

REPORT: VIRGINIA'S "SPECIAL PLACES" JEOPARDIZED BY CLIMATE CHANGE

Thousands of Jobs and Hundreds of Millions of Dollars in Tourism Dollars Seen As At Risk; Unchecked Climate Change Would Mean Major Changes for Jamestown, Chincoteague and Shenandoah

RICHMOND, VA. & WASHINGTON, D.C.///September 1, 2010///More than \$200 million in spending and 4,000 Virginia jobs supported by the six million visitors each year to Jamestown, Chincoteague and Shenandoah National Park are at risk if climate change remains on its current path, according to a major new report issued today by the Rocky Mountain Climate Organization (RMCO) and the Natural Resources Defense Council (NRDC). Among the possible changes: a loss of Chincoteague's beach, the complete flooding by higher tidal waters of historic Jamestown Island – site of the continent's original English settlement in 1607 – and the decline of the brilliant fall colors of Shenandoah National Park.

The report details the wide range of impacts from higher temperatures, rising water levels and stronger hurricanes on Jamestown, which is a part of Colonial National Historical Park (NHP), Shenandoah National Park, and Chincoteague National Wildlife Refuge (NWR).

The RMCO/NRDC report and audio recording of the news event will be available online at www.rockymountainclimate.org/programs_10.htm.

Jamestown is where America's colonial history began, with the first permanent European settlement in what became the original colonies and then the United States. It also is where representative democracy in America began. Chincoteague NWR on the southern end of Assateague Island on Virginia's Atlantic coast has more than 14,000 acres of beach, forest, and marsh habitats that are home to a wide variety of migratory birds, plants, and other animals. Located just 70 miles from Washington, D.C., Shenandoah NP is a crown jewel of the United States' national park system.

Theo Spencer, senior advocate, Climate Center, Natural Resources Defense Council, said: **"Climate change poses the greatest risk our National Parks have ever faced. The natural and cultural resources of Virginia's special places are directly linked to hundreds of millions of dollars in economic activity and thousands of jobs. Unfortunately, Jamestown, Shenandoah and Chincoteague face greater threats than ever before as a result of climate change, and on a scale that will substantially undercut people's interest in visiting those historic and natural sites. By acting now to reduce the pollution that causes climate change we will stimulate our economy and create millions of new jobs while continuing America's long-standing position of technological leadership."**

Stephen Saunders, president, Rocky Mountain Climate Organization, said: **"The extent to which these special places could be harmed illustrates why human-caused climate disruption is considered the greatest threat ever to our national parks and wildlife refuges. These three special places deserve particular attention. They show how much Virginia has at stake, from its coasts to its mountains and from its natural and cultural resources to its economy, as people alter the climate. And these three special places are extraordinarily important not just to Virginians but also to Americans everywhere."**

Highlights of the report include the following:

- Jamestown, Chincoteague and the Shenandoah NP are linked to a total of 4,030 jobs and \$210.1 million in visitor spending. "But these contributions to Virginia's economy are threatened by how climate disruption puts at risk the natural and cultural resources that draw visitors to these special places," according to the report.
- Higher seas resulting from human-caused climate change threaten Jamestown and Chincoteague NWR. Globally, three feet or more of sea-level rise is now believed to be most plausible by century's end. Because the land along Virginia's coastlines is naturally subsiding, the local rise of seas and tidal

waters will be even greater than the global average. The report identifies such possible outcomes as the flooding of “virtually all of Jamestown Island” and “nothing less than a wholesale transformation” of Chincoteague after sea-level rise of about three to four and a half feet by this century's end.

- Before Jamestown and much of Chincoteague may be inundated by higher water levels, key historical, archaeological, and natural resources could be destroyed or damaged by storm surges and erosion resulting from stronger hurricanes and coastal storms. At risk is the original Jamestown Fort of 1607, a corner of which has already been lost to erosion by the James River. The barrier island containing Chincoteague is at very high risk of fragmentation by the natural forces of winds and waves, augmented by unnaturally higher seas and stronger storms resulting from human-caused climate change.
- Also threatened by erosion could be resources at the Yorktown battlefield, which like Jamestown is part of Colonial NHP. One key site at risk is Redoubt 10, on the edge of a cliff along a stretch of the York River that has suffered erosion over the years. This was the scene of a key battle won by Revolutionary forces under the command of Colonel Alexander Hamilton, part of the decisive final offense that led to the surrender a few days later of the British army at Yorktown, effectively ending the Revolutionary War. The nearby Moore House, at which the terms of surrender were arranged, is also potentially exposed to shoreline erosion.
- The famous fall colors of Shenandoah are at risk due to the projected invasion of less colorful pine and other trees considered to be more Southern.
- Higher temperatures are expected at all three sites. Jamestown and Chincoteague could be 7.2°F hotter and Shenandoah 8.1°F hotter, under one scenario. According to the report: “With the region's largest temperature increases projected for the summer, intolerable heat may become a real problem (for would-be visitors) at Jamestown and perhaps Chincoteague.”
- Extreme weather in the form of major downpours and more flooding could transform Shenandoah NHP. The amount of rain falling in heavy storms increased by 20 percent over the past century, and scientists believe there is at least a 90 percent likelihood that heavy downpours will become even more frequent and intense, causing more flooding. Shenandoah, with its steep mountain terrain, is particularly vulnerable to slope failure and debris flows during severe storms, as illustrated by a June 1995 storm in which about two feet of rain fell in a few hours, causing a mountainside slope in the park to give way, sending trees and boulders the size of houses tumbling downhill.

ABOUT THE GROUPS

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

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

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EDITOR'S NOTE: A streaming audio replay of the news event will be available on the Web at www.rockymountainclimate.org/programs_10.htm as of 5 p.m. EDT on September 1, 2010.