



PURPOSE AND NEED

1.1	Protecting and Enhancing the Seashore Experience – A Long-Term Plan for Management.....	1-1
1.2	Seashore Overview.....	1-4
1.3	Relationship to Chincoteague National Wildlife Refuge.....	1-12
1.4	Guidance for Seashore Planning, Development, and Management	1-18
1.5	Planning Issues	1-31
1.6	Impact Topics.....	1-37
1.7	The Seashore's Wilderness.....	1-45
1.8	The Seashore's Boundary	1-46
1.9	Related Plans	1-48

(this page intentionally left blank)

1. PURPOSE AND NEED

1.1 Protecting and Enhancing the Seashore Experience – A Long-Term Plan for Management

Assateague Island National Seashore (the seashore) offers unique opportunities for a wide range of visitors to explore and enjoy one of the largest and last surviving natural barrier islands in the Mid-Atlantic coastal region of the United States. Established by Congress in September 1965 as a unit of the national park system, the seashore is composed of the 37-mile Assateague Island in Maryland and Virginia and the surrounding marine and estuarine waters up to one-half mile from the island's shore. The National Park Service (NPS) is responsible for managing the seashore to protect Assateague Island and its adjacent waters and small islands and to make available those resources for public outdoor recreation use and enjoyment. Within the seashore boundary are Assateague State Park (managed by the Maryland Department of Natural Resources (MD DNR)) and Chincoteague National Wildlife Refuge (CNWR) (managed by the U.S. Fish and Wildlife Service (FWS)).

The NPS manages all units of the national park system, in accordance with the mandate in its 1916 Organic Act and other legislation, to conserve resources unimpaired for the enjoyment of future generations. To help implement this mandate, the National Parks and Recreation Act of 1978 (PL 95-265) and *NPS Management Policies* (NPS 2006c) require each park unit to have a broad-scale general management plan (GMP). The GMP defines the park's basic approaches to natural and cultural resource management, interpretation, the visitor experience, and partnerships over the long-term.

The proposed federal action considered in this environmental impact statement (EIS) is the implementation of a new GMP/EIS for the seashore. This is the seashore's second plan and will replace the management guidance found in its first plan completed during the years following the seashore's establishment (NPS 1982).

1.1.1 PURPOSE OF THE PLAN

The purpose of the GMP/EIS is to provide a decision-making framework that ensures that management decisions effectively and efficiently carry out the NPS mission at Assateague Island National Seashore into the future. NPS managers at the seashore routinely make many difficult decisions about the preservation of the seashore's significant natural and cultural resources for public enjoyment, about competing demands for limited resources, about priorities for using available funds and staff, and about differing local and nationwide interests and views of what is most important at the seashore. The decision-making framework in the seashore's GMP/EIS will provide the guidance to make these management choices in a manner that is consistent with the purposes for which Assateague Island National Seashore was established by

Congress as a unit of the national park system and that protects the seashore's fundamental and other important resources and values.

1.1.2 NEED FOR THE PLAN

Many considerations suggest that a new GMP/EIS is needed for the seashore. The current GMP for the seashore is over 30 years old. The NPS has implemented many of its recommendations. Some are no longer appropriate because of changing conditions and circumstances. New issues have emerged in recent years that the current GMP does not address because they were not anticipated in 1982 when the plan was prepared. Also, recent NPS policies related to management and planning for all national park units have changed since 1982.

The new GMP/EIS for Assateague Island National Seashore also addresses several needs:

- It ensures that the seashore's fundamental and other important resources and values are preserved and protected.
- It provides a management framework for responding to catastrophic storms and the effects of climate change/sea level rise.
- It meets NPS policy requirements for comprehensive general management planning as a guide for more specific projects, to base decisions on adequate environmental information and analysis, and to track progress toward goals.
- It provides a logical trackable rationale for decision-making by the NPS that focuses first on why the seashore was established and what the desired future conditions of those resources should be.
- It considers the concerns, expectations, and values of the public and of the states of Maryland and Virginia related to management of resources and visitor experience.
- It ensures that management decisions by the NPS promote the efficient use of public funds and that managers are accountable to the public for their management decisions.

1.1.3 PLAN DEVELOPMENT

The NPS planning team – led by the seashore's staff – has prepared the Draft GMP/EIS. The planning team generally followed NPS planning program standards presented in the *General Management Planning Dynamic Sourcebook* (NPS 2008b). The Draft GMP/EIS has been prepared in accordance with the Council on Environmental Quality's (CEQ's) implementing regulations for the National Environmental Policy Act (NEPA) (40 CFR 1500-1508) and NPS Director's Order #12, *Conservation Planning Environmental Impact Analysis, and Decision-Making* (DO-12) (NPS 2011e), and accompanying *DO-12 Handbook* (NPS 2001a). Some actions in the preferred alternative in the approved GMP/EIS may qualify as undertakings that would be subject to compliance with section 106 of the National Historic Preservation Act as actions are implemented in the future.

Figure 1.1

Regional Location

- Assateague Island National Seashore Boundary
- Assateague State Park Boundary
- Chincoteague National Wildlife Refuge Boundary

0 10 20 40 Miles



The NPS, as the lead agency responsible for development of the Draft GMP/EIS, consulted with the FWS, the states of Maryland and Virginia, Indian tribes, and county, city, and town elected officials to prepare the plan. Numerous coordination meetings occurred (section 5.1). Periodically during the planning process there were opportunities for stakeholders and members of the public to participate in developing the plan and to provide comments on proposed management actions (section 5.1).

1.1.4 NEXT STEPS AND PLAN IMPLEMENTATION

The Draft GMP/EIS for the seashore will be on public and agency review for 60 days following publication of the Environmental Protection Agency's Notice of Availability in the *Federal Register*. During the review period, the public will have opportunities to provide comments on the management alternatives, including the NPS preferred alternative. The NPS will hold public meetings where comments can be made. The public will also be able to comment on-line and by letter, which must be post marked by the due date posted on the NPS Planning, Environment, and Public Comment (PEPC) website. Information on how the public can provide comments and any public meetings that could be held during the review period will be available on the NPS PEPC web site and in news releases.

The NPS will review and evaluate all comments received on the Draft GMP/EIS. The results of the public and agency comments will be incorporated into a Final GMP/EIS that will be made available to the public for a 30-day no-action period, after which a Record of Decision may be prepared to document the selection of an alternative as the approved GMP/EIS for the seashore.

The Draft GMP/EIS presents an overview of potential actions and impacts related to the management concepts for the seashore. Once a GMP/EIS is approved, implementation of actions in the approved GMP/EIS will be subject to site-specific planning and compliance in accordance with all applicable requirements.

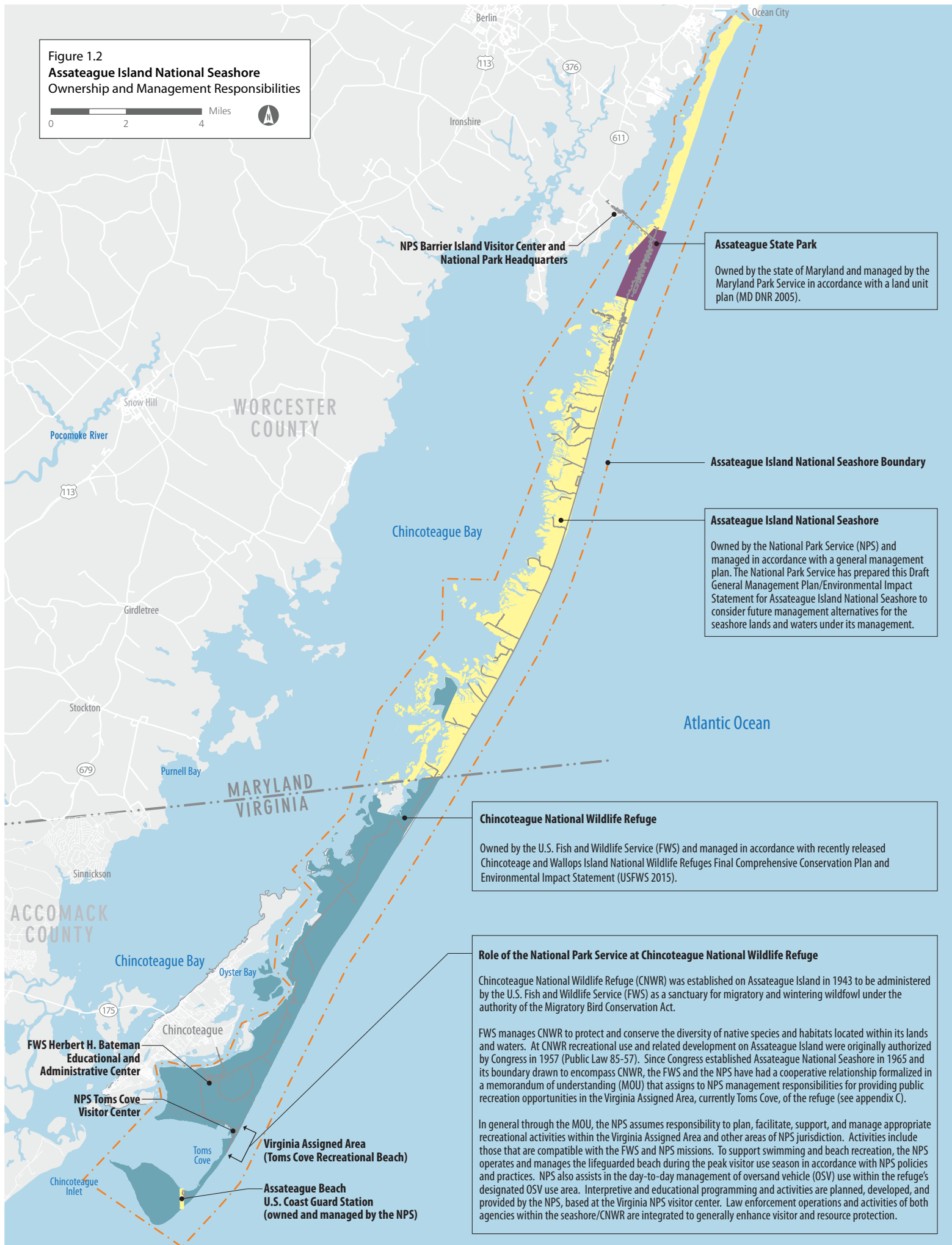
1.2 Seashore Overview

1.2.1 SEASHORE ORIGIN AND LEGISLATIVE HISTORY

Long a favorite place for hunting, fishing, and beach recreation among the region's residents, Assateague Island first came to national attention in 1934. At that time, in an effort to provide the east coast's rapidly growing population with additional public recreational opportunities, the NPS surveyed lands along the Atlantic and Gulf coasts to identify areas for potential acquisition and administration as national seashores. Based on its natural qualities, recreational values, and proximity to major population centers, Assateague Island was one of 12 areas found to have potential as a public recreation area. Although several legislative bills were introduced in Congress in the 1940s, no action was taken to establish Assateague as a unit of the national park system at that time.

Figure 1.2
Assateague Island National Seashore
Ownership and Management Responsibilities

0 2 4 Miles



NPS Barrier Island Visitor Center and National Park Headquarters

Assateague State Park

Owned by the state of Maryland and managed by the Maryland Park Service in accordance with a land unit plan (MD DNR 2005).

Assateague Island National Seashore Boundary

Assateague Island National Seashore

Owned by the National Park Service (NPS) and managed in accordance with a general management plan. The National Park Service has prepared this Draft General Management Plan/Environmental Impact Statement for Assateague Island National Seashore to consider future management alternatives for the seashore lands and waters under its management.

Atlantic Ocean

Chincoteague National Wildlife Refuge

Owned by the U.S. Fish and Wildlife Service (FWS) and managed in accordance with recently released Chincoteague and Wallops Island National Wildlife Refuges Final Comprehensive Conservation Plan and Environmental Impact Statement (USFWS 2015).

Role of the National Park Service at Chincoteague National Wildlife Refuge

Chincoteague National Wildlife Refuge (CNWR) was established on Assateague Island in 1943 to be administered by the U.S. Fish and Wildlife Service (FWS) as a sanctuary for migratory and wintering wildfowl under the authority of the Migratory Bird Conservation Act.

FWS manages CNWR to protect and conserve the diversity of native species and habitats located within its lands and waters. At CNWR recreational use and related development on Assateague Island were originally authorized by Congress in 1957 (Public Law 85-57). Since Congress established Assateague National Seashore in 1965 and its boundary drawn to encompass CNWR, the FWS and the NPS have had a cooperative relationship formalized in a memorandum of understanding (MOU) that assigns to NPS management responsibilities for providing public recreation opportunities in the Virginia Assigned Area, currently Toms Cove, of the refuge (see appendix C).

In general through the MOU, the NPS assumes responsibility to plan, facilitate, support, and manage appropriate recreational activities within the Virginia Assigned Area and other areas of NPS jurisdiction. Activities include those that are compatible with the FWS and NPS missions. To support swimming and beach recreation, the NPS operates and manages the lifeguarded beach during the peak visitor use season in accordance with NPS policies and practices. NPS also assists in the day-to-day management of oversand vehicle (OSV) use within the refuge's designated OSV use area. Interpretive and educational programming and activities are planned, developed, and provided by the NPS, based at the Virginia NPS visitor center. Law enforcement operations and activities of both agencies within the seashore/CNWR are integrated to generally enhance visitor and resource protection.

FWS Herbert H. Bateman Educational and Administrative Center

NPS Toms Cove Visitor Center

Virginia Assigned Area (Toms Cove Recreational Beach)

Assateague Beach U.S. Coast Guard Station (owned and managed by the NPS)

Further study in 1955 concluded that Assateague Island seemed increasingly unsuitable as a candidate for the national park system because of the rapid growth in private development on the island. Almost a decade later, the infamous Ash Wednesday nor'easter in March 1962 inundated the island, destroying much of the fledgling development and calling into question the wisdom of private development on Assateague Island.

Shortly after the storm, the Secretary of the Interior and the governor of Maryland issued results of a joint study to determine the best use of Assateague Island. Major factors listed by the report as justification for creating a national seashore included the growing demand for public seaside recreation, the infeasibility of private development, and the potential economic benefits to the local economy.

On September 21, 1965, Congress passed Public Law 89-195 (U.S.C. Title 16, Chapter 1, Subchapter LXIII, §459f) (appendix A) establishing Assateague Island National Seashore as a unit of the national park system, "For the purpose of protecting and developing Assateague Island in the states of Maryland and Virginia and certain adjacent waters and small marsh islands for public outdoor recreation use and enjoyment..." With this enabling legislation, Assateague Island became an important national resource serving the recreation needs of local regional, national, and international visitors and preserving in perpetuity 37 miles of Mid-Atlantic coastal environment.

Creation of the national seashore initiated acquisition of nearly 9,000 acres of privately owned lands on Assateague Island from some 3,500 individuals, and ten acres on the adjacent Maryland mainland for construction of an administrative facility. By the mid-1980s all of the land proposed for acquisition had been acquired. There remained, however, a private presence on the island in the form of retained rights of use and occupancy by 11 former property owners. These owners had negotiated twenty-five year leases allowing continued use of their former properties as part of the acquisition process. More than 1,000 acres of Assateague Island National Seashore were encumbered by private rights of use until the last of the leases expired in 2002.

Like much federal law, the seashore's enabling legislation contained a number of compromises reflecting the disparity of public and private interests. Of particular note, the legislation contained provisions for development of privately operated overnight accommodations and other recreational amenities on nearly 600 acres of the island. The legislation also authorized the construction of a paved road running the length of the island between the Sandy Point-Assateague Bridge in Maryland and the Chincoteague-Assateague Bridge in Virginia.

Both of these provisions proved extremely unpopular with local, regional and national conservation groups who began to mobilize public opposition. In 1969, the NPS released a one-page "Master Plan" that further stirred public reaction. The proposal

included plans for motels, restaurants, trailer spaces, fishing piers, a marina, and parking for more than 13,000 cars.

As the result of broad public and political disapproval of the proposed development plans, in 1976 Congress amended the legislation for Assateague and set a new path for the seashore. Public Law 94-578 deleted the provisions requiring private overnight accommodations and other conveniences, and construction of the road connecting the two ends of the island. The legislation also directed the NPS to prepare a “comprehensive plan” for the seashore to include “measures for the full protection and management of the natural resources and natural ecosystems of the seashore”. The *Assateague Island National Seashore General Management Plan* (NPS 1982b) that resulted has guided management of the seashore to the present time.

1.2.2 SEASHORE BOUNDARY AND OWNERSHIP

Congress established the boundary of the seashore through the seashore’s enabling legislation. The final authorized boundary extends up to one-half mile from the island in the states of Maryland and Virginia.

he boundary encompasses the entire island and its surrounding waters, including Assateague State Park in Maryland and Chincoteague National Wildlife Refuge in Virginia. Both these areas existed prior to establishment of the seashore and neither fall under NPS authority. The MD DNR manages Assateague State Park and FWS manages the Chincoteague National Wildlife Refuge.



The submerged lands within the seashore boundary remain owned by the states of Maryland and Virginia, with ownership extending to mean high water in Maryland, and mean low water in Virginia. Private leasing of submerged lands for shellfish culture and harvest is a common practice in the Virginia portion of the seashore. At present, there are no private submerged land leases in the Maryland portion of the seashore; these are prohibited within Maryland seashore waters.

1.2.3 REGIONAL CONTEXT

The seashore is located on the Atlantic coast of the Delmarva Peninsula and straddles the Maryland/Virginia state line. Nearly two-thirds of the seashore's 37 miles are within Worcester County, Maryland, with the balance in Accomack County, Virginia. Within a three-hour drive of the Washington/Baltimore/Philadelphia metropolitan area, the seashore provides outstanding recreational opportunities for millions of visitors annually.

The seashore is bounded on the east by the Atlantic Ocean and on the west by Sinepuxent and Chincoteague Bays. Most of the mainland adjacent to Assateague Island is rural, with agriculture and forestry being the predominant land uses. Population centers in Worcester County include the towns of Berlin, Snow Hill and Ocean City, Pocomoke City, and the unincorporated communities of Ocean Pines and West Ocean City. In 2010, the population of Worcester County was 51,454. Access to the Maryland end of Assateague Island is provided via state Route 611 and Verrazano Bridge.

In Accomack County, nearby population centers include the Town of Chincoteague and the unincorporated community of Captain's Cove. Noteworthy for its role as a local employer is the National Aeronautics and Space Administration's (NASA) Wallops Island Flight Facility, located on Wallops Island and the mainland adjacent to Chincoteague Island. In 2010, the population of Accomack County was 33,164. State Road 175 provides automobile access from the mainland to Chincoteague Island; from Chincoteague Island, two NPS-owned bridges provide access to Assateague Island.

To the north of Assateague lies Fenwick Island and the intensively developed resort town of Ocean City, Maryland. The popular summer destination swells from its winter population of 7,100 to more than 250,000 during busy summer weekends. The seashore has traditionally been a secondary day-trip destination for many of the visitors to Ocean City.

The town of Chincoteague is adjacent to the southern end of Assateague Island and serves as a gateway to the seashore and Chincoteague National Wildlife Refuge in Virginia. During the summer months, the small island community of some 4,300 permanent residents becomes a very popular tourist destination, in large part due to the seashore and the refuge.

1.2.4 NATURAL RESOURCES

The seashore's natural resources include diverse wildlife, plant communities, geological features, and physical processes typical of the land/sea interface along the Mid-Atlantic coast. Wildlife resources range from a myriad of aquatic and terrestrial invertebrate species inhabiting the estuaries formed by the island to the free-roaming horses for which Assateague is famous. Native plant communities exhibit the adaptive extremes necessary for survival on a barrier island, where exposure to salt spray, lack of freshwater, and shifting sands create a harsh and dynamic environment. Throughout the seashore, the relationship of land and water is paramount.

Many of the island's terrestrial habitats are in a constant state of flux as storms and other natural coastal processes alter physical conditions and continually reshape biological communities. As sea levels have risen over past centuries, the island has responded by "migrating" landward and creating new lands through overwash and inlet formation processes. During times of infrequent storms, communities that required more stable conditions have flourished. When powerful storms returned, those communities have declined while others more adept at weathering disturbance thrived and expanded.

Despite the often harsh and extreme environmental conditions, many animals find a niche on Assateague Island. Each of the island's different ecological zones provides habitat for birds, mammals, reptiles, amphibians, and invertebrates. While Assateague's wild horses are, perhaps, the seashore's best known residents, the island also supports two other large mammals: the native white-tailed deer (*Odocoileus virginianus*) and the non-native sika deer (*Cervus japonica*), a diminutive species of Asian elk introduced during the 1920s.

Other resident species are less obvious. Six species of frogs and toads depend on the island's fresh water ponds and wetlands for breeding, and a variety of snakes such as the black rat snake (*Elaphe obsoleta obsoleta*) occur in the island's forest, dune, and marsh habitats. Numerous invertebrates like fiddler crabs (*Uca sp.*) and mud snails (*Nassarius sp.*) find suitable conditions in the bayside salt marshes and play a key role in maintaining the health of these habitats. Even the seemingly barren beaches provide habitat for nocturnal ghost crabs (*Ocypode quadrata*), red fox (*Vulpes vulpes*), and raccoons (*Procyon lotor*) to scavenge for crustaceans, dead fish, and other organic matter washed in by the tides.

The seashore also provides important habitat for a number of federally listed threatened and endangered species. Although most are occasional transients, several listed species occur as residents or regularly use the island for breeding. Most notable are the piping plover (*Charadrius melodus*), a small, ground-nesting migratory shorebird, and sea beach amaranth (*Amaranthus pumilus*), a pioneering plant of ocean beach habitats. In addition, loggerhead sea turtles (*Caretta caretta*) occasionally use the

island's beaches for nesting. The seashore's storm-shaped beaches have become increasingly important to regional biodiversity as shore stabilization activities elsewhere along the Mid-Atlantic coast have limited the extent of natural beaches.

The seashore supports many other bird species throughout the year. Its location along the Atlantic coast flyway makes the protected environment of Assateague Island especially important for migratory birds. The island is renowned for the autumn migration of peregrine falcons (*Falco peregrinus*), and for the seasonal abundance of shorebirds and wintering waterfowl. In recognition of its value to bird life, the seashore has been designated a globally important bird area (IBA) by the National Audubon Society.

Of particular significance are the marine, estuarine, and wetland habitats which compose more than 75 percent of the seashore. From near-shore ocean to sheltered estuary, the seashore includes an array of aquatic habitats including abundant sea grass beds, expansive salt marshes, and a mosaic of sandy shallows and intertidal flats. These protected habitats sustain a rich marine life, ranging from small sedentary plants and invertebrates to large ocean-going marine mammals. Some aquatic habitats, like the island's bayside salt marshes, play a key role in supporting regional ecosystem health by filtering pollutants, providing storm protection for adjacent uplands, and through the production of organic materials that fuel the estuarine food web.

During most nights at the seashore, astronomical features including the Milky Way and Beehive Clusters are readily observed. In general, natural ambient sound levels are low in most areas of the seashore, except where high levels of natural sounds emanate from the surf along the ocean beach. Human-made sounds are also low, emanating from seashore operations, visitor activities, traffic on seashore roads, oversand vehicle (OSV) use, and powerboats.

1.2.5 CULTURAL RESOURCES

Assateague Island National Seashore contains a variety of locally, regionally, and nationally significant cultural resources, ranging from historic structures to archeological objects and sites. Historic structures and archeological sites make up the majority of the cultural resources found on Assateague Island. These structures and sites, as well as the associated objects and documents, are all that remain from the relatively brief periods when humans occupied Assateague Island. In all, the cultural resources tell a story of man's inability to establish a permanent foothold on the dynamic barrier island and are important links to both the history and purpose of the seashore.

All of Assateague Island is a cultural landscape determined to be a representative Atlantic coast barrier island. The landscape encompasses the full range of natural resources found on the island, in the water, and on the marshes surrounding the island.



It exemplifies the continual changes that occur along a barrier island of the Mid-Atlantic Coast, where extraordinarily dynamic geomorphological processes occur.

The structures that compose the Assateague Beach U.S. Coast Guard Station are the seashore's most significant historic structures and the landscape associated with the station is the seashore's most significant cultural landscape. The U.S. Coast Guard operated the station from the time it was built in 1922 until 1967 when it was decommissioned. The station and its five associated structures have been determined eligible for listing on the *National Register of Historic Places*.

Within the seashore boundaries there are eight former waterfowl hunting lodge properties and two former private residences where hunting rarely if ever occurred. Green Run Lodge is the only former lodge which has been found to be historically significant and has been determined eligible for listing on the *National Register of Historic Places*.

Terrestrial archeological sites found within the seashore are primarily related to historic operations of the U.S. Lifesaving Service and several small residential and commercial developments dating from the late nineteenth and mid twentieth centuries. The remains of shipwrecks are also known within the seashore boundary. The presence or absence of prehistoric archeological sites has not been systematically investigated. The majority of the seashore's museum collection is composed of natural history voucher specimens or other objects relating to the area's natural resources.

1.2.6 VISITOR EXPERIENCE AND VISITOR USE

Visited by millions annually, the seashore provides an oasis of relaxation, enjoyment, recreation, and hands-on learning experiences. Assateague Island is one of the few publicly accessible natural coastal environments in the densely populated northeastern United States where visitors can experience unspoiled beaches, tranquil bays and marshlands, natural sounds, quiet, dark night skies, and solitude.

Approximately 60 percent of visitation to the seashore takes place during the summer months of May through September. The average visitor is 46 years old, Caucasian, and female. Most visitors are in family groups with an average size of five people. Most visitors (87%) are from out of town, most traveling from Pennsylvania, New Jersey, and other parts of Maryland and Virginia.

Virtually every visitor to the seashore has some type of recreational activity in mind, including swimming, beach combing, camping, kayaking, hiking, beach driving, and/or viewing shorebirds and ponies. Only hunting and fishing are mandated by the seashore's enabling legislation and these traditional activities remain popular among both local and regional visitors. Adventure tourism is on the rise, providing visitors with new opportunities for a more intimate experience and greater exposure to the seashore's resources.

The seashore also offers exceptional opportunities for learning and education. The seashore's two visitor centers provide formal and informal learning experiences, and support a variety of curriculum-based educational programs for local school children. Among the many programs offered to the visiting public are aquarium talks, beach walks, bay seining programs, children's programs, surf fishing demonstrations, crabbing and clamming demonstrations, and kayak excursions.

1.3 Relationship to Chincoteague National Wildlife Refuge

1.3.1 REFUGE ESTABLISHMENT AND OVERVIEW

Chincoteague National Wildlife Refuge (CNWR) was established on Assateague Island in 1943 to be administered by the FWS as a sanctuary for migratory and wintering wildfowl under the authority of the Migratory Bird Conservation Act. CNWR is part of the National Wildlife Refuge System – a system of public lands set aside for habitat and wildlife conservation. More than 150 million acres in over 550 national wildlife refuges compose the system. FWS manages its refuges “to maintain the biological integrity, diversity and environmental health of these natural resources for the benefit of present and future generations.” While conservation and management of wildlife and its habitats are the main objectives of the refuge system, FWS also maintains six wildlife-dependent uses that receive enhanced consideration in planning public recreation on

refuges when appropriate: hunting, fishing, wildlife observation, wildlife photography, environmental education, and interpretation.

FWS manages CNWR to protect and conserve the diversity of native species and habitats located within its lands and waters. Specifically important is critical habitat for migratory waterfowl and shorebirds. CNWR's environmental management tasks also support conservation and protection of threatened or endangered species such as the piping plover (*Charadrius melodus*), Delmarva Peninsula fox squirrel (*Sciurus niger cinereus*), loggerhead turtle (*Caretta caretta*), and sea beach amaranth (*Amaranthus pumilus*), and of the habitat that supports hundreds of other species of flora and fauna. In addition, CNWR allows feral ponies to graze in two areas of CNWR through a special use permit with their owners – the Chincoteague Volunteer Fire Company.

1.3.2 RECREATIONAL USE AT THE REFUGE

- **Need for Public Recreational Use**

Recreational use may be allowed in national wildlife refuges when such uses do not interfere with the area's primary purposes. At CNWR, recreational use and related development on Assateague Island were originally authorized by Congress in 1957 (Public Law 85-57). In 1959, the Department of the Interior granted to the Chincoteague-Assateague Bridge and Beach Authority – a political subdivision of the commonwealth of Virginia – an easement to build a bridge to the refuge and a roadway across it to the Toms Cove hook area. Coincident with the easement, the FWS entered into an agreement with the Beach Authority allowing development and operation of public beach and recreational facilities. These actions were taken in recognition of the need for public recreational facilities on the Virginia portion of Assateague Island and under the assumption that public recreational use of a certain portion of the refuge (subsequently referred to as the Virginia Assigned Area) could be permitted without preventing accomplishment of the conservation purposes for which CNWR was established.

When Congress established Assateague National Seashore in 1965 and its boundary drawn to encompass CNWR, the Department of the Interior was authorized to acquire all of the rights and legal interests of the Chincoteague-Assateague Bridge and Beach Authority, including its real and personal property. This acquisition was accomplished with NPS appropriations in 1966. At that time, the former Beach Authority easements merged with the United States' overall ownership interests on Assateague Island. Since that time the NPS has managed recreation activities in the Virginia Assigned Area in accordance with a memorandum of understanding with the FWS (appendix B).



- **Providing Opportunities for Public Recreational Use through Interagency Cooperation**

The enabling legislation for Assateague Island National Seashore directs the Department of the Interior to administer the seashore for the general purposes of outdoor public recreation (appendix A). The Secretary of the Interior has interpreted this to direct the NPS to aid the FWS in providing public recreation within the boundaries of CWNRR. In 1966 and again in 1967, the Secretary of the Interior found that it was “desirable that the Service and Bureau share responsibilities...” for the beach-related recreation in the refuge. NPS was directed to take responsibility for management of the recreational beach, provision of lifeguard services, interpretation, visitor protection, maintenance of recreational beach facilities and other work. Consequently, the FWS has conveyed primary jurisdiction for beach use and recreation in the refuge to the NPS. The two agencies work together to minimize adverse impacts from these uses to the refuge. NPS is authorized to make available opportunities for public recreation at the Virginia Assigned Area in compliance with applicable national wildlife refuge laws and regulations, such as the Refuge Recreation Act, the National Wildlife System Administration Act, and the National Wildlife Refuge System Improvement Act.

Since 1966 the FWS and the NPS have had a cooperative relationship formalized in a memorandum of understanding (MOU) that assigns management responsibilities for

providing public recreation opportunities in the Virginia Assigned Area of the refuge (currently at Toms Cove Recreational Beach) (figure 1.2 and appendix B). Management objectives are:

- to protect and enhance refuge and seashore resources, as well as the appropriate enjoyment and appreciation by the public
- to provide high quality recreational, interpretive, and educational opportunities for the visiting public
- to reduce confusion regarding each agency's roles and responsibilities
- to eliminate unnecessary duplication of services, permitting, paperwork, and reviews
- to effectively utilize the experience, skills, and expertise of the two agencies' personnel

The MOU identifies actions both agencies will implement to accomplish the management objectives pertaining to visitor services, interpretive services, visitor and resource protection, facility management, land and resource management, and interagency communications and information sharing.

In general through the MOU, the NPS assumes responsibility to plan, facilitate, support, and manage appropriate recreational activities within the Virginia Assigned Area and other areas of NPS jurisdiction. Activities include those that are compatible with the FWS and NPS missions. To support swimming and beach recreation, the NPS operates and manages the lifeguarded beach at Toms Cove during the peak visitor use season in accordance with NPS policies and practices. NPS also assists in the day-to-day management of OSV use within the refuge's designated OSV use area. Interpretive and educational programming and activities are planned, developed, and provided by the NPS, based at the Virginia NPS visitor center. Law enforcement operations and activities of both agencies are integrated to generally enhance visitor and resource protection.

1.3.3 DRAFT COMPREHENSIVE CONSERVATION PLAN AND ENVIRONMENTAL IMPACT STATEMENT FOR CHINCOTEAGUE AND WALLOPS ISLAND NATIONAL WILDLIFE REFUGES

The National Wildlife Refuge System Improvement Act of 1997 requires the FWS to manage each of its refuges in accordance with a comprehensive conservation plan (CCP). CCPs describe future conditions of a refuge and provide long-range guidance and management direction to achieve the purpose of the refuge, refuge policy requirements, and the mission of the national wildlife refuge system. In planning for public recreation on refuges there are six priority wildlife-dependent uses that receive primary consideration: hunting, fishing, birding, photography, environmental education, and interpretation.

In September 2010 CNWR began the planning process for developing its first CCP. The new plan provides an updated management framework for the refuge for 15 years,

replacing guidance found in the *Master Plan for Chincoteague National Wildlife Refuge* (US FWS 1993). The CNWR planning team involved the NPS as a stakeholder in the CCP planning process, including seashore staff in numerous scoping meetings and public meetings. The *Draft Comprehensive Conservation Plan and Environmental Impact Statement for Chincoteague and Wallops Island National Wildlife Refuges* (US FWS 2014) was released to the public in May 2014; the public comment period closed August 15, 2014. A final plan (Final CCP/EIS) was released in August 2015, and a record of decision was signed on November 6, 2015.

The NPS would continue to support beach-oriented recreational uses in the island developed area within Chincoteague National Wildlife Refuge in Virginia. NPS would continue to manage the recreational beach in accordance with the memorandum of understanding between the NPS and the FWS (see appendix B). The Final CCP/EIS's preferred alternative supports continuation of the recreational beach with 961 automobile parking spaces to be managed by the NPS (US FWS 2015, page 2-51). The Final CCP/EIS's preferred alternative finds that, "In recognition of the vulnerability of the current parking, the refuge would develop and implement a site design plan for parking and access to a new beach location, approximately 1.5 miles north of the existing beach...The new recreational beach would offer accessible parking in close proximity to the beach." (US FWS 2015, page 2-51) The Final CCP/EIS's preferred alternative proposes that the transition to the new recreational beach location would occur within eight years or sooner if funding were available (US FWS 2015, page 2-69). In the meantime, NPS would maintain beach recreation and parking at the current location, so long as the land base is available to support this use. Facilities and infrastructure supporting recreation include access roads and parking lots, shade shelters, rest rooms, changing rooms, rinse off showers, and interpretive programs. Until the beach moves, NPS would maintain the Toms Cove Visitor Center. When the beach location is moved northward, a new joint NPS and FWS visitor contact station would be developed (US FWS 2015, page 2-51). After the new joint visitor contact stations is opened, NPS and FWS may continue to operate environmental education programs from the Toms Cove Visitor Center, as long as that center remains serviceable and can be maintained economically. Eventually the current Toms Cove Visitor Center will be removed when it is no longer possible to maintain it in the face of sea level rise.

NPS would work with the FWS, the town of Chincoteague, Accomack County and others to design the new recreational beach sensitively, to respond to both the natural environment and the needs of the area's visitors. The beach experience, while different from that at the current location, would be designed to engage visitors and provide the kind of recreational opportunity for which the region has justifiably become famous. Careful attention to the design of parking for cars, RVs and buses, boardwalks, accessibility, changing stalls, rinse-off facilities, vault toilets, shelter areas, and other related needs would ensure a quality experience at the new beach location. The Final CCP/EIS's preferred alternative also proposes the management of biting insects to help

ensure a positive visitor experience. (US FWS 2015, 2-70). Critical to the success of the new design will be finding an appropriate balance between visitor experience and resiliency from future storms.

The relocation of the recreational beach might change the availability and mix of interpretive opportunities provided by NPS. NPS would work with FWS in the new joint visitor facility to provide appropriate and meaningful interpretive activities for visitors that take full advantage of the new location and the new preferred alternatives for Beach Road Terminus and Toms Cove Bay.

OSV use in Virginia would be as determined by the FWS. FWS proposes to develop a new ½ mile OSV zone to facilitate priority wildlife-dependent uses south of the new recreational beach from March 15 through September 15. FWS would continue current management of the Overwash and Hook area for shorebirds until the new recreational beach is established, at which time the March 15 through September 15 closure would go into effect. OSV access from September 16 to March 14 annually would continue via Beach Road. NPS would cooperate with FWS to provide OSV access.



1.4 Guidance for Seashore Planning, Development, and Management

This guidance section presents the core elements of the seashore’s foundation document which the NPS will prepare in the future as a standalone document. The foundation document will provide the basic guidance for planning and management decisions—a foundation for planning and management at the seashore. The core foundation components include the seashore’s purpose, significance, fundamental resources and values, other important resources and values, and interpretive themes. The foundation document will also include special mandates and administrative commitments, an assessment of planning and data needs that identifies planning issues, planning products to be developed, and the associated studies and data required for park planning. Along with the core components, the assessment provides a focus for park planning activities and establishes a baseline from which planning documents are developed.

Different levels and kinds of planning can be integrated and coordinated through the shared understanding presented in the foundation document about what is most important about a park. The document can be used in all aspects of park management to help ensure that the most important objectives are accomplished before turning to items that are not directly critical to achieving the park purpose and maintaining its significance.

1.4.1 SEASHORE PURPOSE

The seashore’s purpose statement identifies the specific reasons for the seashore’s establishment. It was drafted following careful analysis of the seashore’s enabling legislation (appendix A) and the legislative history that influenced its development. The purpose statement lays the foundation for understanding what is most important about the seashore. It is as follows:

The purpose of Assateague Island National Seashore is to preserve the outstanding Mid-Atlantic coastal resources of Assateague Island and its adjacent waters and the natural processes upon which they depend, and to provide high quality resource-compatible recreational opportunities.

1.4.2 SEASHORE SIGNIFICANCE

Significance statements express why the seashore’s resources and values are important enough to merit designation as a unit of the national park system. These statements are linked to the seashore’s purpose, and are supported by data, research, and consensus. Statements of significance describe the distinctive nature of the seashore and why it is important within a global, national, regional, and systemwide context. They focus on the most important resources and values that will assist in seashore planning and management.



The following significance statements have been identified for the seashore. (Please note that the sequence of the statements does not reflect the level of significance.)

- The seashore is one of the largest and last surviving Mid-Atlantic barrier islands possessing a continuum of intact coastal habitats where the full range of natural processes occur with little or no human interference.
- The marine and estuarine waters within the seashore are a protected vestige of the high quality aquatic ecosystems that once occurred throughout the Mid-Atlantic coastal region of the United States.
- The seashore's habitats support a broad array of aquatic and terrestrial species, many of which are rare, uniquely adapted to life at the edge of the sea, and dependent upon natural ecosystem processes undisturbed by humans.
- Amidst the highly developed Mid-Atlantic region, the seashore's coastal resources provide unique opportunities for nature-based recreation, education, solitude, and inspiration.

1.4.3 SEASHORE RESOURCES AND VALUES

- **Fundamental Resources and Values**

Fundamental resources and values are those features, systems, processes, experiences, stories, scenes, sounds, smells, or other attributes determined to warrant primary consideration during planning and management processes because they are essential to achieving the purpose of the seashore and maintaining its significance. Fundamental resources and values are closely related to the seashore's legislative purpose and are more specific than significance statements.

Fundamental resources and values help focus planning and management efforts on what is truly significant about the seashore. One of the most important responsibilities of NPS managers is to ensure the conservation and public enjoyment of those qualities that are essential (fundamental) to achieving the purpose of the seashore and maintaining its significance. If fundamental resources and values are allowed to deteriorate, the seashore purpose and/or significance could be jeopardized.

Barrier Island Habitats and Species. The unique environmental conditions found on Assateague Island are reflected in the dynamic continuum of habitats stretching from ocean to bay, including beaches, dunes, grass and shrublands, freshwater wetlands, maritime forests, and salt marshes. The diverse landscape provides habitat for a multitude of specialized plant and animal species, many of which are rare, threatened, or endangered. Abundant and diverse populations of migratory birds – such as raptors, shorebirds, waterfowl, and neo-tropical migrants – use the seashore seasonally for breeding, overwintering, and as stopover habitat while moving along the coastal route of the Atlantic Flyway.

High Quality Waters. High quality water resources within the seashore's boundary define and sustain the coastal ecosystem and include fresh ground water and surface water systems, and extensive estuarine and marine waters. The physical, chemical and hydrologic properties and dynamics of seashore waters remain largely unaffected by human activities. These waters support the primary recreational activities within the seashore as well as a diverse array of biological communities.

Natural Coastal Processes. Natural processes including the action of tides, wind, waves, currents, storms, and sea level rise influence and shape the terrain of the barrier island and adjacent aquatic habitats. These dynamic natural forces create the unique habitats and influence the flora and fauna that serve as key features of the barrier island ecosystem. These processes also drive the constant erosion and accretion that have the potential to dramatically alter the fundamental aspects of the seashore landscape.

Aquatic Habitats and Species. From open ocean to protected estuary, the seashore includes a diverse array of aquatic habitats including abundant sea grass beds, expansive

salt marshes, and a mosaic of sandy shallows and intertidal flats. These protected habitats support a rich marine life, ranging from small sedentary plants and invertebrates to large ocean-going marine mammals.

Natural Coastal Environment. The natural coastal environment of the seashore exemplifies the meeting place of land and sea along the Mid-Atlantic coast, and includes miles of broad sandy beaches, an intricate mosaic of natural and scenic landscape features, and qualities of wilderness character.

Visitor Experiences at the Seashore. The natural resources of the seashore provide visitors with a wide variety of active and passive recreational and educational opportunities. Expansive seascapes of ocean and bay, panoramic views, natural sounds, inviting waters, ocean breezes, and dark night skies provide a dramatic setting for an exceptional seashore experience. Visitors have the opportunity to experience the seashore in a variety of ways from walking on the beach to counting the stars by a camp fire, and from ranger guided educational activities to self-guided explorations.



- **Other Important Resources**

The seashore contains other resources and values that are not fundamental to the purpose of the seashore and may be unrelated to its significance, but are important to consider in planning processes. These are referred to as “other important resources and values”. These resources and values are important in the operation and management of the seashore and warrant special consideration in seashore planning.

Horses. Horses have been present on Assateague Island for hundreds of years, although they are not native to the island. The seashore provides a unique opportunity to view wild horses in a natural setting, and a majority of visitors indicate that seeing horses is one of the primary reasons for visiting Assateague Island.

Cultural Resources. The seashore contains a variety of locally, regionally, and nationally significant cultural resources, ranging from historic structures to archeological objects and sites. These structures and sites, as well as the associated documents and objects, are all that remain from the relatively brief periods when humans occupied Assateague



Island. Two structures have been determined eligible for listing in the *National Register of Historic Places*:

- The Assateague Beach U.S. Coast Guard Station is architecturally significant as a representative example of early 20th century U.S. Coast Guard buildings constructed primarily to execute the boat and life-saving service along the Atlantic Coast. It is also a Virginia state landmark.
- Green Run Lodge is significant as a representative example of waterfowl hunting camps associated with historical commercial and recreational hunting on Assateague Island.

Combined, the seashore's cultural resources tell the story of mankind's inability to establish a permanent foothold on the constantly changing barrier island.

- **Related Resources**

Related resources are not owned by the NPS. They may be part of the broader context or setting in which the seashore's resources exist; represent a thematic connection that would enhance the experience of visitors; or have close associations with the seashore's fundamental resources and the purpose of the seashore.

Chincoteague and Sinepuxent Bays and Atlantic Ocean. The waters and mainland watershed of Chincoteague and Sinepuxent Bays and Atlantic Ocean extend far beyond seashore boundaries. The integrity of many fundamental resources is affected by activities that occur outside of the seashore, but within the watershed.



1.4.4 INTERPRETIVE THEMES

Interpretive themes are the key stories or concepts that visitors should understand after visiting the seashore – they define the most important ideas or concepts communicated to visitors about the seashore. Themes are derived from, and reflect, the seashore’s purpose, significance, resources, and values. The set of interpretive themes (table 1.1) provides the structure necessary for seashore staff to develop opportunities for visitors to explore and relate to the seashore’s significance statements and fundamental and other important resources and values.

Interpretive themes are an organizational tool that reveal and clarify meaning, concepts, contexts, and values represented by seashore resources. Sound themes are accurate and reflect current scholarship and science. They encourage exploration of the context in which events or natural processes occurred and the effects of those events and processes. Interpretive themes go beyond a mere description of the event or process to foster multiple opportunities to experience and consider the seashore and its resources. These themes help explain why a seashore story is relevant to people who may otherwise be unaware of connections they have to an event, time, or place associated with the seashore.

Table 1.1. Interpretive Themes

Theme	Theme Statement
Island on the Move	Change is the only constant on Assateague Island as wind and water move and transform the land and its plant and animal communities. Adapting to change on a barrier island is the key to survival in this place where dynamic forces control the process of life.
Aquatic Legacies	Assateague’s shoreline is a constantly shifting boundary between land and water where we connect to the rest of the world through a shared ocean resource which provides oxygen, food, habitat, livelihood, recreation, and glimpses of our past. There is just one intermingled and irreplaceable ocean that sustains these aspects of life on earth.
People and Place	People have long relied on Assateague Island for survival, livelihood, community, and enjoyment. Those who have spent time on and around the island have changed it and been changed by it.
Recreation and Stewardship	Assateague Island provides a diverse range of recreational opportunities which are compatible with the National Park Service’s dual mission of conservation and public access. Immersion in an unspoiled natural setting cultivates profound experiences and special memories, the foundation of a stewardship ethic.

1.4.5 LEGISLATIVE MANDATES AND SPECIAL DESIGNATIONS

A number of legislative mandates (table 1.2) and other special mandates (table 1.3) provide additional direction as to how the seashore is to be managed.

Several federal natural resource management programs have also designated Assateague Island National Seashore and its associated wildlife and habitat as areas of special management interest (table 1.4). These designations generally require elevated review of federal and state actions that have the potential to impact significant seashore-related resources and values. They also generally mandate avoidance or minimization of impacts on special resources.



Table 1.2 Assateague Island National Seashore – Legislative Mandates¹

Legislative Reference	Subject	Mandate
§459f–2(b)	State Ownership of Land within the Seashore Boundary	The State of Maryland shall have the right to acquire or lease from the United States such lands, or interests therein, on the island north of the area now used as a state park as the State may from time to time determine to be needed for state park purposes, and the Secretary is authorized and directed to convey or lease such lands, or interests therein, to the State for such purposes upon terms and conditions which he deems will assure its public use in harmony with the purposes of sections 459f to 459f–11 of this title. In the event any of such terms and conditions are not complied with, all the property, or any portion thereof, shall, at the option of the Secretary, revert to the United States, in its then existing condition. Any lease hereunder shall be for such consideration as the Secretary deems equitable; and any conveyance of title to land hereunder may be made only upon payment by the State of such amounts of money as were expended by the United States to acquire such land, or interests therein, and upon payments of such amounts as will reimburse the United States for the cost of any improvements placed thereon by the United States, including the cost to it of beach protection: <i>Provided</i> , That reimbursement for beach protection shall not exceed 30 per centum, as determined by the Secretary, of the total cost of the United States of such protection work.
§459f–4	Hunting and Fishing	The Secretary shall permit hunting and fishing on land and waters under his control within the seashore in accordance with the appropriate state laws, to the extent applicable, except that the Secretary may designate zones where, and establish periods when, no hunting or fishing shall be permitted for reasons of public safety, administration, fish or wildlife management or public use and enjoyment: <i>Provided</i> , That nothing in sections 459f to 459f–11 of this title, shall limit or interfere with the authority of the States to permit or to regulate shellfishing in any waters included in the national seashore: <i>Provided further</i> , That nothing in said sections shall add to or limit the authority of the Federal Government in its administration of Federal laws regulating migratory waterfowl. Except in emergencies, any regulations of the Secretary pursuant to this section shall be put into effect only after consultation with the appropriate state agency responsible for hunting and fishing activities. The provisions of this section shall not apply to the Chincoteague National Wildlife Refuge.
§459f–5(b)	Management of National Wildlife Refuge Lands	Notwithstanding any other provision of sections 459f to 459f–11 of this title, land and waters in the Chincoteague National Wildlife Refuge, which are a part of the seashore, shall be administered for refuge purposes under laws and regulations applicable to national wildlife refuges, including administration for public recreation uses in accordance with the provisions of the Act of September 28, 1962 (Public law 87–714; 76 Stat. 653) [16 U.S.C. 460k et seq.].
§459f–5(c)	Research and Technical Assistance to Protect Seashore Resources	The Secretary is authorized to enter into cooperative agreements with local, state, and federal agencies and with educational institutions and nonprofit entities to coordinate research designed to ensure full protection of the natural and cultural resources of the seashore, consistent with the purposes for which the seashore was established, and other applicable law. The Secretary is also authorized to provide technical assistance to local, state, and federal agencies and to educational institutions and non-profit entities in order to further such purposes. The Secretary shall submit a report every two years to the Congress on the results of the coordinated research program authorized by this section and plans to implement the recommendations arising from such research.

Table 1.2 Assateague Island National Seashore – Legislative Mandates¹ (continued)

Legislative Reference	Subject	Mandate
§459f–5(a)	Public Outdoor Recreation	Except as provided in subsection (b) of this section, the Secretary shall administer the Assateague Island National Seashore for general purposes of public outdoor recreation, including conservation of natural features contributing to public enjoyment. In the administration of the seashore and the administrative site the Secretary may utilize such statutory authorities relating to areas administered and supervised by the Secretary through the National Park Service and such statutory authority otherwise available to him for the conservation and management of natural resources as he deems appropriate to carry out the purposes of sections 459f to 459f–11 of this title.
§459f–5(b)	Refuge Land and Waters	Notwithstanding any other provision of sections 459f to 459f–11 of this title, land and waters in the Chincoteague National Wildlife Refuge, which are a part of the seashore, shall be administered for refuge purposes under laws and regulations applicable to national wildlife refuges, including administration for public recreation uses in accordance with the provisions of the Act of September 28, 1962 (Public law 87–714; 76 Stat. 653) [16 U.S.C. 460k et seq.].
§459f–7	Beach Erosion Control and Storm Protection	The Secretary of the Interior and the Secretary of the Army shall cooperate in the study and formulation of plans for beach erosion control and hurricane protection of the seashore; and any such protective works that are undertaken by the Chief of Engineers, Department of the Army, shall be carried out in accordance with a plan that is acceptable to the Secretary of the Interior and is consistent with the purposes of sections 459f to 459f–11 of this title.
§459f–11(a)	Comprehensive Plan for Seashore Management	<p>Within two years of October 21, 1976, the Secretary shall develop and transmit to the Committees on Interior and Insular Affairs of the Senate and the House of Representatives a comprehensive plan for the protection, management, and use of the seashore, to include but not be limited to the following considerations:</p> <ul style="list-style-type: none"> (1) measures for the full protection and management of the natural resources and natural ecosystems of the seashore; (2) present and proposed uses of the seashore and the lands and waters adjacent or related thereto, the uses of which would reasonably be expected to influence the administration, use, and environmental quality of the seashore; (3) plans for the development of facilities necessary and appropriate for visitor use and enjoyment of the seashore, with identification of resource and user carrying capacities, along with the anticipated costs for all proposed development; (4) plans for visitor transportation systems integrated and coordinated with lands and facilities adjacent to, but outside of, the seashore; and (5) plans for fostering the development of cooperative agreements and land and resource use patterns outside the seashore which would be compatible with the protection and management of the seashore.

¹ Other mandates found in the seashore's enabling legislation have been satisfied (including those found in §459f-1(a), 1(b), 1(c), 1(d), 2(a), 3, and 9) or repealed (including those found in §459f-6 and 8).



Table 1.3 Assateague Island National Seashore – Other Special Mandates

Party with Whom Agreement Exists	Type of Agreement and General Provisions
U.S. Fish and Wildlife Service (2012)	Agreement that assigns management responsibilities for providing recreation opportunities in the Virginia Assigned Area of CNWR; addresses visitor services, interpretive services, visitor and resource protection, facility management, land and resource management, and interagency communications and information sharing (<i>see section 1.3.2 and appendix B</i>)
U.S. Army Corps of Engineers (2001)	Agreement regarding restoration of the north end of Assateague Island mandating joint management and funding of north end restoration and adaptive management activities (<i>see section 1.10.5</i>)
Kingdom of Spain (2001)	Agreement for loan of maritime artifacts which requires conservation and protection of loaned artifacts, permits use of artifacts in visitor center displays, and requires consultation in any publications regarding artifacts

1.4.6 OTHER LEGISLATIVE AND POLICY REQUIREMENTS

The *NPS Management Policies* (NPS 2006c) and a number of federal laws, acts, and executive orders vital to the NPS mission also guide management of the seashore as a unit of the national park system. Collectively these policies and servicewide laws define the conditions desired in national parks and ensure that parks are managed in accordance with national regulations consistently applied to all parks in the system. In addition, the laws of the state of Maryland and the commonwealth of Virginia apply to management of some resources at the seashore



Table 1.4 Assateague Island National Seashore – Special Seashore Designations

Designation	Finding
Wilderness	Approximately 5,200 acres on Assateague Island in Maryland retain characteristics potentially qualifying for wilderness designation, of which 440 acres have been formally recommended to Congress for wilderness designation and 4,760 acres compose a “potential wilderness addition” that is eligible for wilderness designation. The NPS manages these lands to protect and improve wilderness character (section 1.7).
National Estuary (US EPA)	The National Estuary Program was established under section 320 of the 1987 Clean Water Act Amendments as a U.S. EPA place-based program to protect and restore the water quality and ecological integrity of estuaries of national significance. Portions of Assateague Island National Seashore are located within the Maryland Coastal Bays National Estuary, one of 28 national estuaries along the coasts of the Atlantic Ocean, Gulf of Mexico, Pacific Ocean, and Puerto Rico. The NPS is an active partner in the management conference for the Maryland Coastal Bays, coordinated through the Maryland Coastal Bays Program (section 1.9.5).
Marine Protected Area	The Marine Protection, Research, and Sanctuaries Act of 1972 provides for designation of a national system of marine protected areas (MPAs). The purpose of the system is to support the coordinated effective stewardship, conservation, restoration, sustainable use, and public understanding and appreciation of the nation’s significant natural and cultural marine heritage and sustainable production marine resources, with due consideration of the interests of and implications for all who use, benefit from, and care about the marine environment. Assateague Island National Seashore is a designated MPA. Benefits of designation include better protection through regional coordination, public awareness, and recognition as an important conservation area; enhanced stature locally, nationally, and internationally; more effective and efficient outreach to the public; and enhanced protections that call for federal agencies to avoid harm to the natural and cultural resources within all MPAs.
Western Hemisphere Shorebird Reserve	The Western Hemisphere Shorebird Reserve Network (WHSRN) seeks to conserve shorebird species and their habitats through conservation of crucial sites used by shorebirds during their breeding, migratory, and winter season. The WHSRN has designated the Maryland-Virginia Barrier Islands, including Assateague Island, an internationally significant shorebird reserve site. It is internationally significant because of extremely high species diversity during both spring and fall migrations and extremely high maximum bird counts (WHSRN 2012). The Virginia Coast Reserve Program of The Nature Conservancy helps to coordinate the actions of WHSRN’s partners and stakeholders at Assateague Island.
National Audubon Society Important Bird Area	The Important Bird Areas Program (IBA) is a global effort of the National Audubon Society to identify and conserve areas that are vital to birds and other biodiversity. Within the network of IBAs, Assateague Island is designated an IBA of global and continental importance. It is globally significant due to the 60+ pairs of piping plovers (<i>Charadrius melodus</i>) that nest on its beaches, representing 2 percent of the species global population (National Audubon Society 2012). National Audubon seeks to ensure that important bird areas are properly managed and conserved by working with local Audubon chapters, landowners, public agencies, community groups, and other non-profits.
Essential Fish Habitat	The 1996 Magnuson-Stevens Act required agencies and others to cooperate to protect, conserve, and enhance essential habitats for federally-managed marine and anadromous fish species. Essential fish habitats are those water and substrate areas needed for fish to spawn, breed, feed, and grow to maturity. Species for which essential fish habitat exists either offshore of the seashore or in Chincoteague Bay include red hake, winter flounder, window pane flounder, bluefish, king and Spanish mackerel, cobia, summer flounder, scup, black sea bass, spiny dogfish, and several species of sharks that migrate through the area (such as sand tiger shark, blue shark, sandbar shark, and scalloped hammerhead shark) (NOAA 2012a). Adults of most of these species also use marine or brackish waters in essential fish habitat either in Chincoteague Bay or the Atlantic coast and several require estuaries or other specific habitat for laying eggs, larvae, and juveniles.

1.5 Planning Issues

Throughout development of the Draft GMP/EIS the planning team used a variety of scoping techniques to identify the issues related to management of the seashore, the range of management alternatives that should be considered in the Draft GMP/EIS to address those issues, and the range and nature of impacts that should be used to evaluate and compare alternative management actions. Scoping occurred internally with the NPS staff and externally with other public agencies, partner organizations, and the general public.

The following issues provided the basis to frame key questions to be considered during the course of the planning process.

1.5.1 NATURAL COASTAL PROCESSES AND EFFECTS OF CLIMATE CHANGE

Natural coastal processes including the action of tides, wind, waves, currents, and sea level rise continually influence and shape Assateague Island. In response to sea level rise, the island is slowly moving westward through storm overwash and inlet formation processes. Most island changes occur during intense storm events which – while lasting only a few days – can dramatically alter the physical characteristics of the island and bay. As global climate change intensifies, the rate of sea level rise and the intensity of coastal storms will likely increase and accelerate the rate and magnitude of island changes. (See section 2.2 for more information regarding the implications for planning related to climate change/sea level rise at the seashore.) The GMP/EIS addresses the following questions related to natural coastal processes and the effects of climate change/sea level rise.

- ***How will NPS respond to global climate change/sea level rise impacts on the seashore?***

The natural environment of the seashore is expected to become less stable under most global climate change/sea level rise projections. Driven by higher rates of sea level rise, more intense and possibly more frequent storms, rising temperatures, changes in precipitation patterns and drought, the island will likely experience significant changes in its physical form, the type and condition of habitats, and the diversity of species. While the pace and magnitude of climate change remains uncertain, it is clear that the consequences of even low-end projections will compound existing threats to seashore resources and challenge the NPS's ability to fulfill the seashore's mission.

- ***To what extent will NPS continue to provide permanent visitor facilities on the island given the dynamic nature of the island and the continuous need for public investment to maintain those facilities?***

Because Assateague Island is an exceptionally dynamic landform, all infrastructure and developed visitor facilities are ultimately at risk of damage or loss. At present, the management response to this challenge varies, ranging from rebuilding facilities after

storm damage – as is the general policy in the seashore’s Maryland District – to minimization of permanent structures combined with use of temporary/seasonal structures that are removed from the island before major storms – as is the policy in the seashore’s Virginia District. In light of the high potential for accelerating rates of sea level rise due to global climate change, maintaining these facilities over time will require repeated and likely more frequent public investment for repairs and reconstruction, and may not be sustainable.

- ***What should the NPS do if major storms create breaches in the island that limit access?***

Most global climate change scenarios indicate that barrier islands such as Assateague Island will become much more dynamic as a result of accelerating rates of sea level rise, and more intense and possibly more frequent storms. The formation of breaches and new inlets during storm events has occurred repeatedly on Assateague, and is very likely to occur again. Depending upon the location, future breaches or new inlets may render portions of the island’s backcountry largely inaccessible by traditional means and may also have an effect on nonfederal lands and coastal communities.

1.5.2 VISITOR USE AND VISITOR EXPERIENCE

The seashore is one of the few publicly accessible coastal environments in the densely populated northeast United States where visitors can experience unspoiled beaches, tranquil bays and marshlands, natural sounds, quiet, dark night skies, and solitude. Most visitors to the island seek an easily accessible beach experience where they can be near the ocean, sit in the sun, swim, fish, beachcomb, and play. Most visitors want to see the wild horses. A majority of visitors typically do not seek out the many other opportunities for natural resource appreciation offered at the seashore, although some hunt and shellfish or paddle the back bays. The GMP/EIS addresses the following questions related to visitor use and visitor experience.

- ***What safe and sustainable alternative strategies should be used to enhance visitor access to the island?***

Alternative Transportation Strategies for Access from MD 611. Existing roads and parking facilities do not meet current visitor demand and cannot be expanded without significant resource damage and loss. During the busy summer season, visitors who arrive by automobile sometimes experience delays entering the seashore and reaching their desired destination. The NPS has completed an alternative transportation study to explore options for addressing the transportation problems. Potential options are likely to include improved traffic information systems to alert visitors of congestion before they enter the seashore, the use of mass transit from satellite parking facilities on the mainland, and relocation of the entrance stations for the seashore and Assateague State Park to a joint facility on the mainland. A joint entrance station could not be operated without changes to the state legislation which authorized the bridge and which prohibits

tolls. In the absence of a legislative change, the NPS would have to assume ownership of the bridge and its associated maintenance in order to collect entrance fees on the mainland. In all cases, the development of alternative solutions to transportation problems in the Maryland District will require collaborative planning with Maryland DNR for Assateague State Park.

- ***What outdoor recreation opportunities should be available to visitors as natural coastal processes and the effects of climate change and sea level rise reshape Assateague Island and alter access to seashore facilities?***

Location and Types of Visitor Facilities. As natural coastal processes and/or the effects of climate change/sea level rise reshape Assateague Island, the maintenance of the current circulation system and the location of protected beaches, campgrounds, and other facilities on the island are likely to change. In concert with questions of visitor facilities and visitor access described above, consideration must be given to how to support the desired range of outdoor recreational opportunities.

Oversand Vehicle Use (OSV). Access to a more remote beach experience via four-wheel drive vehicle in the OSV use area is one of the seashore's popular visitor activities. During summer, the demand for access to the seashore's designated OSV use area frequently exceeds the 145 vehicle capacity, forcing visitors to wait in line for long periods before space becomes available. Once getting into the OSV use area, most



visitors stay within the first few miles of beach, leaving much of the remaining route available for the enjoyment of a relatively small number of visitors. Changes to the island as a result of sea level rise could change the location and extent of this experience.

1.5.3 PARTNERSHIPS

Three government agencies manage Assateague Island: MD DNR, FWS, and the NPS. The seashore relies on the actions of surrounding communities to address regional traffic and congestion, protect water quality, and augment emergency services. Additional opportunities exist for partnerships that would help the NPS better protect resources, enhance the visitor experience, increase operational efficiencies, expand youth outreach programs, and reach additional underserved audiences. The GMP addresses the following question related to partnerships.

- ***How should the NPS work cooperatively with its neighbors and public agencies at all levels of government to protect Assateague Island’s resources from the adverse effects of land uses and activities both outside and within the seashore’s boundaries?***

The seashore’s neighbors and public agencies at all level of governments routinely engage in activities that directly and indirectly impact Assateague Island’s resources and the experiences that visitors have in the seashore. Likewise, the actions that NPS undertakes at Assateague Island National Seashore can have an impact on other agencies and nearby communities.

Ocean and Bay Stewardship. Through its enabling legislation, the NPS was granted jurisdiction and certain authorities over the waters within the seashore boundary. The submerged lands within the seashore are, however, owned by the states of Maryland and Virginia. As a result, multiple state and federal agencies have diverse responsibilities in managing various aspects of the seashore’s marine resources. The complex nature of ocean and bay stewardship issues (e.g. authority over waterfowl hunting blinds, incompatible recreational activities, commercial fin fishing and aquaculture, potential offshore wind energy development) requires a cooperative approach to defining and resolving both existing and future threats to the seashore’s marine resources.

Water Quality. The seashore includes marine and estuarine waters that are a part of larger systems influenced by land uses and activities in the mainland watershed. Seashore staff has been monitoring water quality in Chincoteague, Sinepuxent, and Newport Bays for more than 20 years, and has documented a significant decline in water quality over the last decade that threatens the health and sustainability of the estuary. The NPS has minimal regulatory authority outside the seashore boundary – the principal source of pollutants entering the estuary. Without comprehensive action to reduce pollutant loads (primarily nitrogen and phosphorus) from the mainland

watershed it is unlikely that the NPS will be successful in protecting the seashore's aquatic resources from becoming impaired.

Marine Resources. Bay habitats such as seagrass beds and salt marshes support highly diverse plant and animal communities, including recreationally important finfish, shellfish, shorebirds, and other species. The ocean area within the seashore boundary connects many of these same species to the bays and supports ocean dwelling animals including marine mammals. The seashore's purpose in enabling legislation emphasizes outdoor recreational uses. The seashore's aquatic habitats are subject to consumptive activities such as aquaculture. Aquatic resources face significant threats from declining water quality caused by excess nutrient loading. NPS must manage recreational uses to conserve resources that boaters, anglers, beachgoers, campers, and wildlife enthusiasts enjoy.

Commercial extraction of marine resources has a long history in the region. The seashore's recent ethnographic overview and assessment (Chambers et al 2012) notes that "The traditions of 'watermen' and their communities provide the thread for associations that run through the generations." Commercial aquaculture began in the 1850s. The commonwealth of Virginia has leased land for clam and oyster aquaculture within what became seashore waters since the 1890s. Toms Cove in the Virginia part of the seashore is the site of most aquaculture. Aquaculture alone is a \$20M industry around Chincoteague, with some considerable portion of that coming from seashore waters. There is no aquaculture in Maryland waters, and aquaculture within the seashore is prohibited by the state of Maryland's regulations.

The seashore's authorizing legislation gives management of shellfishing to the states; this has been interpreted as giving the management of fishing for wild shellfish to Maryland and Virginia. Aquaculture is considered agriculture and therefore is prohibited in parks unless specifically authorized or needed to portray the historic scene (36 CFR 2.60). Horseshoe crabs are arachnids (arthropods), not crustaceans; therefore, they are wildlife and their harvest is prohibited in national parks. (36 CFR 2.2). The seashore, now 50 years old, has never enforced these provisions, some of which came into being after the designation of the seashore.

The leasing of submerged bottomland within the seashore boundary is commonplace in Virginia. Although Virginia halted new leasing of bottomlands and has designated much of the submerged land in Toms Cove as public oyster grounds (thereby protecting recreational opportunities), other areas within the seashore boundary in Virginia remain available for commercial leasing. In Maryland, the state has recently prohibited commercial aquaculture within the seashore's waters.

1.5.4 WILDERNESS

The *Assateague Island Wilderness Study* (NPS and FWS 1974) and subsequent study revisions determined that 5,200 acres qualified for federal wilderness designation pursuant to the Wilderness Act. Based upon findings from these studies, President Gerald Ford recommended to Congress that 440 acres be immediately designated as wilderness and that the remaining 4,760 acres be classified as “potential wilderness” to become eligible when non-conforming backcountry development and uses were eliminated. The bill recommending creation of the Assateague wilderness was introduced in Congress but no action was taken.

The seashore’s 1982 GMP recommended that wilderness designation be reconsidered when the physical remnants of former development were removed. As part of the seashore’s current planning process, the NPS is required to make a determination concerning how these areas will be managed to protect and enhance wilderness character. The GMP/EIS addresses the following question related to wilderness.

- ***How should the Assateague backcountry be managed to protect wilderness character while allowing for compatible recreation and NPS operational needs?***

1.5.5 CULTURAL RESOURCES

The seashore contains a variety of locally, regionally, and nationally significant cultural resources. These resources, as well as their associated documents and objects, are all that remain from the relatively brief periods when humans have occupied Assateague Island. They provide important links to both the history and purpose of the seashore. Two resources – the former Assateague Beach U.S. Coast Guard Station and the former Green Run Lodge – are eligible for listing the *National Register of Historic Places*. There are significant gaps in the seashore’s understanding of and ability to protect and interpret these resources. The Assateague Beach U.S. Coast Guard Station sits vacant and underutilized due to problems with access. Other issues include a backlog of archival materials needing assessment, cataloging, and conservation, and the absence of archeological survey data for most of the island. The GMP/EIS addresses the following question related to cultural resource management.

- ***How should the seashore’s cultural resources be managed?***

1.6 Impact Topics

Impact topics are the seashore resources and values that could be affected, either beneficially or adversely, by implementing any of the alternatives under consideration. This section identifies the impact topics that the planning team chose to retain for detailed analysis. It also provides a brief discussion of the impact topics that the planning team initially considered but then dismissed from further analysis.

1.6.1 IMPACT TOPICS RETAINED FOR FURTHER ANALYSIS

Table 1.5 lists the impact topics retained for further analysis. Consideration of federal laws, regulations, Executive Orders, *NPS Management Policies* (NPS 2006c), NPS staff knowledge of the seashore and the issues and concerns expressed by the public and other agencies during the GMP/EIS scoping process (appendices C and D) provided the basis for identifying the topics to be retained. Chapter 3 – Affected Environment contains a thorough description of the resources and values related to each topic retained for analysis. Chapter 4 – Environmental Consequences – provides for each topic an analysis of the impacts associated with the four alternatives under consideration.

Table 1.5. Impact Topics Retained for Further Analysis

Impact Topics	
Impact Topics RETAINED for Further Analysis in the GMP/EIS	<ul style="list-style-type: none"> • water resources • habitats • wildlife • federally listed threatened or endangered species • historic structures • cultural landscapes • seashore operations • access and circulation • visitor use and visitor experience • socio-economic environment
Impact Topics DISMISSED from Further Analysis in the GMP/EIS	<ul style="list-style-type: none"> • air quality • lightscape and night skies • acoustic environment and soundscape • archeological resources • ethnographic resources • museum collections • Indian Sacred Sites • Indian Trust Resources • wild and scenic rivers • environmental justice • energy requirements and conservation potential • natural and depletable resources

1.6.2 IMPACT TOPICS CONSIDERED AND DISMISSED FROM FURTHER ANALYSIS

- **Air Quality**

Background. The 1963 Clean Air Act, as amended (42 USC 74-1 et seq.) requires federal land managers to protect seashore air quality. *NPS Management Policies* (NPS 2006c) address the need to analyze air quality during seashore planning.

Assateague Island National Seashore is designated a Class II air quality area by provisions of the 1977 Clean Air Amendments, meaning that the state may permit a moderate amount of new air pollution as long as neither ambient air quality standards nor the maximum allowable increases over established baseline concentrations are exceeded. Because the seashore is within a Class II Clean Air Area, NPS is not required to conduct air quality or visibility monitoring within the seashore.

Reasons for Dismissal. All the alternatives considered in this Draft GMP/EIS would have local short-term adverse impacts on air quality caused by fugitive dust. In particular, operation of equipment, vehicles, and other construction activities, such as building, demolition, or rehabilitation, could result in temporary increases in vehicle exhaust and emissions. However, hydrocarbons, nitrates, and sulfur dioxide emissions, as well as any airborne particulates created by fugitive dust plumes would be rapidly dissipated. These impacts would be mitigated through requirements for contractors and NPS maintenance personnel to apply water and dust control agents at construction sites. All the alternatives would also have local long-term negligible adverse impacts on air quality caused by increased local traffic and vehicle idling during peak visitation periods. The seashore would continue its involvement in the NPS Green Parks initiative and would work to reduce or eliminate impacts on air quality resulting from seashore operations. Overall, there would be negligible impacts on local air quality which would not change existing conditions in a meaningful way. Because all of the foreseeable impacts would be negligible, the air quality impact topic has been dismissed from further analysis.

- **Lightscape and Night Skies**

Background. *NPS Management Policies* (NPS 2006c) require the NPS to preserve to the greatest extent possible, the natural darkness and other components of the natural lightscape. The natural lightscape is composed of the natural resources and values that exist in the absence of human-caused light.

The two main sources of light pollution at the seashore are the towns of Ocean City and Berlin. During most nights, astronomical features including the Milky Way and Beehive Clusters are readily observed. Natural vegetation on the west side of the island assists in maintaining darkness in the ocean beach habitats (NPS 2011d). In general night sky

brightness at the seashore is at risk of increasing as human population increases in the region (NPS 2011d).

Reasons for Dismissal. All the alternatives considered in this Draft GMP/EIS would have long-term negligible impacts on the seashore's lightscape and night skies. Future management of the seashore would comply with NPS management policies to protect natural darkness and other components of the natural lightscape. The NPS would restrict the use of artificial lighting to those areas where security, basic human safety, and specific cultural resource requirements must be met. Minimal impact lighting techniques would be used including shielded light fixtures to prevent light spill over and use of low-intensity lights. Artificial light, when used, would be shielded to prevent the disruption of the night sky, physiological processes of living organisms, and other natural processes. The NPS would also seek cooperation of seashore visitors, neighbors, and local government agencies to prevent or minimize the intrusion of artificial light into the night scene of the seashore's ecosystem. Collectively these actions would result in a local long-term beneficial impact on the lightscape and night skies. As a result, the lightscape and night skies impact topic was dismissed from further analysis.

- **Acoustic Environment and Soundscape**

Background. *Director's Order 47: Preservation of the Acoustic Environment and Noise Management in the National Park System* and *NPS Management Policies* (NPS 2006c) require the NPS to preserve, to the greatest extent possible, the soundscapes and natural acoustic conditions of parks and to minimize noise. The acoustic environment encompasses all the natural and cultural sounds that occur in the seashore as modified by the environment. It includes the physical capacity for transmitting those intrinsic sounds and the interrelationships among seashore natural sounds of different frequencies and volumes. Soundscape is the component of the acoustic environment that can be perceived and comprehended by humans. The character and quality of the soundscape influence human perceptions of an area, providing a sense of place that differentiates it from other regions. The NPS is also required to restore to the natural condition wherever possible those seashore acoustic resources that have become degraded by noise, and to protect natural landscapes from impacts.

In general natural ambient sound levels at the seashore are low in most areas of the seashore, except where high levels of natural sounds emanate from the surf along the ocean beach. Human-made sounds originating in the seashore emanate from seashore operations, visitor activities, traffic on seashore roads, OSV use, and powerboats. Other seashore users contributing to the soundscape include beach users, hikers, surfers, and paddlers.

Reasons for Dismissal. All the GMP alternatives considered in this Draft GMP/EIS would have a short-term negligible adverse impact on the seashore's natural soundscape. Construction activities associated with planned new or modified facilities or

transportation projects would generate temporary unwanted construction-related sound that would be direct and short-term in nature and concentrated in areas near construction sites. In accordance with normal NPS construction practice, noise-generating construction equipment would be equipped with effective noise control devices. All equipment would be properly maintained to ensure that no additional unwanted sound would be generated. The seashore would further prevent and/or minimize unwanted construction sound by managing its intensity, frequency, magnitude, and duration in any one place on any particular day. Noise would also be minimized by ensuring that timing of work in the day or in the year would reduce impacts to noise sensitive resources such as visitor areas, nesting areas, or habitat for sensitive species.

Alternatives 2, 3, and 4 would likely involve eventual relocation of some seashore facilities. When this occurs, seashore managers would select locations that would continue minimal impacts to acoustic resources. When decisions are made regarding the use of OSVs, the NPS would seek to minimize noise impacts by considering noise sensitive resources.

Implementation of an alternative transportation system (ATS) in alternatives 2, 3, and 4 would have a long-term beneficial impact on the seashore's natural soundscape. The ATS would reduce the number of vehicles on the island and in turn reduce the associated vehicle-generated noise. If access is lost to some or all of the island, visitation and OSV use and associated noise would likely diminish in all of the alternatives.

For the reasons outlined above, the soundscape impact topic was dismissed from further analysis.

- **Archeological Resources**

Background. The terrestrial archeological sites found within the seashore are primarily related to historic operations of the U.S. Lifesaving Service and several small residential and commercial developments that date from the late nineteenth and mid-twentieth centuries. The seven known sites include North Beach, Pope Island, and Green Run Lifesaving Stations, the Birch Saltworks, Green Run Village, the Green Run Cemetery, and Scott's Ocean House Hotel. All of these sites have been determined ineligible for the *National Register of Historic Places*. At each site the original above-ground features associated with the site have been lost through physical removal, fire, vandalism and theft, or natural deterioration.

The remains of shipwrecks are also known within the seashore boundary. Of particular note are the La Galga, an 18th century Spanish frigate that wrecked near the Maryland/Virginia state line, and the Despatch, the United States' first presidential yacht. Additional sites have been identified in the shallow waters adjacent to the island

in both the ocean and bay, as well as within the body of the island itself. Major storms periodically uncover the remains of ships, and provide a brief glimpse into past tragedies.

The presence or absence of prehistoric archeological sites has not been systematically investigated on the majority of Assateague Island. The potential for undiscovered prehistoric sites is generally considered minimal, primarily owing to the changing nature of the island's position relative to the ocean and the mainland. Occasional discoveries of aboriginal projectile points in the ocean surf zone constitute the only physical evidence of Native American use of the island. There are no shell piles on the island. If Native Americans used the island, it is likely that their use was seasonal for hunting and harvesting.

Reasons for Dismissal. NPS will implement standard mitigation measures in accordance with the *NPS Management Policies* (NPS 2006c), the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation*, and the *NPS Cultural Management Guideline (NPS-28)* (NPS 2002c) for any ground-disturbing actions associated with implementation of the preferred alternative in the approved GMP/EIS. These actions will seek to ensure that potential adverse impacts to archeological resources are avoided or minimized.

Completion of an island wide archeological overview and assessment is included as part of alternative 1 – continuation of current management and is also common to the three action alternatives (alternatives 2, 3, and 4). This action would result in a beneficial impact on archeological resources by informing seashore managers regarding where previously unknown resources may be present on the island and by providing general guidance as to management actions needed to protect those resources from adverse impacts due to ground disturbance associated with seashore operations, development of seashore facilities, and visitor use.

For the reasons outlined above, the archeological resource impact topic was dismissed from further analysis.

- **Ethnographic Resources**

Background. Ethnographic resources are defined 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” (NPS Director’s Order 28). Under NPS definitions, traditionally associated people are those who meet three criteria: (1) their associations with seashore resources predate the establishment of the seashore, (2) such associations usually span at least two generations (or forty years), and (3) their associations with seashore resources are important to their cultural identity (NPS 2002c). The determination as to whether a resource is an ethnographic resource “depends on

whether associated peoples perceive the resources as meaningful to their identity as a group and the survival of their lifeways (NPS 2002c).

A recently completed ethnographic overview and assessment for the seashore compiled ethnographic information about historical and contemporary peoples living on and near the seashore, documented traditional activities engaged in by those peoples, and provided direction for future ethnographic research (Chambers and Sullivan 2012). Traditional uses of the seashore include hunting, fishing, and gathering of resources by residents of nearby communities for subsistence, commercial, and recreational purposes on Assateague Island and within its adjacent marsh islands and nearby water areas. These uses reflect annual rounds of economic, social, and cultural activities that have occurred in relation to the bay – including hunting, fishing, gathering of naturally-occurring resources, intermittent or regular wage employment, crafts production, recreational activities, and recurring community events, celebrations, religious meetings, and other group activities. Continued access to the seashore’s resources is important in relation to the continuity and preservation of lifeways in the seashore’s nearby communities and in terms of the contribution of such resources to local or family socioeconomic systems.

Reasons for Dismissal. In all of the alternatives considered in this Draft GMP/EIS, opportunities for hunting, fishing, recreational uses, and recurring community events and group activities would continue to be available for local residents, except for horseshoe crab harvest, which would be wound down over a reasonable length of time. Aquaculture leases would continue to be permitted via a special use permit under (36 CFR 2.60) to maintain the historic setting. The seashore’s resources would be managed to support existing uses at the seashore. The seashore’s public hunting program would continue to be managed for its recreational values and as a resource management tool to control non-native species, although if land-based access to the backcountry is altered due to natural coastal processes or the effects of climate change/sea level rise, hunting access to some portions of the seashore could become more difficult. Recreational fishing and crab harvesting would continue. Access to former retained rights and to the Green Run Cemetery (for family relatives only) would be maintained. Collectively these actions would have no impact on the ethnographic resources of significance to residents of the seashore’s nearby communities. For the reasons outlined above, the ethnographic resources impact topic was dismissed from further analysis.

- **Museum Collections**

Background. *NPS Management Policies* (NPS 2006c) require the NPS to collect, protect, preserve, provide access to, and use objects, specimens, and archival and manuscript museum collections in the disciplines of archeology, ethnography, history, biology, geology, and paleontology to aid understanding among seashore visitors, and to advance knowledge in the humanities and sciences.

The majority of the seashore's museum collection consists of natural history voucher specimens or other objects relating to the seashore's natural resources. Significant numbers of archaeological and archival materials are also included within the total collection of 4,951 items. The largest component of the natural history collection is an herbarium, containing specimens of 217 plant species. Thirty-nine objects in the museum collection are of a historical nature, composed primarily of materials relating to local U.S. Lifesaving Service and Coast Guard operations. A small number of objects relate to past residential and commercial development on the island. Twenty-nine prehistoric archaeological artifacts, aboriginal projectile points, and other implements are maintained in the collection. The balance of the collection is composed of general biological specimens and a few paleontological specimens, representing a variety of fossils of marine origin found on island beaches.

In addition to the 4,951 items in the collection, the seashore has a large backlog of archival materials in need of assessment to determine if they meet the NPS definition of archives; upon future assessment, materials considered archives will be catalogued and added to the seashore's collection. The seashore's storage facilities at seashore headquarters and at the Maryland visitor center are adequate for storage needs.

Reasons for Dismissal. The alternatives considered in this Draft GMP/EIS would have no adverse impacts on museum collections. Beneficial impacts to museum collections would result from actions in the alternatives related to rehabilitation or reconstruction of the existing seashore headquarters complex by providing rehabilitated or new space for collections storage in compliance with *NPS Management Policies* (NPS 2006c), *NPS Director's Order #24: NPS Museum Collections Management* (NPS 2008), *NPS Cultural Management Guideline (NPS-28)* (NPS 2002c), and the *NPS Museum Handbook* (NPS 2000c).

The seashore is seeking funding to complete a collections management plan which will provide recommendations related to collection documentation, archives and manuscript collections, archeological collections, collections storage, museum environment, security and fire protection, staffing, and programming and funding sources. Implementation of the plan recommendations would be included as part of alternative 1 – continuation of current management, would be common to the three action alternatives (alternatives 2, 3, and 4), and would result in a local long-term beneficial impact on museum collections.

For the reasons outlined above, the museum collections impact topic was dismissed from further analysis.

- **Indian Sacred Sites**

Background. Executive Order 13007, "Indian Sacred Sites" requires managers of federal lands to avoid adversely affecting the physical integrity of Indian sacred sites.

Reasons for Dismissal. There are no sacred sites identified by an Indian tribe subject to protections of Executive Order 13007 within the seashore boundaries. Therefore, the Indian sacred sites impact topic was dismissed from further analysis.

- **Indian Trust Resources**

Background. Secretarial Order 3175 requires that any anticipated impacts to Indian Trust Resources from a proposed project or action be explicitly addressed in environmental documents.

Reasons for Dismissal. There are no Indian Trust resources within the seashore boundaries. None of the land within the seashore is held in trust by the Secretary of the Interior for the benefit of Indians due to their status as Indians. Therefore the Indian Trust Resources impact topic was dismissed from further analysis.

- **Environmental Justice**

Background. E.O. 12891, “General Actions to Address Environmental Justice in Minority Populations and Low Income Populations,” requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high and adverse health or environmental impacts of their programs and policies on minorities or low-income populations or communities.

Minority and low-income populations as defined in E.O. 12891 reside in the vicinity of the seashore in both Worcester County and Accomack County. In Worcester County, four percent of families and ten percent of individuals live below the poverty level and minorities compose eight percent of the total population (U.S. Census Bureau 2011b). In Accomack County, six percent of families and 16 percent of individuals live below the poverty level and minorities composed 42 percent of the total population (U.S. Census Bureau 2011b).

Reasons for Dismissal. Scoping activities conducted for the Draft GMP/EIS sought to involve all residents of Worcester and Accomack Counties (section 5.1). During the scoping process no issues or concerns specific to minority/low income populations were identified. No management actions under any of the alternatives evaluated in the Draft GMP/EIS are directed at minority/low income populations nor are any of the potential effects of the alternatives believed to have disproportionate effects on minority/low income populations. For these reasons the environmental justice impact topic was dismissed from further analysis.

- **Energy Requirements and Conservation Potential**

Background. *NPS Management Policies* (NPS 2006c) require the NPS to conduct its activities in ways that use energy wisely and economically.

Reasons for Dismissal. Management actions in all alternatives considered in this Draft GMP/EIS would comply with NPS sustainable energy design and energy management requirements. Any facility development, whether it is a new building, a renovation, or an adaptive reuse of an existing facility, would include improvements in energy efficiency and reduction in greenhouse gas emissions for both the building envelope and the mechanical systems that support the facility. Maximum energy efficiency would be achieved. Energy-efficient construction projects would be used as an educational opportunity for the visiting public. All projects that include visitor services facilities would incorporate Leadership in Energy and Environmental Design (LEED) standards to achieve a silver rating.

In all alternatives, the facilities, vehicles, and equipment would be operated and managed to minimize consumption of energy, water, and nonrenewable fuels. Full consideration would be given to the use of alternative fuels. Alternative transportation programs and the use of bio-based fuels would be encouraged, where appropriate. Renewable sources of energy and new developments in energy-efficiency technology, including products from recycling of materials and waste, would be used where appropriate and cost-effective over the life cycle. However, energy efficiencies would not be pursued if they would cause adverse impacts on seashore resources and values.

For these reasons, the energy requirements and conservation potential impact topic was dismissed from further analysis.

1.7 The Seashore's Wilderness

In 1974 the NPS and the FWS jointly evaluated the suitability of portions of Assateague Island for wilderness designation (NPS and FWS 1974). The study concluded that portions of the island retained "primeval character and influence" and that about 6,500 acres of land qualified for wilderness designation, including 5,200 acres managed by the NPS and 1,300 managed by the FWS. In 1974 President Gerald Ford recommended to Congress that 440 acres of the 5,200 acres managed by the NPS be formally designated wilderness. The balance of the NPS managed lands – 4,760 acres – were identified as potential wilderness, to become eligible for wilderness designation when non-conforming features and uses were eliminated. Congress failed to act on the president's recommendation. The seashore's subsequent 1982 *General Management Plan* (NPS 1982b) concluded that wilderness designation should be reconsidered once the island's natural zone (encompassing the potential wilderness areas) is free of non-conforming features present due to the retained rights of use and occupancy by 11 former property owners.

The last of the retained rights of use and occupancy within the island's natural zone expired in 2002. As a result, during the new GMP planning process the planning team

has reviewed the status of the Assateague Island Wilderness in Maryland and has found that:

- While management actions by the NPS since 1974 have improved conditions and reduced impacts to wilderness character, approximately 2,074 acres or 51 percent of the lands within the wilderness are affected by unnatural conditions or incompatible uses and do not currently meet desired wilderness conditions. Among these conditions and incompatible uses are the present OSV corridor located in designated areas along the ocean beach and areas that continue to be used for administrative/operational access to support essential functions associated with maintaining backcountry campgrounds, recreational hunting, and other resource management projects.
- Additional lands within the seashore boundary that would likely meet the criteria for wilderness designation do not appear to have been considered in the original *Assateague Wilderness Study* (NPS and FWS 1974). These lands should be studied to evaluate their suitability as new potential wilderness.

As ongoing and future actions by the NPS are completed, the acreage of wilderness lands meeting the desired conditions should increase substantially. Recommended management actions to be implemented through the GMP to further protect and enhance wilderness qualities would generally include the following:

- Undertake an assessment of wilderness eligibility and prepare a new wilderness study that addresses the following:
 - review the wilderness boundary in the context of new assessment of acreage, climate change, sea level rise and erosion, as well as specific shoreline management activities (e.g., breach management)
 - amend the existing wilderness boundary to address what are presently non-conforming uses such as the OSV corridor and access areas that are required for administrative use (“cherry stems”)
 - consider new access corridors that may be necessary to accommodate new, water-based public access
- Generally manage recommended and potential wilderness to preserve, restore, and enhance natural ecological conditions and wilderness qualities while providing limited opportunities for low density, low impact primitive recreational experiences.
- Implement a long-term monitoring program to assess the conditions and trend of wilderness character over time based on the “keeping it wild” framework, adapted for the individual characteristics of the Assateague Island Wilderness.

1.8 The Seashore's Boundary

As part of the planning process, the NPS is required to review the seashore boundary and – if appropriate – make recommendations for potential boundary adjustments.

Boundary adjustments may be made for the following purposes:

- to protect significant resources and values
- to enhance opportunities for public enjoyment related to the seashore purposes
- to protect seashore resources critical to fulfilling the seashore's purposes
- to address operational and management issues

The NPS planning team has reviewed the existing seashore boundary to identify the need for a boundary adjustment for these purposes and to consider all alternatives in lieu of a boundary adjustment that would protect the seashore's resources and/or address the following management issues.

- **Dynamic Nature of the Seashore's External Water Boundary**

According to legal doctrine the seashore's water boundary moves with changes in island location as a result of natural coastal processes. As a result, changes that have occurred in the physical location and configuration of Assateague Island since the seashore's authorization have now caused the seashore's water boundary to include inappropriate areas. A GIS analysis of the island's dynamics has indicated that the boundary now extends completely across Sinepuxent Bay and includes portions of the federal navigation channel. In Virginia, island changes have also resulted in the boundary shifting west and incorporating portions of the Chincoteague Inlet channel. It is unlikely that the boundary of the seashore was ever intended to include these federal navigation channels, due to the inherent incompatibility of activities occurring within those areas.

In the future, the NPS would continue to assess options to resolve boundary issues associated with the changing location of the island's shoreline.

- **Federal Land Management Responsibilities**

In order to clarify federal land management responsibilities on Assateague Island, the NPS proposes to assume full management responsibility for those lands in Maryland originally purchased with FWS-appropriated funds (approximately 418 acres). Conversely, the FWS proposes to assume full management responsibility for those lands in Virginia originally purchased with NSP-appropriated funds (approximately 400 acres). This would not affect management of the Assateague Beach U.S. Coast Guard Station, for which the NPS would retain ownership and management responsibility.

- **Land Requirements on the Mainland (for Seashore Administrative Purposes)**

The seashore’s enabling legislation addresses land acquisition on the mainland in Worcester County, Maryland, for administrative purposes. The most recent amendment (PL 102-320) authorizes the Secretary of the Interior to include within the seashore boundary up to 112 acres of land or interests therein on the mainland in Worcester County, Maryland (appendix A). Currently, NPS has ownership or easement interests in approximately 105.41 acres on the mainland. Most of the land owned by NPS is occupied by the seashore’s administrative offices, maintenance facility, Maryland visitor center, environmental education building, and housing for NPS staff.

The GMP alternatives include various proposals for new land acquisition on the mainland which would exceed the 112-acre limit. As a result the NPS would seek an increase in the seashore’s authorized ceiling for acquiring interests in land (fee simple and easements) on the mainland in Worcester County, Maryland. The need for the ceiling increase and the amount of the ceiling increase would vary from alternative to alternative (sections 2.3.8, 2.4.9, 2.5.8, 2.6.8, and 2.7.8).

1.9 Related Plans

Various public agencies and governmental bodies have recently completed plans or have projects underway that directly and/or indirectly relate to Assateague Island National Seashore. The NPS has also completed plans for a number of subareas within the seashore and for management of seashore resources.

1.9.1 NATIONAL PARK SERVICE PLANS

- **Assateague Island National Seashore General Management Plan**

The *Assateague Island National Seashore General Management Plan* (NPS 1982b) established the broad framework for management protection and use of lands within the seashore, including those managed by the NPS within Chincoteague National Wildlife Refuge, since 1982. The GMP provided a comprehensive strategy to guide management of the seashore and described the general actions to be taken related to management zoning, resource, management, visitor use, development of seashore facilities, and land protection. Approximately 91 percent of the island was assigned to a natural zone, including both a primitive zone and a traditional recreation subzone (legally open to OSVs). A development zone – encompassing most of the remainder of the island – was recommended to contain all general seashore improvements. Within the developed zone there were two subzones, including a general recreation/development subzone (the North Beach Developed Area) and an administrative subzone (the Headquarters/Visitor Center Area). The island’s ten cultural resource sites or structures were assigned to an historic zone that encompassed 10

acres of NPS-owned land in Maryland and 25 acres of NPS-managed land in Virginia. Major recommended actions in the Toms Cove Hook Developed Area included realignment of Toms Cove Road, a new bicycle trail from Wildlife Drive to Toms Cove via the east side of the Swan Cove impoundment, and construction of a 200-car parking area, new bathhouse, and picnic area. The GMP called for removal of all structures acquired from owners of retained rights by the NPS. The GMP also recommended that once the natural zone was free of retained rights, wilderness designation would be reconsidered. Today, existing development within the seashore is based upon the direction established in the 1982 GMP, as amended through subsequent plans described below.

The management framework in the preferred alternative in the approved GMP/EIS will replace the management framework in the seashore's initial GMP that has guided seashore management since 1982.

- **ASIS Hurricane Plan**

Preparedness for hurricanes and severe weather is an ongoing process at the seashore. The NPS maintains a hurricane action plan designed to protect human life and property while at the same time attempting minimal disruption of visitor access to the island (NPS 2011b). The plan addresses particular actions which NPS personnel must perform prior to a hurricane and then during the storm's development. Depending upon storm conditions, actions to be taken pertain to: keeping visitors informed about weather conditions; communications with FWS, state park, and local governments; staff readiness; seashore hours of operation; closing seashore facilities; transporting equipment to the mainland; evacuating buildings; securing equipment and information; and evacuating visitors, non-emergency staff, and emergency staff. The superintendent and division chiefs review the plan annually to ensure that it is kept as current as possible.

NPS updates the seashore's hurricane plan annually. Future annual updates would be based upon the management framework included in the preferred alternative in the approved Draft GMP/EIS.

- **Piping Plover (*Charadrius melodus*) Management Plan**

The seashore has implemented a comprehensive management program (NPS 2001b) to conserve breeding populations of the piping plover (*Charadrius melodus*), a "threatened species" added in 1986 to the federal list of threatened or endangered wildlife. The NPS management program seeks to create favorable conditions needed to enhance site selection, nesting, and productivity levels for the piping plover (*Charadrius melodus*) within the seashore. Management actions include pre-season surveys of the island to document vegetative patterns and high probability plover use areas, monitoring, injured and dead specimen assessment, public use area closures, predator exclosures, staff

training, public education, enforcement of plover management regulations, consultation and coordination with the FWS, and annual management program reporting. Monitoring generally begins in mid-April and follows breeding birds and their young from incubation through fledging (generally the 35th day after hatching) in mid to late summer.

The management framework in the preferred alternative in the approved GMP/EIS incorporates and supports recommended management actions to protect the piping plover (*Charadrius melodus*) as included in the *Piping Plover Management Plan* (NPS 2001b).

- **Assateague Beach Coast Guard Station Future Use and Treatment**

The management framework for future use and treatment of the former Assateague Beach U.S. Coast Guard Station (determined eligible for listing on the *National Register of Historic Places*) was established in a 2005 NPS study which considered a range of possible management alternatives for the complex (NPS 2005b). Based on study findings, the management goal is to preserve the historic integrity of the station complex by rehabilitating the structures for adaptive reuse to accommodate research and educational programs. NPS anticipates that new funding resources will become available to augment federal expenditures for maintenance and rehabilitation through partnerships with groups or institutions interested in utilizing the station for compatible research and education activities. In turn, improved station facilities will support enhanced programs of environmental research and education. Rehabilitation of structures will comply with the *Secretary of the Interior's Standards* (NPS 1996).

The preferred alternative in this Draft GMP/EIS incorporates and supports recommended management actions to preserve the historic integrity of the Assateague Beach Coast Guard Station.

- **Fire and Fuels Management Plan**

The *Fire and Fuels Management Plan* (NPS 2005c) provides management guidance to integrate fire management objectives with other resource management programs at the seashore. Guidance addresses wildland fire management preparedness as well as detailed procedural actions to be employed during wildland fire events. At the seashore the suppression of all wildland fire ignitions utilizes an appropriate management response. Firefighters have the option to utilize those control actions that provide them with the best opportunity to suppress a fire, while at the same time allowing them the option to employ suppression strategies and tactics that minimize impacts upon seashore resources, especially those that might result from the suppression activities themselves. The use of prescribed fire, either individually or as part an integrated management approach is utilized to accomplish the full range of natural and cultural

resource management and hazardous fuel reduction goals. Wildland fire may be used in certain circumstances.

NPS typically updates the fire and fuels management plan for the seashore every five years. Future updates would be based upon the management framework included in the preferred alternative in the approved GMP/EIS.

- **Maryland District Alternative Transportation Systems Planning Study**

In 2012 the NPS completed an alternative transportation study for the Maryland District that provides recommendations to improve current transportation conditions and to enhance the transportation system's resiliency (US DOT 2012). Recommended actions are designed to meet the transportation objectives for the seashore, including to: reduce the number of vehicles during peak times within the Maryland developed area; enhance the travel experience for all modes (e.g., wayfinding, traveler information, facilities and amenities); and improve transportation system resiliency to storm damage and sea level rise. Actions also support NPS programmatic goals of resource protection and partnership building and are assumed to be feasible in terms of financial, technical, and public acceptance considerations. Some strategies are recommended for immediate implementation to address current transportation needs, while other strategies require the NPS to begin planning and pursuing funding in preparation for different future conditions when transportation infrastructure could be lost due to natural coastal processes and/or the effects of climate change/sea level rise. The suggested timing for planning and implementing recommended actions reflects consideration of the potential for future damage to the seashore's transportation infrastructure.

Management alternatives considered in this Draft GMP/EIS incorporate the major recommendations of the transportation systems planning study, such as relocation of the seashore's entrance station and implementation of a mainland-based visitor shuttle.

- **Use and Management of the Oversand Vehicle Route and Backcountry Roads**

Use and Management of the Oversand Vehicle Route and Backcountry Roads (NPS 2010h) provides a framework for managing off-road vehicle use within the seashore, as well as guidance regarding contemporary use of the seashore's oversand (OSV) vehicle route and backcountry roads. The framework for managing off-road vehicle use within the seashore is provided by Executive Order 11644 (as amended by EO 11989), *NPS Management Policies* (NPS 2006c) section 9.2.3.1, 36 CFR Chapter 1, sections 4.10b and 7.65, and the *Superintendent's Compendium* (NPS 2011i). In general, public OSV use is managed to provide safe and appropriate recreation opportunities while minimizing adverse effects on the seashore's natural, cultural, scenic, and aesthetic resources, and other recreational uses. Administrative off-road vehicle use is limited to that necessary to manage public use of the OSV route and to conduct emergency operations and other

essential maintenance, resource protection, and management activities that cannot be accomplished reasonably by other means.

Management guidance found in the *Use and Management for the Oversand Vehicle Route and Backcountry Roads* (NPS 2010h) would be revised to reflect the management framework in the preferred alternative in the approved Draft GMP/EIS.

- **Long Range Interpretive Plan**

The seashore's long range interpretive plan (LRIP) provides the basis for targeted strategies and actions identified in annual implementation plans to enhance the seashore experience (NPS 2002a). The LRIP identifies the seashore's primary interpretive themes, the desired audience experiences, targeted audiences, issues to be addressed by interpretive actions, collection and library needs, and staffing needs. Since the LRIP was adopted, the NPS has implemented most of the actions identified in the future interpretive program.

The NPS would update the LRIP to identify new strategies and targeted actions to achieve the desired seashore experience associated with the preferred alternative for long-term seashore management in the approved GMP/EIS.

1.9.2 U.S. FISH AND WILDLIFE SERVICE PLANS

- **Chincoteague and Wallops Island National Wildlife Refuges Final Comprehensive Conservation Plan and Environmental Impact Statement**

The *Chincoteague and Wallops Island National Wildlife Refuges Final Comprehensive Conservation Plan and Environmental Impact Statement* (CCP/EIS) (US FWS 2015) was released to the public in August 2014 (see section 1.3.3).

1.9.3 STATE OF MARYLAND PLANS

- **Assateague State Park Land Unit Plan**

The *Assateague State Park Land Unit Plan* (MD DNR 2005) documents existing resources and improvements at Assateague State Park and provides guidance for resource management and public use at the park through 2015 to 2020. The plan organizes information pertaining to the park, including historical information, visitor survey findings, and existing conditions; identifies issues; identifies management goals; describes strategies to accomplish goals; and provides a framework from which to approach the goals for management of the park (MD DNR 2005). Management goals for the park are:

- to enhance current resource-based recreational opportunities
- to educate the public while providing recreational opportunities

- to identify, conserve, restore, enhance and monitor natural processes, natural resources, sensitive areas, and sensitive species
- to stabilize and replenish the dunes
- to protect historic structures and archaeological artifacts from disturbance
- to improve relationships with other agencies and institutions
- to develop a horse management plan
- to improve environmental sustainability of infrastructure for new and existing structures

Specific management issues identified pertain to dune replenishment, exotic species, wastewater treatment, human/wildlife interaction, and poison ivy/mosquitoes/ticks; recommendations are made to address each of the issues identified. In the future any proposals or issues that may come up that are not addressed in the plan will be handled as a project review proposal that will be scrutinized for compatibility with the goals and strategies identified in the plan (MD DNR 2005). Proposed improvements recommended in the plan include relocation of the nature center; development of a new event pavilion and a new 3.1-mile trail on the mainland; expansion of the boating area to include a canoe/kayak put-in and related rental facilities; and installation of an orientation kiosk.

In the future, NPS would continue to coordinate with MD DNR on a weekly basis regarding seashore management. Over the long-term NPS would implement the management framework associated with the preferred alternative in the approved GMP/EIS by proceeding with contingency planning related to island access and potential relocation of NPS visitor facilities to the mainland. This would involve additional coordination with MD DNR regarding land acquisition and joint development of new NPS facilities on the mainland.

1.9.4 LOCAL GOVERNMENT PLANS

- **Worcester County Comprehensive Plan**

Since adopting its current comprehensive plan in 2006, Worcester County's planning philosophy has moved away from an historic emphasis on development to placing a priority on resource conservation and protecting rural and coastal character (Worcester County 2006). The plan's primary goal "is to maintain and improve the county's rural and coastal character, protect its natural resources and ecological functions, accommodate a planned amount of growth served by adequate public facilities, improve development's compatibility and aesthetics, continue the county's prosperous economy, and provide for residents' safety and health." This shift recognizes that critical to the county's quality of life and economy is protection of its rich natural resource base. Recent growth has been significant and has concentrated in the county's northeastern corner where it is now approaching build-out. The plan seeks to establish the basis for continuing a "smart growth" pattern for the future that will continue to

avoid urban sprawl. The plan recommends directing new development to designated growth areas within existing communities where infill development could absorb approximately 18,000 new residents. Protection and conservation of natural and cultural resources will occur through the development review process along with aggressive county participation in conservation programs and resource planning projects, such as the Rural Legacy Program, the Forest Conservation Program, the Maryland Agricultural Land Preservation Program, and the Maryland Coastal Bays Program.

The plan recognizes the importance of Assateague Island to its tourism industry. Projects proposed relevant to the seashore include a recommendation to conduct scenic and transportation corridor planning for Maryland 611 to continue the road's rural and coastal character, particularly from MD 376 to Assateague Island. The plan recognizes the NPS as a partner in the Maryland Coastal Bays Program and in efforts to protect water quality within Chincoteague Bay.

- **Accomack County Comprehensive Plan**

The updated *Accomack County Comprehensive Plan* (Accomack County 2008) supports a vision for the future of Accomack County that recognizes its unique qualities and outstanding potential as a leading agricultural and seafood producer. The plan calls for implementing five key strategies that will focus growth in and around existing communities and away from the shorelines and farmland in order to conserve important agricultural and natural resources. A future land use maps guides all decisions regarding growth, development, and public infrastructure. Specific criteria are recommended to support rezoning decisions that are consistent with the goals of the plan. A variety of policy, regulatory, and programmatic tools are recommended to preserve farmland, shorelines, water resources, and other natural resources. By encouraging expansion of existing communities in a compact mixed-use pattern and by adopting an affordable dwelling unit ordinance, the county hopes to stimulate development of needed affordable housing. Zoning revisions for prospective industrial sites are intended to encourage compatible economic development that promotes expansion of a “distributed workforce” (using broadband internet access) and supports aquaculture and other marine interests by protecting water quality. New and expanded central water and wastewater systems are recommended in specific areas of the county.

The plan does not address issues or recommendations specifically pertaining to Assateague Island National Seashore, although it does recommend that the county cooperate with government organizations to establish a water quality monitoring network in Accomack County.



- **Town of Ocean City Comprehensive Plan**

The Town of Ocean City Comprehensive Plan (Ocean City 2006) recognizes that the majority of the future development of Ocean City will be in the form of redevelopment and that planning should guide future development to enhance Ocean City's vitality as a resort and a community. The plan emphasizes new initiatives for improving the quality of life in the town and the quality of the Ocean City experience for visitors. Future development will be directed to create a quality image of Ocean City by implementing a town-wide urban design, beautification, and landscaping plan. A new design review process is proposed to ensure compatibility of new and redevelopment projects. Recognizing that the local economy is heavily dependent on natural resources, environmental resource protection is identified as a priority including protecting sensitive habitats, reducing water quality impacts from stormwater runoff, and reducing the threat of development to cultural and natural resources. Continuation of the beach replenishment program is recommended to provide storm protection and to support recreational use. Recognizing that future coastal bay quality will depend on close cooperation among all levels of government, the plan commits the town to continue to actively participate in the Maryland Coastal Bays Program and to implement its recommendations as the area develops.

The plan does not address issues or recommendations specifically pertaining to Assateague Island National Seashore.

- **Town of Berlin Comprehensive Plan**

In its new comprehensive plan the town of Berlin recognizes that it is a community with a wealth of resources that is very focused on improving the way of life in a manner that is sustainable for generations to come. The *Town of Berlin Comprehensive Plan* (Berlin 2010) emphasizes the community’s desire to reestablish the town’s traditional town center through encouraging mixed use downtown and directing future growth into the downtown community or within the existing town boundaries, either as infill growth or where vacancies occur in existing developed areas. Actions are recommended to enhance the major road corridors that attract people into downtown, including MD 818, 346, 376, and 374. The community also recognizes the need to preserve ecologically significant land surrounding the community, especially existing forested lands and wetland areas. Actions are recommended to prohibit potentially harmful development that will affect sensitive areas, including the Maryland Coastal Bays.

The plan does not address issues or recommendations specifically pertaining to Assateague Island National Seashore.

- **Town of Chincoteague Comprehensive Plan**

The town of Chincoteague’s new comprehensive plan begins by stating that there is “almost universal consensus throughout the population that the growth of the town should occur in an economically and environmentally sustainable manner” reflecting its “site development and existing building traditions” (Chincoteague 2010). The goals, objectives, and implementation strategies contained in the *Town of Chincoteague Comprehensive Plan* (Chincoteague 2010) represent a community consensus on the path forward to achieve its vision of the future and to accomplish the community’s primary goal – “to change over time in an economically sustainable manner so that the town retains the most endearing and unique physical and cultural features and provides the setting for a harmonious community life”. Strategies address twelve planning areas, focusing on actions that will ensure that infill and redevelopment are consistent with each area’s existing character. Imperative is retaining the existing cluster of businesses located in the town center and encouraging new business start-ups with a focus on retaining the unique pedestrian-oriented characteristics of the area and maintaining its strong link to the waterfront. Recommended actions pertaining to the transportation system focus on improving vehicular circulation by upgrading streets and enhancing connectivity, enhancing local transit service, and developing a community-wide system of bike routes and pedestrian trails. Housing strategies focus on providing affordable housing through several approaches. Recognizing the many issues related to wastewater management, there is a commitment to continue to study the feasibility of public sewer collection and treatment facilities. The possibility of annexing nearby lands

is deemed necessary and expedient for the continued well-being of the community and its residents.

While the plan states that Chincoteague's proximity to Assateague Island National Seashore and the Chincoteague National Wildlife Refuge continues to be its largest economic development opportunity, it does not address issues or recommendations specifically pertaining to either the seashore or the refuge.

1.9.5 OTHER PLANS AND PROJECTS

- **North End Restoration Project**

The North End Restoration Project is an ongoing project of the USACE and the NPS to restore the north end of Assateague Island in accordance with a 2001 memorandum of agreement. The project came about as a result of the Water Resources Development Act of 1996 in which Congress directed the Secretary of the Department of the Army to complete a study to determine if the federal navigation project at Ocean City Inlet had contributed to the degradation of the Assateague Island shoreline and, if so determined, to take action to restore the island. Extensive research and analysis conducted during the study determined that, in fact, the federal navigation project at Ocean City Inlet has resulted in significant degradation of northern Assateague Island (USACE 1997). The ensuing plan – referred to as the North End Restoration Project – focuses on restoring Assateague Island to as natural a condition as possible. Development of the restoration proposal was conducted with extensive federal, state, and local agency and public participation as per requirements of the National Environmental Policy Act (NEPA). Two environmental impact statements/feasibility reports were produced to allow full opportunity for public review and comment. The first, released in May 1997, focused on the short-term component of the Assateague restoration program (USACE 1997). The second EIS, completed in July 1998, proposed the long-term restoration component (USACE 1998).

The short-term first phase of the restoration program was designed to provide a one-time infusion of sand to replace a portion of the sediment lost over the past 60 years due to the effects of the jetties. This phase was completed in January 2003 when 1.8 million cubic yards of sand were placed seaward of the mean high waterline to minimize disturbance to upland habitats, widening the beach by about 125 feet over a distance of nearly six miles.

The long-term sand management phase of the restoration project addressed the ongoing and future effects of the jetties by re-establishing a "natural" sediment supply for northern Assateague that reflects historic, pre-inlet rates. Since 2004, sand-bypassing has occurred twice yearly and is providing Assateague with a sediment budget that approximates pre-jetty conditions. After placement in the island's surf zone, natural forces (waves, currents, and storm frequency and intensity) are the dominant

factors dictating how the sand moves within the island and nearshore sand system, and how habitats evolve over time. The annual volume of material and placement locations is adjusted to ensure that geomorphologic conditions and trends meet project objectives. According to the terms of the agreement between the USACE and the NPS the long-term restoration phase is projected to have an economic life of 25 years extending through the year 2028.

This Draft GMP/EIS assumes that the North End Restoration Project would continue as planned through the year 2028.

- **Maryland Coastal Bays Program**

The National Estuary Program was established under Section 320 of the 1987 Clean Water Act Amendments as a U.S. EPA place-based program to protect and restore the water quality and ecological integrity of estuaries of national significance. Portions of the seashore are located within the Maryland Coastal Bays National Estuary, one of 28 national estuaries along the coasts of the Atlantic Ocean, Gulf of Mexico, Pacific Ocean coasts, and Puerto Rico. The management entity responsible for managing the Maryland Coastal Bays National Estuary is the Maryland Coastal Bays Program composed of a partnership among the towns of Ocean City and Berlin, the NPS, Worcester County, the US EPA, and the Maryland Departments of Agriculture, Environment, Planning, and Natural Resources. The Maryland Coastal Bays Program coordinates the work of the partners and stakeholders to restore and protect the estuary. A comprehensive conservation and management plan guides its work, containing specific targeted actions designed to address water quality, habitat, and living resources challenges in its estuarine watershed (MCBP 1999). Management goals of the Maryland Coastal Bays Program generally include (MCBP 2012):

- improve overall water quality by reducing the causes of eutrophication and maintain the water quality in relatively unimpacted areas, such as Chincoteague Bay
- protect existing habitat, restore degraded habitat, and create new habitat to improve reproduction and maintenance of healthy living resource populations
- assess the impact of pathogens and toxic chemicals on living resources and control and/or mitigate those impacts
- promote ecologically sound, sustainable development in order to protect the desired uses and economic vitality of the coastal bays region

Recommended management actions in this Draft GMP/EIS support the long-term management goals of the Maryland Coastal Bays Program.