



UNDERSTAND

ADAPT

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WHAT DOES CLIMATE CHANGE MEAN FOR THE FUTURE OF YOUR PARK?

As units of the National Park System feel the effects of human-caused climate change, park managers must account for observed or expected impacts. But doing so requires grappling with uncertainties about rate, degree, and cascading effects. Thus, considering a range of possible climate futures can help identify actions best suited to meet long-term management goals.

The NPS Climate Change Response Program [recently published park-specific reports](#) describing both observed climate changes and plausible climate futures that help inform park responses to climate change. These climate futures help managers navigate uncertainty and promote short- and long-term actions that avoid potential surprises and costly mistakes.

Reports are currently available for all NPS units in the conterminous United States, with additional reports intended as available data permits. It should be noted that the climate futures reports were produced using [a standardized approach](#) that is not necessarily tailored to park-specific issues or climate sensitivities. Nonetheless they provide a valuable coarse filter or initial climate assessment that can identify concerns warranting more detailed assessment.

The National Park Service (NPS) [Climate Change Response Strategy](#) provides a servicewide blueprint for meeting the challenge of climate change. This monthly newsletter captures notable developments, publications, and successes to inform and inspire similar action across the National Park System and beyond.



This newsletter is published by the NPS Climate Change Response Program. If you experience any difficulty accessing the information in this newsletter, please contact us at: climate_change@nps.gov

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Above: Illustration of two hypothetical climate futures. Metrics for the “hot and dry” climate future (left) correspond with a future scenario of increasing drought conditions. Metrics for the “warm and wet” climate future (right) correspond with increased flooding and relative humidity.

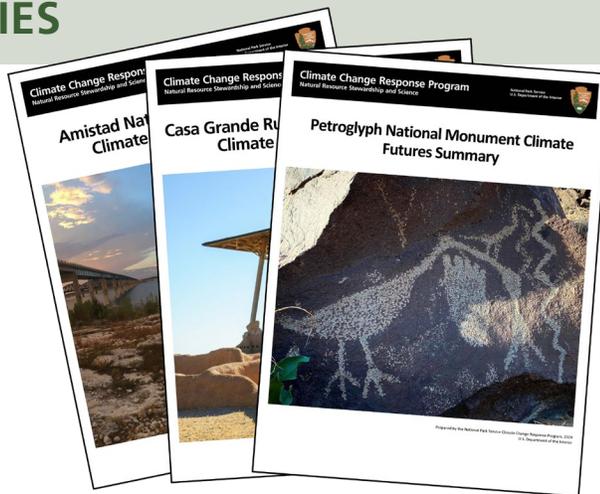
LEARN MORE: CLIMATE FUTURE SUMMARIES

UPCOMING Q&A SESSIONS

Report authors and subject matter experts will host a series of open Q&A sessions to answer additional questions regarding the new climate futures summaries. Interested individuals are encouraged to attend one or more sessions to learn how parks can leverage climate futures in management efforts.

Upcoming sessions will be held on:

- Q&A Session: Thursday, August 1, 1 PM MT ([Register Here](#))
- Q&A Session: August 14, 1 PM MT ([Register Here](#))



NOW AVAILABLE: HISTORY & HOPE TOOLKIT

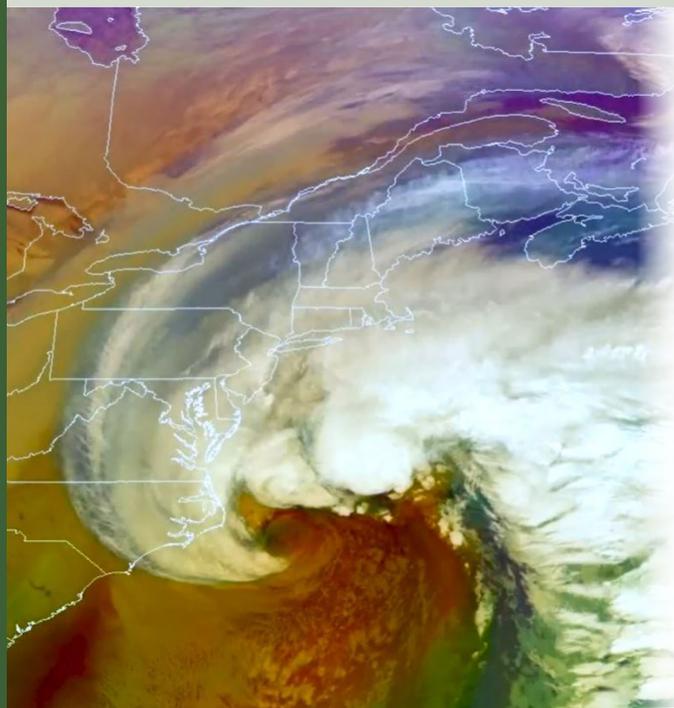
NPS interpreters and communicators help audiences form deep personal connections with our nation's most treasured places. Often, these connections offer new perspectives on critical issues in our world—including climate change. And all units of the National Park System have a climate story to tell.

History & Hope for Climate Action: An Interpretive Toolkit provides a process by which heritage interpreters can discover and develop site-relevant, people-centered stories that effectively engage audiences on climate change.

The full toolkit is [available here](#), along with supporting resources and examples of park stories developed using the History and Hope framework.



NEW REPORT ON NOR'EASTERS AND SEA LEVEL RISE



A recently published report, [The impact of sea level rise during nor'easters in New England for Acadia National Park, Boston Harbor Islands, Boston National Historical Park, and Cape Cod National Seashore](#), examines the combined impacts of sea level rise and extratropical cyclones, also known as nor'easters. Flooding and waves based on historical storms with and without sea level rise were modeled. The impacts at each park vary based on the different coastlines, park resources, and how the storms and waves interact with each.

The project developed maps, three-dimensional visualizations, and [an interpretive film](#) to assist the parks in planning for resource management, maintenance, emergency management, visitor access, safety, education, and outreach.

IN FOCUS: CLIMATE CHANGE VULNERABILITY ASSESSMENTS

Climate Change Vulnerability Assessments (CCVAs) provide information that is foundational to adaptation planning in the face of widespread climate change impacts. CCVAs help identify resources, facilities, or aspects of park operations that may be most affected. Methods typically include exploring the confluence of exposure, sensitivity, and—for living resources—“adaptive capacity” (the ability to cope with potential impacts). Climate change adaptation is a matter of determining and implementing actions that reduce exposure and/or sensitivity of resources, facilities, or park operations.

The results of CCVAs don’t dictate decision-making. Rather, they are an important tool to guide management discussions about risk, priorities, and options for adaptation. CCVAs can differ widely in scope and focus, such as:

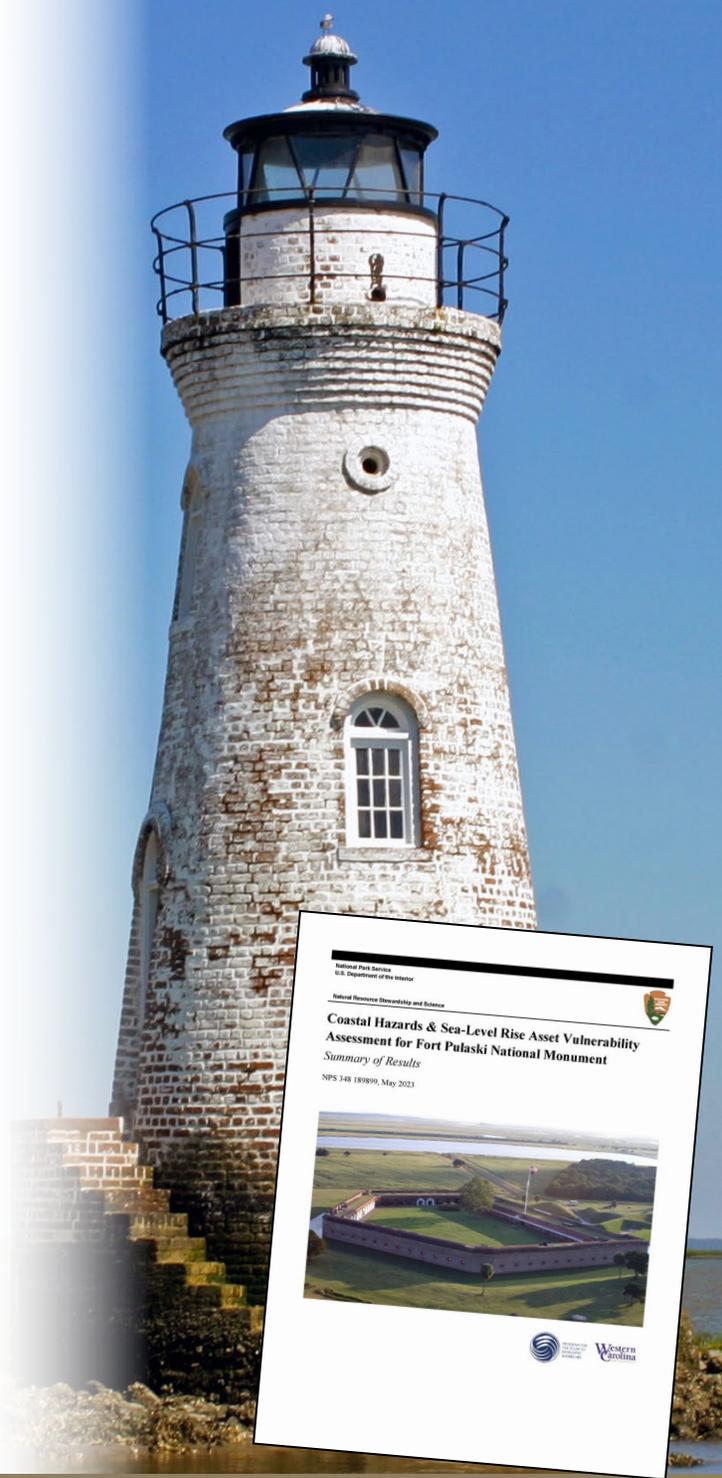
Systemwide Assessments: [NPVuln](#) is a large-scale analysis that evaluates the relative vulnerability of sites across the National Park System to known climate change factors. The results help identify possible priority areas for further study.

Resource or Asset-specific Assessments: Some CCVAs examine relative risk across a specific class of resources, such as [this series evaluating risk to facilities from coastal hazards](#). Occasionally, CCVAs focus squarely on a singular, priority resource, such as [this species-specific CCVA for the Karner Blue Butterfly](#).

Integrated Assessments: In practice, “natural,” “cultural,” and “infrastructure” resources are rarely managed in isolation. Thus, [integrated CCVAs](#) seek to evaluate risks to various asset classes simultaneously.

Finally, it’s important to remember that CCVAs are point-in-time assessments of specific resources or assets. But vulnerability can vary across a range of climate projections and/or change over time. So CCVAs should be revisited periodically in light of current trends and understanding.

The majority of assets (89%) at Fort Pulaski National Monument are highly vulnerable to coastal hazards and sea level rise, as of [this 2023 CCVA](#). NPS Image.



GOT CLIMATE NEWS?

Do you have a climate-related project, publication, or update you’d like to share? Email your suggestions to climate_change@nps.gov.

Submissions received by the 15th of each month may be published the following month, or held for future newsletters as necessary to meet our editorial calendar. Submissions may be edited to meet length requirements or adhere to editorial style.

This newsletter is distributed primarily—but not exclusively—to employees, volunteers, and partners of the National Park Service.

