

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.

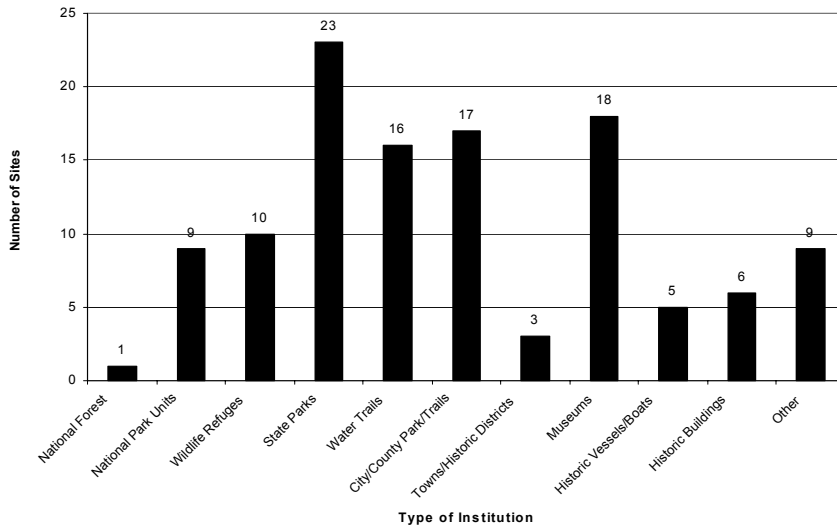


Figure 3-1: Chesapeake Bay Gateways Network sites by type of institution

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

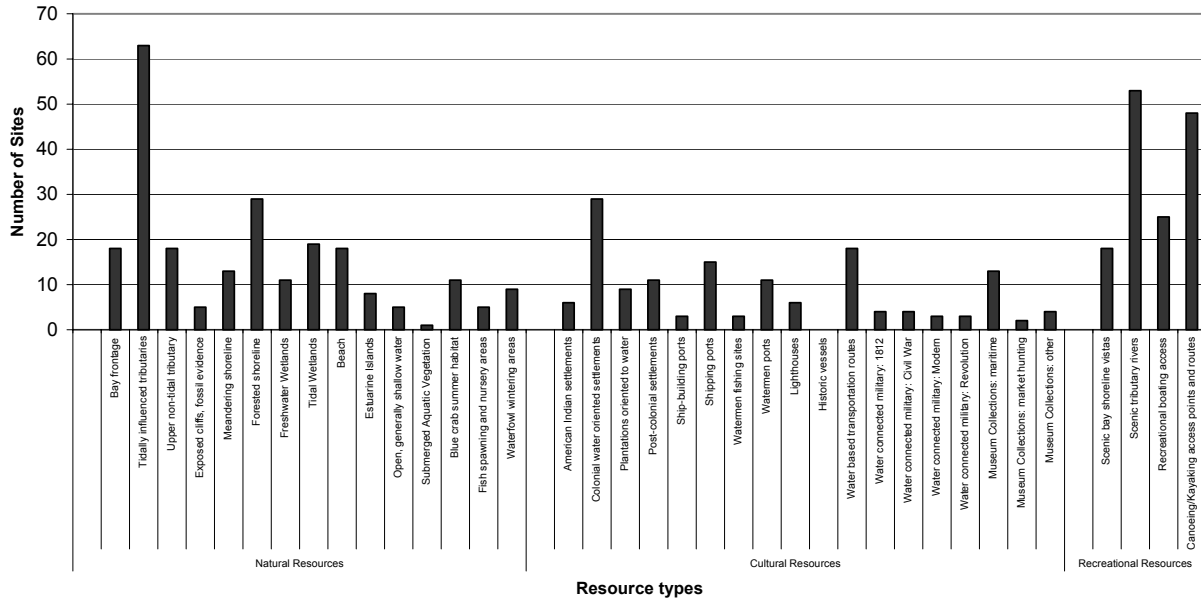


Figure 3-2: Number of Chesapeake Bay Gateways Network sites with key natural, cultural, and recreational resource types

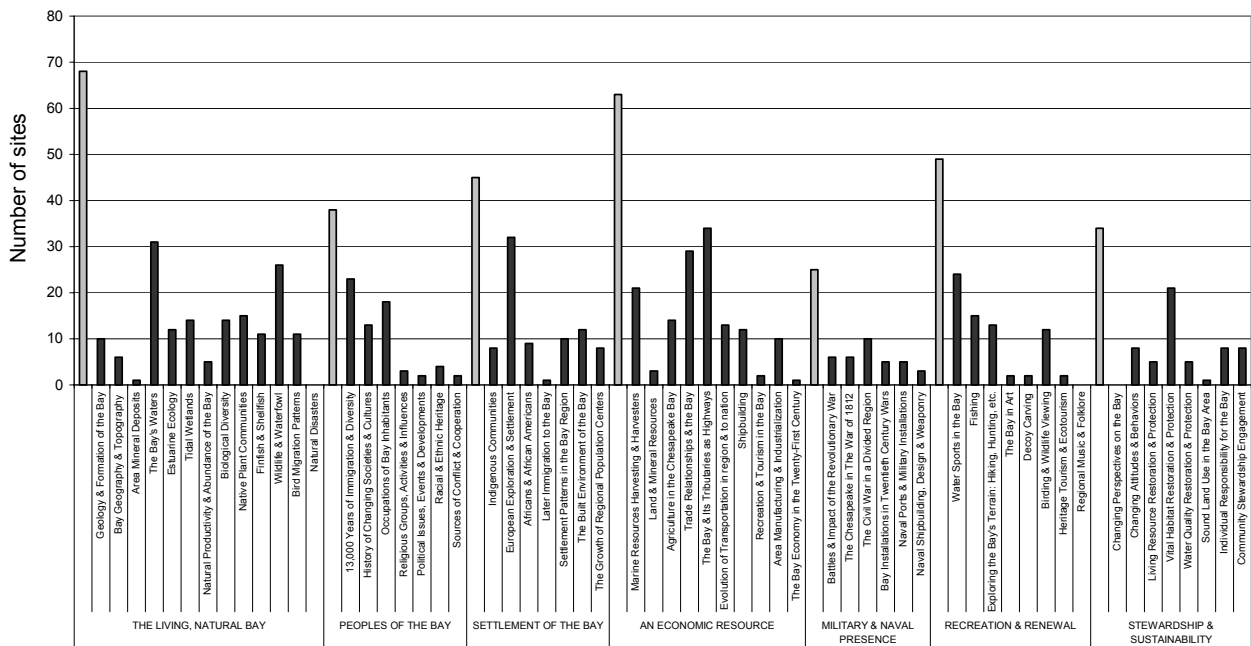


Figure 3-3: Representation of Interpretive Themes in the Chesapeake Bay Gateways Network

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.