

REPORT: ATLANTIC NATIONAL SEASHORES ARE HARD HIT BY CLIMATE CHANGE; FLOODING, BEACH EROSION, SPECIES LOSS WILL WORSEN WITHOUT STRONGER CARBON POLLUTION CURBS

Current and Projected Climate Change Impacts Detailed for Sites in MA, NY, MD, VA, NC, FL, and GA; At Risk Due to Inaction: Wildlife, Natural Beauty, and Half a Billion Dollars in Spending By 11 Million Visitors.

WASHINGTON, D.C.///August 29, 2012///Climate change is already adversely affecting seven national seashores on the Atlantic Coast, from Cape Cod to Cape Canaveral, and those impacts will dramatically worsen if heat-trapping pollution is not reduced, according to a new report from the Rocky Mountain Climate Organization (RMCO) and the Natural Resources Defense Council (NRDC).

Titled “*Atlantic National Seashores in Peril: The Threats of Climate Disruption*,” the RMCO/NRDC report contains the first set of maps detailing the portions of Atlantic national seashores that are low lying enough to be at real risk of being submerged by rising sea levels. Other climate change impacts outlined in the report include the loss of bridges and roads that provide access to the seashores, breakup of barrier islands into smaller segments, extensive beach erosion, and loss of wildlife. The full RMCO/NRDC analysis is available online at http://www.rockymountainclimate.org/programs_15.htm.

The RMCO/NRDC report documents that Fire Island National Seashore (NS) in New York, Assateague Island NS in Maryland and Virginia, Cape Hatteras NS and Cape Lookout NS, both in North Carolina, and Canaveral NS in Florida, all have a majority of their lands less than one meter (3.3 feet) above sea level, and therefore are at serious risk of inundation by a higher sea level. Also at risk to higher seas are particular sections of the remaining two national seashores covered in the report: Cape Cod NS in Massachusetts and Cumberland Island NS in Georgia.

Scientists say there is a good chance that a hotter climate could push seas at least one meter higher in this century. The report notes that the Cape Cod, Fire Island, Assateague Island, and Cape Hatteras national seashores already are experiencing rates of sea-level rise well above the global average.

Another concern is rising temperatures that could discourage summertime visitors. New climate projections included in the report show that, with medium to high emission level, the late-century summer temperatures at Fire Island NS could average 6.5 degrees higher, as hot as those experienced today in Atlantic Beach, NC, and temperatures at Cumberland Island NS could rise 6.3 degrees, matching the current summer climate in desert-bound White Sands National Monument in New Mexico.

The seven national seashores draw a total of about 11 million visitors a year, contributing to the economy of seven states by generating more than half a billion dollars in spending and supporting nearly 8,000 jobs. An additional, immeasurable economic value of the seashores is that they contain islands, dunes, and other shoreline features that are the first line of defense protecting human populations and developments from the often devastating effects of winds and surging flood waters from hurricanes, nor’easters, and other coastal storms.

Report author Stephen Saunders, president, Rocky Mountain Climate Organization, said: “Major parts of each of these seashores, including most lands in five of them, could be lost forever under a higher ocean if we do not stop disrupting the climate. Climate change is the greatest threat ever to our national park systems. These seashores certainly are among the most vulnerable areas. Human alteration of the climate threatens to undercut our national promise that these special places will be preserved unimpaired for the enjoyment of my children and future generations.”

Theo Spencer, senior advocate, Climate and Clean Air Program, Natural Resources Defense Council, said: “Massive and preventable damage to national seashores is too high a price to pay for failing to act on climate change. This report makes clear that if we don’t cut the amount of heat-trapping pollution we spew into the air, these special places that Americans love will never be the same. We’ve made some progress, including national

standards to make cars cleaner and more efficient, and new health protections from power plant pollution. But more must be done. For starters, we need to allow the Environmental Protection Agency to continue doing its job controlling heat-trapping pollution that harms our health and the places we love.”

S. Jeffress Williams, retired scientist from the U.S. Geological Survey who participated in the teleconference at which the report was released, said: “Science is compelling that climate is changing, becoming warmer and much more variable. Many impacts are already affecting Atlantic national seashores and will do so for decades into the future. This new assessment is important for planning for these changes by documenting effects such as sea-level rise and warming on both the natural resources in the parks and also the public who visit the parks and value what the parks offer.”

The following are among the key findings about seven Atlantic national seashores:

- **Cape Cod NS**, the most visited of the Atlantic national seashores, could see summer temperatures by the end of this century rise 6.1 degrees, making it as hot in summers as Cape May, New Jersey, today. Cape Cod NS has higher, more stable lands than the other seashores, but heavily visited beaches near Chatham and Provincetown could be submerged by a higher sea.
- **Fire Island NS**, located only 40 miles from Manhattan, has most of its land one meter or less above sea level, primarily on the inland side of the island. Based on projected wave height, susceptibility to erosion, and tidal range, Fire Island has a high vulnerability to shoreline change from sea-level rise.
- **Assateague Island NS**, a barrier island stretching from the Ocean City Inlet in Maryland south into Virginia, has most of its land one meter or less above sea level. The seashore also has experienced the highest rate of sea-level rise of all the Atlantic seashores. Assateague’s summers could get 6.2 degrees hotter, equal to those of Key West, FL, today. Assateague Island NS is rated as having an almost entirely very high overall vulnerability to sea level rise based on wave heights, susceptibility to erosion, among other factors.
- **Cape Hatteras NS**, America’s first national seashore, covers much of North Carolina’s Outer Banks. Most of the seashore’s land is less than one meter above sea level. By century’s end, the summer temperature in Cape Hatteras could rise 5.4 degrees, matching that of Galveston, Texas today. Cape Hatteras is rated as having an almost entirely very high overall vulnerability to sea level rise. Cape Hatteras has experienced more hurricanes than any of the other Atlantic national seashores, with 49 hurricanes pass inside 65 miles of the seashore since 1842.
- **Cape Lookout NS**, on the Outer Banks just south of Cape Hatteras NS, has most of its land less than one meter above sea level. Near the end of the century, summer temperatures at Cape Lookout could rise 5.6 degrees to match summertime temperatures today in Ft. Myers, FL. Cape Lookout is rated as having an almost entirely very high overall vulnerability to sea level rise, compared to other locations on the U.S. Atlantic Coast. Cape Lookout also has a history of very high hurricane frequency, having had 43 hurricanes pass within 65 miles of the cape since 1842.
- **Cumberland Island NS** covers most of Georgia’s largest and southernmost island in the Sea Islands. Cumberland Island is primarily a wide, stable island, making it less vulnerable to shoreline change than most of the other seashores, but some beaches and extensive areas of salt marsh are less than one meter above sea level.
- **Canaveral NS**, contiguous to the Kennedy Space Center, has 24 miles of undeveloped beaches, the longest such stretch on Florida’s Atlantic Coast. Most of the seashore lands are less than one meter above sea level. The seashore ranks entirely of very high vulnerability based on wave heights, susceptibility to erosion, and other factors. By the end of the century Canaveral could see summer temperatures rise 6.1 degrees, equal to the climate today in Desert Rock, Nevada. Canaveral NS has two particular risks because of the nature of its

barrier island: its 24-mile barrier island is such a thin ribbon of sand that in some places it is no more than 100 yards wide, with obvious risks of segmentation; and unlike many barrier islands with multiple rows of dunes affording additional protection from storm surges and overwash, Canaveral has only a single dune row.

The report also outlines the steps needed to avoid further climate disruption to national seashore areas, including:

- Establishing comprehensive mandatory limits on carbon pollution to reduce emissions by at least 20 percent below current levels by 2020 and 80 percent by 2050;
- Protecting the current Clean Air Act authority of the U.S. Environmental Protection Agency (EPA), allowing EPA to do its job of protecting American's health by cutting pollution;
- Overcoming barriers to investment in energy efficiency to lower emission-reduction costs, starting now;
- Accelerating the development and deployment of emerging technologies to lower long-term emission reduction costs; and
- Actions by the National Park Service to identify and protect threatened seashore resources and to reduce its own emissions of heat-trapping pollution, combined with visitor education exhibits and programs on climate change threats and examples of emission reduction efforts. With 279 million visits in 2011, the national park system can play a unique role in presenting climate change information to people.

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EDITOR'S NOTE: A streaming audio replay of the news event will be available on the Web at <http://www.rockymountainclimate.org> as of 5 p.m. EDT on August 29, 2012.

The Rocky Mountain Climate Organization (<http://www.rockymountainclimate.org>) is a Colorado-based coalition that works to reduce climate disruption and its effects.

The Natural Resources Defense Council (<http://www.nrdc.org>) is an international non-profit organization dedicated to protecting public health and the environment, with more than 1.2 million members and online activists.