

At Your Service

An integrated approach to climate change response in the National Park Service

By Melanie Wood, Angie Richman, and Leigh Welling

THE CLIMATE CHANGE RESPONSE

Program (CCRP) works to foster communication, provide guidance, and promote scientific information to support stewardship of our natural and cultural heritage in the face of climate change. Established in 2009 and led by Dr. Leigh Welling, the CCRP coordinates with all national park units and central offices, as well as partners in other agencies and organizations. The program includes a staff of diverse individuals with a variety of backgrounds and experience who serve the National Park Service (NPS) in climate change science and modeling, interpretation and education, resource management, landscape connectivity, monitoring, planning, coastal hazards, cultural anthropology, and renewable and efficient energy use (table 1).

An important milestone was marked on 10 September 2010, when Director Jarvis released the *NPS Climate Change Response Strategy*, a guide for the Service in addressing the unprecedented challenge of climate change. The strategy describes goals and objectives to guide NPS actions through four integrated components: science, adaptation, mitigation, and communication. The National Park Service is beginning to implement elements of the strategy, working with partners to develop methods for assessing resource vulnerability, monitoring change, adapting management strategies for natural and cultural resources and facilities in climate-sensitive areas, and including climate change in NPS planning frameworks. Through the 2010 Service-wide Comprehensive Call, the CCRP funded over \$2.5 million in park climate change projects, ranging from the dynamics of carbon cycling, to changes

in flow regimes, to the impacts of climate change on pollinators and species such as the Shenandoah salamander, Karner blue butterfly, American pika, and desert bighorn sheep.

The National Park Service continues to be a leader in greenhouse gas reduction and energy efficiency. The Sustainable Operations and Climate Change Program (SOCC) provides the tools and technical support to measure and mitigate greenhouse gas emissions, and promotes climate change education and facilities adaptation to climate change. Approximately 190 parks are completing greenhouse gas inventories using the Climate Leadership in Parks (CLIP) tool, and more than 70 parks are now participating in the Climate Friendly Parks Program, reducing their carbon footprint and communicating the effects of climate change through interpretive programs and materials. The SOCC works alongside the CCRP to mitigate climate change and lead by example in sustainability. The NPS Green Parks Plan, led by the SOCC and finalized in 2011, is an integral component of the larger *NPS Climate Change Response Strategy*. For more information, go to www.nps.gov/climatefriendlyparks.

Products designed to keep NPS staff informed on change in the national parks and the NPS response now include 11 bioregional “talking point” documents, a monthly webinar series, and a monthly newsletter, available on the Climate Change SharePoint site (<http://nrpc.sharepoint.com/climatechange/>). The CCRP launched a public Web site (www.nps.gov/climatechange) in spring 2010, and is developing a training module on climate change interpretation, as well as several park-specific education resources, through a National Science Foundation-funded grant. The CCRP also provides career development opportunities through the George Melendez Wright Internship and Fellowship Programs, which placed 26 interns and 33 fellows in parks and offices across the country in 2010 and 2011.

To advance the collective knowledge of climate change response across land and resource managing entities, the CCRP plays a key role in larger Department of the Interior (DOI) climate change initiatives. The program will provide three positions in DOI Climate Science Centers to work closely with university researchers to develop management-relevant climate change science. Additionally, the National Park Service participates in all the DOI Landscape Conservation Cooperatives

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Table 1. Staff of the NPS Climate Change Response Program

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(LCCs; see sidebar, page 9), which focus on multijurisdictional science-based conservation across landscapes, and the CCRP supports five full-time positions working to support the LCCs.

The CCRP currently leads development of an Action Plan to build on the goals and objectives of the Strategy to identify actions that parks, regions, and national

offices can take to meet the NPS mission in a changing climate. This Action Plan will be completed and available as a key resource for NPS staff and partners in 2012. The NPS and a wide range of partners continue to support science, adaptation, mitigation, and communication at all levels of the NPS to further understand, respond to, and communicate climate change in the National Park System.

About the authors

Melanie Wood is program assistant, **Angie Richman** is communication specialist, and **Leigh Welling** is program manager, all with the NPS Climate Change Response Program in Fort Collins, Colorado.