

# Chapter 2 Policy

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## Introduction

This chapter describes the policies that guide National Park Service (NPS) consideration and selection of adaptation strategies in response to climate change in coastal parks and ecosystems. As presented in the other chapters in this handbook, there are many potential coastal area adaptation strategies that the National Park Service is already considering and implementing over time. This chapter addresses questions that may arise regarding the compatibility of these strategies with [NPS policy](#). Online resources to supplement this document are available at <http://www.nps.gov/subjects/climatechange/coastalhandbook.htm>.

## General NPS Policies

NPS policy for cultural resource management provides NPS managers with direction to actively manage those resources based on research, planning, and stewardship principles (see “Chapter 5 Cultural Resources”). This is an urgent and targeted task as the effects of climate change on cultural resources become more evident, leading to specific policy direction (PM 14-02) relevant to the adaptation strategies in this handbook.

NPS policy for natural resource management, however, provides NPS managers with the flexibility to take various management actions, including restoration, mitigation, and other intervention, with respect to natural resources and processes in these four circumstances:

- when directed by Congress;
- in emergencies in which human life and property are at stake;
- to restore natural ecosystem functioning that has been disrupted by past or ongoing human activities; or
- when a park plan has identified the intervention as necessary to protect other park resources, human health and safety, or facilities (NPS Management Policies 2006 § 4.1).

While all of the above bullets are relevant at various times, the third circumstance is discussed here. It means that where natural resources or processes have been disrupted by human activities, NPS policy permits park managers to take action as necessary and feasible to protect, restore, or otherwise conserve the disrupted resources or processes.

While this policy is stated in slightly different ways throughout Chapter 4 of the NPS Management Policies, the intention is evident and applies across biological and physical resources (see NPS Management Policies § 4.1 (general management concepts), § 4.1.5 (restoration of natural systems), § 4.4.1 (biological resources), § 4.4.2 (native plants and animals), § 4.4.2.2 (restoration of native plants and animals), § 4.4.2.2 (landscapes and vegetation), § 4.6.3 (protection and restoration of water quality), § 4.6.5 (wetlands), and § 4.8.1.1 (shorelines and barrier islands)).

Note that the *Management Policies* do not require active NPS management in human-disturbed resources or processes. The National Park Service may investigate various alternatives, and based on scientific, technical, financial reasons, and/or stakeholder input, decide to act or not to act to address the impacts of the human disturbance. If the National Park Service does take action, it must be kept to the minimum necessary to achieve the stated management objectives (NPS *Management Policies* 2006 § 4.1).

The questions when evaluating potential natural resource adaptation strategies for consistency with *Management Policies*, then, are whether the current impacts resulting from climate change are a human-caused disruption, and whether the proposed adaptation strategy would conserve, restore, or otherwise protect park resources or processes from the impacts of the human disruption.

To answer the first question, the majority of scientific information indicates that current climate change is largely a result of human activities (IPCC 2014). These activities and the resulting changes to Earth’s climate are changing the pace, magnitude, timing, and other aspects of natural ecosystem resources and processes. Where natural processes in parks have been impacted in pace, magnitude, and timing by human-caused climate change, it is consistent with NPS policy, for the National Park Service—at the appropriate time and in the appropriate circumstances—to consider management actions to mitigate, reduce, compensate for, or adapt to the effects, based on best available information, of the human-caused impacts at coastal parks. While climate change effects may seem ubiquitous, attribution of effects remains an important step in determining the appropriate management response. As explained elsewhere in this handbook (see figure 1.1, table 4.2, and table 5.4), adaptation strategies may range from resist change, accommodate change (which might include specific

management actions such as reducing stressors or restoring human-disturbed resources), to direct change toward a new future (which might include specific management actions such as relocating certain resources). Again, such actions are not necessarily required but should be evaluated based on science, technical, financial, and societal factors, rather than ignored without any investigation.

Management actions to mitigate, restore, or otherwise address human-caused climate change impacts may likewise be considered at NPS coastal or ocean areas that are designated or suitable for wilderness status but must be conducted in accordance with the concept of minimum requirement management to be consistent with other NPS wilderness policies (see Director’s Order #41, Wilderness Stewardship).

To answer the second question, the potential adaptation strategy should be evaluated for whether it addresses the result of the human disruption, in which case it would be consistent with the general NPS policy, or whether it goes beyond or is unrelated to the result of the human disruption, in which case it would not be consistent and should be modified or dismissed from further evaluation.

### Additional Policies That Apply to NPS Coastal Adaptation Strategies

In addition to complying with the general *Management Policies* considerations discussed above, potential adaptation strategies should be evaluated for consistency with the policies listed below. These additional policies are compiled and distilled from multiple documents, including several executive and secretarial orders, the Department of the Interior Manual, and four NPS policy memos (table 2.1) (See References).

Table 2.1. Handbook chapters with further discussion of NPS Policy Memoranda

|                                  |  |
|----------------------------------|--|
| Chapter 4<br>Natural Resources   | PM 12-02: Applying National Park Service Management Policies in the Context of Climate Change;<br>PM 16-01: Resource Stewardship for the 21st Century – Interim Policy |
| Chapter 5<br>Cultural Resources  | PM 14-02: Climate Change and Stewardship of Cultural Resources;<br>PM 16-01: Resource Stewardship for the 21st Century – Interim Policy                                |
| Chapter 6<br>Facility Management | PM 15-01: Addressing Climate Change and Natural Hazards for Facilities   |

Based on those documents, when evaluating coastal climate change adaptation strategies, it is consistent with policies of the National Park Service, to:

- gather and maintain baseline climatological data for reference.
- use best available information and science to inform NPS understanding of climate change risks, impacts, vulnerabilities, and adaptation options.
- incorporate climate change considerations and adaptation strategies into NPS planning, programs, and operations.
- maintain partnerships and information flow with other entities and stakeholders to develop adaptation strategies and coordinate adaptation strategies with those entities.
- select adaptation strategies and investments that
  - integrate climate risk-management considerations into resource management and infrastructure decisions;
  - use, where feasible, landscape and seascape-scale, ecosystem-based, and nature-based management approaches;
  - protect natural and cultural resources, including diversity and key ecosystem benefits and/or services;
  - preserve and restore unfragmented or undisturbed habitat areas and key habitat linkages between them;
  - prevent or slow the spread of invasive species that would cause environmental or human harm;
  - focus development in disturbed areas, away from ecologically sensitive landscapes, culturally sensitive areas, and wildlife corridors; and
  - promote carbon sequestration or otherwise reduce the sources of anthropogenic climate change.
- do not select adaptation strategies and investments that
  - contribute to climate change impacts; or
  - increase vulnerability of resources or infrastructure within or outside park units to climate change impacts and risks.

## **Implementation of the Above Policies: Document All Adaptation/ Intervention Decisions**

The final policy relevant to the selection of adaptation strategies is that park managers must document the reasons for choosing particular adaptation and intervention strategies. Selected strategies must be consistent with laws, regulations, policies, other existing guidance (see references), and available scientific and technical information. Costs and benefits, and the assumptions underlying those costs and benefits, should likewise be considered. Documentation will demonstrate how selected strategies were reached and how they are consistent with these factors. Because of the importance of flexibility over time, a selected strategy does not have precedential value at any other park unit or at the same park in a different situation. The National Park Service should revisit adaptation decisions regularly. If a selected strategy turns out to be problematic for any reason, then the National Park Service should consider modifying that strategy as necessary and appropriate.

## **Take Home Messages**

- Park managers have substantial flexibility and discretion when selecting coastal adaptation strategies. Yet this flexibility and discretion are not unconstrained; various policy and guidance documents contain additional considerations that should be incorporated into park managers' decisions about adaptation alternatives.
- Park adaptation decisions must be well documented.

## References

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