of any successful national park for the Bay region and should be added to the final Chesapeake Bay Special Resource Study.

Sincerely,

John Neisgar
President, Sportsman's Chapter

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THE IZAAK WALTON LEAGUE OF AMERICA

August 26, 2003

Mr. Jonathan Doherty
Chesapeake Bay Special Resources Study Director
National Park Service
Chesapeake Bay Program Office
410 Severn Avenue, Suite 109
Annapolis, MD 21403

Dear Mr. Doherty,

On behalf of the Virginia Division of the Izaak Walton League of America, I am writing to comment on the draft Chesapeake Bay Special Resource Study. The League considers the Chesapeake Bay a resource of great national significance rivaling the well-known National Parks of the American west.

The creation of a new Chesapeake Bay National Water Trail would tie together the Bay's Gateway Communities and its rich variety of historic sites, wildlife refuges, parks, greenways and wetlands and support each of the Chesapeake Bay Special Resource Study alternatives. A water trail is a marked interpretive trail along a stretch of creek, river or shoreline with public areas that include historical and ecological information for the paddler and small boater sailor. Such a trail, roughly retracing Captain John Smith's explorations of almost 400 years ago could run the length of the Bay and link existing and future water trails on the rivers that feed the Bay, would foster greater access and provide a means for low-impact visitation.

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A Chesapeake Bay National Water Trail following Captain John Smith's expeditions would be a crucial element of any successful national park for the Bay region and should be added to the final Chesapeake Bay Special Resource Study.

Sincerely,

John Bender
President, Virginia Division

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Thursday 8/28/03

Page 1 of 6

MEMO

TO: Jonathan Doherty, Chesapeake Bay Program Office, Northeast Region, National Park Service

FROM: John Creighton and Pat Lewis, Many Rivers Community History Network, 3756 Sunnyside Road, East New Market, MD, 21631 (phone 410-943-4308) *John Creighton Pat Lewis*

RE: Your request for written comments in response to the Draft Chesapeake Bay Special Resource Study and Environmental Impact Statement published in June 2003

One of us (John Creighton) spoke briefly with you last September in Salisbury and more recently when your traveling exhibit was in Cambridge at the Sailwinds Visitors Center. Since then, we have received and reviewed your Draft Study.

In Cambridge, you suggested that we present our comments in written form, which we are now doing. Our comments can be organized in terms of these three questions:

1. Why is a full-fledged "national park" not one of the four "action alternatives"?
2. For each of the four "action alternatives" which you define and develop, why do you virtually ignore the 19th century social history of "the cultural environment" in the Chesapeake region (especially the period of growing sectional conflict between the War of 1812 and the Civil War)?
3. Why is there not more attention to the preservation of nationally significant historic places (historic landscapes and historic sites, and not just historic structures) which might be of special interest to African Americans?

MEMO RE: DRAFT CB-SRS, 8/28/03

Page 2 of 6

QUESTION 1

Why is a full-fledged "national park" not one of the four "action alternatives"?

COMMENTS CONCERNING QUESTION 1

We believe that one of the "action alternatives" which you should conceptualize is a "national park" -- plain and simple (in terminology, at least). In other words, there needs to be an Alternative Y (a full-service National Park).

What you call a "Chesapeake Bay Estuary National Park" (Alternative C) would seem to be just one variation of a more basic "Chesapeake Bay National Park" idea or concept (whatever its specific name or wherever it might be).

Another conceptual variation might be a "Chesapeake Bay National Historic Park" (whatever its specific name, which presumably would be based on a specific historic theme or themes).

In any case, such ideas as an "estuary national park," "historic national park," etc., are just particular variations of a root concept, i.e., a "Chesapeake Bay National Park" with a host of conventional connotations in the mind of the average person. So what are the pluses and minuses of this "larger idea" of a "Chesapeake Bay National Park" (whatever its specific name)? Have we overlooked your answer in the Draft Study?

Even if, on balance, you don't actually favor the idea of a Chesapeake Bay "national park" or Chesapeake Bay "national historic park" (oriented around a specific theme or themes), you should at least present for comparative purposes the more basic "national park" concept (and not just the "estuary national park" concept) and state the pros and cons -- just as you have done with the other three "action alternatives" (Alternatives B, D, and E).

In Salisbury last September a specific proposal for a "Harriet Tubman National Park" was submitted to you by an ad hoc committee in favor of such a park. That proposal took into account the relevant NPS criteria for a national park ("national significance," "suitability," and "feasibility") and certainly deserves a specific written response/analysis. (Your Chapter 3 "Gap Analysis" doesn't really explain why one of your Draft Study "action alternatives" is not a full-fledged national park.)

QUESTION 2

For each of the four "action alternatives" (concepts) which you define and develop, why do you virtually ignore the 19th century social history of "the cultural environment" (especially the period of growing sectional conflict between the War of 1812 and the Civil War)?

COMMENTS CONCERNING QUESTION 2

During this time period, a "hardening of the attitudes" obviously occurred in the collective mind of the Chesapeake white population. This shift in opinion seems to roughly correlate time-wise with a growing "underground railroad" exodus of enslaved African Americans (an exodus having national political implications) just before the Civil War.

There are many books and books-in-process which deal with the political, economic, and social history of the Chesapeake region between the War of 1812 and the end of 19th century. One such book is SLAVERY AND FREEDOM ON THE MIDDLE GROUND, Maryland During the 19th Century by Barbara Jeanne Fields (Yale University Press, 1985).

All of these books deal with the complex and tragic reality of the severely distorted political, economic, and social relationships between black and white Americans in a Border State during that time period. Not until the modern civil rights movement -- beginning after World War II and still not complete -- did this matter even begin to be addressed seriously.

In this regard, it seems worth emphasizing that during the period between the War of 1812 and the Civil War, about half of the people who lived in large areas of the Chesapeake region were African Americans.

Your use of "gap analysis" is intriguing, and is relevant to what we are saying. To the best of our knowledge, there is currently no "national park" which devotes itself to explaining the uniquely American struggle for freedom from slavery in all of its Border State complexity.

This complexity includes (a) the large-scale selling of enslaved African Americans to the Deep South; (b) the difficult-to-quantify exodus of enslaved African Americans via an "underground railroad" to the North; and (c) the coping and

survival attitudes and skills of the African Americans who remained in the maritime Chesapeake region.

We believe that there should be a Harriet Tubman Chesapeake Bay National Park devoted to preserving the landscapes and sites of this Border State social struggle which is of great national (and even international) historical significance. Can there be any better place for such a park than Maryland's central Eastern Shore? In our opinion, to even discuss the idea of a new National Park unit in the Chesapeake Bay area and not include some in-depth insights about this important and sensitive issue is a serious and glaring omission in what is generally a very interesting Draft Study. The time to discuss this matter is at hand. Please don't waste this golden opportunity. Don't let the Rochester/Caroline Harriet Tubman/URR historic area become a candidate to be a world heritage site before it gets serious consideration by the Chesapeake Bay Program Office of the U.S. Department of the Interior.

QUESTION 3

Why is there not more attention to the preservation of nationally significant historic places (historic landscapes and historic sites, and not just historic structures) which might be of special interest to African Americans?

COMMENTS CONCERNING QUESTION 3

The completion next year of the NPS Harriet Tubman Special Resource Study presumably will identify certain historic landscapes and historic sites in Dorchester and Caroline Counties that might be both (a) nationally significant and (b) of special interest to African Americans.

In addition, the publication within the next year or two of several adult-oriented mass-marketed biographies of Harriet Tubman presumably will help explain the national significance of certain 19th century historical events in the central Eastern Shore, where many of the relevant landscapes today are still very similar to what was the case 150 years ago (generally minus the man-made structures, of course).

These historic places are very near or along (or along tributaries of) such beautiful Eastern Shore rivers as the Big Blackwater, Little Blackwater, Big Choptank, Tuckahoe, Little Choptank, and Kenticoke. As you well know, these rivers already are tourist attractions simply because of their inhefent aesthetic qualities.

In any case, your Draft Study could help address a more general problem concerning the preservation of historic places. The mainstrem focus seems to be on the preservation of historic structures (which are generally structures of people of wealth) and of aesthetically pleasing landscapes (regardless of their historical significance). But there also needs to be a parallel focus on the preservation of certain landscapes and sites where significant historic events occurred (regardless of whether there now exists a historic structure). In the case of such historic landscapes without structures, the onlooker with a Baedeker-like historian's guidebook and an active imagination can to some degree "witness" the socioeconomic history of the place being viewed.

FINAL THOUGHTS

1. African Americans are under-represented in both the Chesapeake Bay environmental movement and the Chesapeake Bay regional historic preservation movement. There are many reasons for this under-representation. In any case, it seems obvious that the creation of an ad hoc, long-term alliance between several types of civic-minded people -- including historical preservationists, historically minded environmentalists, and heritage-minded African Americans -- could become a powerful catalyst for a Harriet Tubman Chesapeake Bay National Park on Maryland's Eastern Shore. Such a national park would bring wide attention to both (a) the nationally significant historic events that occurred here 150 years ago and (b) the deteriorating condition of the Chesapeake Bay as a whole.

NOTE: There are many possible combinations of names for such a dual-focus national park; for example, the Harriet Tubman Chesapeake Bay National Park, the Chesapeake Bay Harriet Tubman National Park, the Tubman/Chesapeake National Park, the Chesapeake/Tubman National Park, the Harriet Tubman Blackwater/Choptank National Park, etc.

2. Regionally, the NPS Gateways Network is a growing positive force in preserving certain aspects of the Chesapeake mystique. But simply to enhance this network after the year 2008 (i.e., Alternative B) will be woefully insufficient to build national support for significant funds to deal with the still deteriorating condition of the Chesapeake Bay watershed. In other words, to simply be in favor of Alternative B will be "too little too late" to truly "save the Bay."

3. As soon as possible, there needs to be some serious interaction between those persons primarily interested in the Chesapeake Bay Special Resource Study and those persons primarily interested in the Harriet Tubman Special Resource Study. Good works in mysterious ways, and a marriage of these two interest groups seems inevitable. Why not sooner rather than later?



MARYLAND STATE BUILDERS ASSOCIATION

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August 28, 2003

Jonathan Doherty
National Park Service
Chesapeake Bay Program Office
410 Severn Avenue Suite 109
Annapolis, MD 21401

Dear Mr. Doherty:

On behalf of the Maryland State Builders Association, representing 2400 member firms statewide, I am pleased to submit comments on the Chesapeake Bay Special Resource Study.

MSBA supports Alternative A: Today's Programs No New Initiatives, as outlined in the Executive Summary/Newsletter 3 document. The justification for our support of no additional or expanded role of the NPS in the Bay watershed is because of the current land use constraints that effect the accommodation of necessary growth both within and outside of the watershed, the fiscal constraints of the State of Maryland and Maryland's local jurisdictions, and the potential for compromising local autonomy of land use decisions. There are existing programs in place in Maryland that provide for conservation and preservation of valuable resource lands both inside and outside of the Bay watershed which are monitored by the Chesapeake Bay Program. Additional mechanisms for these efforts are not necessary and any program that allows federal oversight of local land use decisions is inappropriate.

The NPS Chesapeake Bay Gateways Network is operational and funded through 2008 and should continue to be the primary role of the NPS in the watershed. There is no compelling reason cited in the executive summary to conclude that this program is not working or is inadequate to serve the needs of the region.

Alternatives B-E all include requirements for public/private land acquisition without details about the federal regulatory constraints that would result in such acquisition. How will the land be able to be utilized after acquisition? None of the alternatives outlined in the executive summary include cost estimates or time frames for implementation.

Thank you for your consideration of these comments.

Sincerely,

Kathleen L. McHugh
Kathleen L. McHugh
Executive Vice President

Organizational Comment Submitted via Website Comment Form

Comment From: Mary Marsh (Maryland Conservation Council)

General Comments:

The members of the Maryland Conservation Council voted on September 13, 2003 in Prince Frederick, Maryland to recommend the selection of an Enhanced Chesapeake Bay Gateways Network (Alternative B) with a Chesapeake Bay National Reserve (Plan D) the National Park Service concerning the Draft Chesapeake Bay Special Resource Study.

MCC agrees with the NPS study that when evaluating for the environmentally preferred alternative

“Alternative B provides conservation, interpretive, educational and public access benefits over a broader scope and regional context (watershed wide) than the other alternatives.”

To further reduce any impacts due to construction of centers and associated improvements, MCC requests that any new interpretive centers reuse existing buildings or previously used building sites in appropriate developed areas with preference given to sites outside the critical area. Care must be taken that any “gateway site” does not negatively affect the local community.

In addition to Alternative B, establishing a Chesapeake Bay National Reserve would compliment the NPS unit and would incorporate land conservation strategies so necessary to provide habitat for the restoration of the Chesapeake's native wildlife and fisheries.

Thank you for the opportunity to review this study and add our recommendations to it.

Sincerely,

Mary P. Marsh, President
Maryland Conservation Council
495 Bay Green Dr.
Arnold, MD 21012
410-757-5913
mmmarsh@ctcaibus.net

Comments on Alternative A:

Comments on Alternative B:

Comments on Alternative C:

Comments on Alternative D:

August 28, 2003

Jonathan Doherty
National Park Service Chesapeake Bay Program Office
410 Seventh Avenue
Suite 109
Annapolis, MD 21403

Re: Chesapeake Bay Special Resource Study

Dear Mr. Doherty:

The undersigned representatives of Maryland heritage areas bordering on the Chesapeake Bay submit the following comments on the alternatives set forth in the current draft of the Chesapeake Bay Special Resource Study.

First, we wish to commend this fine effort. The evolution of the ideas considered, from the early conceptual alternative to the five we have before us, shows careful thought and consideration. All of these alternatives appear to be workable, and most would enhance the public's understanding and support for the Chesapeake Bay Program's environmental mission and other heritage-related initiatives.

That said, of the stated alternatives, the signatory heritage areas endorse Alternative B with modification. As noted in the study, this alternative expands and enhances the Chesapeake Bay Gateways Network. It would add an emphasis on conservation by providing technical assistance and funds to working landscape programs (heritage areas, rural historic districts, and river corridors of designated Gateway water trails) and make the program permanent within the National Park Service. This program is of significant benefit to many sites contained within our heritage areas, supporting our efforts to enhance interpretation and the visitor experience in selected areas of Maryland. We do believe, however, there is room for a stronger, more definitive working partnership between Gateways and the Maryland state heritage areas bordering the Bay that would further enhance conservation and interpretation. For example, working farms, forest, maritime, and urban industrial landscapes within our heritage areas not currently included in the Network can and do provide rich visitor experiences by setting the context for exploration of the resources, themes and stories of the Bay region.

If Alternative B is chosen, we would urge that NPS consider naming the Network as a unit to ensure permanent funding on an equal basis with other NPS units. We would also respectfully suggest that the administrator of the Network be recognized within the NPS as a superintendent, which would also raise the status of the Network within the NPS. In addition, we have a concern about the designation of "portal" interpretive sites for "southern" and "northwestern" locations. With the shape of the Bay and accessibility limited from east to west and the distance from north to south, we wonder if it is possible to serve the visitor's introductory interpretive needs with only two such sites. We would hope, at least, to see that the sites already recruited to orient the visitor in the Gateways system receive a boost from the NPS to address this need.

We offer another concept that could be implemented in partnership with the Chesapeake Bay Gateways Network or as a separate alternative—a Chesapeake Bay National Heritage Area.

We suggest that designated heritage areas with a significant maritime connection to the Bay be linked under the national marketing name "Chesapeake Bay National Heritage Area," specifically authorized under separate federal legislation just as other National Heritage Areas have been. This concept would enable Bay-related programs and projects to receive the funding and marketing benefits that accrue with National Heritage Area status. This concept would also work with all action alternatives. Elsewhere, this kind of synergy is already occurring. For example, Rivers of Steel National Heritage Area in Pittsburgh is in process of having a National Park established within its borders and is one of several heritage areas related to one another through an overarching program, the Southwestern Pennsylvania/Indiana Historic Preservation Commission. Within the Chesapeake Bay, the proposed Star Spangled Banner (War of 1812) National Historic Trail would thread its way through all of the subject area and affected regions in a most desirable overlapping of programs.

This Chesapeake Bay National Heritage Area concept provides a timely opportunity for a powerful federal-state partnership in an unquestioned area of national significance. Maryland heritage areas bordering the Bay have completed or are working on Maryland Heritage Area Authority-mandated Management Plans—the public process of identifying Bay-related interpretive themes that incorporate preservation, conservation, and stewardship, partnering with local governments, civic organizations, nonprofits and heritage tourism businesses. All have established strong relationships with their local destination marketing organizations. The national heritage area concept would enhance heritage tourism by bringing people to the sites that the Gateways Network is helping to interpret. A Chesapeake Bay National Heritage Area would thus combine the strengths of the Gateways Network and the Maryland state heritage areas. Fill gaps, eliminate redundancies, and provide the strongest possible federal/state/local partnership to conserve and celebrate the Chesapeake Bay.

We thank you for this opportunity to provide these comments. If you have any further questions, please feel free to contact any one of us to discuss the ideas we advance here.

Sincerely,



Donna Tully Dudley
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South County Heritage Area
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MARYLAND SALTWATER SPORTFISHERMEN'S ASSOCIATION, INC.

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(410) 265-6635; FAX (410) 265-1662

Mr. Jonathan Doherty
National Park Service's
Chesapeake Bay Program Office
410 Severn Avenue, Suite 109
Annapolis, MD. 21403

September 1, 2003

Dear Mr. Doherty:

As President of the Maryland Saltwater Sportfishermen's Association (MSSA), I want to take this opportunity to thank you for allowing Mr. Robert Campbell to come to our Southern Maryland Chapter meeting on August 21st, and conduct a full presentation of your Special Resource Study including the opportunities and alternatives. His presentation brought out many questions concerning the National Park Service's (NPS) vision of a Chesapeake Bay Estuary National Park. Even though several of the objectives are quite attractive, they also are either similar or identical to existing goals of other State or private organizations that strive to improve conditions within the Chesapeake Bay. It is this duplication of proposed effort that has us concerned about the success of the NPS's alternatives.

Many of the alternatives described by Mr. Campbell exhibit a potential conflict with various organizations operating within the Chesapeake Bay proper. For example, to consider closing channeling because it adversely impacts on the growth of Sub-Aquatic Vegetation (SAVs), does not take into account the loss of income to commercial watermen. When asked if the Maryland Watermen's Association had been contacted about this alternative, the reply was negative. In addition, when asked if the Maryland Department of Natural Resources had been contacted about their work and future plans concerning activities to improve water quality and habitat in the bay, again the reply was in the negative. We are also concerned that no real cost analysis has been done for any of the alternatives described in your plan. We feel that many of these alternatives will cost upwards of hundreds of millions of dollars at a time when funds are scarce.

The only saving condition that the NPS alternatives offer is the hope that some of these actions can be accomplished jointly between the primary states involved; namely, Maryland and Virginia. However, it seems to us that trying to implement any of the alternatives described would step on the toes of various State organizations that have been working for years to get certain objectives achieved among the different groups that operate on the Chesapeake Bay.

In conclusion, it is for this apparent duplication of effort, as well as unknown costs to implement the proposed alternatives, that MSSA is not in favor of endorsing NPS's plans

for its vision of the Chesapeake Bay Watershed. We believe that more study is needed with input from various State and local organizations that are affected before any further plans are formulated. We recognize that a lot of work has gone into these plans and alternatives, but the recreational fishing community is very cautious about giving any Governmental organization the power to close off fishing in any part of the Chesapeake Bay.

Thank you for giving us the opportunity to respond.

Sincerely,

Byron Vaska, President, MSSA

cc: Rich Novotny, Executive Director, MSSA

regions.

If you have any questions concerning the comments of MPCBPAA, please feel free to contact Lewie Lawrence, MPCBPAA staff, or me at 804-758-2311.

Steve Whiteway
Chairman- Middle Peninsula Chesapeake Bay Public Access Authority

Comments on Alternative C:

Comments on Alternative D:

Comments on Alternative E:

Organizational Comment Submitted via Website Comment Form

Comment from: Steve Whiteway - Chairman Middle Peninsula Chesapeake Bay Public Access Authority (MPCBPAA)

General Comments:

The Middle Peninsula Chesapeake Bay Public Access Authority (MPCBPAA)

writes to support creating a unit of the National Park System focusing on the Chesapeake. The MPCBPAA agrees that the Chesapeake Bay is a spectacular treasure and fully supports any effort that enhances public access to the Bay and its tributaries

MPCBPAA has reviewed the five alternative concepts for how the Chesapeake Bay might be represented within the National Park System. MPCBPAA supports a minimum alternative B "An Enhanced Chesapeake Bay Gateways Network." This alternative would continue to expand a successful watershed-wide system of special places for experiencing the Chesapeake. MPCBPAA further recognizes the diverse cultural and ecological opportunities within the Chesapeake Bay and its tributaries. Therefore, a blending of alternatives should be considered in appropriate regions.

If you have any questions concerning the comments of MPCBPAA, please feel free to contact Lewie Lawrence, MPCBPAA staff, or me at 804-758-2311.

Steve Whiteway
Chairman- Middle Peninsula Chesapeake Bay Public Access Authority

Comments on Alternative A:

Comments on Alternative B:

The Middle Peninsula Chesapeake Bay Public Access Authority (MPCBPAA)

writes to support creating a unit of the National Park System focusing on the Chesapeake. The MPCBPAA agrees that the Chesapeake Bay is a spectacular treasure and fully supports any effort that enhances public access to the Bay and its tributaries

MPCBPAA has reviewed the five alternative concepts for how the Chesapeake Bay might be represented within the National Park System. MPCBPAA supports a minimum alternative B "An Enhanced Chesapeake Bay Gateways Network." This alternative would continue to expand a successful watershed-wide system of special places for experiencing the Chesapeake. MPCBPAA further recognizes the diverse cultural and ecological opportunities within the Chesapeake Bay and its tributaries. Therefore, a blending of alternatives should be considered in appropriate

Organizational Comment Submitted via Website Comment Form

Comment from: Billy Mills (MPRA)

**General Comments:
PLACES:**

With respect to future implementation considerations and subsequent discussions attendant to selection of a Bay tributary as envisioned in Alternative E, MPRA submits that the York River, together with its upriver tidal tributaries, the Mattaponi and Pamunkey Rivers, should be given consideration as a candidate tributary for the following general reasons:

- A. The York presents an appropriate mid-size scale and size tributary system
 - B. The York features multiple Gateways, a major NPS unit, a major Marine Research Institution, a Virginia State Park, and four CBNERRS research reserve sites
 - C. The York hosts a significant federal DOD land & water-based presence
 - D. The York presents multiple "Bay stories" heritage and context
 - E. The York's special resources inventory are both exemplary and unique
 - F. The York boasts a long history of citizen engagement and activism
 - H. The York is the least impacted Virginia Bay tributary watersheds; land-use is 10% urban and open water, 18% crop production, and 72% forest cover. A low number of TMDL waterbodies and a high number of amphibian, bird, and vascular plant Heritage Resources speak to exceptional water quality for the free-flowing York.
- END of PLACES comment.

MPRA general survey comments, in full, are as follows (below):

Comments to NPS (RE: the Chesapeake Bay Special Resource Study) from MPRA, The Mattaponi and Pamunkey Rivers Association, Inc., developers and managers of the York River Water Trail, a Gateways Network connector in the Commonwealth of Virginia.

MPRA's principal comments are as follows:

- 1. Option A, the "No Action" alternative should be eliminated from consideration by NPS.

2. MPRA strongly supports Alternative B as a future outcome that is nothing less than essential to the future of the Gateways Network, particularly given the significant federal, state, regional, and local investments to date.

3. Of the remaining alternative options C,D, and E, MPRA strongly supports Alternative E, specifically in conjunction with Alternative B as a preferred outcome.

4. MPRA advocates that a combined alternatives approach, specifically pursuing Alternative B, together with Alternative E, represents the most logical pathway whereby:

A.) both the potential and long-term viability of the existing Gateways Network can be more fully realized, and

B.) the Chesapeake Bay Program's concept and goal of comprehensive watershed management, as suggested and embraced by the community watershed organizations focus and public engagement commitments and strategies for Bay tributaries, can be significantly buttressed and strengthened by NPS.

5. With respect to future implementation considerations and subsequent discussions attendant to selection of a Bay tributary as envisioned in Alternative E, MPRA submits that the York River, together with its upriver tidal tributaries, the Mattaponi and Pamunkey Rivers, should be given consideration as a candidate tributary for the following general reasons:

- A. The York presents an appropriate mid-size scale and size tributary system
- B. The York features multiple Gateways, a major NPS unit, a major Marine Research Institution, a Virginia State Park, and four CBNERRS research reserve sites
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- D. The York presents multiple "Bay stories" heritage and context
- E. The York's special resources inventory are both exemplary and unique
- F. The York boasts a long history of citizen engagement and activism
- H. The York is the least impacted Virginia Bay tributary watersheds; land-use is 10% urban and open water, 18% crop production, and 72% forest cover. A low number of TMDL waterbodies and a high number of amphibian, bird, and vascular plant Heritage Resources speak to exceptional water quality for the free-flowing York.

Comments on Alternative A:

- 1. Option A, the "No Action" alternative should be eliminated from consideration by NPS.

Comments on Alternative B:

MPRA strongly supports Alternative B as a future outcome that is nothing less than essential to the future of the Gateways Network, particularly given the significant federal, state, regional, and local investments to date.

National Geographic Society

1145 17th Street N.W., Washington, D.C. 20036-4688

GILBERT M. GROSVENOR
Chairman of the Board

September 12, 2003

Mr. Jonathan Doherty
Chesapeake Bay Special Resources Study Director
National Park Service
Chesapeake Bay Program Office
410 Severn Avenue, Suite 109
Annapolis, MD 21403

Dear Mr. Doherty,

Thank you for the opportunity to comment on the draft Chesapeake Bay Special Resource Study that explores different options for a Chesapeake Bay National Park. As a result of its natural, cultural and historic importance, I believe that the Chesapeake Bay is a resource of even greater national significance than the well-known National Parks of the American west.

To support each of the Chesapeake Bay Special Resource Study alternatives and to tie together the Bay's Gateway Communities and its rich variety of historic sites, wildlife refuges, parks, greenways and wetlands, we would like suggest creation of a new Chesapeake Bay National Water Trail, roughly retracing Captain John Smith's explorations of almost 400 years ago. The trail, which could run the length of the Bay and link existing and future water trails on the rivers that feed the Bay, would foster greater access and provide a means for low-impact visitation. A water trail is a marked interpretive trail along a stretch of creek, river or shoreline with public areas that include historical and ecological information for the paddler and small boater sailor.

Additionally by involving communities, nonprofits, public agencies, businesses and private landowners, establishing the Water Trail will demonstrate a new model for the public-private partnerships that will form the basis for how we care for our national treasures in the 21st Century. We believe that not only will the National Water Trail add another layer of protection to the Bay, but it will also foster enhanced understanding of the national significance of the Bay.

A Chesapeake Bay National Water Trail that follows Captain John Smith's expeditions would be a crucial element of any successful national park for the Bay region. Consequently, we feel that the Chesapeake Bay National Water Trail should be added to the final Chesapeake Bay Special Resource Study.

Sincerely,



Comments on Alternative C:
MPRA views this alternative as potentially holding insufficient appeal or readily-facilitated access (and ultimately meaningful and compelling on-water interpretation) for too few.

Comments on Alternative D:
MPRA views this alternative as potentially insufficient for marketing to and engaging local communities who might be wary of a federal presence that could introduce resource use restrictions or limitations.

Comments on Alternative E:
MPRA strongly supports Alternative E, specifically in conjunction with Alternative B as a preferred outcome.

The Department should withdraw, revise and republish its call for public comment on the possible establishment of Park Service units on the Chesapeake Bay. In its next effort, it should provide a complete and honest recounting of history, and it should seek public comment on the possible creation of the Harriet Tubman National Park.

I. Interests Of The Commenting Parties

The Commenters are nonprofit organizations, each headquartered in Maryland. The Harriet Tubman Museum and Educational Center, Inc. ("Tubman Museum") is based in Cambridge, Maryland. It operates a museum in downtown Cambridge dedicated to advancing public knowledge and appreciation of the history of the struggles for freedom and equality of African Americans in the Chesapeake Bay region. The Museum houses permanent exhibits, and conducts educational seminars, tours and dramatic re-creations of Harriet Tubman. The Museum is also the site for a summer youth training program.

The Ad Hoc Committee for the Harriet Tubman National Park ("Park Committee") is a non-self governing project of the Tubman Museum. The Park Committee was formed in November, 2001 to bring about the creation of a national park named after Harriet Tubman and offering a permanent focus on the legacy of the Underground Railroad. Toward this end, the Park Committee prepared its proposal entitled "The Harriet Tubman National Park: A Proposal to the National Park Service Harriet Tubman Special Resource Study Team," July 18, 2002 (lodged with the Chesapeake Bay Study Team at its public workshops in Salisbury, MD September 17, 2002 and in Annapolis, MD September 26, 2002) ("Tubman Park Proposal").

The National Association for the Advancement of Colored People ("NAACP"), headquartered in Baltimore, is the nation's largest civil rights organization, with approximately 400,000 members, 2,200 branches, youth councils and college chapters, and a staff of 150. The Maryland State Conference of Branches of the NAACP includes nine branches on the Maryland Eastern Shore, one in each county. On July 9, 2002, upon

Before the
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Washington, D.C.

In the Matter of

Draft Chesapeake Bay Special Resource
Study and Environmental Impact Statement

TO: National Park Service Chesapeake
Bay Program Office

**COMMENTS OF THE HARRIET TUBMAN MUSEUM AND
EDUCATIONAL CENTER, INC., THE AD HOC COMMITTEE FOR
THE HARRIET TUBMAN NATIONAL PARK, AND THE NATIONAL
ASSOCIATION FOR THE ADVANCEMENT OF COLORED PEOPLE**

The Harriet Tubman Museum and Educational Center, Inc., the Ad Hoc Committee for the Harriet Tubman National Park, and the National Association for the Advancement of Colored People respectfully submit these Comments in response to the Notice of Draft Chesapeake Bay Special Resource Study/EIS Availability, 68 Fed. Reg. 37861 (June 25, 2003).

Summary

The Interior Department has spent \$1,500,000 and engaged 20 experts to write a 155-page single spaced report that found that Africans in the United States were "colonists." Yet the Department's report failed to ascertain that the Underground Railroad or the Civil Rights Movement ever happened. By consulting a middle school civics textbook, the Department would have learned that the Underground Railroad and the Civil Rights Movement were among the most significant events in the region's history.

These historical acrobatics would be amusing if there were not so much at stake. For nearly two years, we have tried to persuade the Department to create a Harriet Tubman National Park on Maryland's Eastern Shore. Yet the Department's analysis of potential Park Service units in the Chesapeake Bay region contains no explanation for its rejection of the Harriet Tubman National Park proposal. The Department's crabbled rewriting of history only underscores how badly Americans need the Harriet Tubman National Park to preserve and display history as it really happened.

the motion of the Dorchester County, Maryland Branch of the NAACP, the National NAACP, meeting in full convention, voted unanimously to endorse the creation of the Harriet Tubman National Park as proposed by the Park Committee.

II. The Park Service Should Create The Harriet Tubman National Park

A. The Harriet Tubman National Park Concept

The Harriet Tubman National Park would be a full service family destination offering educational, research, and recreational activities -- including an amphitheater, visitors lodge, conference center, video facility and college classrooms. The Park would be designed to the highest standards of historic preservation, educational value, environmental and wildlife protection, and economic and land use planning.

The principal site of the Park would be in south Dorchester County, running from Bucktown on the east to the Bay on the west, and taking in a swath of land just north of Blackwater National Wildlife Refuge. Visitors centers also could be located in Fernandina Beach, FL, Beaufort, SC, Cambridge, MD, Caroline County, MD, Camden, DE, Philadelphia, PA and Auburn, NY -- in a "chain of islands on the land" recalling the historical reality of the life and times of Harriet Tubman and the Underground Railroad itself.

The Underground Railroad would be dramatized through such means as live, interactive theatrical presentations. Educational, conservation and preservation activities would focus on how the Bay region's topography and ecology made the Chesapeake Bay region's Underground Railroad possible.

B. Why The Park Service Should Create The Harriet Tubman National Park

Among the greatest seldom-told stories of American history is how enslaved people creatively used the wetlands and waterways for protection, shelter and sustenance as they sought their freedom. A full understanding of this extraordinary synthesis of human purpose and divine creation is possible by experiencing the natural environment which gave birth to freedom.

The southern Dorchester County landscape has not changed dramatically in 160 years, enabling visitors to appreciate the history that played out on the sacred ground where Harriet Tubman was born, lived, and orchestrated some of her clandestine work.

The Harriet Tubman National Park would be America's first national park and full service vacation destination of special interest to people of color throughout the world. As one of the greatest of Americans, Harriet Tubman deserves this high level of public recognition.

A national park would also do much to restore stability to the fragile Eastern Shore economy. By helping the Shore end its overreliance on agriculture and manufacturing, a national park would ensure security and stability through professional management and preservation of the Shore's vast and underappreciated ecological and historical resources.

C. How The Harriet Tubman National Park Should Be Incorporated Into Our System of National Parks

At least seventeen Tubman-related historic sites, including the Tubman birthplace and childhood home site, are located in Dorchester and Caroline counties within twenty miles or less of the Bay. Creating a park whose territory includes these sites, as well as land along the Bay, and possibly other Underground Railroad-related sites along or near the Choptank River in Caroline County, would be an extraordinarily effective way of merging historical and environmental themes within the same unit of the Park Service.

A park configured as a "chain of islands on the land" from Florida to New York would be within a day's drive for about 35% of the American people. No Park Service policy requires all sites in a unit of the Park Service to be contiguous. Consequently, an aggregation of sites associated with Harriet Tubman or the Underground Railroad would synergistically deliver the mission of the Park to a significant proportion of the American people.

Another Park Service study team, the Harriet Tubman Special Resource Study Team, is examining the possible creation of units of the Park Service to be dedicated to the

preservation of specific sites related to the life of Harriet Tubman. As is well known, Park Service resources are limited; indeed, the Park Service is having difficulty even maintaining the units it presently operates. How much more efficient, then, it would be to deploy scarce Park Service resources by merging the efforts of the two study teams and creating a single unit of the Park Service that is focused on Harriet Tubman and the Chesapeake Bay region Underground Railroad, and on the Chesapeake Bay itself. The Harriet Tubman National Park would fit that bill perfectly, since the sites logically includable in the main location of the Harriet Tubman National Park are located in southern Dorchester County near the Chesapeake Bay. Further, the Bay and its surrounding wetlands and lowlands played a fundamental role in the success of the Underground Railroad. The wetlands and lowlands were ideally suited to concealment of enslaved people during the most dangerous initial legs of their journeys, and the Bay and its tributaries were among the leading pathways north to the Promised Land. The Harriet Tubman National Park would use the example of the Underground Railroad to explain the global interrelatedness of environment and history.

III. The Draft Study is Fatally Flawed. It Should Be Withdrawn And A New Round Of Comments Should Be Initiated.

In June, 2003, the Park Service released its Draft Chesapeake Bay Special Resource Study and Environmental Impact Statement ("Draft Study") for public comment. The Draft Study seeks comment on five alternatives that could form a model for a unit of the Park Service on or near the Chesapeake Bay.

None of the five alternatives addresses what is by far the most important unmet need for a new Park Service site: a historical park that would focus on perhaps the most influential events shaping the history of the region. Those events are the enslavement of hundreds of thousands of people between 1619 and 1863, the remarkable efforts of people of goodwill who formed the Underground Railroad in the decades of the 1830s

./ See Draft Study, p. 30.

through the 1860s and thereby broke the economic back of the enslavement-based economy, and the freedom struggle of the African American people that continues this day.

Approximately one-third of those living in the Chesapeake Bay region today are people of color. Further, 100% of the population of the region has been profoundly touched by the civil and human rights history of the region. The intrinsic wealth of the region -- manifested in its cleared and tilled lands, and much of the inherited wealth of a majority of its most influential families -- was initially derived from the cruel exploitation of ten generations of free labor of people of African descent. Another source of the region's wealth is the moral force represented in the Underground Railroad, in which African Americans and Whites each risked their lives to deliver enslaved people through Delaware to Pennsylvania, New Jersey, New York and Ontario. The audaciousness, determination and nobility of this extraordinary enterprise is known and revered throughout the world. In most of the world's countries, citizens may not have heard of the Grand Tetons, or Mt. McKinley, or even Yellowstone, but every schoolchild in Europe, Africa, South America, Australia and Asia knows what the American Underground Railroad was. Gandhi was inspired by the effort, as was Nelson Mandela, as was Lech Walesa. It is the Chesapeake Bay Region's greatest gift to the nation and to the world.

Remarkably, however, this history was absent from the Draft Study. In its 155 single-spaced pages, this document contains essentially nothing about two of the greatest historical events that took place on the region's soil and its waterways -- the Underground Railroad and the modern Civil Rights Movement. Specifically:

- The Draft Study's discussion of "The Bay as a Historical and Cultural Resource" speaks of the "early European settlements" while not mentioning slavery, the Underground Railroad or the Civil Rights Movement.²

2/ Id. at 19.

- In its discussion of "Chesapeake Bay Themes", a subsection entitled "Peoples of the Bay" states that "[r]acial, religious, ethnic, political and economic divisions have been counterbalanced by united efforts, common concerns and shared values."^{2/} This characterization, which could refer to every region of the world except Antarctica, is meaningless without an acknowledgment that the leading "divisions" were slavery and oppression and the leading "united efforts" were the Underground Railroad and the Civil Rights Movement.
- The "Chesapeake Bay Themes" section also includes a subsection on "Settlement of the Bay" which actually states: "First indigenous peoples then Europeans and soon after, Africans established footholds in the Bay area, opening a gateway for the burgeoning nation."^{3/} Obviously, Africans did not establish "footholds" as the Europeans did.
- In its historical overview of the Bay's "Cultural Environment," the Draft Study includes a discussion of the period A.D. 1500-1775, which it refers to as the period of European Colonization. In its detailed twelve paragraphs, the section fails to mention Africans, despite the fact that the population of the Chesapeake Bay area went from 150 in 1640 to 34,000 in 1700.^{4/} No historian regards Africans in America as "colonists."
- In the same "Cultural Environment" overview, the section "Independence and Expansion (A.D. 1776-1825)" acknowledges that "[f]ree and enslaved African Americans made up a large percentage of the bay's population, in the Chesapeake region, as well as in the rest of the United States. Baltimore was home to the second-largest group of free blacks and the largest in the United States."^{5/} However, this section omits mention of the roles of Baltimore, Annapolis, Cambridge and other cities in the Chesapeake region as among the nation's leading centers of commerce in human beings during a time period that ironically also includes the American revolution.

^{2/} Id. at 19.
^{3/} Id., p. 26.
^{4/} Id.
^{5/} Id., pp. 84-86, 86.
^{6/} Id., p. 87.

- Further in this "Cultural Environment" overview, the periods that included the Underground Railroad, the Civil War, the Civil Rights Movement, and the Harlem Renaissance are aggregated into "Industry and Urbanism (A.D. 1826-1950)."^{7/} There we are told only that "The Chesapeake Bay region split into a free labor market in the north and a slave labor economy farther south. The region was devastated by the violence of the war and many of the undisturbed landscapes were changed forever."^{8/} There was not a word about the Underground Railroad, nor about the rich and often uncomfortable history of African Americans after the Civil War -- a history which included four generations of segregation, lynchings and Jim Crow, as well as the Underground Railroad, the efforts of Harriet Tubman, the Tuskegee Institute, Marshall and many others in setting the stage for the modern Civil Rights Movement.
 - Later in this "Cultural Environment" overview, the period "Post 1950 and Bay Restoration" is described without a single word about the modern Civil Rights Movement -- unquestionably the region's signature social and cultural event of the period.^{9/}
 - The Draft Study's iteration of "Historical Structures/Sites" does not mention a single African American-related site.^{10/}
 - The Draft Study's description of "Ethnographic Resources" does not mention a single African American resource, including any of the uses of lands and waterways to make the Underground Railroad possible. Maryland's dozens of Black churches, schools and museums are nowhere acknowledged.^{11/}
- Having so gravely misstated and decontextualized the region's history in this way, it is understandable that the Draft Study did not find the Tubman Park Proposal worthy of public comment. Although Draft Study mentions the Tubman Park Proposal,^{12/} the Draft Study omits it from the list of alternative paradigms upon which public comment was

^{7/} Id., p. 87.
^{8/} Id.
^{9/} Id., pp. 87-88.
^{10/} Id., p. 90.
^{11/} Id., p. 91.

^{12/} Draft Study, pp. 39-40 (stating that the Park Service had received a proposal to "create a Harriet Tubman National Park to communicate the Underground Railroad story (the proponents' idea actually extends far beyond the Chesapeake region, but participants suggested a main site that would address the role of the Bay in the story; a separate Harriet Tubman Special Resource Study is being conducted at this time)."). See also Chesapeake Bay Special Resources Newsletter, Issue 2, Fall, 2002, "Suggested New or Combination Concepts," p. 5 (to the same effect).

sought. Further, the Draft Study failed to explain why the Tubman Park Proposal was rejected.^{13/} By failing to explain these decisions, the Draft Study violated the Administrative Procedure Act.^{14/}

Furthermore, and also without explanation, the Draft Study paid scant attention to any potential historical preservation plan that could form the basis for a new unit of the Park Service or a material part of such a unit.^{15/} One alternative -- Alternative A -- which

^{13/} The Draft Study states that "[f]ollowing public workshops in September 2002 and submission of written comments, the study team sorted comments and presented them to an interdisciplinary group representing the Chesapeake Bay Program partnership. The group worked together during a facilitated workshop to build specific conceptual alternatives from the public comments and initial concepts. After similar ideas were grouped together, the study team prepared a series of proposals on the basis of the workshop discussions. A general description of the mechanics of the review process is at the subtitle for the requirement that an agency provide reasons for its major decisions. See n. 14 *infra*.

^{14/} While an agency is permitted to reject proposed alternatives, it must give a reason for rejecting them. See 5 U.S.C. §555(e) (an agency must give "prompt notice...of the denial in whole or in part of a written...request of an interested person made in connection with any agency proceedings. Except in affirming a prior denial or when the denial is self-explanatory, the notice shall be accompanied by a brief statement of the grounds for denial, and shall be accompanied by a copy of the record on which the agency's action is based, and by a copy of the relevant provisions of law. Furthermore, an agency cannot simply ignore a proposal if it would be deemed under the Administrative Procedure Act to be "relevant matter." 5 U.S.C. §553(c) ("after consideration of the relevant matter presented, the agency shall incorporate in the rules adopted a concise statement of their basis and purpose.")

^{15/} None of the five alternative models upon which public comment was sought has a material emphasis on historic preservation. Certainly the Park Service has enjoyed great success in identifying and preserving historic sites, but the Draft Study does not explain that a historic site would not be included among the alternatives upon which public comment is sought. Yet the Draft Study does not explain why none of five preferred alternatives focuses on historic preservation.

contemplates no change to the present configuration of parks, is unacceptable on its face.^{16/} Alternatives D and E focus on maintaining, in relatively unchanging form, the present-day physical and cultural state of certain Bay area resources, but these alternatives do not materially address the re-creation, preservation and presentation of the history of the region.^{17/} Alternative B contemplates some expansion of existing programs, but neither acknowledges their woeful inadequacy in representing the African American experience,^{18/}

^{16/} Alternative A is unacceptable on its face. The suburbanization and exurbanization of the Maryland Eastern Shore will leave a very short window of time -- perhaps two or three years -- before land prices become prohibitive and development and pollution render the region unsuitable for the introduction of any new unit of the Park Service. We associate ourselves with the views of most other commenters who concur in this assessment, and we specifically concur with the Draft Study's observation that "[w]ithout effective recognition, preservation, and presentation of the region's history, the Bay may be threatened by loss, over-development, and degradation through neglect over time." *Id.* at 14.

^{17/} Alternative D ("Chesapeake Bay National Reserve") and Alternative E ("Chesapeake Bay Watershed National Ecological & Cultural Preserve") would essentially maintain, in approximately their present state, various natural and cultural resources. That is not the same as historic preservation, which focuses on recapturing and displaying natural and cultural treasures whose physical manifestations may not have survived in a form suitable for public display without the intervention of historians and archaeologists.

^{18/} Among the 120+ sites in the Chesapeake Bay Gateways Network ("Network") are four sites claimed by the Network to be germane to African American history and culture. Two of these are museums (Manners, in Newport News, and Jefferson Patterson, on the Patuxent River), and a plantation (I), the Stratford Hall Plantation, above the Potomac River. These sites include some displays concerning African Americans, although these displays are largely presented from the context and perspective of the ante-bellum plantation owners, rather than from the context and perspective of the enslaved people themselves. The Manners and Stratford Hall sites are located in the Tidewater region of the Bay, while the "800" number rings at the Dorchester County Tourism Office. The Bayway is essentially a map-based driving tour. While it is worthwhile, the Bayways is but one unit out of over 120 units in the Network. All by itself, the Bayways is not designed or intended to be a comprehensive effort to represent, preserve, promote, display or honor the history of one-third of the people in the Chesapeake Bay region.

nor proposes any steps to remedy this glaring omission.¹⁹ Consequently, any conclusions and recommendations derived from the Draft Study in its present form will be incomplete, erroneous and indefensible. Accordingly, the Department should withdraw, revise and republish the Draft Study, and should thereupon initiate a further round of public comment devoted to issues of historical preservation generally and African American history specifically. In this further round of public comment, the Department should expressly call for comment on the Tubman Park Proposal.²⁰

Respectfully submitted,


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August 29, 2003

¹⁹ Alternative B ("An Enhanced Chesapeake Bay Gateways Network") would build upon the current Network, which includes over 120 parks, museums, and the like. Since Alternative B is a sub-theme of the Network, it would be included in the Network should be the top priority for expansion of the Network. The Draft Study accurately acknowledges that an "under-represented sub-theme" of the Network is "[r]acial and ethnic heritage" (along with political events, religious influences [and] sources of conflict.") Id., p. 36. Further, Alternative B contemplates that the Network would "be enhanced to fill several identified gaps in Bay conservation and restoration." Id., p. 47. However, the "under-represented sub-theme" of "racial and ethnic heritage" is not among the "several identified gaps" that would be filled by Alternative B. Specifically, the plans for Alternative B does not mention any expansion of the Chesapeake Bay Gateways Network to or sites that include existing sites and programs which have a special significance in the history of African Americans.



Maryland District of Columbia Chapter
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301 897-8370 / fax: 301 897-0858

September 16, 2003

Mr. Jonathan Doherty
National Park Service
Chesapeake Bay Program Office
410 Severn Ave., Suite 109
Annapolis, Maryland 21403

Dear Mr. Doherty:

The Nature Conservancy appreciates the opportunity to comment on the Draft Chesapeake Bay Special Resource Study and Environmental Impact Statement. The Conservancy was involved in two early scoping sessions put together by your office and we have been closely following this issue ever since.

Our comments on the Study should be prefaced by a brief overview of the Conservancy's ecoregional planning process and our increasing focus on landscape-scale conservation. A number of years ago, the Conservancy embarked on a planning process to design a portfolio of conservation areas that would protect the full range of biodiversity within each ecoregion in the U.S. (ecoregions were broadly based on Bailey's ecoregional map). The ecoregion that encompasses the Chesapeake Bay is called the Chesapeake Bay Lowlands Ecoregion and includes the Bay watershed of Maryland, Virginia, and Delaware up to the Fall Line. Within this ecoregion, Maryland, Virginia, and Delaware have identified several large landscape-scale conservation areas that will be the focus of our activities into the future (see enclosed map # 2).

In Maryland, the key terrestrial landscape-scale sites identified by the Chesapeake Bay Lowlands Ecoregional Plan are Bay tributaries and include Nantuxemey Creek in Charles County, the Nantuxemey River (both in MD and DE), and Nantuxemey Creek (the largest tributary of the Potomack River located in Wisconsin and Worcester Counties), Virginia is focusing its land and water conservation strategies on several Bay tributaries including the Rappahannock, Mattaponi and Pamunkey, and Dragon Run, as well as several small Bay tributaries on the lower Eastern Shore of Virginia in Accomac and Northampton Counties.

Our goal at these sites is to protect and, in some cases, restore significant portions of these areas as functional ecological systems to conserve and enhance their biological significance. This goal is similar to those established for Alternative E: Chesapeake Bay Watershed National Ecological and Cultural Preserve to "establish a national ecological

and cultural preserve focused on one exemplary Bay tributary" to "conserve and restore the tributary ecosystem" to "protect key natural resources and river shorelines". The Conservancy believes that Alternative E is consistent with, and would enhance, the goals of the Conservancy and its partners at these tributary sites and therefore we endorse it as one of the preferred alternatives.

The Chesapeake Bay Lowlands Ecoregional Plan also identified more than a dozen estuarine, coastal and marine "conservation targets" - species like blue crabs, rockfish, and oysters; species aggregations like shorebirds and waterbirds; and habitat types like submerged aquatic vegetation and tidal wetlands - and mapped their distributions around the Bay. With the help of numerous Bay researchers and experts in Maryland, Delaware and Virginia, we identified and mapped "Significant Conservation Areas" (SCA's) in the tidal waters of the Bay itself. The SCA's represent what we believe are the best areas for conserving multiple, co-occurring conservation targets, they generally have good or very good water quality, and they are stratified along the major environmental gradient of the Bay to capture the full array of native biodiversity found in the estuary. The SCA's in the Bay proper are the Susquehanna Flats, the Choptank River and its mouth, the shallow Bay bottom from Taylor's Island to Tangier Island, the Mobjack Bay area and York River mouth, and the Lower Bay (see enclosed map # 4).

The Conservancy's plans for the Significant Conservation Areas have not yet been fully developed, but our goals for these areas appear to fit well with Alternative C: Chesapeake Bay Estuary National Park. The stated goal in the NFS study document to "encompass a reasonably large, but still proportionally small water area representative of the core aspects of the Chesapeake's estuarine environment" to "protect aquatic resources" is very similar to the Conservancy's vision for the SCA's. Because of the similarity, Alternative C is also a preferred alternative as a concept for a Chesapeake Bay park.

In fact, we agree with the statement on page 11 of the study that "doing more than one thing - the four action alternatives (B, C, D, & E) are not mutually exclusive" is very true. The tributary strategy (Alternative E) could be combined with the estuary park strategy (Alternative C) to provide for a more complete picture of the Bay, both ecologically and culturally. In addition, these alternatives separately, or in combination, would not preclude the interpretation of the maritime and rural heritage of the Bay as articulated in Alternative D. The existing Gateway system, which we would encourage to be maintained, can provide some of this interpretation.

To summarize our comments:

- 1) Our two preferred alternatives are Alternative C, an estuary park, and Alternative E, a tributary park. These alternatives fit in well with the vision and planned conservation strategies of The Nature Conservancy in the Chesapeake Bay Lowlands Ecoregion.

- 2) TNC believes that a combination of Alternative C and E may yield a more complete interpretation of the Bay. There are several sites on the Bay where Alternative C and E could be combined, for example, the Nanticoke River/Tangler Sound area.

- 3) TNC does not feel that either of these alternatives (C and/or E) would prevent elements of Alternative D, a maritime and rural heritage park, from being part of the interpretive and educational aspects of any park that may result.

- 4) We would hope that the Gateways system would continue as a key element of any of the chosen alternatives.

I have enclosed a map of the Conservancy's landscape-scale sites and the Significant Conservation Areas as identified in the Chesapeake Bay Lowlands Ecoregional Plan. If you have any questions about these comments, please don't hesitate to contact me.

Sincerely,

Not Williams
Not Williams

Vice-President and State Director



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IN REPLY REFER TO:
 NCPC File No. 1200

AUG 28 2003

Mr. Jonathon L. Doherty

Director
 NFS Chesapeake Bay Program Office
 410 Severn Avenue, Suite 109
 Annapolis, MD 21403

Dear Mr. Doherty:

Thank you for the opportunity to review and comment on the Environmental Impact Statement (EIS) for the Draft Chesapeake Bay Special Resource Study. We hope our remarks will assist you in preparing the resulting Record of Decision in the context of the overall programmatic planning for highlighting the significance of the Bay resources. These EIS comments are limited to the Commission's role as the central planning agency for the federal government in the National Capital Region and express our general views on planning and environmental issues. The comments provided in this letter do not constitute any form of approval of the project pursuant to Section 5 of the National Capital Planning Act (40 U.S.C. § 8722(b)(1)), should any aspect of the study eventually be identified to locate within the jurisdiction of the Commission.

The Commission staff is encouraged by the wide range of issues reviewed by the National Park Service's (NPS) preparation of the draft EIS. The Commission staff has concluded that Alternative B appears to be the most feasibly implemented of the alternatives proposed given the complexities of the competing interests that are associated with the bay. Alternative B consists of the proposal, in concept, that would involve the existing network - currently authorized until 2008 - and would be enhanced to become permanent. The program would not technically be labeled a unit of the National Park System.

In alternative B, the National Park Service would coordinate the partnership Gateways Network as a permanent program for the Chesapeake Bay to achieve the following goals:

- Expand the Bay background and knowledge base to the public at large. Two major centers would be added to introduce visitors to Bay-wide themes and orient them to the many sites for experiencing the Bay.

Commission Members

Presidential Appointees:
 John V. Copelli, III, Chairman
 Richard L. Friedman
 Jose L. Galvez, III

Members Appointed by the President:
 Dr. Patrick Elliott

Ex-Officio Members:
 Secretary of Defense
 Donald R. Rumsfeld

The Honorable Donald R. Rumsfeld
 Secretary of the Interior
 The Honorable Gale A. Norton

Administrator
 General Services Administration
 The Honorable Stephen A. Perry

Chairman
 Committee on Governmental Affairs
 U.S. House of Representatives
 The Honorable Susan M. Collins

Chairman
 Committee on Commerce, Consumer Affairs, and Transportation
 U.S. House of Representatives
 The Honorable Tom Davis

Mayor
 District of Columbia
 The Honorable Anthony A. Williams

Chairman
 Council of the District of Columbia
 The Honorable Linda W. Cropp

Executive Director
 Patricia E. Gallagher, AICP

Mr. Jonathon Doherty
 Page Two

- Help conserve Bay landscapes. Certain Bay landscapes would be eligible for Gateways Network technical and financial help for conservation initiatives.

Other advantages to this alternative are that this plan takes the Gateways Network to an expanded role. By making a permanent commitment to the Chesapeake Bay Gateways Network, the NPS would ensure its long-term viability and enhance the Chesapeake's status among the country's national treasures. Through the development of the two Chesapeake Bay interpretive and education centers in the northern and southern parts of the Bay, visitors would experience a holistic introduction to this complex region and its watershed. Each center would be a portal through which to view the Bay's "big picture" stories and themes, and a starting point from which to explore the scores of other Gateways. As noted by the evaluation of the document, this alternative is one of the three options offering the greatest environmental benefits.

In addition, the Network will broaden its focus to help interpret and conserve important landscapes linked to existing Gateways, thus drawing from the established programs of the state and local jurisdictions which have a direct interest in the Bay's future. Moreover, the advantage of establishing this new program from an immensely successful one places this alternative proposal in a distinctly unique position to go forward. The Gateways Network would continue its innovative role as a partnership system of special Bay places, managed by a variety of public and private institutions. Overall guidance and coordination of the Gateways Network would be carried out in much the same fashion as it is today by the NPS, in cooperation with a multi-organizational board or coordinating body.

We appreciate your consideration of our comments at this stage of the project planning. Please ensure that the final determination of your NEPA process is provided, along with a final copy of the final EIS, for use by the Commission in the future. If you have any questions about our comments, please contact Eugene Keller, of my staff at (202) 462-7231.

Sincerely,

Patricia E. Gallagher, AICP
 Executive Director

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
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DATE: September 17, 2003
SUBJECT: Comments on the Draft Chesapeake Bay Special Resource Study and Environmental Impact Statement
FROM: Lowell Bahner, Director NOAA Chesapeake Bay Office
TO: Jonathan Doherty, National Park Service Chesapeake Bay Program Office

Thank you for the opportunity to comment on the *Draft Chesapeake Bay Special Resource Study and Environmental Impact Statement (EIS)*. The NOAA Chesapeake Bay Office has distributed the draft EIS to several interested programs within NOAA, and have attached these program-specific comments for your consideration.

NOAA welcomes the opportunity to work with the National Park Service to support any of the "action alternative" concepts. This initiative represents a significant opportunity to enhance the conservation, restoration, and understanding of this rich and diverse ecosystem. As experts on the nation's ocean and coastal resources, NOAA offers a wealth of knowledge and expertise to partner with you as you select a preferred alternative or alternatives. We are particularly interested in offering assistance in the creation of a Visitors Center that would offer a lively and informative window on the Bay and its watershed; in coordinating our National Estuarine Research Reserve sites with the Gateways Network; and in working with you on the boundaries and management objectives of a future park, reserve or preserve.

From: Patty Long [mailto:pnl@northernneck.org]
Sent: Wednesday, September 17, 2003 2:18 PM
To: nosauid@chesapeakebay.net
Cc: nntc@northernneck.org
Subject: Public Comment for Chesapeake Bay study

Per your recent request, I have read the materials and would have to place a vote for Alternative A - no new initiatives. While I understand the need for continuing programs, I felt the other initiatives were too broad in scope to become feasible. The networks program is working and recognizes the smaller communities and programs. I did not feel that any of the other proposed initiatives had that type of opportunity. I would rather see the Park Service support the Northern Neck efforts to be a national heritage area.

thank you.

Patty Long
Executive Director
Northern Neck Tourism Council

NOAA Program Comments

Office of Coastal Resource Management, National Ocean Service

Marine Protected Areas Center

The Marine Protected Areas Center (MPA Center) was established in May 2000, by Executive Order 13158, to work in cooperation with the Department of the Interior to strengthen the protection of ocean and coastal resources. The goal of the MPA Center is to maintain the long-term economic and environmental viability of the nation's oceans, coasts and Great Lakes by protecting robust ecosystems and ensuring their continued use and value to society.

The MPA Center does not wish to offer a recommendation among the management options in the Chesapeake Bay Special Resource Study Environmental Impact Statement (EIS). Rather, we wish to offer our assistance as the National Park Service takes its next steps in analyzing and selecting an alternative. The MPA Center has three components. The headquarters, in Silver Spring, Maryland, provides for interagency coordination, education, and outreach on marine protected areas issues. The Science Institute is based in Santa Cruz, California, and is developing a science-based framework for a national network of MPAs, assessing threats to important habitats and resources, and analyzing socio-economic factors that may impact MPAs. The Training and Technical Assistance Institute provides training and technical assistance to managers, citizens and others involved in MPAs.

Three of the alternatives presented in the EIS – Alternatives C, D, and E – include some type of marine managed areas, or marine protected areas. The following Center activities and services may be of interest to you as the Park Service selects a preferred alternative and works with stakeholders to further develop plans for a Chesapeake Bay network, park, reserve or preserve.

- **Developing common definitions of marine protected areas and marine managed areas.** There is considerable confusion about the definitions of marine protected areas, and stakeholders often assume that MPAs are “no take” areas. The MPA Center is developing a framework for discussing characteristics of marine protected areas in terms of primary conservation goal and level of protection.
- **Providing training and technical assistance to managers.** The MPA Center's Training and Technical Assistance Institute provides a wide range of training and technical assistance to marine protected areas managers and stakeholders to enhance management capabilities.
- **Provide outreach and education to stakeholder groups.** The MPA Center has developed outreach and education materials describing MPAs and their benefits. Our website, www.mpa.gov is currently being re-designed, and will serve as an information hub on MPA information nationally.
- **Establish an inventory of Marine Managed Areas.** The MPA Center is charged with developing a national system of marine protected areas that reflects

NOAA Program Comments

Office of Coastal Resource Management, National Ocean Service

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The Marine Protected Areas Center (MPA Center) was established in May 2000, by Executive Order 13158, to work in cooperation with the Department of the Interior to strengthen the protection of ocean and coastal resources. The goal of the MPA Center is to maintain the long-term economic and environmental viability of the nation's oceans, coasts and Great Lakes by protecting robust ecosystems and ensuring their continued use and value to society.

The MPA Center does not wish to offer a recommendation among the management options in the Chesapeake Bay Special Resource Study Environmental Impact Statement (EIS). Rather, we wish to offer our assistance as the National Park Service takes its next steps in analyzing and selecting an alternative. The MPA Center has three components. The headquarters, in Silver Spring, Maryland, provides for interagency coordination, education, and outreach on marine protected areas issues. The Science Institute is based in Santa Cruz, California, and is developing a science-based framework for a national network of MPAs, assessing threats to important habitats and resources, and analyzing socio-economic factors that may impact MPAs. The Training and Technical Assistance Institute provides training and technical assistance to managers, citizens and others involved in MPAs.

Three of the alternatives presented in the EIS – Alternatives C, D, and E – include some type of marine managed areas, or marine protected areas. The following Center activities and services may be of interest to you as the Park Service selects a preferred alternative and works with stakeholders to further develop plans for a Chesapeake Bay network, park, reserve or preserve.

- **Developing common definitions of marine protected areas and marine managed areas.** There is considerable confusion about the definitions of marine protected areas, and stakeholders often assume that MPAs are “no take” areas. The MPA Center is developing a framework for discussing characteristics of marine protected areas in terms of primary conservation goal and level of protection.
- **Providing training and technical assistance to managers.** The MPA Center's Training and Technical Assistance Institute provides a wide range of training and technical assistance to marine protected areas managers and stakeholders to enhance management capabilities.
- **Provide outreach and education to stakeholder groups.** The MPA Center has developed outreach and education materials describing MPAs and their benefits. Our website, www.mpa.gov is currently being re-designed, and will serve as an information hub on MPA information nationally.
- **Establish an inventory of Marine Managed Areas.** The MPA Center is charged with developing a national system of marine protected areas that reflects

the diversity of the nation's natural and cultural marine resources. As a first step in this process, the MPA Center is creating an inventory of marine managed areas – a category that is broader than marine protected areas, and includes areas that may be managed for reasons other than conservation. When complete, in 2005, the inventory will provide a national context for marine managed areas, as well as a resource for managers. A current draft of the inventory is available at www.nmfs.gov, including a list of marine managed areas in Maryland and Virginia.

National Estuarine Research Reserve

The National Estuarine Research Reserve System (NERRS) promotes estuarine stewardship through science and education using a system of protected areas around the country. Two reserves work with local, state and federal partners in the Chesapeake Bay region to provide protected estuarine environments in Maryland and Virginia. Reserves are platforms for research to learn more about estuarine systems and for education and outreach to increase awareness of the importance and function of this critical habitat. Establishing a National Park within the Chesapeake Bay provides an excellent partnership opportunity for the Reserves and for the Park Service.

Through any alternative that promotes habitat protection and estuarine education, the National Park Service will be furthering the interests and vision of the reserve system. The NPS has enormous public recognition and support and any increase in citizen stewardship of the Chesapeake Bay will contribute directly to the reserves mission to promote estuarine stewardship.

The National Estuarine Research Reserves can contribute to park education and outreach efforts by sharing up to date and locally relevant science generated at the Reserves. This partnership would be mutually beneficial, as working with the National Parks Service would expose a much larger audience to reserve products and data. Alternatives C and E may provide for interesting comparative research sites for reserve research staff and other scientists in the region, bringing the potential of joint funding and expertise to work toward a greater understanding of the Chesapeake Bay estuary. Communication tools such as interpretive exhibits, websites and written materials at the park and the reserves can be linked to inform visitors, scientists, educators and volunteers of additional opportunities and outlets for learning more about the Chesapeake Bay.

While there are clear benefits to a NPS-NERRS partnership in the Chesapeake Bay region, the National Estuarine Research Reserve System has some concerns with the alternatives described in the Draft Chesapeake Bay Special Resource Study and Environmental Impact Statement. Please consider the following comments in revising the study document and the EIS:

- The National Estuarine Research Reserves are designated to protect and conserve pristine habitat for long-term research and monitoring. A high visitor impact park adjacent to the Virginia Chesapeake Bay NERR on the York River or adjacent to the component sites of the Maryland Chesapeake Bay NERR (Jug Bay on the

Panuxent River, Otter Point Creek on the Bush River, or Monie Bay) could compromise the integrity of core reserve habitat.

- Because of the large number of local, state, and federal interests in the Chesapeake Bay, name recognition is difficult for small programs. The Chesapeake Bay National Estuarine Research Reserve and the name included in Alternative D: "Chesapeake Bay National Reserve" are very similar. In addition to weakening name recognition, the word "reserve" incorporates significantly different definitions for the NERRS and for the park alternative. Alternative D is a cultural reserve including maritime business and industry within the boundary of the park. National Estuarine Research Reserves are selected to be representative pristine natural estuaries, with a focus on protecting these resources. Having two "reserves" with nearly the same name but considerably different purposes may confuse the public and send mixed messages about allowable uses at National Estuarine Research Reserves.

- While the National Estuarine Research Reserve System supports efforts that help promote estuarine research, education and stewardship, it is important for the multitude of Chesapeake Bay federal programs to coordinate and be aware of potential programmatic overlaps. Alternative C presents a park option that may be duplicative of work done at reserves. The Chesapeake Bay Estuary National Park will, like the reserves, encompass mostly estuarine waters with some non-intrusive, land-based interpretation. The goal of alternative C is "to conserve, protect and restore the estuarine environment and natural resources represented within the park area..." and the executive summary of the Chesapeake Bay Study refers to this type of park as a "living laboratory". These phrases also describe the NERRS, as demonstrated by the description of the program that appears on the reserve website: *This partnership program protects one million acres of estuarine land and water; which protects essential habitat for wildlife; offers educational opportunities to students, teachers, and the public; and serves as a living laboratory for scientists.* In selecting an alternative for the National Parks Service involvement in the Chesapeake Bay, the missions and messages of other federal efforts should be considered to encourage each program to fill a unique niche or gap in existing education, interpretation or research in the Chesapeake Bay.

The National Estuarine Research Reserve System looks forward to collaborating with the National Parks Service in the Chesapeake Bay and is eager to contribute to the selection of the most appropriate option for the region.

NATIONAL PARKS CONSERVATION ASSOCIATION
Protecting Parks for Future Generations®

September 17, 2003

Mr. Jonathan Doherty
National Park Service
410 Severn Avenue, Suite 109
Annapolis, MD 21403

via email: jonathan_doherty@nps.gov
(original mailed)

Dear Mr. Doherty:

Thank you for the opportunity to provide comments on the Draft Chesapeake Bay Special Resource Study and Environmental Impact Statement. The following comments in the draft are submitted on behalf of the more than 300,000 members of the National Parks Conservation Association (NPCA). Founded in 1919, NPCA is America's only national nonpartisan, nonprofit private advocacy organization dedicated solely to finding, preserving, and enhancing the National Park System. We are grateful that the U.S. Congress asked the National Park Service (NPS) to conduct this special resource study, and see several opportunities for the NPS to work in partnership with ongoing efforts to protect, restore, and interpret the Chesapeake Bay.

Given the significance and richness of the Chesapeake Bay's natural and cultural resources, NPCA recommends that the NPS name important features of each of the proposed Alternatives B-E. We support the NPS's continued leadership and involvement in the Chesapeake Bay Gateway Network (Alternative B), but the network alone would fail to realize the potential for the NPS to be involved productively in the region.

NPCA advocates consideration of a water-based national park to protect marine resources, similar to Biscayne National Park in Florida (Alternative C); a reserve to showcase the region's historic and agricultural heritage, similar to the Pinelands National Reserve in New Jersey (Alternative D); and an ecological and cultural preserve along one or two rivers, similar to the Thomas Jefferson National Ecological and Historic Preserve in Leesville, Florida, along the St. Johns and Nassau rivers (Alternative E). In addition, NPCA supports establishing a Chesapeake Bay water trail that would link existing and new water trails in the basin. A single ecodot and opportunity exist to guide the NPS's progress toward implementing each of these options.

The largest estuary on the North American continent, the Chesapeake Bay is a natural and historical treasure of national and even international significance. Historically, one of the most productive estuaries in the world, the Bay remains home to more than 3,600 species of plants and animals. Approximately 295 species of fish and

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Mr. Jonathan Doherty
September 17, 2003
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shellfish have been identified as living in the Bay ecosystem during at least part of their lives. Ninety percent of the Atlantic striped bass (rockfish), a popular sport fish also enjoyed by diners in many fine restaurants, spawn in the Bay and its tributaries.

From its headwaters to its shores, the Bay equally is rich in human history. It nurtured Native American nations and early European settlements such as Jamestown, and was the stage for landmark events in our nation's military, political, and engineering history. In addition to being a harboring economic resource for shipping and commercial fishing, today the Bay is a resource for a diversity of recreational uses including birding, pleasure boating, angling, and hunting. The stories of human settlement and the Bay illustrate centuries of changing relationships involving cultural and natural resources.

Today this priceless resource is under tremendous pressure from the cumulative consequences of past and current human use and abuse. Recently, the Chesapeake Bay Foundation analyzed the condition of the Bay's ecological resources compared to its relatively pristine condition when Captain John Smith explored the Bay in the early 1600s. The clear water, meadows of under-water grasses, oyster reefs so extensive that they were navigational hazards, and abundant fish as Smith experienced are now marvels found only in the pages of history. The organization's 2002 report rated the Bay's condition as 27 of a possible 100, due largely to nitrogen pollution from sewage treatment plants, fertilizer runoff from suburban lawns, and animal wastes from agriculture.

Such a seriously impaired condition is especially troubling given the extensive federal, regional, state, and local attention directed at and funding applied to restoration of the Bay. A review of trends reveals that, despite some progress in some areas, much more needs to be done. For example, the Bay basin used to be up to 95 percent forested. Some areas have lost up to 80 percent of their forests. Healthy forests buffer floodwaters, filter air pollution, moderate temperatures, and prevent erosion, in addition to providing wildlife habitat. Many of these forests are being lost to highway construction and sprawling development. The growth in the miles traveled in motor vehicles reflects these activities. Between 1970 and 1997, vehicle miles traveled in the Bay watershed increased 117%, while population during the same time increased only 28%.

We are confident that the NPS can and will continue to work with local partners to produce a comprehensive plan for NPS Chesapeake Bay conservation and interpretation efforts that would include the conservation and proper management of headwater lands and riparian zones, the showcasing of maritime and agricultural uses highlighting best practices, and significant aquatic conservation efforts, including the management of runoff and its related pollution. Such a plan would of necessity be accomplished in stages over time.

Mr. Jonathan Doherty
September 17, 2003
Page Three

It is of great concern that only about two percent of the Bay's extended shoreline is accessible to the public. Creating a Chesapeake Bay National Water Trail, as proposed by the Conservation Fund, would successfully link Gateway Network sites while providing public access and recreational opportunities in a cost-efficient and low-impact manner. This option also provides a unique opportunity to provide education on land and water conservation issues. While any new Chesapeake Bay unit of the national park system must go beyond the educational and recreational benefits of a water trail and directly address water quality and land use, the establishment of a National Water Trail should be an integral part of a proposed new park.

The Special Resource Study is unique in its discussion of conceptual alternatives without addressing specific localities. Subsequent evaluation of specific geographical areas is necessary, and may be appropriate to organize as a request for proposals from interested communities.

The Chesapeake Bay Gateways Network has been a wonderfully successful program to date and should be continued on a permanent basis. However, this is the minimum baseline for National Park Service involvement. NPCA recommends that the Final Draft of the Chesapeake Bay Special Resource Study include a plan that combines Alternatives B-E, adds a Bay Water Trail, and focuses on conserving waterways, riparian zones, estuarine waters and wildlife while also supporting the traditional working landscape that is a critical part of the Bay's heritage. A national park unit including these elements, when combined with the existing Gateways Network, could serve as a model for demonstrating riparian forest protection, best agricultural practices, energy efficiency and conservation, while also expanding interpretation of the Bay's rich cultural history.

Thank you for the opportunity to contribute our comments to the Chesapeake Bay Special Resource Study and Environmental Impact Statement.

Sincerely,



Ronald J. Tipton
Senior Vice-President of Programs



Joy M. Oakes
Mid-Atlantic Director



Potomac River Association

Box 76
Valley Lee, MD 20682

August 9, 2003

Comments on Draft Chesapeake Bay Special Resource Study

We have looked over the proposal for National Park Service for Chesapeake Bay initiatives, and have the following comments:

- 1. Alternative A:** We are not in favor of the no new initiatives alternative. Some innovative proposals have been made by the study, and we think that the National Park Service should embrace them.
- 2. Alternative B:** Expansion of the gateways network program makes a lot of sense, and brings the public into appreciation of the Bay in ways that are supportive and complementary to all other approaches. The Potomac River Association is in favor of expansion of this program to the fullest extent possible over the next years.
- 3. Alternative C:** A Chesapeake Bay Estuary National Park is exactly what the Bay needs the most, considering the profound collapse of the fishery. The Potomac River Association would strongly prefer this initiative and would commit resources and volunteer time towards such a program. This is a type of proposal that can produce enthusiasm from the general public. It is also a park type that is sorely needed to promote the aquatic health of the Bay.

Selection of the location of such a park would require scientific and public feedback. There is a need to provide sanctuary for breeding sites for multiple types of aquatic life. The oyster sanctuary program is an example of a program aimed at a single species. Complicating the issue is the continuing move north of the salt line, due to water evaporation from the Susquehanna watershed and rising ocean levels.

- 4. Alternative D:** Protection of the maritime and rural heritage in a national reserve is complementary to an estuary national park, and we support it as such.

But, when one visits the Lore Oyster House museum in Solomons, it becomes clear that the hunter-gatherer tradition is quite capable of collapsing a fishery over time, even with hand tools, and that regulatory approaches

historically have not had much impact in slowing these impacts. In contrast, an Estuary National Park would have the potential of partial restoration of the historic fishery. Living history is always of greater interest.

For these reasons, the Potomac River Association would prefer that the National Park Service select an Estuary National Park as its core program for the Chesapeake, and integrate Alternative D with such a park.

5. **Alternative E:** Many other governmental regulatory agencies are involved in watershed protection, nutrient reduction, and sprawl control initiatives. As the National Park Service lacks the necessary regulatory authority outside of its own facilities, participation in a whole tributary and watershed might need to be an educational or some other sort of interactive democratic program. The gateways network can provide some of this educational interface, that would benefit all the other agencies.

The Potomac River Association would view Alternative E as a complementary program to Alternatives B and C. How to select a tributary is another issue. The Potomac River is a national river; the Susquehanna River is a primary source of Bay pollution, but probably too large; the York or James Rivers have historic properties that include Park Service facilities; and the Eastern Shore tributaries feed fisheries but also pose local pollution issues. A smaller tributary like the Wicomico River in Charles County might recommend itself, because it has a river plan and river board.

In summary, the Potomac River Association would strongly favor an Estuary National Park as the core program of the National Park Service for the Chesapeake Bay, because it is what the fishery of the Bay needs the most, and because it offers the most innovative approach towards providing an educational and cultural experience for the public.

The gateways programs should be expanded to the fullest extent possible. Heritage and cultural reserve programs will be complementary to an Estuary National Park. But, focus on a single tributary would need to take into account the lack of regulatory authority of the National Park Service for waterways and lands outside of its ownership. The gateways program might offer an educational and participative way to approach these tributaries.

Best regards,
Erik Jansson
Erik Jansson, Co-President
planetearth@erols.com

Organizational Comment Submitted via Website Comment Form

Comment from: laetitia sands (Sierra Club Maryland Chapter)

General Comments:
The Sierra Club Maryland Chapter's position on NPS/Chesapeake Bay alternatives:

Of the five alternatives outlined in the NPS' draft Special Resource Study, the Sierra Club's Maryland Chapter supports Alternative C, for a mainly water-based "Estuary National Park."

We chose this alternative for the following reasons:
1) We feel that it is imperative to steer away from any course of action that has the potential to add commercialism to the Bay.
2) We oppose any privatization of existing public lands in the creation of this park and we will not, likewise, support any commercialization of the Bay's critical areas as part of this initiative.

3) We call for a minimum amount of invasive activity and oppose any creation of paved trails, paved parking lots, or "heritage tourism" areas.
In addition to supporting C, we would like to see additional restoration efforts in and around the Bay.

The Sierra Club, Maryland Chapter (including the Eastern Shore Group)

Comments on Alternative A:
please see C.

Comments on Alternative B:
please see C.

Comments on Alternative C:
The Sierra Club's Maryland Chapter (including the Eastern Shore Group) supports this alternative. We would, however, like to see additional restoration efforts in and around the Bay.
Please see comments further on.

Comments on Alternative D:
Please see overall comments.

Comments on Alternative E:
Please see overall comments.

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Southern Tier Central Regional Planning & Development Board

Marcia D. Weber
Executive Director

September 16, 2003

Jonathan Doherty
National Park Service
Chesapeake Bay Program Office
410 Severn Ave., Suite 109
Annapolis, MD 21403

RE: RECOMMENDATIONS ON THE NATIONAL PARK SERVICE INVOLVEMENT IN
THE CHESAPEAKE BAY

Dear Mr. Doherty,

Attached please find a copy of the minutes of the STC Physical Resources Advisory Committee of their meeting on September 9, 2003. The Committee unanimously recommended that the full Southern Tier Central Regional Planning and Development Board adopt the attached resolution concerning the continuation of the Gateways Network and increased protection of the Chesapeake Bay watershed through expanded National Park Service involvement.

Thank you for this opportunity to comment.

Sincerely,

Jennifer Chesley Patis
Principal Planner

cc: R. Young, PRAC Chair

Serving Chemung, Schuyler and Steuben Counties



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www.talbotgov.org

Fax: 410-770-8007
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ahollis@talbotgov.org

R. Andrew Hollis
County Manager

August 29, 2003

Via Fax and First-Class Mail

Mr. Jonathan Doherty
National Park Service
410 Severn Avenue, Suite 109
Annapolis, Maryland 21403

Dear Mr. Doherty,

The Talbot County Council convened a citizen advisory group to review the Chesapeake Bay Special Resource Study. At the County Council meeting on August 26, 2003, the Council adopted the citizen advisory group's recommendation of support for "Alternative B." A majority of the group felt that this alternative provided the broadest opportunity for visitors to experience the Chesapeake Bay, and that it also provided continued funding opportunities for a variety of sites within Talbot County, as well as throughout the Bay region.

However, some members of the citizen advisory group felt that "Alternative C" also had merit. The group felt strongly that the County should be working toward a creation of a waterfront park and they strongly endorsed the Council lobbying for a national park in Talbot County, if that is the alternative selected by the Park Service.

Please contact the County with the final determination of the Chesapeake Bay Special Resource Study. Should you need further assistance, you may contact my office.

Sincerely,

R. Andrew Hollis
County Manager

RAH:ed

Southern Tier Central Regional Planning & Development Board



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Marcia D. Weber
Executive Director

Tuesday, September 9, 2003 MINUTES OF THE STC PHYSICAL RESOURCES ADVISORY COMMITTEE

ATTENDANCE: (*)

VOTING MEMBERS:

Bruce Adams
Ed Bauer
Tom Bloodgood
Lindsay Brown
Kenneth Bush
Bob Chadeayne
***Darril Cleveland**
Scott Folt
***Charles Franzese**
Michael Garner
James Gooding
Danielle Hautenterni
Greg Heffner
Al Janowski
Bonnie Kastner (alt)
Tom Klassen
Tom Kump
Peter Marchese
Billy Morris
Robert Nichols
Vincent Nykiel
Randy Oltfoof (alt)

RESOURCE MEMBERS:

Barbara Bell
Michele Benjamin
Tom Bockeloo
Elaine Darymple
Ann Devine
Dave Dupont
Karen Edlestein
Malcolm Field
Patrick Flynn
Mark Gillette
David Heicher
Jim Howell
Reeve Howland
Betsy Landre
Tom Lasater
Philip Mochouse
Bill Osterander
Jeff Parker

Mary Jane Porter
Nancy Rice
Dixon Rollins
Michael Smith
***Gene Stow**
Thomas Tomasa
Richard Winnett

Guests:

***Mebody Ross**
***Jim Carratolo**

Staff:

***Jeanifer Fais**

1. **Welcome and Call to Order.** Ruth Young called the meeting to order at the Arnot Mall meeting room at 2:30 PM.

2. **Minutes** - On a motion by Tom Sears, seconded by Janet Thigpen, the minutes of the July 15, 2003 meeting were approved as written.

PRAC Minutes 09/09/03.....page 1

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Action Items

A. **How does CEM work with other Land Use/Natural Resource programs? Any action needed by SITC?** On a motion by John Trimber, seconded by Tom Sears, PRAC voted to recommend the attached resolution for board action. (See attached resolution.)

B. **Intergovernmental Reviews**

1. **Requested by the NYSDOH Bureau of Environmental Radiation Protection to undertake the State Indoor Radon Grant Program Federal funds: \$360,234. TOTAL: \$720,468.** J. Fais explained that this is an excellent program supported in the past by our counties. She has received comments from Lee Young, Chemung County EMC, and Lindsey Brown, Chemung County Health Department, highly recommending that this project be funded. On a motion by Chuck Franzese, seconded by Dan Cleveland, PRAC recommended that STC recommend this application be funded including comments made by Lindsey Brown and Lee Young.

C. **Letter of Support to The Foundation Center for the Southeast Steuben County Library to be designated a "Cooperative Collections Library."** J. Fais was contacted by Matt Hogan from the Southeast Steuben County Library with information that the Foundation Center is offering Southeast Steuben County Library the opportunity to become a cooperative collections library. This library is a collection of grants writing resources which would make the Steuben County library the most complete grant reference center within one hundred miles. Ruth Young asked if the Mann Library at Cornell University was keeping their grants writing materials up to date, because that could be another resource for our area. J. Fais to double check. On a motion by John Trimber, seconded by Chuck Franzese, PRAC recommended that the STC Board send the attached letter of support to the Southeast Steuben County Library.

D. **The Rural Design Clinic is back in Steuben County!** J. Fais explained that the Rural Design process has been in place for the last few years and that its purpose is to suggest innovative housing and commercial development design alternatives in harmony with the environment. Steuben County is the focus county for this semester. Jim Tombs has offered his property for the design work and the Gang Mills "emerging residential area" could be the focus of project #2. This area is shown by the Master Plan to be developed in an environmentally sound way and the students could help by creating specific concept layouts. J. Fais said that Rita McCarthy supports this idea and she will suggest it to Professor Marvin Adleman. PRAC supported these ideas.

E. **Recommendation on Chesapeake Bay Special Resource Study.** What should the National Park Service's role be after the federal Gateways designation expires in 2008? J. Fais explained that the National Park Service was asking for comments on five options for their involvement in the Bay area at the conclusion of the Chesapeake Bay Gateways network funding in 2008. The options include:

1. Status quo alternative - no new Park Service in the Bay and the discontinuance of the network program.
2. Enhanced Chesapeake Bay Gateways Network
3. Chesapeake Bay Estuary National Park focused on the Bay's aquatic and shoreline natural resources. The Biscayne National Park in Florida is a similar park.

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**RESOLUTION SUPPORTING THE ENHANCED
CHESAPEAKE BAY GATEWAYS NETWORK**

Marcia D. Weber
Executive Director

WHEREAS, the Chesapeake Bay Gateways Network has been established to connect the system of water trails, historic sites, natural areas and other features of the Chesapeake Bay in a meaningful way, and

WHEREAS, the Southern Tier Central Region is part of the Chesapeake Bay Gateways Network, with its involvement in the Chemung Basin River Trail Partnership, and the continuance of the National Park Service in the Chesapeake Bay would be an economic benefit to the STC Region through increases in recreational tourism on the region's river system, and

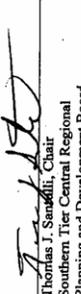
WHEREAS, the Chesapeake Bay Gateways Network will expire in 2008 unless the federal government authorizes a continuation of this program, and

WHEREAS, STC has reviewed the list of options for continued National Park Service involvement,

NOW THEREFORE IT BE RESOLVED, that the Southern Tier Central Regional Planning and Development Board supports, at a minimum, the enhanced Chesapeake Bay Gateways Network which would build on the existing effective network, and

BE IT FURTHER RESOLVED, that the National Park Service be called upon to work with residents and governments in closer proximity to the Chesapeake Bay to select an appropriate park or reserve category to further protect, enhance and interpret Chesapeake Bay resources to the benefits of all residents in the watershed.

AND BE IT FURTHER RESOLVED, that this resolution be provided to Jonathan Doherty, National Park Service; Amory Houghton, US Congress; and Senators Charles Schumer and Hillary Rodham Clinton for their action.


Thomas J. Santilli, Chair
Southern Tier Central Regional
Planning and Development Board

7-17-03
Date

Serving Chemung, Schuyler and Steuben Counties

4. Chesapeake Bay National Reserve which focuses on preserving a representative section of the region's natural and cultural heritage. Examples include - Eboey's Landing and the Pine Barrens in New Jersey (which is similar to the Adirondacks Park Agency).
 5. Chesapeake Bay Watershed National Ecological and Cultural Preserve which focuses on a single watershed and how it and the activities within it affect the Bay. A similar park is the Timucuan Park in Florida.
- J. Fais distributed overviews of the above parks for reference. On a motion by Dan Cleveland, seconded by Janet Thigpen, PRAC recommended that the attached resolutions be adopted by the STC Board.
- F. **NYS Ag. and Markets Roundtable** - J. Fais brought to PRAC's attention a recent roundtable held in Binghamton by the NYS Department of Agriculture and Markets for the purpose of helping their agency find better ways to protect agricultural lands in New York State. Ruth Young pointed out that protecting our agricultural land can be an issue of national security since food sources and water supply are critical to the health and survival of the United States. During the discussion, PRAC noted that the Ag. and Markets policy maybe at odds with the New York State Department of Commerce and they also may not be coordinated with the State Coalition on I-86. On a motion by Dan Cleveland, seconded by Janet Thigpen, PRAC recommended STC adopt the attached resolution.

Information Items

- A. **Status of the Chemung County Stormwater Coalition** - J. Fais noted that she is working with the Coalition to help them apply for \$100,000 to assist the MSA communities review zoning and subdivision law revisions, to send code enforcement and highway staff to erosion and sediment control, inspection, regulation, and construction workshops. In return the communities would match the project with their time committed to creating and adopting the needed stormwater regulations, to installing proper erosion sediment control practices on their highways and ditches, and to conducting inspections of construction projects. The deadline for the application is September 30, 2003. J. Fais has heard from several communities and will be in touch with the others to encourage their participation in the grant.
- B. **Update on the Chemung Basin River Trail Partnership** - J. Fais announced receipt of funding from the Chesapeake Bay Gateways program for five new launch sites. This will be the main topic at the Partnership meeting held September 10, 2003.
- C. **Update on the Schuyler/Steuben Rural Transportation Committee** - The committee meets every two months and is making good progress on their goals set out at the beginning of the year.
- D. **Tioga County River Trail Float** - brochures were distributed for the September 13 event.
- E. **NYS Association of Environmental Conservation Commissions (NYSAECC) Meeting** - The 2003 Conference on the Environment will be in Buffalo, October 3-5. The focus is on sustainable living with renewable energy.
- F. **Canisteo River Basin Unit Management Plan** - This has been finalized and a copy is available at the DEC regional offices, Jasper Free Library, and the City of Hornell Library.

Town of Urbanna



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August 13, 2003

Jonathan Doherty
Chesapeake Bay Program Office
410 Severn Ave.
Suite 109
Annapolis, MD 21403

Dear Mr. Doherty,

We would like to present to you Rosegill, listed on the National Register of Historic Places, as a Gateway to the Chesapeake, a springboard of opportunity to warm the hearts of generations to come.

Rosegill was established from original land grants by the King of England and was the home of the Nimcock Indians. Rosegill represents one of the last historic sites in Virginia. An integral part of United States history, Rosegill is steeped in tradition as is the surrounding areas of Yorktown, Jamestown, and Williamsburg. Over the centuries many cultural, military, and economic events have unfolded and have proven crucial to this nation.

A vision of a Chesapeake Bay natural reserve would encompass small fishing towns, rural communities, and working farmlands. Maritime communities inside the reserve would strive to remain living, breathing places that would readily remain in touch with traditional ways. Thus, the reserve would also encompass samples of the broad shores, winding riverbanks, deep forest, and wetlands that helped shape the bay.

The National Park Service could obtain Rosegill including up to 860 acres and an airstrip to launch a springboard to the Chesapeake Bay. Rosegill is located in Middlesex County, joining Urbanna on the Rappahannock River, a tributary of the Chesapeake Bay and is the perfect gateway to the Chesapeake. Rosegill offers a window of opportunity to join in the Chesapeake Bay Program to be used in one or more of the alternative plans that we were privileged to view in Newport News, on July 23, 2003 that was presented by the Chesapeake Bay Office.

This central location off a large river and going into the Chesapeake Bay would provide an excellent showcase for the Chesapeake Bay Region.

Thank you for your efforts to promote the Chesapeake Bay and the land of pleasant living. We would like to invite you to visit the historic Rosegill site, contact Lewis Filling, Chief Executive Office of Urbanna at 804-758-2813.

Sincerely,

Robert Straw
Council Member, Town of Urbanna
PO Box 175
Urbanna, VA 23175

Cc: Matthew Proust, Daily Press
Alfred Scott



United States
Department of
Agriculture

Forest
Service

Northeastern Area
State and Private Forestry

11 Campus Boulevard
Suite 200
Newtown, Squares, PA 19073

File Code: 3500

Date: September 17, 2003

Mr. Jonathan Doherty
Chesapeake Bay Program Coordinator
National Park Service
Chesapeake Bay Program Office
410 Severn Ave., Ste. 109
Annapolis, MD 21403

Dear Jonathan:

The Northeastern Area of the USDA Forest Service would like to commend the National Park Service for its excellent work in putting forth five innovative and distinct alternatives in its "Chesapeake Bay Special Resource Study." Expanding public connections to the Chesapeake Bay ecosystem and its unique resources is truly a long-term goal of all federal agencies working to restore and protect the Bay. The NPS has very thoroughly analyzed each of these alternative concepts for a Chesapeake National Park, and each alternative offers a unique set of benefits. We are very supportive of these endeavors, and we would like to continue to be involved in the process as it moves forward.

We feel that the proposal for a National Ecological and Cultural Preserve (Alternative E) would offer the greatest opportunity to showcase the connections between land and water in the Chesapeake Bay watershed. This watershed approach for a model tributary system of the Bay watershed would provide opportunities for a variety of educational experiences exemplifying the impact of upland and riparian stewardship on the watershed. The "on-the-ground" demonstration projects that illustrate stewardship practices in working landscapes, such as forestry, provide an important message. This alternative also offers an opportunity to further protect, restore and demonstrate management of both land and water, with the hopeful outcome of verifiable benefits to that system. This type of a preserve could showcase examples of management practices and innovative approaches not only for landowners and residents of the Chesapeake Bay region, but it could also provide an educational opportunity for those who visit this renowned resource from other parts of the country or the world. This alternative would be unique to the Chesapeake Bay region and the nation. The geographic scale of this alternative is unique in allowing forest management practices a place for demonstration as well. As such, Alternative E would probably offer the greatest opportunity for the USDA Forest Service and its partners to assist the Park Service in its efforts through interagency collaboration.

The proposal for an Estuary National Park (Alternative C), one that would specifically highlight the aquatic ecosystems of the Bay, is also a unique type of national park for the region. This alternative could be effectively combined with Alternative E. Visitors would be able to follow the tributary stream from its headwaters and surrounding landscape downstream to the mainstem of the Bay. At the water's edge and offshore, visitors could observe the Bay's aquatic resources, and take part in water-based activities and interpretive opportunities. We feel that combining the concepts presented in Alternatives C and E would strengthen the message of connectivity between human impacts, stewardship, land use practices, and water quality of the Bay.



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The National Reserve (Alternative D) and the Enhanced Gateways Network (Alternative E) alternatives also offer opportunities to show connections between land and water in the Bay watershed, but these opportunities appear more limited and the connections less direct. The most positive feature of the enhanced Gateways Network is the addition of two or more destination visitor centers. These centers would serve to introduce residents and visitors to the history and ecology of the Bay and its larger watershed as well as to protection and restoration efforts of this valuable resource. With or without a new place-based National Park, this proposal is a valuable one.

Any of the "action alternatives" would advance the goal of restoring and protecting the Bay and educating the public about its ecology, its culture, and the challenges to its future health. These four alternatives all establish a permanent presence for the National Park Service and enhance public access and educational opportunities for generations to come.

Thank you for the opportunity to provide comments during this process. Please keep us informed of your progress in making a Chesapeake Bay National Park a reality. For questions regarding these comments, please contact Al Todd, Watershed Program Leader or Sally Claggett, Chesapeake Bay Program Liaison, at 410-267-5705 or 5706 respectively.

Sincerely,

KATHRYN P. MALONEY
Area Director

Jonathan Doherty (CIMS)

From: Watermens [watermens@wildonaker.com]
Sent: Thursday, August 28, 2003 2:37 PM
To: Jonathan Doherty (CIMS)
Subject: All Park Service Plans

Dear Jonathan,

Having reviewed your material on allamata National Park Service plans for Gateways, I would agree with Chesapeake Bay Foundation that plans B and D would have significant merits. I also agree that the Chesapeake Bay water trail should be included in any plan.

Plan E, National ecological and cultural preserve, is intriguing. I would participate our own York River/Pamunkey/Mattaponi watershed in the plan. Many of the elements of the York River are already in federal and NPS hands. We have VIMS, science exhibit and aquarion and our watermen's historical, cultural and ecological museum flanking the narrows at Yorktown. The York River is the shortest major river on the Bay and perhaps the least developed. We have, I believe, the greatest percentage of forest and crop land on the Bay.

The Mattaponi with its Pamunkey reservation and staid hatchery, the oldest such facility on the bay at 100 years, is a wonderful asset.

The York and Mattaponi Rivers provide the predominant shad populations on the Bay.

Rosewell Plantation has recently been opened to the public. It lacks only a good dock to be a featured destination.

One can view state of the art Agass Cleas cruisers and guided missile destroyers and submarines at the Yorktown Naval Weapons Station, from a safe distance, of course.

Additionally, we have the new Yorktown Waterfront River Development entering its construction phase, to be completed in 2005.

The aforementioned are some quick thoughts on the merits of the York/Mattaponi/Pamunkey watershed.

Sincerely
Steven King

8/28/2003



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Chesapeake Bay Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401

September 17, 2003

Mr. Jonathan Doherty
Director, Chesapeake Bay Program
National Park Service
410 Severn Avenue, Suite 109
Annapolis, Maryland 21403

RE: DRAFT Chesapeake Bay Special Resource Study

Dear Mr. Doherty:

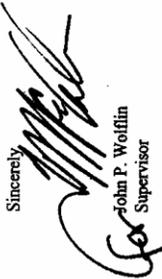
This is to provide U.S. Fish and Wildlife Service (Service) comments on the above referenced National Park Service (NPS) study to explore the potential for a new unit of the National Park System in the Chesapeake Bay Region. We commend the NPS for considering an increased role in natural resource stewardship in the Chesapeake Bay. As you know, the natural systems of the Chesapeake Bay are under a multitude of increasing pressures resulting primarily from the impacts of human development and other activities. As federal natural resource agencies working in the region, it is imperative that we collectively bring to bear as many forces as possible to the conservation of fish and wildlife and their habits for the benefit of future generations of Americans.

Several of the five alternatives described in the document show considerable promise and would contribute greatly to the conservation of fish and wildlife and their habitats in addition to providing a forum for the American public to gain a greater appreciation for the Chesapeake Bay. Of the alternatives, Alternative E, Chesapeake Bay Watershed National Ecological and Cultural Preserve, shows the most promise from a fish and wildlife habitat conservation perspective as applied to the Chesapeake Bay. This alternative would establish an ecological and cultural preserve focused in one watershed that is exemplary of the natural and human systems that have interacted for hundreds of years to form the landscape of the region. We view this as a potential first step in an expanded network of preserves, such as that described in Alternative D. Once the initial preserve is established and working in concert with other natural resource organizations, including the Service, the NPS could consider expanding into other Chesapeake Bay sub-watersheds, as funding permits.

In the event that the single-watershed alternative is chosen for further consideration, we would like to highlight the Nanticoke River Watershed on the Delmarva Peninsula in Maryland and

Should you have any questions or require further comment, please feel free to contact Dan Murphy of my staff at (410) 573-4521.

Sincerely,



John P. Wolfm
Supervisor

cc: U.S. Fish and Wildlife Service, Chesapeake Marshlands National Wildlife Refuge
Complex (Attn: Glenn Carowan)
Maryland Department of Natural Resources (Attn: Mike Slattery)
The Nature Conservancy, Maryland - Delaware Chapter (Attn: Steve Bunker)

Delaware as a potential area of focus. The Nanticoke has long been regarded as one of the most pristine and ecologically significant watersheds in the mid-Atlantic region. The wetland communities (tens of thousands of acres of more than a dozen tidal and non-tidal habitat types) retain a high-quality character, while sharing a landscape of agricultural fields and coastal plain forest. The Nanticoke's superior wetland and distinct upland communities harbor more than 260 rare plants and animals, including large populations of the federally-listed Delmarva fox squirrel and bald eagle. It is a priority site under the North American Wetlands Management Plan, with important habitat for large concentrations of waterfowl, as well as breeding and stopover habitat for neotropical migratory birds. The river system also supports a rich recreational and commercial fishery and makes a significant contribution to the ecological health of the Chesapeake Bay.

For well over a decade, the Nanticoke River has been a high priority for cooperative efforts to conserve biodiversity by the Service, the states of Maryland and Delaware, The Nature Conservancy, and many other public and private organizations. Foremost of the conservation activities has been an effort to permanently protect lands within a 50-mile riparian corridor along the Nanticoke River, from its mouth at Fishing Bay Wildlife Management Area and Chesapeake Marshlands National Wildlife Refuge Complex to its headwaters in Delaware. Through this effort alone, over 5000 acres of wetland, upland, and riparian habitat have been set aside in perpetuity.

After flowing across the Delmarva Peninsula, the Nanticoke discharges into Tangier Sound, the location of some of the premier islands in the Chesapeake Bay, including South Marsh Island and Smith Island. South Marsh is home to the State of Maryland's South Marsh Island Wildlife Management Area which provides nesting habitat for many species of waterfowl and waterbirds, including black ducks, herons, and egrets. Smith Island is home to the Chesapeake Marshlands National Wildlife Refuge Complex Martin Unit as well as one of the last working island waterman communities remaining in the Bay. In short, opportunities for habitat conservation and educational and interpretive activities abound in the islands located in proximity to the mouth of the Nanticoke River. Working jointly with organizations already established in this part of the Bay, the NPS could easily incorporate a national ecological and cultural preserve into the area.

In summary, the Service encourages the NPS to further pursue Alternative E and consider focusing on the Nanticoke River Watershed. We appreciate the opportunity to comment on this promising conservation activity upon which the NPS has embarked and we look forward to working with you in the future.

Jonathan Doherty (CIMS)

From: Jeremy P. Muller [jmuller@wvriivers.org]
Sent: Friday, August 22, 2003 10:09 AM
To: joherty@chesapeakebay.net
Subject: Comments on Ches Natl Water Trail

Mr. Doherty:

It is my sincere belief that a National Water Trail along a dead Chesapeake Bay is a significant waste of time, energy and taxpayer money. Instead, why doesn't the NPS, the Chesapeake Bay Foundation, and all states in the watershed actually commit to the enforcement of nutrient and other pollutant reduction so that the Bay can begin to be resurrected. The voluntary programs and half-assed enforcement that currently exists has only helped to increase the size and scope of the Bay's dead zone. A trail will do nothing to affect the political malaise that has hampered the Bay's clean-up for the past two decades.

Please clean up the Bay and those who are killing it. Thank you.

Jeremy P. Muller
Executive Director
West Virginia Rivers Coalition
801 N. Randolph Avenue
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(304) 637-7201 Tel
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jmuller@wvriivers.org
WWW.WVRIVERS.ORG

W. Taylor Murphy, Jr.
Secretary of Natural
Resources



Joseph H. Maroon
Director

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

201 Governor Street, Suite 326
Richmond, Virginia 23219-2010 (804) 766-2556 FAX (804) 371-7899

September 17, 2003

Mr. Jonathan Doherty, Director
NPS Chesapeake Bay Program Office
410 Severn Avenue, Suite 109
Annapolis, Maryland 21402

Dear Jonathan:

Thank you for providing us with an opportunity to comment on the Chesapeake Bay Special Resource Study. The prospect of a National Park Service (NPS) unit that is directly linked to the Chesapeake Bay and speaks to its conservation is, indeed, a fascinating possibility.

The Department of Conservation and Recreation (DCR) supports the National Park Service effort to explore the potential for a new National Park unit that is focused on the unique cultural and natural resource that is the Chesapeake Bay. We believe that Alternative B, enhanced Gateways Network, with components of Alternative D, a Chesapeake Bay National Reserve, may be the best combination of alternatives. The NPS development of a Bay-wide network of Gateways and water trails has already demonstrated a positive influence on the region through the recognition of more than 120 special places that tell the complex story of the resource and its people. In four years, the Gateways Program has grown from a concept to a network of museums, wildlife refuges and management areas, state and local parks, and regional information areas. This accomplishment is a testament to NPS and to your leadership in the development of partnerships to help protect the Bay and to communicate the interdependent and complex stories of its people and its cultural and natural resources.

We also feel that the enhanced Gateway Network would accomplish several key roles in the Bay conservation and restoration effort:

- A permanent Gateway Network in the National Park Service, coupled with a stable funding commitment, would provide lasting continuity to the program.
- A permanent program would help stimulate additional partnerships that would further strengthen the key interpretive and educational efforts of the program.

An Agency of the Natural Resources Secretariat

Mr. Jonathan Doherty
September 17, 2003
Page Two

- A permanent Gateway Network would generate a new means of linking Gateways to their surrounding communities as well as to the bigger picture that is the Chesapeake Bay.
- A permanent commitment to the Gateways Program would help ensure the long-term viability of the fledgling network of Gateways and water trails and would enhance recognition of the Bay as a nationally significant resource. The environmental education and interpretive elements of the program will further strengthen the desire of visitors to support protection of the resource. The trip-planning values of a stable or expanding network of Gateway sites will provide substantial opportunities for ecotourism in all the communities around the watershed.

In addition to the benefits of an enhanced Gateways Program, NPS could also play a role in the creation of a Chesapeake Bay National Reserve (Alternative D) at a strategic location in the Bay watershed. The concept of a public/private partnership that would retain the existing characteristics of those who live and work on the Bay should be an appealing option to many people in the region. The combination of protecting resource dependent activities and managing the resources in a sustainable manner has merit. The site could help provide interpretation and environmental education opportunities that could impact a large segment of the watershed.

When considered with an expanded and permanent Gateways Network and its benefits, the National Reserve could create the opportunity for broad partnerships that would contribute to the conservation of the Bay and an increased citizen awareness of the significance of this magnificent resource and the need to protect it. As appropriate, the acquisition of land within the public sector to provide public access and resource protection as a part of this alternative, should also be considered. It would seem inappropriate, at this time, to make a determination that most of the land in the Reserve would be privately owned.

As a final thought, we also feel the establishment of a Chesapeake Bay National Water Trail, which includes the explorations of Captain John Smith is most worthwhile, and as you know, Virginia is currently working on a section of it. Such a trail could serve as a significant link between the special places of the Bay and provide an even greater awareness of its importance and need for protection. The water trail could support any of the Chesapeake Bay Special Resource Study alternatives and tie together the Bay's Gateway Communities and its rich variety of historic sites, wildlife refuges, parks, greenways and wetlands. The trail, which could run the length of the Bay and link existing and future water trails on the rivers that feed the Bay, would foster greater public

Mr. Jonathan Doherty
September 17, 2003
Page Three

access, provide a means for low-impact visitation, advance local tourism, and provide additional support for the Bay's restoration. While the Gateways program already supports the establishment of water trails, having a National Water Trail Designation for the John Smith explorations would be most appropriate and would be a fine addition to the National Park System. Additionally, it would certainly complement any new unit that may come from the Special Resource Study.

It has been a privilege to participate in the Special Resource Study. And again, thank you for offering us an opportunity to comment.

Sincerely,



John Davy, Division Director
Planning and Recreation Resources

cc: Joseph H. Maroon, Director
Derral Jones, Planning Bureau Manager



COMMONWEALTH OF VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

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September 16, 2003

W. Taylor Murphy, Jr.
Secretary of Natural Resources

Robert G. Burnley
Director
(804) 698-4000
1-800-592-5482

Mr. Jonathan Doherty
National Park Service - Chesapeake Bay Program Office
410 Severn Avenue
Annapolis, Maryland 21403

RE: Chesapeake Bay Special Resource Study and Draft Environmental Impact Statement

Dear Mr. Doherty:

The Virginia Department of Environmental Quality has recently learned of the National Park Service's Special Resource Study and Draft Environmental Impact Statement (Study/Draft EIS) mandated by Congress to examine questions associated with a possible additional role for the National Park Service (hereinafter "Park Service") in regard to the management and protection of the Chesapeake Bay and its resources. We are also aware of the Park Service's notice in the Federal Register (Volume 68, No. 122, June 25, 2003, pages 37861-37862; hereinafter "Notice") and of the material on the web site referenced in the Notice (page 37862, left column).

The Virginia Department of Environmental Quality (hereinafter "DEQ") is responsible for coordinating Virginia's review of federal environmental documents and responding to appropriate federal officials on behalf of the Commonwealth. DEQ is also the lead agency for coordination of Virginia's review of federal consistency determinations submitted pursuant to the Coastal Zone Management Act. In addition, DEQ, along with other state agencies in Virginia, has significant responsibilities in relation to Chesapeake Bay resources management. Because of these roles, we have an interest in being notified of the availability of appropriate documents for review.

Federal Consistency under the Coastal Zone Management Act

Pursuant to the Coastal Zone Management Act of 1972, as amended, the Park Service is required to determine the consistency of its activities affecting Virginia's coastal resources or coastal uses with the Virginia Coastal Resources Management Program (VCP) (see section 307(c)(1) of the Act and the Federal Consistency

Mr. Jonathan Doherty
Page 2

Regulations, 15 CFR Part 930, sub-part C, section 930.34), and to conduct those activities consistently with the Enforceable Programs of the VCP. The consistency determination involves an analysis of the activities in light of the Enforceable Programs of the VCP (first enclosure) and submission of a consistency determination reflecting that analysis and committing the Park Service to conduct its activities in a manner consistent, to the maximum extent practicable, with applicable Enforceable Programs. In addition, we invite your attention to the Advisory Policies of the VCP (second enclosure). The federal consistency determination may be provided as part of the documentation concluding the NEPA process (in this case, a Final EIS) or independently, depending on your agency's preference. Section 930.39 of the Federal Consistency Regulations gives content requirements for the consistency determination.

Inasmuch as the Study/Draft EIS is a conceptual document, a specific federal consistency determination may be premature in the current phase of your study effort, which is to result in recommendations to Congress (Notice, page 37861, right column). Accordingly, we recommend that the Study/Final EIS include a general commitment that the Park Service's activities pursuant to the Study/EIS and any resulting Congressional authorization will be consistent, to the maximum extent practicable, with the VCP, as well as committing the Park Service to submit a consistency determination approximately 90 days prior to the time the Park Service decides to undertake the activities. The choices made among the five alternatives presented in the Study/EIS may affect the Park Service's preferences in regard to consistency determinations.

Environmental Review

As indicated above, Virginia state law mandates that DBQ coordinate state agencies' review of federal environmental documents prepared pursuant to the National Environmental Policy Act (NEPA). To meet our review coordination responsibilities, we will need to obtain 20 copies of any consistency determination or environmental (NEPA) document sent out for public and/or inter-governmental review. This does not include coverage of interested or affected local governments or regional planning district commissions; if planning district commissions are included, the total should be 27 copies.

If you need clarification of these comments, please contact this Office (Charles Ellis, telephone (804) 698-4488).

Mr. Jonathan Doherty
Page 3

Thank you for the opportunity to comment.

Sincerely,



Ellie L. Frohs
Program Manager
Office of Environmental Impact Review

Enclosures

cc: Brian D. Moyer, DGIF
Keith R. Tignor, VDAACS
Derral Jones, DCR
Alan D. Weber, VDH
Ketur S. Narasimhan, DEQ-Air
Thomas D. Modema, DEQ-Waste
Ellen Glinsky, DEQ-Water
John D. Bowden, DEQ-PRO
Harold J. Winer, DEQ-TKO
Tony Watkinson, MRC
Thomas A. Barnard, VIMS
J. Michael Foreman, DOF
Ethel R. Eaton, DHR
Catherine M. Harold, CBLAD



COMMONWEALTH OF VIRGINIA

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W. Taylor Murphy, Jr.
Secretary of Natural Resources

Robert G. Burnley
Director
(804) 698-4600
1-800-552-5882

Attachment 1

Enforceable Regulatory Programs comprising Virginia's Coastal Resources Management Program (VCRP)

a. **Fisheries Management** - The program stresses the conservation and enhancement of finfish and shellfish resources and the promotion of commercial and recreational fisheries to maximize food production and recreational opportunities. This program is administered by the Marine Resources Commission (VMRC); Virginia Code §28.2-200 to §28.2-713 and the Department of Game and Inland Fisheries (DGIF); Virginia Code §29.1-100 to §29.1-570.

The State Tributyltin (TBT) Regulatory Program has been added to the Fisheries Management program. The General Assembly amended the Virginia Pesticide Use and Application Act as it related to the possession, sale, or use of marine antifoulant paints containing TBT. The use of TBT in boat paint constitutes a serious threat to important marine animal species. The TBT program monitors boating activities and boat painting activities to ensure compliance with TBT regulations promulgated pursuant to the amendment. The VMRC, DGIF, and Virginia Department of Agriculture Consumer Services (VDACS) share enforcement responsibilities; Virginia Code §3.1-249.59 to §3.1-249.62.

b. **Subaqueous Lands Management** - The management program for subaqueous lands establishes conditions for granting or denying permits to use state-owned bottomlands based on considerations of potential effects on marine and fisheries resources, tidal wetlands, adjacent or nearby properties, anticipated public and private benefits, and water quality standards established by the Department of Environmental Quality (DEQ). The program is administered by the Marine Resources Commission; Virginia Code §28.2-1200 to §28.2-1213.

c. **Wetlands Management** - The purpose of the wetlands management program is to preserve wetlands, prevent their despoliation, and accommodate economic development in a manner consistent with wetlands preservation.

(1) The tidal wetlands program is administered by the Marine Resources Commission; Virginia Code §28.2-1301 through §28.2-1320.

(2) The Virginia Water Protection Permit program administered by DEQ includes protection of wetlands - both tidal and non-tidal; Virginia Code §62.1-44.15.5 and Water Quality Certification pursuant to Section 401 of the Clean Water Act.

Attachment 2

Advisory Policies for Geographic Areas of Particular Concern

a. Coastal Natural Resource Areas - These areas are vital to estuarine and marine ecosystems and/or are of great importance to areas immediately inland of the shoreline. Such areas receive special attention from the Commonwealth because of their conservation, recreational, ecological, and aesthetic values. These areas are worthy of special consideration in any planning or resources management process and include the following resources:

- a) Wetlands
- b) Aquatic Spawning, Nursery, and Feeding Grounds
- c) Coastal Primary Sand Dunes
- d) Barrier Islands
- e) Significant Wildlife Habitat Areas
- f) Public Recreation Areas
- g) Sand and Gravel Resources
- h) Underwater Historic Sites.

b. Coastal Natural Hazard Areas - This policy covers areas vulnerable to continuing and severe erosion and areas susceptible to potential damage from wind, tidal, and storm related events including flooding. New buildings and other structures should be designed and sited to minimize the potential for property damage due to storms or shoreline erosion. The areas of concern are as follows:

- i) Highly Erodible Areas
- ii) Coastal High Hazard Areas, including flood plains.

c. Waterfront Development Areas - These areas are vital to the Commonwealth because of the limited number of areas suitable for waterfront activities. The areas of concern are as follows:

- i) Commercial Ports
- ii) Commercial Fishing Piers
- iii) Community Waterfronts

Although the management of such areas is the responsibility of local government and some regional authorities, designation of these areas as Waterfront Development Areas of Particular Concern (APC) under the VCRMP is encouraged. Designation will allow the use of federal CZMA funds to be used to assist planning for such areas and the implementation of such plans. The VCRMP recognizes two broad classes of priority uses for waterfront development APC:

Attachment 2 con't

Commonwealth and the VCRMP to enhance the protection of buildings, structures, and sites of historical, architectural, and archaeological significance from damage or destruction when practicable.



COMMONWEALTH OF VIRGINIA

Department of Historic Resources

2801 Kensington Avenue, Richmond, Virginia 23221

W. Tayloe Murphy, Jr.
Secretary of Natural Resources

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Director

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September 17, 2003

Jonathan Doherty
Director, Chesapeake Bay Program Office
National Park Service
410 Severn Avenue, Suite 109
Annapolis MD 21403

RE: NPS Special Resource Study on the Chesapeake Bay

Dear Mr. Doherty:

Our staff has reviewed the various options set out by the National Park Service in its Special Resource Study on the Chesapeake Bay. As State Historic Preservation Officer for Virginia, I am happy to offer the following comments on behalf of this Department at this stage of the study process.

The Chesapeake Bay is clearly a significant natural and cultural resource. It deserves strong and continuing recognition and interpretation by the NPS in partnership with the states and others. While maintaining the life of the current Gateways program has our strong support, we recognize that the program lacks permanent authorization and permanent funding. We think the Gateways Network merits establishment on a permanent basis with expanded funding and staffing for the existing program and for network expansion and gateway site development. The choice of Option A is unacceptable in that it does not address a nationally significant resource that clearly warrants greater attention by NPS and the nation. With millions of visitors coming to enjoy the Bay watershed each year and more to come, a permanent commitment by the nation and NPS to the Gateways Network is instrumental to sound tourism, conservation and stewardship efforts. NPS's direct involvement in partnership with the states and regional and local conservation partners is critical.

Our department regards Option B, which calls for an enhanced Bay Gateways Network-- as the most preferable option of the four options presented for several reasons. The Bay is a vast resource representing several states, many diverse interests, multiple geographic locations, and a wide range of related sites and site types. The Gateways Network seems to be the most flexible option for providing for full recognition, assistance and interpretation of the vast array of sites that are related to the Bay. Furthermore, it seems

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most efficient to implement, and the most fiscally responsible of the three action options in that it targets a group of known partners and seeks to grow the program to include new partners who are already interpreting the Bay. Options C and D would require federal land acquisition, development of public infrastructure, and NPS to assume ownership responsibilities. Option B uses an existing successful program, which enhances existing infrastructure and interpretation. It takes advantage of what is already in place and provides for growth in those areas.

Careful consideration must be taken regarding how to grow the Gateways Network. Provisions for bringing potential sites along must include adequate resources for planning, funding and staffing. Adequate staffing to ensure that an expanded network retains the high standards for participation is of paramount importance. It will also be important to focus on developing a community of gateways partners to ensure that the individual needs of gateways sites continue to be met as the program expands. Funding should also be sufficient to accelerate the development of key hubs and regional information centers in the network and Bay-wide interpretive products that will ensure that the Bay message gets to widest possible audience.

As you are aware, this Department is working closely with the property owners of Werowocomoco on Puritan Bay in York County, the College of William and Mary and the Virginia Council on Indians to investigate more fully what we think is the seat of Chief Powhatan and the Powhatan Confederacy. We recently learned that Ft. Monroe in Hampton may be under consideration for base closing in the coming years. The program that is created under Option B should be able to provide resources that will assist sites of such importance and significance to develop and become members in full standing in the network.

Through the office of Secretary of Natural Resources W. Tayloe Murphy, Jr., we have met with representatives of the Conservation Fund and the Chesapeake Bay Foundation and have become acquainted with their proposal for a Chesapeake Bay National Water Trail. We think that the concept of a Chesapeake Bay National Water Trail has the merit of recognizing the whole Bay as a nationally significant resource, the potential of strengthening Bay-wide conservation and recreational opportunities, and the virtue of establishing a permanent NPS commitment to the Bay. In our judgment Option B is the option that is most compatible with what the Conservation Fund and Bay Foundation are proposing.

In our judgment Options C and D fail to capture the full range of Bay-related resources, and thus fall short of what we believe would fulfill the mission of the NPS and the states to present the significance and story of the Bay as it deserves to be told. What is needed is a holistic, partnership approach based on the success of the Gateways Network to date and the success of other NPS partnership models. Our vision of an enhanced Bay Gateways Network could embrace the creation of new parks in Virginia and Maryland that would provide for the missing focus identified in either options C or D or both. Newly created parks, however developed and managed, could become designated gateway sites, further enhancing the Gateway Network.

From: Jim Scheepmoes [jscheepmoes@stratfordhall.org]
Sent: Monday, September 17, 2003 8:59 AM
To: nassstudy@chesapeakebay.net
Subject: Study

Dear Sirs:

The Westmoreland County Tourism Council voted at its monthly meeting on September 9, 2003, to endorse "Alternative A" regarding the Draft Chesapeake Special Resource Study & Environmental Impact Statement. The Council further voted to support the Northern Neck Heritage Area Designation Study being proposed by Representative Jo Ann Davis.

Sincerely,

Jim Scheepmoes
Secretary, Westmoreland County Tourism Council
Director, Marketing and Public Relations
Stratford Hall Plantation
485 Great House Road
Stratford, VA 22558-0001
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We hope these comments are helpful to the National Park Service as you move forward with your study. If you have any questions or need further information or clarification, please let me know.

Sincerely,



Kathleen S. Kilpatrick
State Historic Preservation Officer

Cc: The Honorable W. Tayloe Murphy, Jr.,
Secretary of Natural Resources



THE WILDERNESS SOCIETY
ADVOCATES FOR WILDERNESS

September 16, 2003
National Park Service
410 Severn Avenue, Suite 109
Annapolis, MD 21403
Chesapeake Bay Study Team:

The Wilderness Society (TWS) would like to take this opportunity to offer the following comments on the Draft Chesapeake Bay Special Resource Study and Environmental Impact Statement and ask that they be made a part of the official record for this study.

TWS would first like to commend the National Park Service (NPS) for conducting this study and documenting the extensive cultural, historical, and ecological resources present within the greater Chesapeake Bay area. There is little question that the Bay, its shoreline, and other contributing areas are of national significance and deserve special consideration for potential management by the National Park Service. With relatively little federal land ownership and resource management in this vast area of the Mid-Atlantic region that drains into the Bay, protection of many of these important resources by the NPS makes sense. TWS, in agreement with many of our conservation colleagues, believes that the most appropriate role of the National Park Service in Chesapeake Bay region would first be the removal of the sunset date for the existing Gateways Network, making a permanent commitment to this program. Second, we think that there are compelling reasons to consider creating a National Park unit of significant size by combining various elements found in the Alternatives C, D, and E presented in this draft study.

TWS understands that you have modeled Alternatives C, D, and E in part after innovative existing national park units such as the Biscayne National Park, New Jersey Pinelands National Reserve, and the Timucuan Ecologic and Historic Preserve. While these existing models have achieved some level of success in the protection of key resources, we would do well to take lessons from each of them and include some aspects of all three models that are best suited to this situation for the final recommendation to Congress.

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The size of the Chesapeake watershed means it reaches across a broad array of ecological zones. This ecological richness and complexity is partnered with a vast array of cultural and historical resources reflecting the prosperity this area has always afforded human inhabitants, from prehistory through the founding of this country and on into modern times. A proposal for a national park unit in this region should by design be broad enough in scope to encompass a full array of these important and often unique and inter-related resources. The current alternatives address the conservation needs of each set of resources independently, rather than as mutually complimentary features. Choosing one category of key resources to protect over another seems unwise as all these resources are so intertwined and connected in today's world.

For example, Alternative C, an Estuary National Park, details the possibility of a water-based national park in order to conserve the aquatic ecosystem of the Bay as a high quality resource of national importance. However, without better management across much of the Bay's land base and further conservation and restoration of important areas of the watershed, a critical element that this Alternative does not address, the goals for aquatic ecosystem health cannot be realized. Many indicators for aquatic ecosystem health in the Bay continue to show decline and the watershed-based causes of this are well understood.

While different in scope, Alternative D, a working landscape reserve, also fails to address broad scale critical land conservation issues, focusing on the maritime and rural heritage of the Bay in only certain areas which remain rich in traditional culture. We agree that elements of cultural heritage should be included in any Chesapeake Bay National Park Service unit, but they should not be the primary goal of future protection for this broad landscape. This lens, though important, filters too much out.

Alternative E, an ecological and cultural preserve offers the best potential to protect the broadest array of natural resources. The protection of one set of headwater areas, riparian zones, and estuarine communities covers a broad spectrum of critical ecosystem attributes. Understandably this proposed alternative would focus efforts on one representative tributary, from headwaters to the Bay. Though using this tributary as a model for all other Bay tributaries, it seems to fall short of what must inevitably occur in the remainder of the watershed.

Although all three alternatives address the protection of important resources, they focus too strictly on resource conservation of distinctive entities, albeit with some overlap between alternatives. A realistic and successful National Park Service unit here would combine many of these conservation ideas and produce a comprehensive model for Chesapeake Bay conservation efforts.

The model TWS would like to recommend would comprise separate landscapes strung together across the region within a single new Park Service unit. These individual parcels would be of a variety of sizes and compositions but focused around essential large landscapes. These units should include a strategic set of lands interspersed throughout the Bay watershed, representative of its diverse ecology, unique history and working cultural landscapes. We also believe they should be strategically linked to other existing

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conservation areas and/or lands that yet need to be preserved by other means, providing a critical ecological and cultural backbone to make sense of a full range of protected lands. The NPS pieces, which might comprise this new unit, should be of strategic importance themselves, but they should also serve as the best models for innovative conservation that might be adopted by other communities and adjacent properties. They should be consciously linked to each other across the breadth of the Bay watershed to illustrate the interconnectedness of all the natural and cultural aspects of this watershed. These pieces should become the glue of a comprehensive conservation overlay on this watershed, which is so surely needed.

For example, one critically important piece TWS fully supports as a part of this new NPS unit is encompassed in a proposal currently being championed by the Conservation Fund and the Chesapeake Bay Foundation to establish a Chesapeake National Water Trail. This "blueway" will retrace and celebrate the remarkable voyage of Captain John Smith. In telling this incredible story and establishing the trail, it can serve as an important catalyst for preservation and restoration in the Bay. It will provide access to a broad array of resources that otherwise cannot be seen and experienced. It will do so by laying out the main route the expedition took and link with other water trails that are its tributaries.

TWS realizes we are suggesting a unique model for the Park Service, but we believe this form of conservation innovation is necessary to effectively protect the resources and educate the public about our valuable Chesapeake Bay. The NPS can provide leadership for the conservation and proper management of critical headwater lands and riparian zones, demonstrate solutions to protect traditional uses and lands from unimpeded sprawl and development, and institute significant aquatic ecosystem conservation efforts. Any proposal to Congress should also include increased public access in these dispersed areas, as current access is limited to only two percent of the extended shoreline.

A National Park Service presence should enhance the public understanding of stewardship and sustainability for the Chesapeake Bay and its watershed. We think this can best be accomplished through the establishment of linked educational interpretative hubs highlighting both what is the best of this landscape as well as innovative ways to meet threats to these resources. They need to paint a vivid picture of the watershed, estuary, and local communities functioning as a complex and connected system. A National Park unit including these elements, when combined with the existing Gateways Network, would serve as a model for other regions both inside and outside the Bay by creating a tremendous impetus for additional conservation efforts.

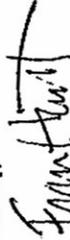
This Special Resource Study is unique in its discussion of conceptual alternatives but does so, with reason at this point, without addressing specific locations. Since the Study will not address these, we believe that the subsequent evaluation of specific geographical areas is necessary as the shape of a new Park Service unit is delineated. Sites encompassing significant ecological, historical, and recreational resources should be

actively evaluated as to how they could benefit from National Park Service management, link other existing conservation areas and motivate the conservation of additional important lands by others.

The Chesapeake Bay and its watershed are long overdue for the establishment of a significant National Park Service unit. The Gateways Network has been a wonderfully successful program to date and should be continued on a permanent basis. However, it is our strong recommendation that NPS take the best from Alternatives C, D and E and recommend a park unit that encompasses a truly representative sample of this unique place and which will place the National Park Service in a leadership role for the conservation of the special resources found here. The Wilderness Society recommends that the Final Draft of the Chesapeake Bay Special Resource Study include a plan that combines elements of these alternatives and focuses on conserving meaningful examples of waterways, riparian zones, estuarine waters and wildlife while also supporting the traditional working landscapes that are a critical part of the Bay's watershed.

Thank you for the opportunity to contribute our comments to the Chesapeake Bay Special Resource Study and Environmental Impact Statement.

Sincerely,



Frances A. Hunt
Mid-Atlantic Regional Director

Appendix C:

Suggested Places Based on Public and Agency Comments

During public review of the Draft Chesapeake Bay Special Resource Study and Environmental Impact Statement in summer 2003, a number of commenters suggested places that might fit with an alternative concept. The places suggested are listed below, grouped by the concept for which they were mentioned. Numbers in parentheses refer to the number of commenters listing that particular place. In almost all cases, the places mentioned were simply listed, rather than fully described as to how they might fit with a concept. None represented a formal proposal. For this reason, no analysis or assessment of these places has been conducted as part of this study.

ALTERNATIVE B

- Annapolis Maritime Museum (McNasby's)--interpretive center
- Fort Monroe
- Lynnhaven River Watershed Bayside Nature Trail
- Water trails connecting Kiptopeke, Janes Island, Pocomoke, and Wye Island
- Werowocomoco
- York River Watershed

ALTERNATIVE C

- Back Bay NWR or False Cape State Park Area
- Belle Haven
- Blackwater National Wildlife Refuge
- Bohemia Creek, Cecil County
- Browns Bay Area, Gloucester County;
- Cambridge and points west; Rock Hall; Sandy Point
- Crisfield, MD
- Eastern shore
- Goodwin Island
- Guinea
- Hampton
- Historic areas; open, undeveloped areas
- Horn Point, Oxford Lake—University of Maryland area in lower Dorchester
- Jamestown, St. Michaels
- Kent Island
- Leeds Creek, tributary to Miles River
- Mobjack Bay
- Monie Creek, near Princess Anne
- Nanticoke River
- Norfolk, Virginia Beach, Cape Henry
- Onancock
- Oyster rocks and saltwater wetlands

- Patuxent Wildlife Refuge, Kent Island, Point Lookout, Tributaries around Tidal fresh and salt water marshes and oyster reef ecosystems
- Round Bay
- Sandy Point
- Southern part of Delmarva peninsula,
- Southern Dorchester County
- Tangier Sound
- West/Rhode Rivers
- Western shore near Mayo
- Wye Island

ALTERNATIVE D

- Annapolis
- Baltimore (2)
- Blackwater NWR
- Bucktown
- Cambridge (2)
- Cape Charles
- Cape Henry
- Church Creek
- Crisfield (3)
- Delmarva Peninsula
- Deal Island
- Dorchester County (5)
- Dragon Run
- Eastern Shore communities (13)
- Elliott's Island
- Eastern Neck Area
- Fishing Creek
- Grandview Beach
- Guinea
- Hart-Miller Island
- Havre de Grace (2)
- Hooper's Island,
- Jamestown
- Kent Island
- Lower and Upper Bay
- Lower Eastern Shore
- Lynnhaven River watershed (2)
- Mattaponi River
- Middle-Upper peninsula (2)
- Mobjack Bay
- Norfolk
- Northern Neck of Virginia
- Oxford
- Pokomoke
- Reedville, VA
- St. Mary's
- St. Michaels (7)
- Sandy Point (2)

- South Island
- Smith Island
- Southern Anne Arundel County
- Tangier Island (5)
- Taylor's Island (2)
- Tidewater VA and MD
- Tilghman Island (2)
- Villages along eastern and western shores of Virginia (3)
- Wye Island

ALTERNATIVE E

- Cambridge
- Chesapeake Bay as a tributary to the ocean
- Chester River (2)
- Choptank River corridor (5)
- Corsica
- Dorchester County
- East Wye River
- Eastern Shore of Maryland
- Gunpowder
- Mattaponi Watershed (2)
- Middle-upper peninsula of VA or MD (2)
- Miles River
- Nanticoke River corridor (4)
- Pamunky River
- Patapsco River
- Patuxent River
- Piankatauk
- Pocomoke
- Potomac River (3)
- Rappahannock (6)
- Rural Maryland
- Susquehanna River (3)
- York River (3)
- Wye

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