



Climate Change Response Program News December 2009



MITIGATION

ADAPTATION

COMMUNICATION

Monthly Climate Change Webinar Series

2nd Thursday of every month
2:00 pm - 3:30 pm EST

Next Webinar: Jan 14th, 2010

January's presentation will feature Robert Gough and Patrick Spears of the Intertribal Council on Utility Policy. They will discuss the development of renewable energy and sustainable infrastructure, including the use of straw bale housing, to mitigate the impacts of climate change on tribal lands.

Find previous webinars available for viewing at:

<http://nrpcsharepoint/climatechange/communication/Web%20Seminars/Forms/AllItems.aspx>

Above: Snowman on railing at Sunset Point in Bryce Canyon National Park, perhaps feeling the effects of climate change. Courtesy Ron Warner.

Leading Positive Change in 2009

In his October statement to congress our new Director Jon Jarvis shared his commitment to climate change when he said, "The focus of the climate change discussion has largely shifted from the evidence that climate change is occurring to what we can do about it. As stewards of our nation's natural and cultural heritage, we have an obligation to act now."

As the year comes to an end, I am pleased to report on our collective actions and shared successes. 2009 has seen more support and communication about climate change throughout the NPS and DOI than any other time. With our new leaders setting the example, we also witnessed DOI Secretary Salazar sign Secretarial Order No. 3289 in September that established a Climate Change Response Council for interagency collaboration and the creation of a network of inter-agency "Landscape Conservation Cooperatives" to promote implementation of on-the-ground strategies.

We created a Climate Change Response Steering Committee which has drafted a response strategy that is currently under review and will be finalized early next year. Working Groups, overseen by the committee, have continued to be productive in fostering communication, exploring the needs and issues of parks, and defining both strategies and actions for moving forward on this critical issue. Together we were able to formulate a successful funding request that went before congress. In 2010 the Climate Change Response Program will receive dedicated funding for the first time. Key staff can now be hired and projects of immediate importance will soon be funded at the park level.

Parks across the country have begun taking the first steps in reducing the NPS carbon footprint in many unique and inspiring ways. Some examples include integrating climate change response in

park policy and management, buying fuel efficient vehicles, using mass transit shuttle programs, engaging local communities, developing recycling programs, changing to energy-efficient light bulbs, and educating park staff and visitors. The Climate Friendly Parks program has led this charge in assisting parks to achieve our shared vision. They hosted several workshops in 2009 and have set an ambitious goal of having all parks in the Pacific West Region earn their certification by March 2010.

Numerous products were deployed that focused on communication and sharing work efforts. These include this monthly newsletter that provides a place for us to share ideas, the monthly webinar series that allows park employees to hear directly from climate change scientists and practitioners, and the SharePoint site. The latter hosts files and products available for use and will serve as the foundation for a public-facing website that will be developed in 2010. Our partners strengthen our climate change response activities; examples of such partnerships include the NASA Earth to Sky training course and the Parks Climate Challenge.

These are just some of the highlights from 2009. These accomplishments and successes could not have been possible without the hard work and dedication of NPS staff. As we begin a new year, I would like to thank everyone for their good work, and ask that you continue to keep climate change response in the forefront of your mind. In 2010, let's build upon our success by looking for new ways to work more effectively with our partners, reduce our carbon footprint, promote adaptation strategies, and share our knowledge and passion with anyone who will listen.

Sincerely, Leigh Welling
Climate Change Response Program Coordinator



Upcoming Workshops & Meetings

"Predicting the Climate of the Coming Decades," South Florida Caribbean CESU, in Miami, FL on January 11-15, 2010.

http://www.clivar.org/organization/decadal/rsmas_decadal.php

Earth to Sky hosts the fourth annual workshop on Communicating Climate Change, at Mather Training Center in WV on February 1-5, 2010.

Contact: John_Morris@nps.gov

EPA's Office of Water, Office of Air and Radiation, and Region 4 office are co-hosting the Southeast Adaptation Workshop in Atlanta, GA on February 2-3, 2010.

http://epa.gov/region4/clean_energy/conferences.html

"Mid-Atlantic Climate Change Workshop" NER, in Cambridge, MD on March 23-25, 2010.

Contact: David_W_Reynolds@nps.gov
Holly_Salazar@nps.gov

Great Basin / Mojave Desert Climate Change Workshop at University of Nevada, in Las Vegas, NV on April 20-22, 2010.

Contact: Kathy_Tonnessen@nps.gov

Greater Yellowstone Climate Change Workshop at Mammoth Hot Springs Hotel, Yellowstone NP on October 11-13, 2010.

Contact: Glenn_Plumb@nps.gov

Workshop Summaries

Southern Appalachian Man and the Biosphere (SAMAB)

The SAMAB Workshop, "Climate Change in the Southern Appalachians," took place November 17th-19th in Ashville, NC. This program is a public-private partnership focusing attention on the Southern Appalachian Biosphere Reserve, encouraging community-based solutions to regional issues through the utilization of ecosystem and adaptive management principles. This year approximately a dozen NPS scientists from the Network and Great Smoky Mountains attended. Lively discussion centered on the alarm raised by continental-scale models that show differences in genetics within species and topographical/climatological feedbacks, calling into question the stark differences of their scenarios. A particular highlight was a paper by Jason Fridley on down scaling climate models to fine scales for park use. Overall this year's SAMAB was a great experience with lots of interaction.

For more information, go to: www.samab.org, Or Contact: Keith_Langdon@nps.gov

USGS LandCarbon Policy Workshop

The USGS LandCarbon Project and Center for Climate Strategies hosted the LandCarbon Policy Workshop in Reston, VA on December 2nd-3rd, 2009. Dr. David Graber represented the NPS from the carbon sequestration science working group. Invited participants represented the DOI and Secretary's office, USDA, EPA, CEQ, and number of NGOs. Most representatives came from a background in policy, economics, and science. The purpose of the workshop was to: identify existing and potential policies germane to optimizing carbon sequestration, associate management actions with the policies, survey data, methods, and models of relevance to the assessment of policy potential, and provide guidance on the methodology to identify and assess policy options. This was accomplished by discussing a "catalogue of biological sequestration policy and options."

Contact: David_Graber@nps.gov

Sea Level Rise Workshop

The "Sea Level Rise and Inundation Community Workshop" was held December 3rd-5th in Leesburg, VA and was designed to further federal, state, and local community efforts to adapt to sea

level rise and inundation caused by coastal climate change and variability. The workshop focused on producing a strategic framework for developing, integrating, and distributing high-quality science-based data and information critical for enabling a community response to these issues. This workshop was the first in a series to refine the proposed framework and to test its utility in a few receptive communities that can serve as models for the nation. The framework will inform federal and state agencies, academics, nonprofits, and others involved in the supply of data and information to coastal decision makers and community leaders. Leigh Welling and Shawn Carter represented the NPS.

Contact: Shawn_Carter@nps.gov

Inventory and Monitoring Advisory Council Meeting IMAC

The NPS Inventory and Monitoring Program Advisory Council (IMAC) held their annual meeting December 7th-11th in Miami, Florida. Climate Change was the main topic of the meeting, with discussions on the role of I&M and Networks in the emerging Climate Change Response Program and the evolving scope of I&M Activities, and on current and planned climate change related activities. I&M Regional Program Managers reviewed existing I&M activities that support response and adaptation to climate change at the park level, and on emerging opportunities and planned activities. I&M Networks are key participants in activities to 'stand up' the first set of Landscape Conservation Cooperatives (LCCs) this year. Many details on the structure, funding, operation, and functions of the LCCs are still being worked out. A subcommittee of the DOI Climate Change Task Force stated that "data and information sharing and integration are the key to collaboration among DOI bureaus and their many partners in addressing the significant climate change challenges". The I&M Program has played a significant role in modernizing data systems and is in the early stages of collaborating with other NPS units and with other agencies to effectively share and integrate data and information.

Contact: John_Gross@nps.gov

More Information

This newsletter is a monthly forum to share the latest news relating to NPS efforts to manage our parks in a changing climate.

Climate Change Response Program

Leigh Welling
Climate Change Coordinator
office: (970) 225-3513
Leigh_Welling@nps.gov

Comments, Submissions:
Angie_Richman@nps.gov

Request for Photos

In addition to summaries of work, the CCRP is looking for your best photos that demonstrate some aspect of climate change adaptation, mitigation, or communication. A different photo will be highlighted on the front page of this newsletter each month.

Please send your submissions to:
Angie_Richman@nps.gov

Workshop Summaries Continued

IMR Sustainable Strategy Workshop

The workshop took place December 2nd-4th, 2009 in Denver and brought together representatives from various departments to initiate a plan addressing how Intermountain Region (IMR) can incorporate Sustainability in our daily and future actions. There were 39 participants from departments such as Resources, Concessions, Park Operations, Communications, and External Affairs. The first part of December 2nd was dedicated to 'creating a shared understanding' of what NPS has done or is currently doing to become more Sustainable. This included presentations from Pacific West Region, the WASO based Sustainable Operations & Climate Change Branch, as well as IMR initiative regarding fleet management, renewable energy, & historic structures. The remainder of the workshop was dedicated to creating our regional vision, from this vision we developed goals, objectives, actions, and began identifying what barriers stand in the way of accomplishing these actions.

The IMR strategy is only in the beginning phase and we would like every IMR employee to help us create this plan. Therefore, a rough draft of the strategic plan and notes from the meeting will be posted on our SharePoint site on February 15th. The SharePoint link will be accessible via <http://imr.nps.gov> on a soon to be created Sustainability webpage which will be located under Communications & External Affairs. We welcome your feedback.

Contact: Margaret_McRoberts@nps.gov

Climate Change Workshop for Greater Yellowstone

In November 2009, approximately 90 people representing academia; county, state, and federal agencies; and non-governmental organizations convened at Montana State University for a workshop titled "Climate Change, Land Use Change,

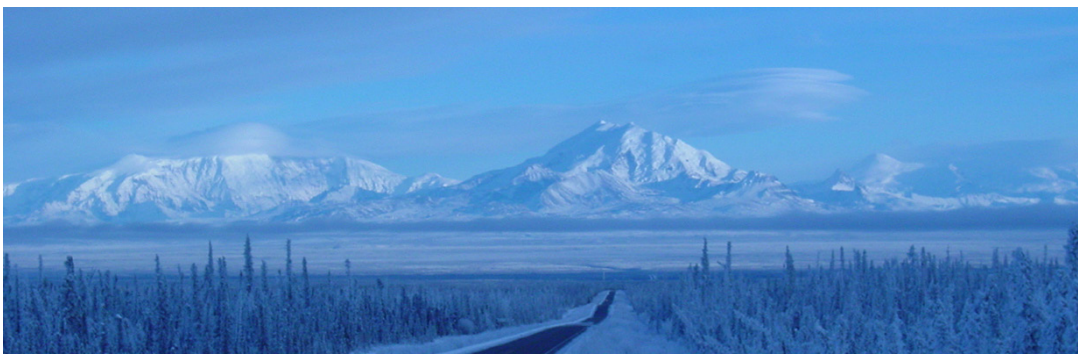
and Invasive Species as Drivers of Ecological Change in the Greater Yellowstone Area" to develop a 20-year science agenda on these topics. These three external ecosystem drivers threaten to dramatically alter Greater Yellowstone's public and private lands. This workshop was held to support the formulation of science agendas by identifying information gaps in order to steer the research community toward the most important science needs of Greater Yellowstone land managers, and to inform agency research funding and permitting. Results will be shared in a technical report, Yellowstone Science, and during the 10th Biennial Scientific Conference on the Greater Yellowstone Ecosystem, "Questioning Greater Yellowstone's Future: Climate, Land Use, and Invasive Species." The science agenda is expected to be available in mid-2010.

For more information, go to: www.greateryellowstonescience.org/gyascienceworkshop
Or Contact: Glenn_Plumb@nps.gov

Great Basin / Mojave Desert Climate Change Workshop

The U.S. Fish and Wildlife Service, the U.S. Geological Survey, the National Park Service, and the Environmental Protection Agency, in collaboration with several other agencies and organizations, are sponsoring a workshop focusing on natural resource research, adaptation and mitigation needs related to climate change in the Great Basin and Mojave Desert. The workshop will be held April 20th-22nd at the University of Nevada-Las Vegas and will examine how climate change is affecting natural resources in deserts of the western U.S., as well as examining the land, water and species management and research needs that are essential to address in the coming decade.

For more information, go to: <http://www.wr.usgs.gov/workshops/>
Or Contact: Kathy_Tonnessen@nps.gov



Wrangell Mountains in Wrangell-St. Elias NP. Courtesy of John Morris.

Advisory Groups

Several advisory groups have been established to help the CCRP address climate change agency wide.

Climate Change Response Steering Committee:

The committee will be meeting January 27-29, 2010 to discuss the response strategy plan and other actions to move forward in the new year. For more information about the committee and call notes, go to:

<http://nrpcsharepoint/climatechange/CCR%20Steering%20Committee/Forms/Items.aspx>

Working Groups:

Policy, Planning, Science, Mitigation, Communication & Adaptation.

For more information about the steering committee or working groups contact:

Melanie_Graham@nps.gov

Working Group Highlight - Planning

The Planning Working Group (PWG) has been developing several products since June 2009 designed to integrate climate change concerns into the planning process. These include: assisting with EQD's interim guidance on climate change; developing a whitepaper that reviews the pilot climate change scenario plans developed in 2009; evaluating the NPS park planning framework to

determine where and how climate change fits in; and developing the goals and objectives found in the draft NPS Climate Change Response Strategy. The PWG will continue its work in 2010 to assist the Steering Committee with ongoing evaluation of planning needs and recommendations for climate change response.

Contact: Pat_Kenney@nps.gov

Intermountain Region Update

An Intermountain Region Needs Assessment for Climate Change training needs has recently been initiated with the University of Arizona, School of Natural Resources and the Environment. This assessment will be completed in FY 2010 and will place IMR in a position to develop climate change training and development opportunities that match the needs of employees.

Contact: Theresa_Ely@nps.gov

The Intermountain Region's Resource Stewardship Advisory Team (RSAT) Climate Change Subcommittee (CCS) has developed a FY 2010 work plan and now meets monthly to discuss national and regional initiatives focused on Climate Change. For more information and committee notes, go to: <http://inside.nps.gov/regions/cus-tommenu.cfm?lv=3&rgn=1567&id=8259>

DSC and Climate Change Update

Planning Engaged in Best Practices of NEPA and Climate Change

The Denver Service Center's (DSC) Planning Division has been engaged in NEPA-climate change issues since 2007 by developing general management plans (GMPs) and other NEPA documents that meet the requirements of Executive Orders, Secretarial Orders, NPS Management Policies, and EQD's draft interim NEPA guidance. A number of planning efforts have successfully evaluated the level of greenhouse gas (GHG) contributions and developed strategies for GHG mitigation and resource management. Several new GMPs (JOTR and WICA) will build on the climate change scenario planning work that was completed, and other planning efforts will incorporate

climate change response into the "alternatives development" phase of the project.

Contact: Patrick_Malone@nps.gov

Sustainable Transportation

The Transportation Division at DSC is looking to develop BMPs & criteria for sustainable road/travel way projects. DSC is working towards greener and more sustainable road/travel way projects that have a rating system similar to LEED to demonstrate this effort. The group is looking into many models, including Green Roads, GreenLITES, DSC Sustainable Checklist, and Sustainable Site Initiative. DSC would like to notify other groups as we move through the process as there is great value in networking.

Contact: Jan_Burton@nps.gov



Pueblo Bonito with a light dusting of snow at Chaco Culture NHP. Courtesy of Ron Warner.

Climate Friendly Parks Update

The Climate Friendly Parks (CFP) program staff contributed to testing the EPA's new greenhouse gas (GHG) inventory protocol. The EPA is currently working with contractors to finalize public sector GHG inventory standards and asked all federal agencies to provide input. The NPS has completed the questionnaire, in which it compared the Climate Leadership in Parks (CLIP) inventory tool to the EPA requirements. The CLIP tool has been successfully used in 44 parks to inventory GHG emissions and forms the basis for emissions mitigation and sustainability action planning in parks. Using 10 parks, CFP staff compared data queries with those proposed by the EPA and detailed how the CLIP tool can be updated to be compatible with the new protocol. Contact: Julia_Corby@nps.gov

Below is a scan of the Crissy Field sea level rise exhibit as seen in a front page photo spread from the San Francisco Chronicle. This shows how far-reaching a message can become from a very simple demonstration. Contact: Will_Elder@nps.gov

Grand Canyon Hosts CFP Workshop

Grand Canyon National Park held its Climate Friendly Parks workshop on Oct 14th-15th, with over 100 participants. In addition to Grand Canyon staff, other attendees included staff from nearby parks, park concessioners, tribes, other government agencies, local universities, public utilities, NGOs and local community representatives. The park is currently drafting a climate action plan based on the results of the greenhouse gas inventory as well as ideas generated from the various break out groups that convened during and subsequent to the workshop. The action plan is anticipated to be finalized by the end of January, 2010. Contact: Kathryn_Parker@nps.gov

Lake Mead Hosts CFP Workshop

Lake Mead hosted nine other parks in the Mediterranean Coast and Mojave Networks for a Climate Friendly Parks (CFP) workshop on December 1st and 2nd. Over sixty participants attended the workshop, which is the second multi-park, or "cluster," workshop held in the Pacific West Region after the San Francisco Area Network CFP workshop in October. A diversity of park and regional representatives and partners participated, including concessioners, park superintendents, natural and cultural resource staff, law enforcement, maintenance and interpretation staff, the National Parks Conservation Association (NPCA) and Student Conservation Association (SCA) Interns.

During the two day workshop, the CFP team introduced the action planning process and parks presented GHG inventory results, sustainability projects and mitigation actions they are considering. Completing the action plans is the final step to becoming a CFP Member Park and will likely be completed for all ten parks by late spring 2010. Additionally, SCA Interns have played a crucial role in the CFP process for PWR parks by coordinating emission inventories, tracking down data, and planning workshops. Interns are currently working with the Region on three other regional networks (to be held in Seattle, Crater Lake and Haleakala), that are scheduled to hold workshops early next year. The Pacific West Region anticipates that all park units in the region will be CFP Member Parks by the end of 2010. Contact: Julia_Corby@nps.gov

CLIMATE CHANGE

Worst-case planning

How high the sea?
What the balls on the pole at right represent:

- 19 feet, 8 inches**
Sea level if Greenland Ice Cap melts (if the ice at both poles melted, the ocean would reach the road deck of the Golden Gate Bridge)
- 9 feet, 6 inches**
100-year flood level with a 4-foot, 6-inch rise in sea level and a storm surge
- 4 feet, 7 inches**
High end of predicted sea level rise by 2100
- 3 feet, 3 inches**
Moderate estimate of predicted sea level rise by 2100 (approximately today's 100-year flood level)
- 1 foot, 8 inches**
Low end of predicted sea level rise by 2100

Governor's new panel to suggest actions in case warming can't be stopped

By Wyatt Buchanan
CHRONICLE SACRAMENTO BUREAU

SACRAMENTO — California has set an ambitious agenda to combat climate change, but on Wednesday Gov. Arnold Schwarzenegger said the state needs to prepare for the worst if human action cannot stop global warming and the rise of sea levels.

In an announcement on San Francisco's Treasure Island, Schwarzenegger said he is creating a panel of 23 California leaders to recommend specific actions to prevent the destruction of infrastructure and deal with a depleted snowpack, the spread of disease, intense wildfires and other calamities that would result within the century from climate change.

"I normally never make a Plan B because then you start concentrating on that and

Climate continues on A19

On the waterfront path at San Francisco's Crissy Field, a pole marks the different levels of rising ocean waters that might occur due to global warming over the next century.

Source: March 2009, Pacific Institute study

Source: San Francisco Bay Conservation and Development Commission

Land that would be underwater if sea level rises 5 feet