

Assessing Natural Resource Condition of Assateague Island National Seashore

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As part of a nationwide effort by the National Park Service in the USA to assess natural resource conditions in 270 national parks, Assateague Island National Seashore was assessed using a framework that provides a structure for integrating natural resource data for sustainable management goals. A habitat framework was applied where significant habitats within and adjacent to the National Seashore were identified, along with appropriate metrics (5–10 per habitat) and ecologically relevant metric thresholds. Data were measured against these thresholds and then the habitats were ranked from healthy to degraded. This framework allowed assessment of the natural resources of the coastal habitats from adjacent watersheds and barrier island lagoons to the island itself and adjacent coastal ocean. It also provided a method for including metrics and habitats that are priorities for management, such as the federally listed seabeach amaranth and piping plover, which inhabit the early-successional overwash areas on the island. Another management priority is the mitigation of island erosion which occurs as a result of two jetties at the northern end of the island that interrupt sediment transport. A sand bypass project aims to alleviate this erosion, and the metric of beach shoreline rate of change was applied to the beach and intertidal habitat to track progress towards this management goal. Other habitats assessed include forest and shrubland, salt marsh, bayside mudflats, inland wetlands, and Atlantic subtidal. Other metrics used in the assessment include horse abundance, seagrass area, salt marsh erosion, and exotic plants.

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