



# Foundation Document

## Assateague Island National Seashore

Maryland and Virginia

March 2018





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## Mission of the National Park Service

The National Park Service (NPS) preserves unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations. The National Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world.

The NPS core values are a framework in which the National Park Service accomplishes its mission. They express the manner in which, both individually and collectively, the National Park Service pursues its mission. The NPS core values are:

- **Shared stewardship:** We share a commitment to resource stewardship with the global preservation community.
- **Excellence:** We strive continually to learn and improve so that we may achieve the highest ideals of public service.
- **Integrity:** We deal honestly and fairly with the public and one another.
- **Tradition:** We are proud of it; we learn from it; we are not bound by it.
- **Respect:** We embrace each other's differences so that we may enrich the well-being of everyone.

The National Park Service is a bureau within the Department of the Interior. While numerous national park system units were created prior to 1916, it was not until August 25, 1916, that President Woodrow Wilson signed the National Park Service Organic Act formally establishing the National Park Service.

The national park system continues to grow and comprises more than 400 park units covering more than 84 million acres in every state, the District of Columbia, American Samoa, Guam, Puerto Rico, and the Virgin Islands. These units include, but are not limited to, national parks, monuments, battlefields, military parks, historical parks, historic sites, lakeshores, seashores, recreation areas, scenic rivers and trails, and the White House. The variety and diversity of park units throughout the nation require a strong commitment to resource stewardship and management to ensure both the protection and enjoyment of these resources for future generations.



*The arrowhead was authorized as the official National Park Service emblem by the Secretary of the Interior on July 20, 1951. The sequoia tree and bison represent vegetation and wildlife, the mountains and water represent scenic and recreational values, and the arrowhead represents historical and archeological values.*

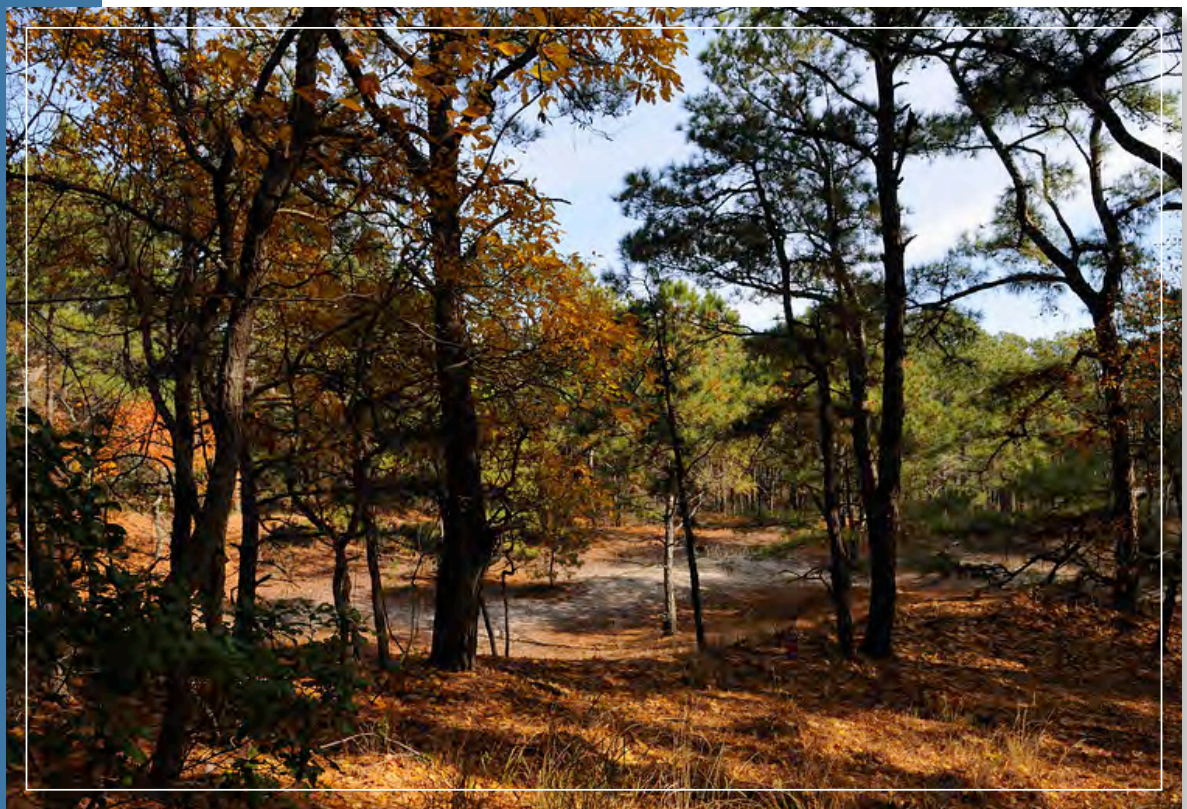


## Introduction

Every unit of the national park system will have a foundational document to provide basic guidance for planning and management decisions—a foundation for planning and management. The core components of a foundation document include a brief description of the park as well as the park’s purpose, significance, fundamental resources and values, other important resources and values, and interpretive themes. The foundation document also includes 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.

A primary benefit of developing a foundation document is the opportunity to integrate and coordinate all kinds and levels of planning from a single, shared understanding of what is most important about the park. The process of developing a foundation document begins with gathering and integrating information about the park. Next, this information is refined and focused to determine what the most important attributes of the park are. The process of preparing a foundation document aids park managers, staff, and the public in identifying and clearly stating in one document the essential information that is necessary for park management to consider when determining future planning efforts, outlining key planning issues, and protecting resources and values that are integral to park purpose and identity.

While not included in this document, a park atlas is also part of a foundation project. The atlas is a series of maps compiled from available geographic information system (GIS) data on natural and cultural resources, visitor use patterns, facilities, and other topics. It serves as a GIS-based support tool for planning and park operations. The atlas is published as a (hard copy) paper product and as geospatial data for use in a web mapping environment. The park atlas for Assateague Island National Seashore can be accessed online at: <http://insideparkatlas.nps.gov/>.



## Part 1: Core Components

The core components of a foundation document include a brief description of the park, park purpose, significance statements, fundamental resources and values, other important resources and values, and interpretive themes. These components are core because they typically do not change over time. Core components are expected to be used in future planning and management efforts.

### Brief Description of the Park

Located along the Atlantic Ocean in Maryland and Virginia, Assateague Island is the largest natural barrier island ecosystem in the mid-Atlantic region that remains predominantly unaffected by human development. Within a three-hour drive of the Washington / Baltimore / Philadelphia metropolitan areas, the national seashore offers a setting in which visitors can experience a dynamic barrier island and pursue a multitude of recreational opportunities. The stated mission of the park is to preserve and protect “unique coastal resources and the natural ecosystem conditions and processes upon which they depend, provide high quality resource-based recreational opportunities compatible with resource protection, and educate the public as to the values and significance of the area.”

Assateague Island encompasses a 37-mile-long barrier island, adjacent marsh islands and waters in Maryland and Virginia, and the Barrier Island Visitor Center on the Maryland mainland. Approximately 50,000 acres of land and water are within the seashore’s boundaries. The island consists of three public areas: Assateague Island National Seashore (managed by the National Park Service), Assateague State Park (managed by the Maryland Department of Natural Resources) and Chincoteague National Wildlife Refuge (managed by the U.S. Fish and Wildlife Service).

Assateague Island has been identified as one of the 25 national parks most at risk from the effects of global climate change. Accelerated sea level rise, more frequent and intense storms, rising temperatures, and changes in patterns of precipitation are all expected to drive significant ecological change. In 2017, the National Park Service completed a new general management plan for Assateague Island National Seashore that identifies how seashore resources and operations will be managed in concert with an increasingly dynamic barrier island landform.

Climate change adaptation is expected to play an increasingly important role in the future management of the seashore. Visitor use infrastructure will probably evolve to more sustainable designs and be relocated to more stable locations. Manipulations of the natural environment will be minimized to allow the island to continue to be shaped predominantly by natural coastal processes. Alternative transportation systems are planned to support and sustain recreational opportunities for park visitors. Collectively, these actions are expected to provide the highest degree of protection for barrier island resources, offer the greatest potential for enhanced coastal resiliency, and allow for sustained public use and enjoyment of seashore resources into the future.





## Park Purpose

The purpose statement identifies the specific reason(s) for establishment of a particular park. The purpose statement for Assateague Island National Seashore was drafted through a careful analysis of its enabling legislation and the legislative history that influenced its development. The park was established when the enabling legislation adopted by Congress was signed into law on September 21, 1965 (see appendix A for enabling legislation and subsequent amendments). The purpose statement lays the foundation for understanding what is most important about the park.

*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.*



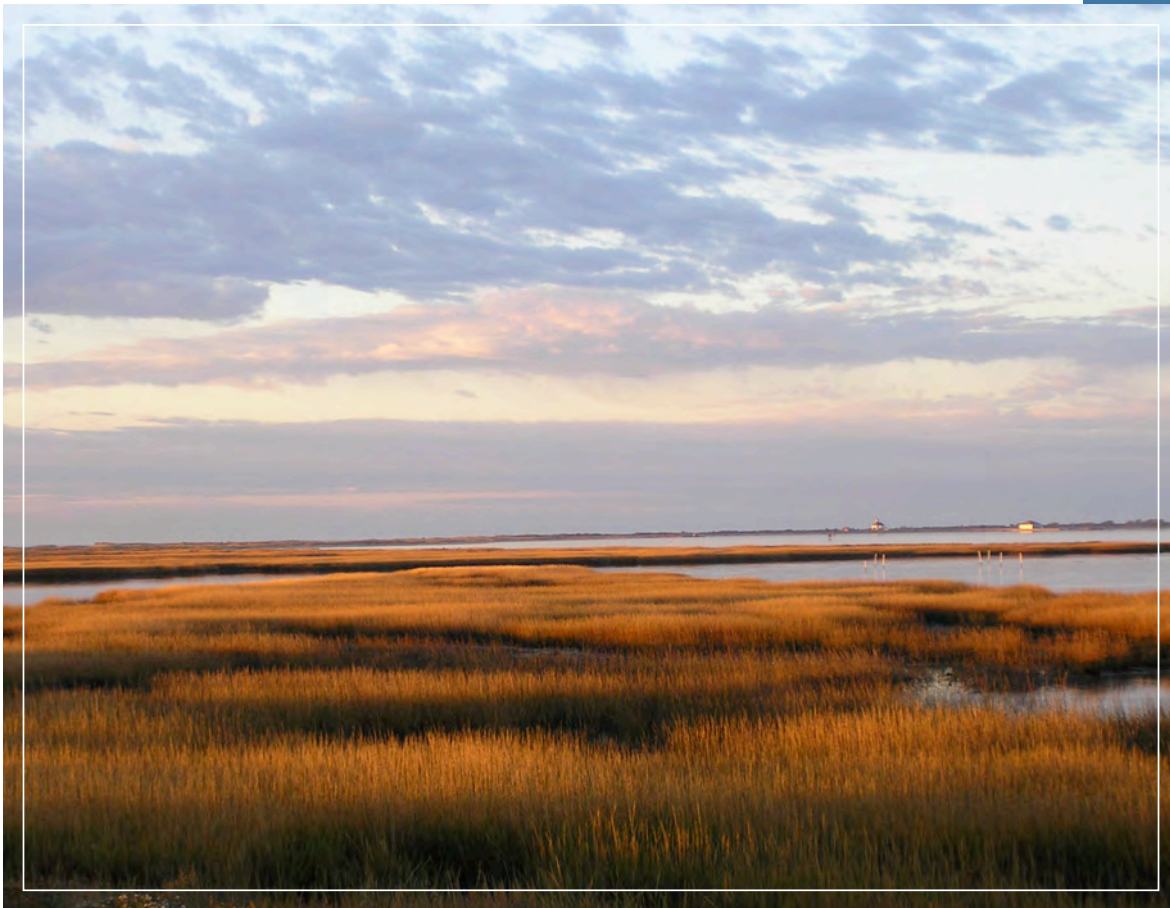


## Park Significance

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

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

1. 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.
2. The marine and estuarine waters within the seashore are a protected vestige of the high quality aquatic ecosystems that once were present throughout the Mid-Atlantic coastal region of the United States.
3. 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 on natural ecosystem processes undisturbed by humans.
4. Amidst the highly developed Mid-Atlantic region, the seashore's coastal resources provide unique opportunities for nature-based recreation, education, solitude, and inspiration.



## Fundamental Resources and Values

Fundamental resources and values (FRVs) 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 park and maintaining its significance. Fundamental resources and values are closely related to a park'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 park. 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 park and maintaining its significance. If fundamental resources and values are allowed to deteriorate, the park purpose and/or significance could be jeopardized.

The following fundamental resources and values have been identified for Assateague Island National Seashore:

- **Barrier Island Habitats and Species.** The unique environmental conditions 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 neotropical migrants—use the seashore seasonally for breeding, overwintering, and 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 groundwater and surface water systems and extensive estuarine and marine waters. The physical, chemical, and hydrologic properties and dynamics of seashore waters remain mostly 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 seagrass 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 oceangoing 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 campfire and from ranger-guided educational activities to self-guided exploration.

## Other Important Resources and Values

Assateague Island National Seashore contains other resources and values that are not fundamental to the purpose of the park 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” (OIRV). These resources and values have been selected because they are important in the operation and management of the park and warrant special consideration in park planning.

The following other important resources and values have been identified for Assateague Island National Seashore:

- **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 to the traditional activities and associations that people have maintained with the island and its waters. These structures and sites, as well as the associated documents, stories, 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 struggle to establish a permanent foothold on the constantly changing barrier island.





## Related Resources

Related resources are not owned by the park. They may be part of the broader context or setting in which park resources exist, represent a thematic connection that would enhance the experience of visitors, or have close association with park fundamental resources and the purpose of the park. The related resource represents a connection with the park that often reflects an area of mutual benefit or interest, and collaboration, between the park and owner/stakeholder.

The following related resources have been identified for Assateague Island National Seashore:

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



## Interpretive Themes

Interpretive themes are often described as the key stories or concepts that visitors should understand after visiting a park—they define the most important ideas or concepts communicated to visitors about a park unit. Themes are derived from, and should reflect, park purpose, significance, resources, and values. The set of interpretive themes is complete when it provides the structure necessary for park staff to develop opportunities for visitors to explore and relate to all park 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 park 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 park and its resources. These themes help explain why a park story is relevant to people who may otherwise be unaware of connections they have to an event, time, or place associated with the park.

The following interpretive themes have been identified for Assateague Island National Seashore:

- **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 with the rest of the world through a shared ocean resource that 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 that are compatible with the NPS 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.





## Part 2: Dynamic Components

The dynamic components of a foundation document include special mandates and administrative commitments and an assessment of planning and data needs. These components are dynamic because they will change over time. New special mandates can be established and new administrative commitments made. As conditions and trends of fundamental and other important resources and values change over time, the analysis of planning and data needs will need to be revisited and revised, along with key issues. Therefore, this part of the foundation document will be updated accordingly.

### Special Mandates and Administrative Commitments

Many management decisions for a park unit are directed or influenced by special mandates and administrative commitments with other federal agencies, state and local governments, utility companies, partnering organizations, and other entities. Special mandates are requirements specific to a park that must be fulfilled. Mandates can be expressed in enabling legislation, in separate legislation following the establishment of the park, or through a judicial process. They may expand on park purpose or introduce elements unrelated to the purpose of the park. Administrative commitments are, in general, agreements that have been reached through formal, documented processes, often through memorandums of agreement. Examples include easements, rights-of-way, arrangements for emergency service responses, etc. Special mandates and administrative commitments can support, in many cases, a network of partnerships that help fulfill the objectives of the park and facilitate working relationships with other organizations. They are an essential component of managing and planning for Assateague Island National Seashore.

For more information about the existing special mandates and administrative commitments for Assateague Island National Seashore, please see appendix B.





## Assessment of Planning and Data Needs

Once the core components of part 1 of the foundation document have been identified, it is important to gather and evaluate existing information about the park's fundamental and other important resources and values, and develop a full assessment of the park's planning and data needs. The assessment of planning and data needs section presents planning issues, the planning projects that will address these issues, and the associated information requirements for planning, such as resource inventories and data collection, including GIS data.

There are three sections in the assessment of planning and data needs:

1. analysis of fundamental and other important resources and values
2. identification of key issues and associated planning and data needs
3. identification of planning and data needs (including spatial mapping activities or GIS maps)

The analysis of fundamental and other important resources and values and identification of key issues leads up to and supports the identification of planning and data collection needs.

### Analysis of Fundamental Resources and Values

The fundamental resource or value analysis table includes current conditions, potential threats and opportunities, planning and data needs, and selected laws and NPS policies related to management of the identified resource or value.

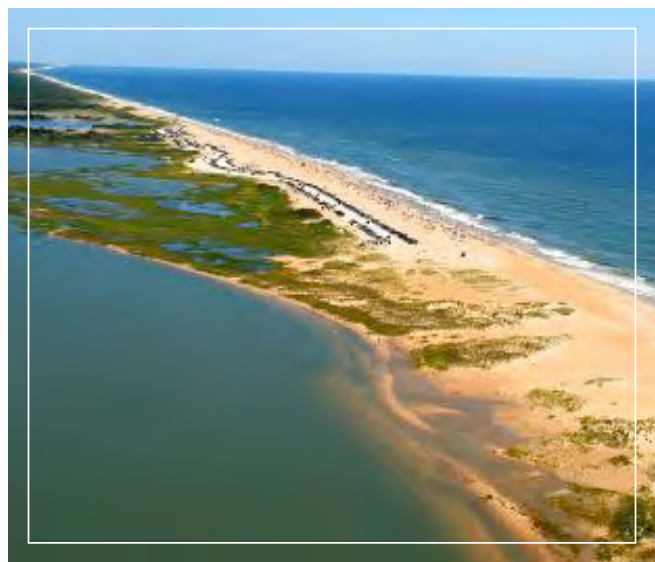


Fundamental Resource or Value	Barrier Island Habitats and Species
Related Significance Statements	<ul style="list-style-type: none"> <li>• The seashore is one of the largest and last surviving Mid-Atlantic barrier islands possessing a continuum of intact coastal habitats where the full range of natural processes occur with little or no human interference.</li> <li>• The marine and estuarine waters within the seashore are a protected vestige of the high quality aquatic ecosystems that once were present throughout the Mid-Atlantic coastal region of the United States.</li> <li>• 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 on natural ecosystem processes undisturbed by humans.</li> </ul>
Current Conditions and Trends	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• The condition of Assateague's natural habitats and species is mixed.</li> <li>• Contemporary and historic land uses within and outside the park have altered the island's natural environment in complex ways and continue to affect both existing conditions and resource trends.</li> <li>• Historic development activities such as road building, the creation of impoundments and mosquito ditches, and dune stabilization projects continue to affect the condition and evolution of habitats through their influence on natural barrier island processes such as storm overwash and island migration.</li> <li>• Alteration of natural processes has affected the distribution and abundance of habitats on the island, as in the widespread loss of sparsely vegetated overwash habitat.</li> <li>• The alteration of overwash frequency has limited sediment input to the island's tidal salt marshes; few new marshes were created during the past 40+ years and most are eroding.</li> <li>• The island's salt marshes have been impacted by a network of drainage ditches constructed during the 1930s and 1940s to control mosquitoes.</li> <li>• External land use practices have affected the national seashore in the past and continue to do so today.</li> <li>• Both historic and contemporary land uses have introduced pollutants into the park's habitats, including lead from waterfowl hunting, nitrogen and excess sediment from surface water runoff in the watershed, and nitrogen, ozone, mercury, and other toxics from atmospheric sources.</li> <li>• Nonnative feral horses and sika deer disrupt native plant and animal communities, harm rare species, and impede natural processes essential to maintaining a healthy barrier island ecosystem.</li> <li>• The feral horse population has been successfully managed to a more sustainable size (80–100) through the use of contraceptives; the population, currently 87, reached a high of 175 in 2001.</li> <li>• Public hunting of sika deer appears to be maintaining a relatively stable population but may not be sufficient to reduce the size of the deer herd to prevent adverse impacts on barrier island vegetation communities.</li> <li>• Nonnative invasive plants throughout the seashore are displacing native species and disrupting ecosystem functionality.</li> <li>• The most abundant invasive plant, <i>Phragmites australis</i>, infests more than 500 acres of wetland habitat.</li> <li>• Efforts are underway to reduce the extent of infestation by <i>Phragmites australis</i> and other nonnative plants, but long-term action will be required to address both existing and new introductions.</li> <li>• The majority of rare or threatened and endangered species using Assateague are linked to the sparsely vegetated overwash habitats created and maintained by storms.</li> <li>• Certain recreational activities such as high-density beach use and over-sand vehicle (OSV) driving influence the distribution and abundance of beach-dwelling species, both plant and animal.</li> </ul>

Fundamental Resource or Value	Barrier Island Habitats and Species
Current Conditions and Trends	<p><b>Trends</b></p> <ul style="list-style-type: none"> <li>• The status and trends of rare or threatened and endangered species is mixed; most populations are stable.</li> <li>• The population of piping plover has been declining since its peak of 66 breeding pairs in 2004; deteriorating habitat quality resulting from absence of strong storms is believed to be the primary causative factor.</li> <li>• Seabeach amaranth was discovered on Assateague in 1998 after an absence of nearly 30 years; restoration efforts increased the population to more than 1,500 plants in 2007, but significant declines have now occurred along the entire east coast.</li> <li>• Sea turtle nesting activity has increased.</li> <li>• New infestations of <i>Phragmites australis</i> and other invasive nonnative plants continue to be documented.</li> <li>• Southern pine beetle outbreaks have impacted several hundred acres of maritime forest from 2013 to 2015.</li> </ul>
Threats and Opportunities	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Mining of offshore sand shoals, beach renourishment, and other activities with potential to influence sediment supply and/or alter coastal processes.</li> <li>• Invasive plants and animals, both existing and potential new introductions. Climate change is likely to amplify the rate and impact of species invasions.</li> <li>• Recreational uses, including potential new activities, that threaten beach-dependent species.</li> <li>• Invasive forest pests (insects and disease).</li> <li>• Changing environmental conditions including temperature increase, altered patterns of precipitation, and sea level rise.</li> <li>• Air pollution due to potential impacts on ozone-sensitive plants, nutrient enrichment contribution from excess deposition of nitrogen, and airborne contaminants. Sources of air pollution include coal-fired power plants, vehicle exhaust, urban development, fire, dust, and agriculture. Ground-level ozone can reach levels that cause injury to ozone-sensitive plants including cordgrass, sassafras, black willow, loblolly pine, black cherry, red maple, sweetgum, and Virginia creeper. Nitrogen deposition levels are above critical loads for lichen and forest vegetation. Wetland vegetation is sensitive to nutrient enrichment effects of excess nitrogen deposition and runoff, which can alter plant composition. Airborne contaminants, including mercury, can be deposited with rain or snow and accumulate in park wildlife, resulting in reduced foraging efficiency, survival, and reproductive success.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• New collaborations with regional partners and universities.</li> <li>• Restoration of wetlands and other habitats impacted by anthropogenic modifications.</li> </ul>
Existing Data and Plans Related to the FRV	<ul style="list-style-type: none"> <li>• Piping plover management plan.</li> <li>• Basic biological inventories for select taxa groups.</li> <li>• Annual piping plover population and productivity.</li> <li>• Seabeach amaranth abundance and distribution.</li> <li>• Surface elevation tables.</li> <li>• Natural resource condition assessment report.</li> <li>• Comprehensive conservation and management plan for Maryland's coastal bays.</li> </ul>



Fundamental Resource or Value	Barrier Island Habitats and Species
<b>Data and/or GIS Needs</b>	<ul style="list-style-type: none"> <li>• Terrestrial habitat and forest health monitoring data.</li> <li>• LiDAR data collection.</li> <li>• Landscape change monitoring using high-resolution satellite data.</li> <li>• Species distribution and habitat use for species of special concern (update).</li> <li>• Vegetation map (update).</li> <li>• Air pollution studies.</li> </ul>
<b>Planning Needs</b>	<ul style="list-style-type: none"> <li>• Resource stewardship strategy.</li> <li>• Sika deer management plan.</li> <li>• Sea turtle management plan.</li> <li>• Invasive plant management plan.</li> </ul>
<b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Clean Air Act of 1977</li> <li>• Clean Water Act of 1972</li> <li>• Coastal Zone Management Act</li> <li>• Endangered Species Act of 1973, as amended</li> <li>• Migratory Bird Treaty Act</li> <li>• Executive Order 13112, "Invasive Species"</li> <li>• Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS Management Policies 2006 (§1.6) "Cooperative Conservation Beyond Park Boundaries"</li> <li>• NPS Management Policies 2006 (§4.7) "Air Resource Management"</li> <li>• NPS Management Policies 2006 (§4.8.1.1) "Shorelines and Barrier Islands"</li> <li>• NPS Management Policies 2006 (§4.9) "Soundscape Management"</li> <li>• NPS Management Policies 2006 (§4.10) "Lightscape Management"</li> <li>• NPS Natural Resource Management Reference Manual 77</li> <li>• Director's Policy Memorandum 12-02, "Applying National Park Service Management Policies in the Context of Climate Change"</li> </ul>



Fundamental Resource or Value	High Quality Waters
Related Significance Statements	<ul style="list-style-type: none"> <li>The marine and estuarine waters within the seashore are a protected vestige of the high quality aquatic ecosystems that once were present throughout the Mid-Atlantic coastal region of the United States.</li> </ul>
Current Conditions and Trends	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>Sinepuxent Bay exhibits good water quality owing to its smaller watershed and high rate of flushing.</li> <li>Water quality in Chincoteague Bay is deteriorating as the result of excess nutrient loading (nitrogen and phosphorus) but remains in fair to good condition.</li> <li>Agricultural activities, municipal wastewater treatment plants, septic systems, and atmospheric deposition are the primary source of nutrients.</li> <li>Most nutrients enter the estuary via diffuse, nonpoint-source pathways including groundwater and surface water runoff and atmospheric deposition.</li> <li>Excess nutrients have increased the abundance of macroalgae and harmful algae blooms, thereby decreasing water clarity and lowering dissolved oxygen levels.</li> <li>Increases in the frequency and distribution of episodes in which dissolved oxygen falls below levels needed to support marine life are resulting in fish kills and other mortality.</li> <li>Observed declines in seagrasses are strongly correlated with decreasing water quality.</li> <li>Contaminants (e.g., hydrocarbons, metals, pesticides) other than nutrients are present but at generally low levels.</li> <li>Fresh surface and groundwater resources on Assateague Island are intimately connected and are significantly influenced by rainfall, evapotranspiration, and storm overwash.</li> <li>Island surface and groundwater resources are mostly unaffected by waste discharge or withdrawals except within the state park where numerous septic systems remain in use and adversely affect local groundwater quality.</li> <li>Ocean water quality is believed to be good, but only limited assessments have been conducted.</li> <li>Enteric bacterial levels within ocean waters are consistently low and only very rarely exceed public health standards.</li> <li>Enteric bacteria from wildlife are present in estuarine waters at levels that fluctuate widely but are not believed to pose human health concerns.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>Nutrient concentrations in bay waters declined from the mid-1980s through the late 1990s but are now increasing.</li> <li>Increased recreational use of the Bayside Peninsula may affect local water quality.</li> </ul>
Threats and Opportunities	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>Population growth and incompatible watershed development practices that alter riparian habitats and introduce nutrients into the estuary.</li> <li>Agricultural practices that introduce nutrients into the estuary.</li> <li>Automobiles, electric generation facilities, and other sources of airborne nutrients that enter the estuary.</li> <li>Changing environmental conditions including increases in water temperatures, ocean acidification, changes in precipitation, and changes in freshwater inflow.</li> <li>Offshore energy development (oil and gas).</li> <li>Increases in commercial fishing activities (e.g., mechanical/hydraulic dredging) and recreational activities.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Expanded collaboration with the Maryland Coastal Bays Program.</li> </ul>

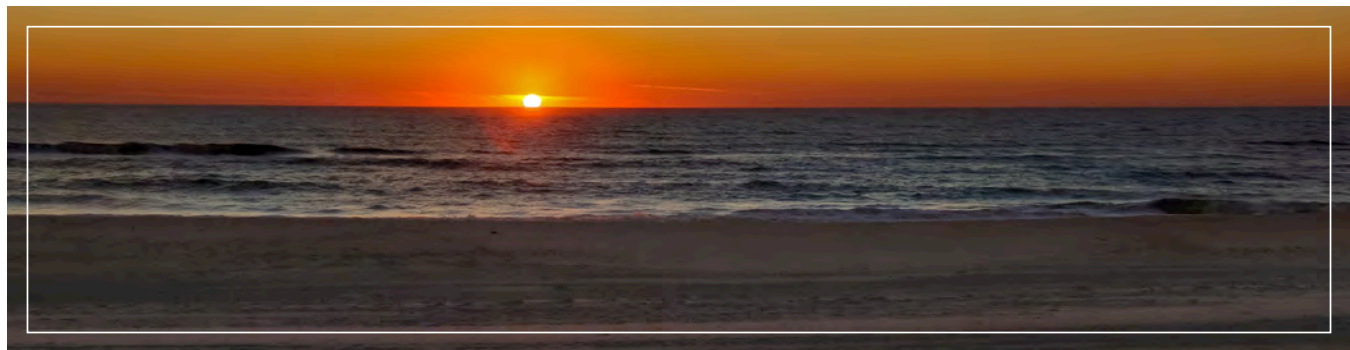
Fundamental Resource or Value	High Quality Waters
<b>Existing Data and Plans Related to the FRV</b>	<ul style="list-style-type: none"> <li>• Long-term estuarine water quality monitoring database.</li> <li>• Annual enteric bacteria monitoring data (May–September).</li> <li>• National Atmospheric Deposition Program station data.</li> <li>• Natural resource condition assessment report.</li> <li>• Comprehensive conservation and management plan for Maryland’s coastal bays.</li> <li>• NPS Northeast Coastal and Barrier Network estuarine nutrient enrichment and seagrass monitoring data.</li> <li>• NPS Northeast Coastal and Barrier Network nekton monitoring data.</li> </ul>
<b>Data and/or GIS Needs</b>	<ul style="list-style-type: none"> <li>• Expand enteric bacteria monitoring.</li> <li>• Nutrient pathway modeling.</li> <li>• Marine water quality assessment.</li> <li>• Groundwater quality and dynamics data.</li> </ul>
<b>Planning Needs</b>	<ul style="list-style-type: none"> <li>• Resource stewardship strategy.</li> </ul>
<b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Clean Air Act of 1977</li> <li>• Clean Water Act of 1972</li> <li>• Coastal Zone Management Act</li> <li>• Secretarial Order 3289, “Addressing the Impacts of Climate Change on America’s Water, Land, and Other Natural and Cultural Resources”</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director’s Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS <i>Management Policies 2006</i> (§1.6) “Cooperative Conservation Beyond Park Boundaries”</li> <li>• NPS <i>Management Policies 2006</i> (§4.7) “Air Resource Management”</li> <li>• NPS <i>Management Policies 2006</i> (§4.8.1.1) “Shorelines and Barrier Islands”</li> <li>• NPS <i>Natural Resource Management Reference Manual 77</i></li> <li>• Director’s Policy Memorandum 12-02, “Applying National Park Service Management Policies in the Context of Climate Change”</li> </ul>



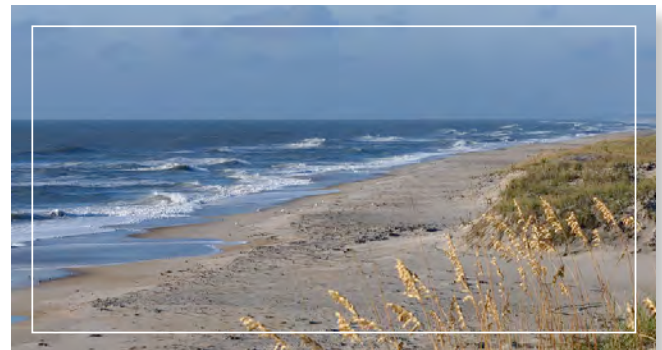
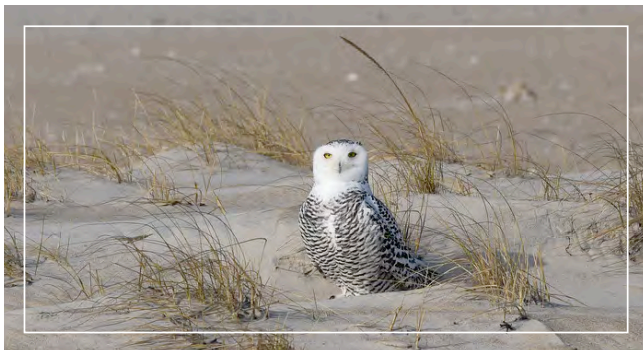


Fundamental Resource or Value	Natural Coastal Processes
Related Significance Statements	<ul style="list-style-type: none"> <li>• The seashore is one of the largest and last surviving Mid-Atlantic barrier islands possessing a continuum of intact coastal habitats where the full range of natural processes occur with little or no human interference.</li> <li>• 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 on natural ecosystem processes undisturbed by humans.</li> </ul>
Current Conditions and Trends	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Prevailing winds and seas transport sand along shore in a predominantly southerly direction; Toms Cove Hook is a reflection of this strong movement of sand to the south.</li> <li>• Stabilization of the Ocean City Inlet in 1935 dramatically altered the sediment supply for Assateague and resulted in wholesale physical and biological changes along the northernmost 9.3 miles of the island.</li> <li>• Mitigation of historic impacts was initiated in 2002 with the placement of almost 2 million cubic yards of sand from Great Gull Bank on northern Assateague's ocean shore.</li> <li>• Approximately 200,000 cubic yards of sand per year has been "bypassed" from the Ocean City Inlet shoals since 2004 to mitigate the continuing impacts of the inlet on the island's sediment supply.</li> <li>• Islandwide dune construction and stabilization activities during the 1950s and 1960s disrupted the natural process of storm overwash and cross-island sand transport.</li> <li>• The lack of storm overwash resulting from historic dune stabilization significantly influenced island geomorphology and the distribution and abundance of certain plant communities. Salt-intolerant shrub and forest communities expanded, whereas herbaceous and sparsely vegetated communities declined.</li> <li>• Major storms in the 1990s eliminated most the historic dune system allowing the resumption of storm overwash processes.</li> <li>• Artificial dunes continue to be maintained in Assateague State Park and the Maryland developed area to protect visitor use infrastructure.</li> <li>• Artificial dunes were eliminated in the Toms Cove visitor use area to allow a resumption of cross-island overwash and island movement to increase resiliency; existing infrastructure is mostly compatible with natural island dynamics.</li> <li>• Assateague State Park has experienced a significant loss of land mass on the ocean side and is highly vulnerable to storm overwash and infrastructure damage; the narrow width of the island limits the opportunity to move infrastructure landward.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>• Assateague Island is transgressing to the west via cross-island sand transport through the action of storm overwash and inlet formation processes.</li> <li>• Since 2009 the artificial dune in the Maryland developed area has been adaptively managed to account for shoreline migration.</li> <li>• Seashore infrastructure is being transitioned to more sustainable designs in response to changing environmental conditions.</li> </ul>
Threats and Opportunities	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Increasing rates of sea level rise that may accelerate island dynamics.</li> <li>• Loss of offshore shoals may influence the local wave climate affecting Assateague and exacerbate shore erosion.</li> <li>• Future alterations to the Ocean City Inlet jetty system may influence inlet hydrology, geomorphology of the ebb and flood tidal shoals, and sand transport to northern Assateague.</li> <li>• Beach nourishment and/or shoreline stabilization activities in Assateague State Park and Chincoteague National Wildlife Refuge.</li> </ul>

Fundamental Resource or Value	Natural Coastal Processes
<b>Threats and Opportunities</b>	<b>Opportunities</b> <ul style="list-style-type: none"> <li>• New collaborations with Mid-Atlantic Coastal Resilience Institute partners.</li> <li>• U.S. Geological Survey research on coastal evolution and vulnerability to sea level rise.</li> <li>• New research on Assateague relict inlets.</li> </ul>
<b>Existing Data and Plans Related to the FRV</b>	<ul style="list-style-type: none"> <li>• LiDAR elevation data.</li> <li>• Cross-island topographic profiles.</li> <li>• Shoreline position monitoring.</li> <li>• Water level (tide) data.</li> <li>• Nearshore bathymetric data.</li> <li>• Meteorological database.</li> <li>• Beach shoreline rate of change.</li> <li>• Natural resource condition assessment report.</li> <li>• Ocean City, Maryland, and Vicinity Water Resources Study – Final Integrated Feasibility Report and Environmental Impact Statement.</li> <li>• Comprehensive conservation and management plan for Maryland’s coastal bays.</li> </ul>
<b>Data and/or GIS Needs</b>	<ul style="list-style-type: none"> <li>• Geomorphological monitoring (topographic profiles, shoreline position).</li> <li>• Additional water level monitoring stations.</li> <li>• Land motion (subsidence) survey.</li> <li>• Sediment budgets for Ocean City and Chincoteague Inlets (update).</li> <li>• High-resolution bathymetric data for Sinepuxent and Chincoteague Bays.</li> </ul>
<b>Planning Needs</b>	<ul style="list-style-type: none"> <li>• Resource stewardship strategy.</li> <li>• Breach management plan.</li> <li>• Maryland visitor center shoreline stabilization plan.</li> <li>• Green Run Lodge shoreline stabilization plan.</li> </ul>
<b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Clean Water Act of 1972</li> <li>• Coastal Zone Management Act</li> <li>• Secretarial Order 3289, “Addressing the Impacts of Climate Change on America’s Water, Land, and Other Natural and Cultural Resources”</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director’s Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS <i>Management Policies 2006</i> (§4.8.1.1) “Shorelines and Barrier Islands”</li> <li>• NPS <i>Natural Resource Management Reference Manual 77</i></li> <li>• Director’s Policy Memorandum 12-02, “Applying National Park Service Management Policies in the Context of Climate Change”</li> </ul>



Fundamental Resource or Value	Aquatic Habitats and Species
Related Significance Statements	<ul style="list-style-type: none"> <li>• 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.</li> <li>• The marine and estuarine waters within the seashore are a protected vestige of the high quality aquatic ecosystems that once were present throughout the Mid-Atlantic coastal region of the United States.</li> <li>• 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 on natural ecosystem processes undisturbed by humans.</li> </ul>
Current Conditions and Trends	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• The condition of the seashore's estuarine resources has declined since the turn of the century but remains fair to good; the potential for future deterioration is high owing to a trend toward declining water quality.</li> <li>• Contaminants are present within bottom sediments and some aquatic species but at generally very low levels compared with other Mid-Atlantic estuaries.</li> <li>• The blue crab population is intensively harvested by a commercial fishery and impacted by disease (Hematodinium).</li> <li>• Horseshoe crabs are commercially harvested in the Virginia waters of the national seashore.</li> <li>• Commercial fin fishing occurs throughout the national seashore.</li> <li>• Commercial aquaculture is intensively practiced in the Virginia waters of the seashore, particularly in Toms Cove.</li> <li>• The state of Maryland has considered leasing state-owned submerged lands within the national seashore for commercial aquaculture; however, Maryland state regulations currently prohibit this use within park boundaries.</li> <li>• Commercial aquaculture (clams and oysters) is practiced in seashore waters.</li> <li>• Most salt marshes are eroding and stressed by sea level rise, lack of sediment input, and grazing by feral horses.</li> <li>• Benthic invertebrate communities are diverse and in generally healthy condition.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>• The abundance of seagrasses has declined from its peak extent in 2001 and currently occupies less than two-thirds of the suitable habitat.</li> <li>• Fish community structure appears to be slowly shifting toward more pollution-tolerant species.</li> <li>• Naturally occurring oysters have mostly disappeared from the estuary, and hard clam populations are low.</li> <li>• Commercial aquaculture is increasing in Maryland waters adjacent to seashore boundaries.</li> <li>• Increases in the abundance of macroalgae and harmful algae blooms are affecting seagrasses and other aquatic species.</li> </ul>





Fundamental Resource or Value	Aquatic Habitats and Species
<b>Threats and Opportunities</b>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Deteriorating estuarine water quality from watershed development and land use practices including agriculture.</li> <li>• Commercial fisheries.</li> <li>• Harmful algal blooms and diseases.</li> <li>• Nonnative aquatic invasive species.</li> <li>• Increasing water temperatures.</li> <li>• Increasing ocean acidification.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Develop a better understanding of the impacts of commercial fishing within the park.</li> <li>• Collaboration with the Maryland Coastal Bays Program.</li> <li>• Collaboration with Mid-Atlantic Coastal Resilience Institute partners.</li> </ul>
<b>Existing Data and Plans Related to the FRV</b>	<ul style="list-style-type: none"> <li>• Submerged aquatic vegetation abundance and distribution.</li> <li>• Salt marsh vegetation and nekton community data.</li> <li>• State and partner data for species distribution.</li> <li>• Natural resource condition assessment report.</li> <li>• Comprehensive conservation and management plan for Maryland's coastal bays.</li> </ul>
<b>Data and/or GIS Needs</b>	<ul style="list-style-type: none"> <li>• Species distribution and habitat use for species of special concern (update).</li> <li>• Assessment of commercial and recreational fishing.</li> <li>• Marine invasive species inventory.</li> <li>• Assess feasibility of oyster restoration.</li> <li>• Ocean chemistry monitoring.</li> <li>• Bayside submerged habitat mapping.</li> <li>• Salt marsh water level monitoring.</li> </ul>
<b>Planning Needs</b>	<ul style="list-style-type: none"> <li>• Marine resources management plan.</li> </ul>
<b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Clean Water Act of 1972</li> <li>• Coastal Zone Management Act</li> <li>• Endangered Species Act of 1973, as amended</li> <li>• Migratory Bird Treaty Act</li> <li>• Executive Order 13112, "Invasive Species"</li> <li>• Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS Management Policies 2006 (§4.6.1) "Protection of Surface Waters and Groundwaters"</li> <li>• NPS Management Policies 2006 (§4.7) "Air Resource Management"</li> <li>• NPS Management Policies 2006 (§4.8.1.1) "Shorelines and Barrier Islands"</li> <li>• NPS Management Policies 2006 (§4.9) "Soundscape Management"</li> <li>• NPS Management Policies 2006 (§4.10) "Lightscape Management"</li> <li>• NPS Natural Resource Management Reference Manual 77</li> <li>• Director's Policy Memorandum 12-02, "Applying National Park Service Management Policies in the Context of Climate Change"</li> </ul>

Fundamental Resource or Value	Natural Coastal Environment
Related Significance Statements	<ul style="list-style-type: none"> <li>• 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.</li> <li>• The marine and estuarine waters within the seashore are a protected vestige of the high quality aquatic ecosystems that once were present throughout the Mid-Atlantic coastal region of the United States.</li> <li>• 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 on natural ecosystem processes undisturbed by humans.</li> </ul>
Current Conditions and Trends	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Assateague Island was significantly altered by development during the 1950s and 1960s, and aspects of that activity remain visible today.</li> <li>• The backcountry is bisected by numerous roads providing access to 10 former residences and hunting camps.</li> <li>• Mosquito control ditches constructed during the 1930s and 1940s in Assateague Island's tidal wetlands remain intact and continue to impact landscape quality and ecosystem functionality.</li> <li>• Wilderness character in the central part of Assateague Island is degraded by former residences / hunting camps, access roads, invasive plants, and the use of over-sand vehicles.</li> <li>• Landscape conditions in the waters of central Chincoteague Bay (Maryland) are mostly unaffected by human activities or infrastructure.</li> <li>• Oyster watch houses and semipermanent hunting blinds are present in Chincoteague Bay and adjacent marshes.</li> <li>• Recreational infrastructure, including the artificially stabilized dunes, alters the natural landscape and scenic features within the seashore's developed areas.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>• The overall trend is toward more natural landscape conditions as the effects of former development activity fade and/or are mitigated.</li> <li>• Hundreds of acres of estuarine wetlands have been restored in Maryland by reclaiming mosquito control ditches.</li> </ul>
Threats and Opportunities	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Commercial aquaculture operations that may adversely impact water quality and wilderness character. Derelict gear presents a safety/navigation hazard.</li> <li>• Expansion of aquaculture activities in Maryland waters.</li> <li>• Unauthorized over-sand vehicle use that impacts resources.</li> <li>• Offshore energy development and infrastructure.</li> <li>• Marine debris.</li> <li>• Air pollution-caused haze that sometimes diminishes scenic views, although visibility is improving. Average natural visual range is reduced from about 110 miles (without the effects of pollution) to about 50 miles because of pollution at the park. The visual range is reduced to below 25 miles on high pollution days. Visual range is reduced further under high relative humidity conditions and fog or weather events. At night, air pollution scatters artificial lights, increasing the effect of light pollution on the night sky.</li> </ul>
Threats and Opportunities	<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Multiple opportunities exist to continue restoration efforts and build resilience within natural coastal environments.</li> </ul>

Fundamental Resource or Value	Natural Coastal Environment
<b>Existing Data and Plans Related to the FRV</b>	<ul style="list-style-type: none"> <li>• LiDAR elevation data.</li> <li>• Aerial photography.</li> <li>• Natural resource condition assessment report.</li> <li>• Comprehensive conservation and management plan for Maryland's coastal bays.</li> <li>• Ongoing regional air quality monitoring providing updated visibility conditions.</li> </ul>
<b>Data and/or GIS Needs</b>	<ul style="list-style-type: none"> <li>• Wilderness character monitoring.</li> <li>• Assessment of eligibility – wilderness study.</li> <li>• Visual resource inventory.</li> </ul>
<b>Planning Needs</b>	<ul style="list-style-type: none"> <li>• Resource stewardship strategy.</li> </ul>
<b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Clean Water Act of 1972</li> <li>• Clean Air Act of 1977</li> <li>• Coastal Zone Management Act</li> <li>• Endangered Species Act of 1973, as amended</li> <li>• Migratory Bird Treaty Act</li> <li>• Executive Order 13112, "Invasive Species"</li> <li>• Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS <i>Management Policies 2006</i> (§1.4.6) "What Constitutes Park Resources and Values"</li> <li>• NPS <i>Management Policies 2006</i> (§1.6) "Cooperative Conservation Beyond Park Boundaries"</li> <li>• NPS <i>Management Policies 2006</i> (§4.7) "Air Resource Management"</li> <li>• NPS <i>Management Policies 2006</i> (§4.8.1.1) "Shorelines and Barrier Islands"</li> <li>• NPS <i>Management Policies 2006</i> (§4.9) "Soundscape Management"</li> <li>• NPS <i>Management Policies 2006</i> (§4.10) "Lightscape Management"</li> <li>• NPS <i>Natural Resource Management Reference Manual 77</i></li> <li>• Director's Policy Memorandum 12-02, "Applying National Park Service Management Policies in the Context of Climate Change"</li> </ul>





Fundamental Resource or Value	Visitor Experiences at the Seashore
Related Significance Statements	<ul style="list-style-type: none"> <li>Amidst the highly developed Mid-Atlantic region, the seashore's coastal resources provide unique opportunities for nature-based recreation, education, solitude, and inspiration.</li> </ul>
Current Conditions and Trends	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>Approximately 48,000 acres of land and water resources are potentially available for recreational activities within the national seashore. Activities include swimming, boating (motorized and nonmotorized), hiking, camping, wildlife viewing, fishing, hunting, group gatherings, health-related activities, surf-related activities, beach driving, kite flying and boarding, touring, crabbing, clamming, art-related activities, pet-related activities, and more.</li> <li>New recreational pursuits such as geocaching, kite board surfing, and fishing tournaments are creating new opportunities and management challenges.</li> <li>With increasing demands for recreational opportunities comes escalating commercial interest in access to park facilities and visitor dollars.</li> <li>Intense use in specific areas of the seashore (Bayside Peninsula, Ferry Landing, the north end, and South Ocean Beach) can generate user conflicts, resource issues, and degraded visitor experiences due to overcrowding, health issues, and noise.</li> <li>Some recreational experiences preserve connections to traditional lifestyles but may be at odds with changing national values.</li> <li>Cycling is now perceived as more than a healthy means for enjoying the park but also as a form of alternative transportation that should be encouraged but requires appropriate and safe routes.</li> <li>Recreational fishing, crabbing, and shellfishing seem to have increased in popularity; however, there is a deficiency of information regarding how these activities impact resources and the visitor experience.</li> <li>Differences between state regulations, as well as commercial and jurisdictional issues (e.g., game species, threatened and endangered species) are sometimes hard to decipher.</li> <li>The national seashore seeks to provide a range of resource-compatible recreational opportunities, to increase awareness of and access to activities, and to address competing demands and interests while also managing cultural and natural resources in a manner that considers the environment in its totality and as designated by law.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>Public demand is increasing for recreational access of all types, which, in some cases, may not be compatible with the park purpose or resource protection mission.</li> <li>Family-friendly guided and personal exploration activities are increasing as part of the children and nature movement.</li> <li>Adventure tourism is on the rise, enabling visitors to have more immersive experiences with the seashore leading to tangible experiences (camping, kayaking) and intangible psychological experiences (stewardship, self-esteem). These same opportunities can also challenge management to assess safety, enforcement, and resource issues.</li> </ul>
Threats and Opportunities	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>Changing environmental conditions that threaten the sustainability of some traditional visitor use access and infrastructure.</li> <li>Conflicts between recreational uses and resource preservation.</li> <li>Ground-level ozone at levels that can make breathing difficult for sensitive groups including children, the elderly, people with existing health problems, and active adults.</li> <li>Chemical contaminant-related fish consumption advisories for fish caught in park waters.</li> </ul>

Fundamental Resource or Value	Visitor Experiences at the Seashore
<b>Threats and Opportunities</b>	<b>Opportunities</b> <ul style="list-style-type: none"> <li>• New points of access for future recreational use.</li> <li>• Alternative transportation systems to support high-density use in the developed areas.</li> <li>• Low-impact, low-density backcountry use.</li> <li>• Locations and types of sustainable infrastructure to support visitor services.</li> <li>• Interpretation and education programs to promote resource stewardship, share seashore stories, and provide experiences that enhance the visitor's connection and relevance to the park.</li> <li>• Increased collaboration with Assateague State Park.</li> <li>• Increased collaboration with Assateague Island Alliance for outreach and education.</li> <li>• Expand public education/outreach on the connections between changing environmental conditions, air and water quality, sensitive park resources, wilderness character, night sky, scenery, recreation, human health, and other associated resources.</li> <li>• Provide fish consumption advisory information to anglers.</li> </ul>
<b>Existing Data and Plans Related to the FRV</b>	<ul style="list-style-type: none"> <li>• Basic GIS data for most visitor use facilities (e.g., buildings, campgrounds, roads, trails).</li> <li>• Fish consumption advisories for Maryland and Virginia.</li> <li>• Ongoing regional air quality monitoring providing updated ozone conditions.</li> </ul>
<b>Data and/or GIS Needs</b>	<ul style="list-style-type: none"> <li>• Visitor use study.</li> <li>• Visitor impacts and visitor capacity for seashore natural resources.</li> </ul>
<b>Planning Needs</b>	<ul style="list-style-type: none"> <li>• Long-range interpretive plan.</li> <li>• Strategic plan for operations.</li> <li>• Water-based visitor access and seashore operations plan.</li> <li>• Commercial services plan.</li> <li>• Mainland parking shuttle service plan.</li> <li>• Mainland campground master plan.</li> <li>• Seashore headquarters complex development plan.</li> <li>• Maryland entrance station relocation plan.</li> <li>• Wayfinding sign plan.</li> <li>• Wayside exhibit plan.</li> <li>• Land management plan / boundary study for relocation of visitor facilities to the mainland.</li> <li>• Backcountry water access plan.</li> <li>• Mainland water access plan.</li> <li>• Visitor services strategy for sea-level rise in Maryland district.</li> </ul>
<b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b>	<b>Laws, Executive Orders, and Regulations That Apply to the FRV</b> <ul style="list-style-type: none"> <li>• Americans with Disabilities Act of 1990</li> <li>• Architectural Barriers Act of 1968</li> <li>• "Accessibility Guidelines" (36 CFR 1191.1)</li> <li>• Clean Air Act of 1977</li> <li>• National Park Service Concessions Management Improvement Act of 1998</li> <li>• Rehabilitation Act of 1973</li> </ul>

Fundamental Resource or Value	Visitor Experiences at the Seashore
<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b></p>	<p><b>NPS Policy-level Guidance (<i>NPS Management Policies 2006</i> and <i>Director's Orders</i>)</b></p> <ul style="list-style-type: none"> <li>• <i>NPS Management Policies 2006</i> (§4.1.4) "Partnerships"</li> <li>• <i>NPS Management Policies 2006</i> (chapter 7) "Interpretation and Education"</li> <li>• <i>NPS Management Policies 2006</i> (chapter 8) "Use of the Parks"</li> <li>• <i>NPS Management Policies 2006</i> (chapter 9) "Park Facilities"</li> <li>• <i>NPS Management Policies 2006</i> (chapter 10) "Commercial Visitor Services"</li> <li>• <i>Director's Order 6: Interpretation and Education</i></li> <li>• <i>Director's Order 42: Accessibility for Visitors with Disabilities in National Park Service Programs and Services</i></li> <li>• <i>NPS Transportation Planning</i> Guidebook</li> <li>• <i>Director's Policy Memorandum 15-01, "Addressing Climate Change and Natural Hazards for Facilities"</i></li> </ul>





## Analysis of Other Important Resources and Values

Other Important Resource or Value	Horses
<b>Current Conditions and Trends</b>	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>The current population size of approximately 87 horses is the product of intensive efforts to control herd growth through the use of contraceptives. The National Park Service has contracepted the majority of the female population on an annual basis since 1994.</li> <li>The seashore has achieved the desired herd size (80 to 100 horses) to reduce the environmental impacts caused by overgrazing.</li> <li>The extended use of contraceptives at the intensity needed to reduce the size of the herd has altered the age structure of the population, reduced its reproductive capacity, and potentially increased the risks from demographic and genetic factors.</li> <li>The horses' curious nature and the propensity for people to crave close contact through petting or feeding have resulted in many horses becoming habituated to the presence of people.</li> <li>Most human-horse interactions involve human food. The extent to which a horse becomes habituated to humans influences its behavior and the potential for negative consequences for both people and horses.</li> <li>Visitors are regularly kicked and bitten by horses that have become habituated to people and lost their natural wariness.</li> <li>Horses are regularly injured or killed along park roads due to begging behaviors encouraged by visitors who hand-feed them from vehicles.</li> <li>Feeding and petting create "pony jams" along roadways and obstruct travel during peak visitation.</li> <li>Lax food storage in the campgrounds results in destruction of property as horses tear through tents and screens to get at food not normally part of their diet.</li> <li>Most human-horse problems occur during the summer months when as much as two-thirds of the horse population sometimes moves into the developed areas at the same time visitation is highest.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>The seashore has increased visitor education efforts regarding food storage and horse safety.</li> </ul>
<b>Threats and Opportunities</b>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>Potential mortality from major storms or disease (Eastern equine encephalitis, West Nile virus).</li> <li>Loss of "wildness" resulting from inappropriate interactions with the visiting public.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Increased collaboration with Assateague State Park and Assateague Island Alliance for outreach, education, and enhanced enforcement.</li> </ul>
<b>Existing Data and Plans Related to the OIRV</b>	<ul style="list-style-type: none"> <li>Environmental Assessment of Alternatives for Managing the Feral Horses of Assateague Island National Seashore and associated Finding of No Significant Impact.</li> <li>Feral horse population and habitat viability assessment.</li> <li>Feral horse abundance and distribution.</li> <li>Natural resource condition assessment report.</li> </ul>
<b>Data and/or GIS Needs</b>	<ul style="list-style-type: none"> <li>Horse genetic assessment/analysis of new animals to the herd.</li> </ul>
<b>Planning Needs</b>	<ul style="list-style-type: none"> <li>None identified.</li> </ul>

Other Important Resource or Value	Horses
<p><b>Laws, Executive Orders, and Regulations That Apply to the OIRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the OIRV</b></p> <ul style="list-style-type: none"> <li>• None identified</li> </ul> <p><b>NPS Policy-level Guidance (NPS <i>Management Policies</i> 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS <i>Management Policies</i> 2006 (§4.1) "General Management Concepts"</li> <li>• NPS <i>Management Policies</i> 2006 (§4.4.1) "General Principles for Managing Biological Resources"</li> <li>• NPS <i>Management Policies</i> 2006 (§4.4.4) "Management of Exotic Species"</li> <li>• NPS <i>Natural Resource Management Reference Manual</i> 77</li> </ul>



Other Important Resource or Value	Cultural Resources
Current Conditions and Trends	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• The Assateague Coast Guard Station structures in Virginia are in fair to poor condition as a result of the harsh environmental conditions and lack of preservation treatment. The boat house pilings, wharf, and breakwater have received the most recent treatment.</li> <li>• The seashore contains 11 former residences and hunting lodges dating from the early to mid-20th century. Green Run Lodge is the only site determined eligible for inclusion in the National Register of Historic Places.</li> <li>• Due to their physical locations, both the Assateague Coast Guard Station and Green Run Lodge are highly susceptible to coastal storm impacts.</li> <li>• Terrestrial archeological sites are primarily related to historic operations of the U.S. Life-Saving Service and small residential and commercial developments dating from the late 19th and mid-20th centuries. Sites include the North Beach, Pope Island, and Green Run Life-Saving Stations, the Birch salt works, Green Run Village and cemetery, and Scott's Ocean House Hotel. None are eligible for the National Register of Historic Places.</li> <li>• An archeological overview and assessment of the terrestrial portions of the seashore has not yet been conducted.</li> <li>• The remains of shipwrecks have been identified in the shallow waters adjacent to the island, as well as along Assateague Island itself. Major storms periodically uncover the remains of ships, as evidenced by fragments found on ocean beaches.</li> <li>• The presence or absence of prehistoric archeological sites has not been investigated. Occasional discoveries of aboriginal projectile points and other artifacts constitute the only physical evidence of American Indian use of the island.</li> <li>• The seashore's museum collection contains 1,437 items, mostly natural history objects including a herbarium with specimens of 217 different plants. Other objects include materials related to historic U.S. Life-Saving Service and Coast Guard operations, historic and prehistoric archeological artifacts, and paleontological specimens. Nearly all of the objects are in good condition.</li> <li>• Of particular note is a collection of artifacts on loan from the government of Spain purported to have been from the La Galga, a Spanish warship that wrecked on Assateague Island in the 18th century.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>• Seashore resource management records and archives collection continues to expand.</li> <li>• There is a lack of staff to address overall cultural resource management needs.</li> </ul>
Threats and Opportunities	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Changing environmental conditions including increasing rates of sea level rise that will probably accelerate island dynamics and threaten the Assateague Coast Guard Station, Green Run Lodge, and other archeological resources, both known and unknown.</li> <li>• Natural processes that degrade historic structures and archeological resources.</li> <li>• Looting and exploitation of historic shipwrecks.</li> <li>• Unauthorized collection of artifacts.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Data documentation and/or artifact recovery before sites are lost forever due to erosion or other imminent threats.</li> <li>• Adaptive re-use/relocation of some resources.</li> <li>• Additional ethnographic research to understand the history of traditional activities and associations between people and island resources.</li> </ul>



Other Important Resource or Value	Cultural Resources
Existing Data and Plans Related to the OIRV	<ul style="list-style-type: none"> <li>• Basic GIS data on building footprints and first floor elevations.</li> <li>• Shipwreck locations.</li> <li>• Ethnographic overview and assessment.</li> <li>• Scope of collections statement.</li> </ul>
Data and/or GIS Needs	<ul style="list-style-type: none"> <li>• Museum collection condition survey.</li> </ul>
Planning Needs	<ul style="list-style-type: none"> <li>• Resource stewardship strategy.</li> <li>• Museum collection management plan.</li> <li>• Museum collection integrated pest management / housekeeping plan.</li> <li>• Museum emergency operation plan.</li> <li>• Exhibit plan for historic U.S. Life-Saving Service boathouse.</li> </ul>
Laws, Executive Orders, and Regulations That Apply to the OIRV, and NPS Policy-level Guidance	<p><b>Laws, Executive Orders, and Regulations That Apply to the OIRV</b></p> <ul style="list-style-type: none"> <li>• Americans with Disabilities Act of 1990</li> <li>• Archeological and Historic Preservation Act of 1974</li> <li>• Archaeological Resources Protection Act of 1979</li> <li>• Architectural Barriers Act of 1968</li> <li>• “Accessibility Guidelines” (36 CFR 1191.1)</li> <li>• Museum Properties Management Act of 1955, as amended</li> <li>• National Historic Preservation Act of 1966, as amended</li> <li>• Executive Order 11593, “Protection and Enhancement of the Cultural Environment”</li> <li>• “Curation of Federally-Owned and Administered Archaeological Collections” (36 CFR 79)</li> <li>• “Protection of Historic Properties” (36 CFR 800)</li> <li>• Secretarial Order 3289, “Addressing the Impacts of Climate Change on America’s Water, Land, and Other Natural and Cultural Resources”</li> </ul> <p><b>NPS Policy-level Guidance (NPS <i>Management Policies 2006</i> and Director’s Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS <i>Management Policies 2006</i> (chapter 5) “Cultural Resource Management”</li> <li>• NPS <i>Management Policies 2006</i> (chapter 7) “Interpretation and Education”</li> <li>• NPS <i>Management Policies 2006</i> (§8.10) “Natural and Cultural Studies, Research, and Collection Activities”</li> <li>• Director’s Order 6: <i>Interpretation and Education</i></li> <li>• Director’s Order 24: <i>NPS Museum Collections Management</i></li> <li>• Director’s Order 28: <i>Cultural Resource Management</i></li> <li>• Director’s Order 28A: <i>Archeology</i></li> <li>• Director’s Order 42: <i>Accessibility for Visitors with Disabilities in National Park Service Programs and Services</i></li> <li>• NPS <i>Museum Handbook</i>, parts I, II, and III</li> <li>• <i>The Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation</i></li> <li>• <i>The Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes</i></li> <li>• Director’s Policy Memorandum 12-02, “Applying National Park Service Management Policies in the Context of Climate Change”</li> <li>• Director’s Policy Memorandum 14-02, “Climate Change and Stewardship of Cultural Resources”</li> </ul>

## Identification of Key Issues and Associated Planning and Data Needs

This section considers key issues to be addressed in planning and management and therefore takes a broader view over the primary focus of part 1. A key issue focuses on a question that is important for a park. Key issues often raise questions regarding park purpose and significance and fundamental and other important resources and values. For example, a key issue may pertain to the potential for a fundamental or other important resource or value in a park to be detrimentally affected by discretionary management decisions. A key issue may also address crucial questions that are not directly related to purpose and significance, but that still affect them indirectly. Usually, a key issue is one that a future planning effort or data collection needs to address and requires a decision by NPS managers.

The following are key issues for Assateague Island National Seashore and the associated planning and data needs to address them:

- **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, although lasting only a few days, can dramatically alter the physical characteristics of the island and bay. As the change in environmental conditions intensifies, the rate of sea level rise and the intensity of coastal storms will probably increase and the rate and magnitude of island changes accelerate.
  - *Associated planning and data needs:* Breach management plan, strategic plan for operations, Bayside submerged habitat mapping, additional water level monitoring stations, sediment budgets for the Ocean City and Chincoteague Inlets (update), land management plan / boundary study for relocation of visitor facilities to the mainland, visitor services strategy for sea-level rise in Maryland district, resource stewardship strategy, terrestrial habitat and forest health monitoring data, LiDAR data collection, marine water quality assessment, groundwater quality and dynamics data, landscape change monitoring using high resolution satellite data, geomorphology monitoring (topographic profiles, shoreline position), land motion (subsidence) survey, high-resolution bathymetric data for Sinepuxent and Chincoteague Bays, vegetation map (update)
- **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.
  - *Associated planning and data needs:* Long-range interpretive plan, water-based visitor access and seashore operations plan, commercial services plan, strategic plan for operations, land management plan / boundary study for relocation of visitor facilities to the mainland, mainland parking shuttle service plan, mainland campground master plan, backcountry water access plan, mainland water access plan, visitor services strategy for sea-level rise in Maryland district

- **Partnerships.** Three government agencies manage Assateague Island: the Maryland Department of Natural Resources, the U.S. Fish and Wildlife Service, and the National Park Service. 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 National Park Service better protect resources, enhance the visitor experience, increase operational efficiencies, expand youth outreach programs, and reach additional underserved audiences.
  - *Associated planning and data needs:* Partnership action strategy
- **Wilderness.** The Assateague Island wilderness study (National Park Service and U.S. Fish and Wildlife Service 1974) and subsequent study revisions determined that 5,200 acres qualified for federal wilderness designation pursuant to the Wilderness Act. Based on 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 nonconforming 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 general management plan 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 National Park Service is recommending that a new, updated assessment of eligibility and wilderness study be undertaken.
  - *Associated planning and data needs:* Assessment of eligibility - wilderness study, wilderness character monitoring
- **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 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 in 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 underused due to problems with access. Other issues include the backlog of archival materials needing assessment, cataloging, and conservation and the absence of archeological survey data for most of the island.
  - *Associated planning and data needs:* Museum collection management plan, museum collection condition survey, museum collection integrated pest management / housekeeping plan, museum emergency operation plan, terrestrial archeological surveys, exhibit plan for historic U.S. Life-Saving Service boathouse, archeological overview and assessment, resource stewardship strategy

## Planning and Data Needs

To maintain connection to the core elements of the foundation and the importance of these core foundation elements, the planning and data needs listed here are directly related to protecting fundamental resources and values, park significance, and park purpose, as well as addressing key issues. To successfully undertake a planning effort, information from sources such as inventories, studies, research activities, and analyses may be required to provide adequate knowledge of park resources and visitor information. Such information sources have been identified as data needs. Geospatial mapping tasks and products are included in data needs.

Items considered of the utmost importance were identified as high priority, and other items identified, but not rising to the level of high priority, were listed as either medium- or low-priority needs. These priorities inform park management efforts to secure funding and support for planning projects.



Planning Needs – Where A Decision-Making Process Is Needed			
Related to an FRV, OIRV, or Key Issue?	Planning Needs	Priority (H, M, L)	Notes
FRV, Key Issue	Strategic plan for operations	H	This plan would identify and prioritize actions needed to position seashore to respond to coastal processes and the effects of changing environmental conditions / sea level rise. It also would address major new investments and seashore operational and facility changes such as providing water-based visitor access and seashore operations, developing new facilities on the mainland in collaboration with the Maryland Department of Natural Resources, Worcester County, and other partners, and maintaining operations until such time as relocation of the recreational beach occurs, in partnership with the U.S. Fish and Wildlife Service, the town of Chincoteague, Accomack County, and other partners.
FRV, Key Issue	Breach management plan	H	This plan would guide the NPS response to future breaches, specifying conditions under which the bureau would allow breaches to remain open or would allow breach closures. It would reflect existing NPS policy for shorelines and barrier islands in section 4.8.1.1 of <i>NPS Management Policies 2006</i> . It also would include actions to be taken in the event that access to some or all of the over-sand vehicle use area is lost, including modification to existing regulations in 36 CFR 7.65(b), as needed, regarding travel by over-sand vehicle between Assateague State Park and the Ocean City Inlet.
OIRV, Key Issue	Museum collection management plan	H	This plan would provide necessary guidance to address issues of preserving, protecting, storing, documenting, accessing, and using the seashore's museum and archival collections.
N/A	Staff housing plan (Virginia)	H	In collaboration with the U.S. Fish and Wildlife Service, a master plan would be developed for new NPS housing at the Chincoteague National Wildlife Refuge Virginia maintenance facility and include design guidance for new housing units to be added.
FRV, Key Issue	Land management plan / boundary study for relocation of visitor facilities to the mainland	H	This plan would evaluate new sites both within the park and on the mainland for relocation of park assets into areas less likely to be affected by sea level rise and changing environmental conditions.
FRV, Key Issue	Water-based visitor access and seashore operations plan	M	This plan would describe in detail operational considerations and capital investments needed to provide water-based visitor access and to support seashore operations, including types and levels of activities, services, and facilities to be provided by commercial service providers and how they would be managed by the National Park Service in the most effective and efficient manner.
FRV, Key Issue	Commercial services plan	M	This plan would describe in detail types and levels of activities, services, and facilities to be provided by commercial service providers and how the National Park Service would manage them in the most effective and efficient manner.

Planning Needs – Where A Decision-Making Process Is Needed			
Related to an FRV, OIRV, or Key Issue?	Planning Needs	Priority (H, M, L)	Notes
FRV, Key Issue	Long-range interpretive plan	M	This plan would provide a vision for future interpretation and education for 5–10 years, including interpretive themes, goals for programs and services, issues affecting interpretation, desired visitor experiences, visitor profiles, and future interpretive programs (personal services, nonpersonal services, partnerships, library and collection needs, staffing needs, interpretive program costs, and implementation plan).
FRV, Key Issue	Mainland parking shuttle service plan	M	In collaboration with the Maryland Department of Natural Resources and Maryland State Highway Administration, a detailed service plan and design guidance would be developed for a mainland-based parking shuttle, including identification of commercial service providers and how they would be managed by the National Park Service in the most effective and efficient manner.
FRV	Seashore headquarters complex development plan	M	In collaboration with the Maryland Department of Natural Resources, a master plan and design guidance would be developed for a new seashore headquarters complex.
FRV, Key Issue	Mainland campground master plan	M	In collaboration with the Maryland Department of Natural Resources, a master plan and design guidance would be developed for a new mainland campground.
FRV, Key Issue	Backcountry water access plan	M	This plan would include design guidance for development of three new backcountry water access points.
FRV, Key Issue	Mainland water access plan	M	In collaboration with Worcester County and other partners, this plan would include design guidance for development of two new mainland points of departure and restoration of adjoining waterfront land
OIRV, Key Issue	Museum collection integrated pest management / housekeeping plan	M	This plan would provide technical guidance for preserving park collections.
OIRV, Key Issue	Museum emergency operation plan	M	This plan would provide guidance for emergency protection and/or relocation for preserving park collections.
FRV, Key Issue	Visitor services strategy for sea-level rise in Maryland district	M	This strategy would guide implementation of a wide-ranging group of responses to changing environmental conditions consistent with the park's new general management plan.
FRV, OIRV, Key Issue	Resource stewardship strategy	M	This strategy would provide a framework for future natural and cultural resource management and monitoring activities for the seashore, including goals for programs and services, priority emphasis areas, a summary of issues affecting park resources, desired future conditions, and future program areas.

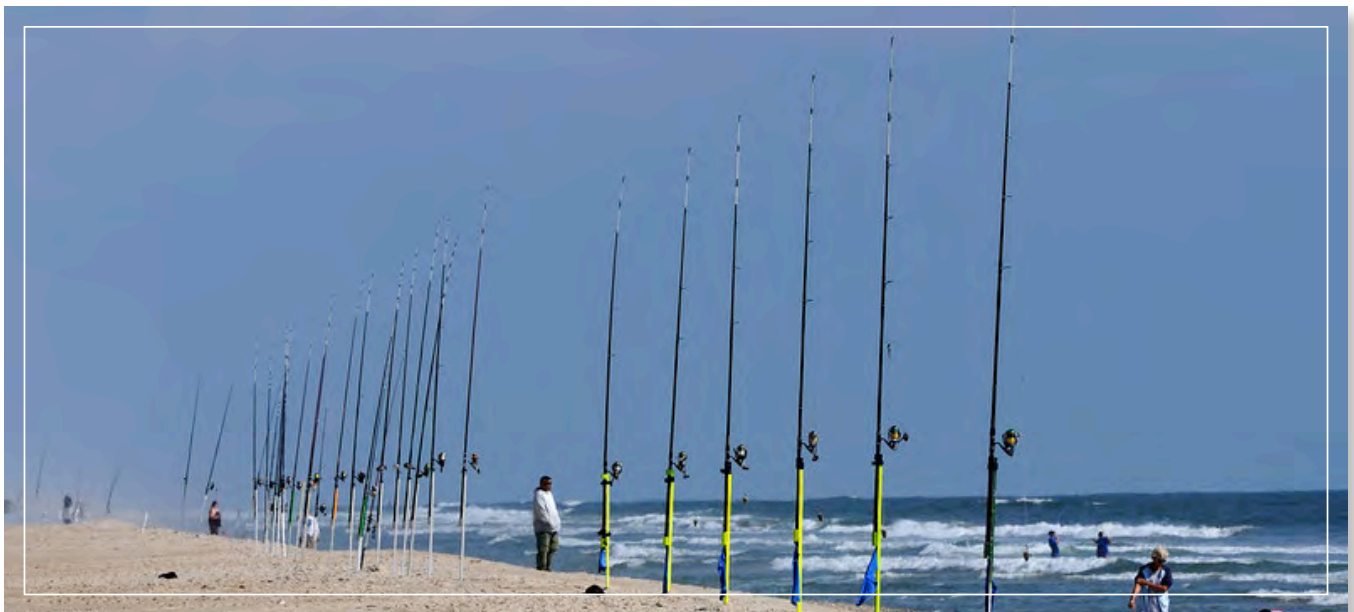
Planning Needs – Where A Decision-Making Process Is Needed			
Related to an FRV, OIRV, or Key Issue?	Planning Needs	Priority (H, M, L)	Notes
FRV	Sika deer management plan	M	This plan would develop a strategy for managing the sika deer population and reducing significant impacts on native vegetation communities.
FRV	Invasive plant management plan	M	This plan would provide guidance and prioritization for controlling existing plant infestations.
Key Issue	Partnership action strategy	M	Additional opportunities exist for partnerships that would help the National Park Service better protect resources, enhance visitor experience, increase operational efficiencies, expand youth outreach programs, and reach underserved audiences. The strategy would identify and define existing partnerships and explore opportunities for new partnerships to fill in gaps, expand resource stewardship or educational programs, and enhance visitor experience.
FRV	Marine resources management plan	L	This plan would provide better information on recreational and commercial fishing and visitor use of marine resources.
FRV, Key Issue	Maryland visitor center shoreline stabilization plan	L	This plan would provide design guidance for stabilization of the shoreline in the vicinity of the NPS visitor center on the Maryland mainland.
FRV, Key Issue	Green Run Lodge shoreline stabilization plan	L	This plan would provide design guidance for reconstructing the dock at Green Run Lodge as one of three new backcountry bayside accesses.
FRV	Maryland entrance station relocation plan	L	In collaboration with the Maryland Department of Natural Resources and Maryland State Highway Administration, a master plan and design guidance would be developed for relocating the Maryland entrance station to the mainland.
FRV	Wayfinding sign plan	L	This plan would provide guidance for consistent and effective directional and informational signage parkwide.
OIRV, Key Issue	Exhibit plan for historic U.S. Life-Saving Service boathouse	L	This plan would create a historic site exhibit plan for the U.S. Life-Saving Station boathouse.
FRV	Wayside exhibit plan	L	This plan would provide guidance for development and placement of new interpretive and thematic exhibits.
FRV	Sea turtle management plan	L	In collaboration with U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration, and Maryland Department of Natural Resources, a plan would be developed to guide management actions to document and protect threatened and endangered species.



Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV, OIRV, or Key Issue?	Data and GIS Needs	Priority (H, M, L)	Notes
OIRV, Key Issue	Museum collection condition survey	H	This survey would assess condition of current collection and recommend conservation treatment as appropriate.
FRV, Key Issue	Terrestrial habitat and forest health monitoring data	H	These data would characterize existing conditions and provide a baseline for monitoring future effects associated with changing environmental conditions.
FRV, Key Issue	LiDAR data collection	H	This effort would provide accurate elevation data to monitor future effects associated with changing environmental conditions.
FRV, Key Issue	Marine water quality assessment	H	This assessment would characterize existing conditions and provide a baseline for monitoring future effects associated with changing environmental conditions.
FRV, Key Issue	Groundwater quality and dynamics data	H	Data would characterize existing conditions and provide a baseline for monitoring future effects associated with changing environmental conditions.
FRV, Key Issue	Sediment budgets for the Ocean City and Chincoteague Inlets (update)	H	Data would characterize existing conditions and inform future shoreline management actions within and adjacent to the seashore.
FRV	Assessment of commercial and recreational fishing	H	This assessment would characterize the types, impacts, and economic value of commercial fishing within the Assateague Island National Seashore boundary.
FRV, Key Issue	Assessment of eligibility – wilderness study	M	This study would assess eligibility and prepare a wilderness study that considers the wilderness boundary in the context of new assessment of acreage, changing environmental conditions, sea level rise and erosion, as well as specific shoreline management activities (e.g., breach management). It also would address the boundary relative to the over-sand vehicle corridor and access corridors required for administrative use.
Key Issue	Archeological overview and assessment	M	This inventory of previously identified archeological sites would provide a template for their management and protection and serve as guidance for the management of any sites identified in the future.
FRV, Key Issue	Landscape change monitoring using high resolution satellite data	M	These data would characterize existing conditions and provide a baseline for monitoring future effects associated with changing environmental conditions.
FRV	Expand enteric bacteria monitoring	M	Expanded monitoring of enteric bacteria would provide public health information for areas where recreational use is increasing (Bayside Peninsula).

Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV, OIRV, or Key Issue?	Data and GIS Needs	Priority (H, M, L)	Notes
FRV, Key Issue	Geomorphology monitoring (topographic profiles, shoreline position)	M	Monitoring of topographic profiles and shoreline position would help characterize existing conditions and provide a baseline for monitoring future effects associated with changing environmental conditions.
FRV, Key Issue	Additional water level monitoring stations	M	Additional water level monitoring stations would provide critical information needed to accurately project rates of sea level rise.
FRV, Key Issue	Land motion (subsidence) survey	M	This survey would provide critical information needed to accurately project rates of sea level rise.
FRV, Key Issue	High-resolution bathymetric data for Sinepuxent and Chincoteague Bays	M	These data would characterize existing conditions and provide a baseline for monitoring future effects associated with changing environmental conditions.
FRV	Assess feasibility of oyster restoration	M	This assessment would characterize existing conditions and inform future restoration strategies.
Key Issue	Terrestrial archeological surveys	M	Additional archeological surveys are needed to identify potential sensitive archeological sites.
FRV	Species distribution and habitat use for species of special concern (update)	L	These data would inform the need to undertake management and/or monitoring actions.
FRV, Key Issue	Vegetation map (update)	L	This effort would characterize existing conditions and provide a baseline for monitoring future effects associated with changing environmental conditions.
FRV	Nutrient pathway modeling	L	This effort would enhance the understanding of ecological processes and guide potential actions to protect water quality.
FRV	Marine invasive species inventory	L	This inventory would characterize existing conditions and inform future management/monitoring actions.
FRV, Key Issue	Wilderness character monitoring	L	This monitoring would provide updated information for the suite of measures selected to actively monitor wilderness character within the proposed Assateague Island Wilderness.

Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV, OIRV, or Key Issue?	Data and GIS Needs	Priority (H, M, L)	Notes
FRV	Visitor impacts and visitor capacity for seashore natural resources	L	These data would characterize existing conditions and inform future visitor use management strategies.
FRV	Visitor use study	L	
OIRV	Horse genetic assessment/ analysis of new animals to the herd	L	This assessment of the condition of the horse population would inform management actions.
FRV	Air pollution studies	L	These studies would examine air pollution dose-response relationships in sensitive park ecosystems, including surveying for ozone-sensitive plant foliar injury and monitoring for toxic contaminants in park biota (dragonflies, amphibians, fish, birds).
FRV	Ocean chemistry monitoring	L	
FRV	Bayside submerged habitat mapping	L	
FRV	Salt marsh water level monitoring	L	
FRV	Visual resource inventory	L	This inventory would identify the scenic quality and NPS visual values of important views and serve as a baseline from which to work with the offshore energy developers and other threats to scenic views in support of wilderness character, the natural coastal environment, and visitor experience.





## Part 3: Contributors

### Assateague Island National Seashore

Scott Bentley, Superintendent (former)  
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# Appendixes

## Appendix A: Enabling Legislation and Subsequent Amendments for Assateague Island National Seashore

### Enabling Legislation as Amended

United States Code, Title 16, Chapter 1, Subchapter LXIII, § 459f

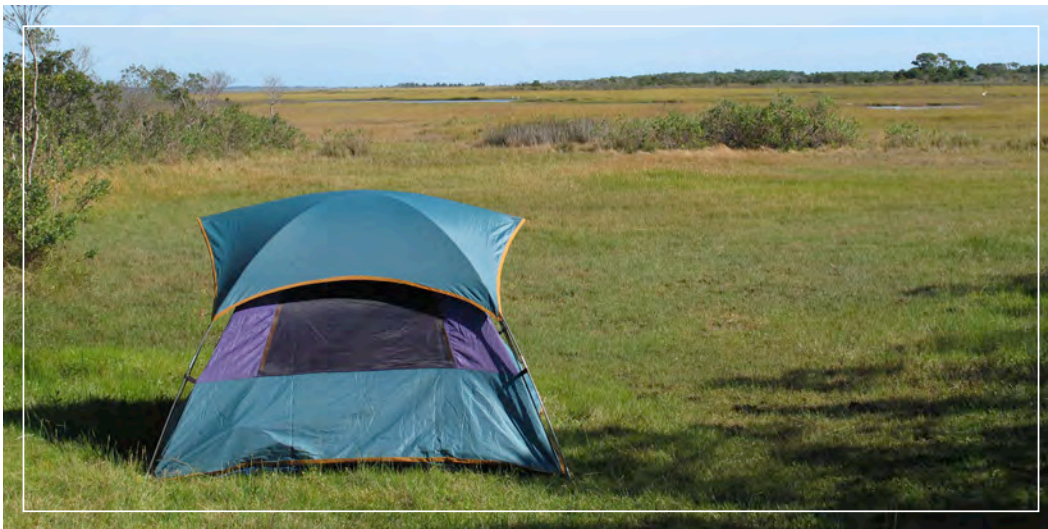
§ 459f. Assateague Island National Seashore; purposes; description of area

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, the Assateague Island National Seashore (hereinafter referred to as the “seashore”) shall be established and administered in accordance with the provisions of sections 459f to 459f–11 of this title. The seashore shall comprise the area within Assateague Island and the small marsh islands adjacent thereto, together with the adjacent water areas not more than one-half mile beyond the mean high waterline of the land portions as generally depicted on a map identified as “Proposed Assateague Island National Seashore, Boundary Map, NS–AI–7100A, November, 1964”, which map shall be on file and available for public inspection in the offices of the Department of the Interior.

§ 459f–1. Acquisition of property

**(a) Authority of Secretary; manner and place; fair market value; concurrence of State owner; transfer from Federal agency to administrative jurisdiction of Secretary**

Within the boundaries of the seashore, the Secretary of the Interior (hereinafter referred to as the “Secretary”) is authorized to acquire lands, waters, and other property, or any interest therein, by donation, purchase with donated or appropriated funds, exchange, or in such other method as he may find to be in the public interest. The Secretary is authorized to include within the boundaries of the seashore, not to exceed 112 acres of land or interests therein on the mainland in Worcester County, Maryland. In the case of acquisition by negotiated purchase, the property owners shall be paid the fair market value by the Secretary. Any property or interests therein owned by the States of Maryland or Virginia shall be acquired only with the concurrence of such owner. Notwithstanding any other provision of law, any Federal property located within the boundaries of the seashore may, with the concurrence of the agency having custody thereof, be transferred without consideration to the administrative jurisdiction of the Secretary for purposes of the seashore.



**(b) Exchange of property; cash equalization payments; scenic easement donation**

When acquiring lands by exchange, the Secretary may accept title to any non-Federal property within the boundaries of the seashore and convey to the grantor of such property any federally owned property under the jurisdiction of the Secretary which the Secretary classifies suitable for exchange or other disposal, and which is located in Maryland or Virginia. The properties so exchanged shall be approximately equal in fair market value, but the Secretary may accept cash from or pay cash to the grantor in order to equalize the values of the properties exchanged. Notwithstanding the acreage limitation set forth in sections 459f to 459f-11 of this title, the Secretary is authorized to accept the donation of a scenic easement covering the parcel of land adjacent to the seashore and known as the “Woodcock Property.”

**(c) Bridge acquisition; amount of compensation; payment terms and conditions**

The Secretary is authorized to acquire all of the right, title, or interest of the Chincoteague-Assateague Bridge and Beach Authority, a political subdivision of the State of Virginia, in the bridge constructed by such authority across the Assateague Channel, together with all lands or interests therein, roads, parking lots, buildings, or other real or personal property of such authority, and to compensate the authority in such amount as will permit it to meet its valid outstanding obligations at the time of such acquisition. Payments by the Secretary shall be on such terms and conditions as he shall consider to be in the public interest. Any of the aforesaid property outside the boundaries of the national seashore, upon acquisition by the Secretary, shall be subject to his administration for purposes of the seashore.

**(d) Owner’s reservation of right of use and occupancy for residential or hunting purposes for term of years; adjustment of compensation; rules and regulations for appearance of buildings; “improved property” defined**

Owners of improved property acquired by the Secretary may reserve for themselves and their successors or assigns a right of use and occupancy of the improved property for noncommercial residential purposes or for hunting purposes, as hereinafter provided, for a term that is not more than twenty-five years. In such cases, the Secretary shall pay to the owner of the property the fair market value thereof less the fair market value of the right retained by such owner: Provided, That such use and occupancy shall be subject to general rules and regulations established by the Secretary with respect to the outward appearance of any buildings on the lands involved. The term “improved property” as used in sections 459f to 459f-11 of this title shall mean

(1) any single-family residence the construction of which was begun before January 1, 1964, and such amount of land, not in excess of three acres, on which the building is situated as the Secretary considers reasonably necessary to the noncommercial residential use of the building, and

(2) any property fronting on the Chincoteague Bay or Sinepuxent Bay, including the offshore bay islands adjacent thereto, that is used chiefly for hunting and continues in such use: Provided, That the Secretary may exclude from improved properties any marsh, beach, or waters, together with so much of the land adjoining such marsh, beach, or waters as he deems necessary for public use or public access thereto.



#### § 459f-2. Compensation for bridge construction costs; acquisition of land for park purposes

##### **(a) Bridge construction costs; compensation of State; limitation of amount**

If the bridge from Sandy Point to Assateague Island is operated by the State of Maryland as a toll-free facility, the Secretary is authorized and directed to compensate said State in the amount of two-thirds of the cost of constructing the bridge, including the cost of bridge approaches, engineering, and all other related costs, but the total amount of such compensation shall be not more than \$1,000,000; and he is authorized to enter into agreements with the State of Maryland relating to the use and management of the bridge.

##### **(b) Acquisition or lease of Federal lands for State park purposes; terms and conditions; reversion upon noncompliance; consideration for lease; amount of payment for conveyance of title and improvements; limitation of reimbursement for beach protection**

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: Provided, 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-3. Establishment of Seashore; notice in Federal Register

When the Secretary determines that land, water areas, or interests therein within the area generally depicted on the map referred to in section 459f of this title are owned or have been acquired by the United States in sufficient quantities to provide an administrable unit, he shall declare the establishment of the Assateague Island National Seashore by publication of notice thereof in the Federal Register. Such notice shall contain a refined description or map of the boundaries of the seashore as the Secretary may find desirable, and the exterior boundaries shall encompass an area as nearly as practicable identical to the area described in section 459f of this title.

#### § 459f-4. Hunting and fishing provisions

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: Provided, 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: Provided further, 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. Administration of Seashore

##### **(a) Public outdoor recreation and enjoyment; utilization of other authorities**

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.

##### **(b) Refuge land and waters; application of national wildlife refuge provisions; public recreation uses in accordance with provisions for national conservation recreational areas**

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.].

##### **(c) Cooperative agreements 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.

§ 459f-6. Repealed. Pub. L. 94-578, title III, § 301, Oct. 21, 1976, 90 Stat. 2733

Section, Pub. L. 89-195, § 7, Sept. 21, 1965, 79 Stat. 826, made provision for the construction of overnight and other public accommodation facilities, land selection and land fill, concession facilities, and the promulgation of rules and regulations covering those areas by the Secretary of the Interior. See section 459f-11 of this title.

#### § 459f-7. Beach erosion control and hurricane 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-8. Repealed. Pub. L. 94-578, title III, § 301, Oct. 21, 1976, 90 Stat. 2733

Section, Pub. L. 89-195, § 9, Sept. 21, 1965, 79 Stat. 827, authorized and directed the Secretary of the Interior to construct and maintain a road from the Chincoteague-Assateague Island Bridge to an area in the wildlife refuge that he deemed appropriate for recreation purposes and to acquire the necessary lands and rights-of-way for a road from the Chincoteague-Assateague Island Bridge to the Sandy Point-Assateague Bridge. See section 459f-11 of this title.

#### § 459f-9. Public utility facilities; purchase of facilities without value to utility; amount of payment

The Secretary of the Interior is authorized to purchase from a public utility any facilities of that utility which are no longer of value to it as a result of the establishment of the Assateague Island National Seashore and shall pay for such facilities in amount equal to the cost of constructing such facilities less depreciation.

## § 459f–10. Authorization of appropriations

There are hereby authorized to be appropriated the sum of not more than \$22,400,000 (including such sums, together with interest, as may be necessary to satisfy final judgments rendered against the United States) for the acquisition of lands and interests in land and such sums as may be necessary for the development of the area authorized under sections 459f to 459f–11 of this title.

## § 459f–11. Comprehensive plan for protection, management, and use of seashore

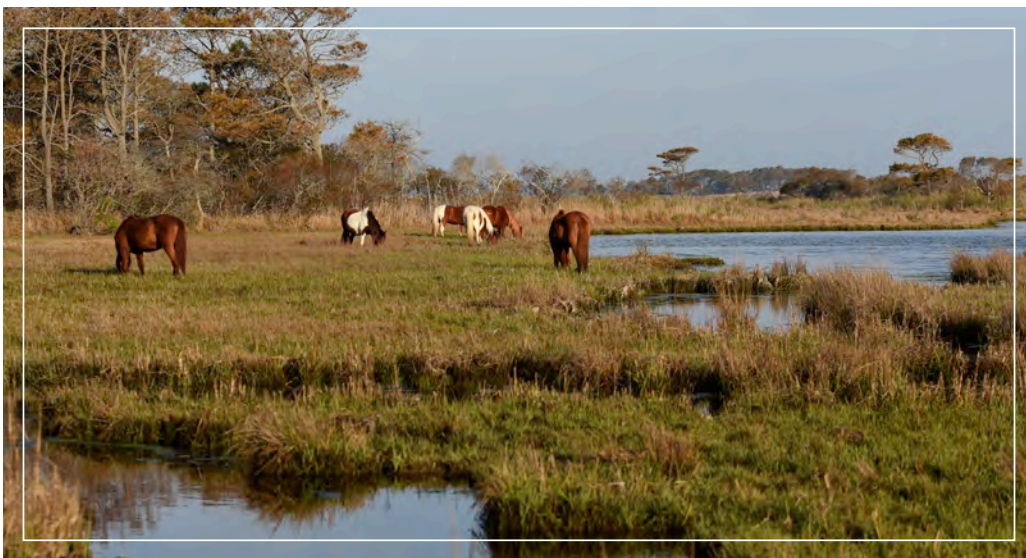
### (a) Contents; transmittal to Congressional committees

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:

- (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.

### (b) Consultation by other Federal agencies with Secretary

Notwithstanding any other provision of law, no Federal loan, grant, license, or other form of assistance for any project which, in the opinion of the Secretary would significantly adversely affect the administration, use, and environmental quality of the seashore shall be made, issued, or approved by the head of any Federal agency without first consulting with the Secretary to determine whether or not such project is consistent with the plan developed pursuant to this section and allowing him at least thirty days to comment in writing on such proposed action.





## Amendments To Enabling Legislation

Sources: Public Law 89-195, § 2, Sept. 21, 1965, 79 Stat. 824; Public Law 94-578, title III, § 301, Oct. 21, 1976, 90 Stat. 2733; Public Law 101-512, title I, Nov. 5, 1990, 104 Stat. 1924; Public Law 102-320, § 1(1)-(4), July 10, 1992, 106 Stat. 321.

### Amendments

- 1976 Pub. L. 94-578, § 301, repealed 16 USC 459f sections 7 and 9 in entirety, and created new section, 16 USC 459-11 directing the Secretary of the Interior to develop and transmit to congress a comprehensive plan for the protection, management, and use of the seashore.
- 1992 Subsec. (a). Pub. L. 102-320, § 1(1), (2), amended second and last sentences generally, substituting reference to 112 acres for reference to sixteen acres for an administrative site in second sentence and striking out reference in last sentence to sixteen acres of Federal property on the mainland in Worcester County, Maryland.
- Subsec. (b). Pub. L. 102-320, § 1(3), (4), amended first sentence generally, striking out reference to not more than sixteen acres of non-Federal property on the mainland in Worcester County, Maryland, and inserted at end “Notwithstanding the acreage limitation set forth in sections 459f to 459f-11 of this title, the Secretary is authorized to accept the donation of a scenic easement covering the parcel of land adjacent to the seashore and known as the ‘Woodcock Property’.”
- 1990 Subsecs. (a), (b). Pub. L. 101-512, substituted “sixteen acres” for “ten acres” wherever appearing.



**Public Law 94-578**

The Act of September 21, 1965 (79 Stat. 824), as amended (16 USC459f), providing for the establishment of the Assateague Island National Seashore in the States of Maryland and Virginia, is further amended by repealing sections 7 and 9 in their entirety, and by adding the following new section:

Sec. 11. (a) 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:

- (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.

(b) Notwithstanding any other provision of law, no Federal loan, grant, license, or other form of assistance for any project which, in the opinion of the Secretary would significantly adversely affect the administration, use, and environmental quality of the seashore shall be made, issued, or approved by the head of any Federal agency without first consulting with the Secretary to determine whether or not such project is consistent with the plan developed pursuant to this section and allowing him at least thirty days to comment in writing on such proposed action.”



## Public Law 102-320

An Act to increase the authorized acreage limit for the Assateague Island National Seashore

The Act entitled 'An Act to provide for the establishment of the Assateague Island National Seashore in the States of Maryland and Virginia, and for other purposes', approved September 21, 1965 (16 U.S.C. 459f-1), is amended as follows:

- (1) Amend the second sentence of subsection (a) of section 2 to read as follows: 'The Secretary is authorized to include within the boundaries of the seashore, not to exceed 112 acres of land or interests therein on the mainland in Worcester County, Maryland.'
- (2) Amend the last sentence of subsection (a) of section 2 to read as follows: 'Notwithstanding any other provision of law, any Federal property located within the boundaries of the seashore may, with the concurrence of the agency having custody thereof, be transferred without consideration to the administrative jurisdiction of the Secretary for purposes of the seashore.'
- (3) Add the following at the end of subsection (b) of section 2: 'Notwithstanding the acreage limitation set forth in this Act, the Secretary is authorized to accept the donation of a scenic easement covering the parcel of land adjacent to the seashore and known as the 'Woodcock Property.'
- (4) Amend the first sentence of subsection (b) of section 2 to read as follows: 'When acquiring lands by exchange, the Secretary may accept title to any non-Federal property within the boundaries of the seashore and convey to the grantor of such property any federally owned property under the jurisdiction of the Secretary which the Secretary classifies suitable for exchange or other disposal, and which is located in Maryland or Virginia.'
- (5) Amend section 6 by adding the following new subsection at the end thereof:
  - (c) 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.'

## Public Law 101-512

Department of the Interior and Related Agencies Appropriations Act, 1991

### ADMINISTRATIVE PROVISIONS

*The Act, establishing Assateague Island National Seashore, as amended (16 U.S.C. 459), is amended by striking out 'ten acres' and inserting in lieu thereof 'sixteen acres.'*



## Appendix B: Inventory of Special Mandates and Administrative Commitments

### Special Mandates

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

#### Legislative Mandates

**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: Provided, 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-2(b)]

**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: Provided, 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: Provided further, 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-4]

**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(b)]

**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. [§459f-5(c)]

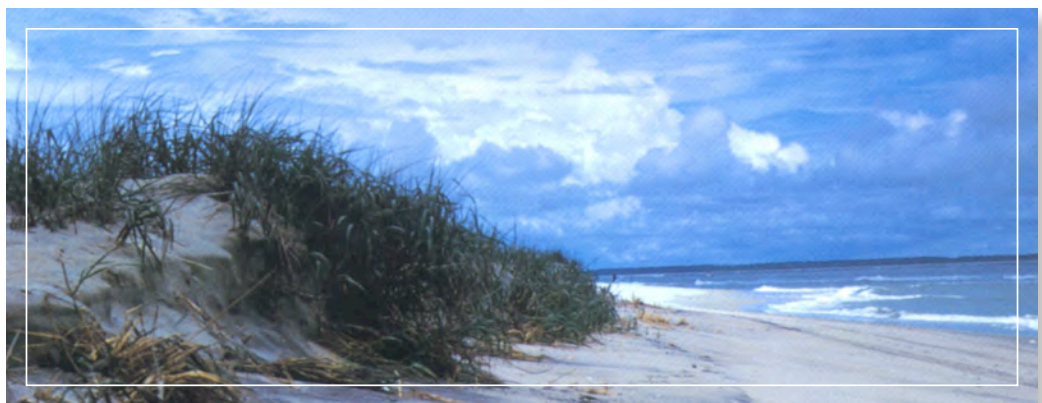
**Public Outdoor Recreation.** Except as provided in subsection (b) of this section, the Secretary shall administer the Assateague Island National Seashore for general purposes of public outdoor recreation, including conservation of natural features contributing to public enjoyment. In the administration 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(a)]

**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-5(b)]

**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-7]

**Comprehensive Plan for Seashore Management.** 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:

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. [§459f-11(a)]



## Other Special Mandates

**U.S. Fish and Wildlife Service (2012).** Agreement that assigns management responsibilities for providing recreation opportunities in the Virginia Assigned Area of Chincoteague National Wildlife Refuge; addresses visitor services, interpretive services, visitor and resource protection, facility management, land and resource management, and interagency communications and information sharing.

**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.

**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.

## Special Seashore Designations

Several federal natural resource management programs have designated Assateague Island National Seashore and its associated wildlife and habitat as areas of special management interest. These designations generally require 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.

Assateague Island National Seashore's special designations include the following:

**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 comprise a "potential wilderness addition" that is eligible for wilderness designation. The National Park Service manages these lands to protect and improve wilderness character.

**National Estuary (U.S. Environmental Protection Agency).** The National Estuary Program was established under section 320 of the 1987 Clean Water Act Amendments as a U.S. Environmental Protection Agency place-based program to protect and restore the water quality and ecological integrity of estuaries of national significance. Parts of Assateague Island National Seashore are within the Maryland Coastal Bays National Estuary, one of twenty-eight national estuaries along the coasts of the Atlantic Ocean, Gulf of Mexico, Pacific Ocean, and Puerto Rico. The National Park Service is an active partner in the management conference for the Maryland Coastal Bays, coordinated through the Maryland Coastal Bays Program.

**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 marine protected area. 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 marine protected areas.

**Western Hemisphere Shorebird Reserve.** The Western Hemisphere Shorebird Reserve Network seeks to conserve shorebird species and their habitats through conservation of crucial sites used by shorebirds during their breeding, migratory, and winter season. The reserve has designated the Maryland–Virginia Barrier Islands, including Assateague Island, an internationally significant shorebird reserve site because of extremely high species diversity during both spring and fall migrations and extremely high maximum bird counts. The Virginia Coast Reserve Program of The Nature Conservancy helps to coordinate the actions of Western Hemisphere Shorebird Reserve Network’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 important bird areas, Assateague Island is designated as one of global and continental importance. It is globally significant due to the more than 60 pairs of piping plovers (*Charadrius melodus*) that nest on its beaches, representing 2% of the species’ global population. The National Audubon Society 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 nonprofits.

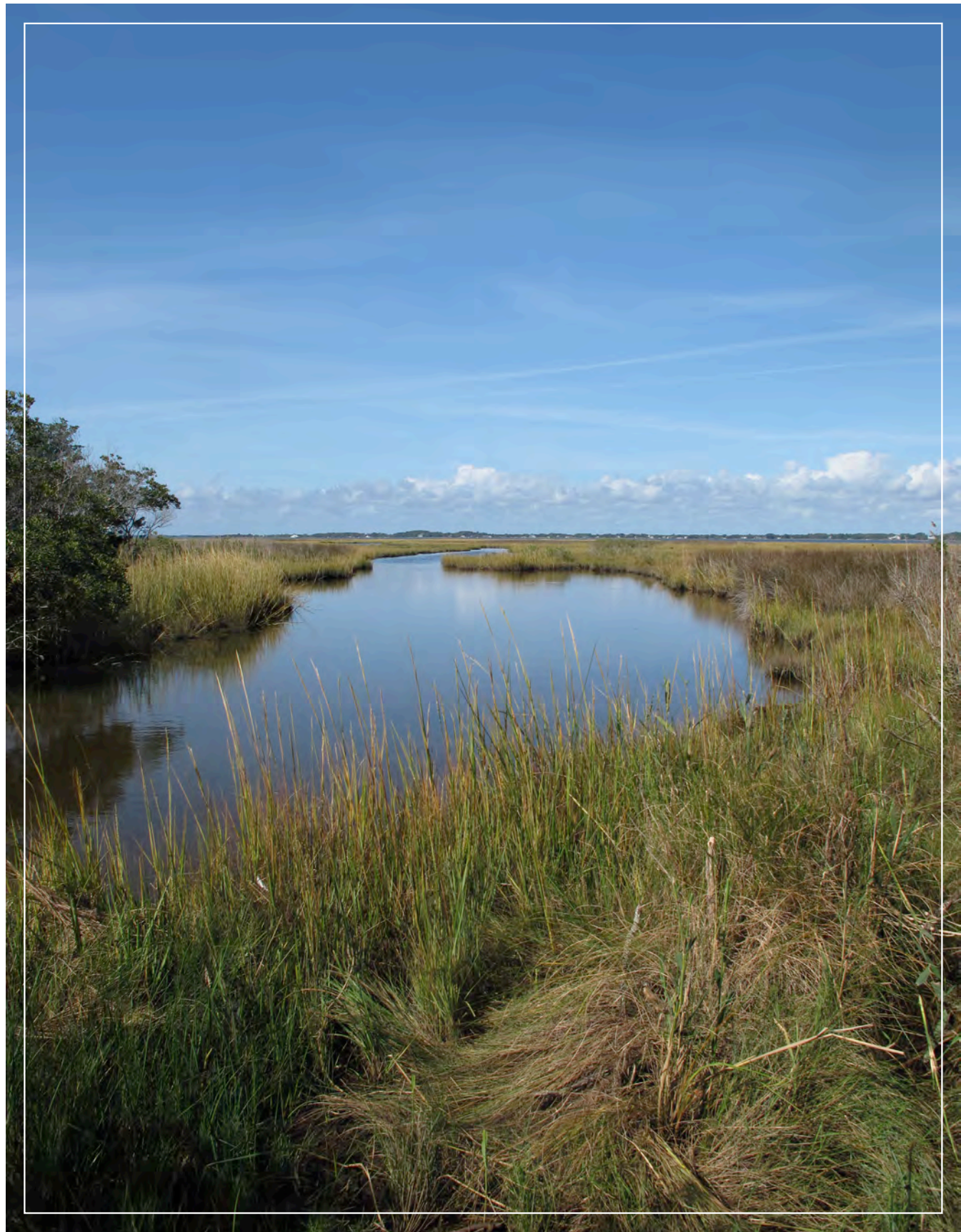
**Essential Fish Habitat.** The 1996 Magnuson-Stevens Act required agencies and others to cooperate to protect, conserve, and enhance essential habitats for federally managed marine and anadromous fish species. Essential fish habitats are those water and substrate areas needed for fish to spawn, breed, 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). 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.





## Administrative Commitments

Name	Agreement Type	Start Date	Expiration Date	Stakeholders	Purpose
Assateague Island restoration project	Interagency agreement	2001	2026	NPS, U.S. Army Corps of Engineers	Mitigation of impacts of Ocean City Inlet jetty system and restoration of natural sediment supply to northern Assateague Island through biannual sand bypassing.
Toms Cove recreational beach	Memorandum of understanding	Annual	Annual	NPS, U.S. Fish and Wildlife Service	Cooperative management of Toms Cove recreational beach within Chincoteague National Wildlife Refuge in Virginia.
Friends group	General agreement	Annual	Annual	NPS, Assateague Island Alliance	Implementation of mutually agreed to projects, programs, and activities for benefit of national seashore.
Concessions contract	Contract	2014	2023	NPS, Maryland Coastal Bays Program	Provision of specific visitor services including rental of canoes, kayaks, bicycles, and beach equipment, sale of prepackaged food and convenience items, and guided tours.
Mid-Atlantic Coastal Resilience Institute	Nonreimbursable space act agreement	2015	2020		Collaboration with multiagency partners to better address coastal resilience in context of sea level rise, extreme weather events, and coastal system degradation in Mid-Atlantic region.
Memorandum of understanding for access to NPS lands	Memorandum of understanding	1984	2024	NPS, Maryland Department of Natural Resources (Forest, Park, and Wildlife and Heritage Service)	Grants NPS exclusive use of Bayberry Drive through Assateague State Park, which connects Maryland Route 611 with North Beach Drive, for the purpose of providing public access to NPS recreational facilities.
Agreement for cooperative management of Assateague Island National Seashore and Assateague State Park	Cooperative management agreement	Unknown	Unknown	NPS, Maryland Department of Natural Resources	Cooperative management of Assateague Island National Seashore and Assateague State Park.
Memorandum of understanding for cooperative management	Memorandum of understanding	2017	2022	NPS, U.S. Fish and Wildlife Service	Provision of updated and contemporary framework for effective and efficient interagency cooperation on Assateague Island.



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## Northeast Region Foundation Document Recommendation Assateague Island National Seashore

February 2018

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This Foundation Document has been prepared as a collaborative effort between park and regional staff and is recommended for approval by the Northeast Regional Director.

**DEBORAH DARDEN**

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**RECOMMENDED**

Deborah Darden, Superintendent, Assateague Island National Seashore

Date

*Deborah R. Conroy*

*3/12/18*

**APPROVED**

*for* Gay Vietzke, Regional Director, Northeast Region

Date



As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historic places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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March 2018



## Foundation Document • Assateague Island National Seashore



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