



Earth, Wind & Water

News from the NRPC

September 2007

Climate change issues explored at NRPC all-hands meeting

Unprecedented disturbance of natural systems because of global climate change is forcing the National Park Service to examine how to plan for an uncertain future. National park managers are clamoring for leadership and guidance on climate change issues from the Washington Office and Natural Resource Program Center (NRPC). On August 22, 2007, the NRPC challenged itself to become the National Park Service leader in global climate change issues and to begin incorporating climate change thinking into its operations.

Nearly 200 NRPC staff met in Denver to explore six strategic areas related to helping parks cope with climate change: legal & policy, science & monitoring, communication, greenhouse gas mitigation, adaptation and management action, and landscape scale coordination. Breakout groups met to answer four questions:

- What additional questions will parks and the public be asking and what should we be asking?
- What are we already doing that is relevant to parks for coping with climate change?
- What additional technical assistance can we provide to parks (information, monitoring, mitigation, adaptation, response strategies, etc.)?
- What should our priorities be?

The discussion generated tremendous energy and is a first step toward

developing interdivisional approaches to address the complex and far-reaching issues.

Climate change impacts parks differently, but participants in the daylong discussions agreed that the NRPC has the capacity and expertise to help park staffs cope. For example, the NRPC can help park staffs plan for change, develop tools to prioritize and make difficult decisions regarding resources, and facilitate monitoring of resources impacted by climate change. The group also discussed better coordination of existing climate change thrusts within the center, minimizing the center's carbon footprint, partnering with other agencies, and communicating climate change information to various audiences.

To help guide this effort, Dr. Leigh Welling will be joining the NRPC. Leigh is the director of the Crown of the Continent Learning Center in Glacier National Park, Montana, and has been serving as the national coordinator for Research Learning Centers. She will be moving to Fort Collins this fall to assume her new climate change responsibilities.

The engaging and interactive format of the all-hands meeting drew on the expertise of NRPC staff to tackle one of the most difficult issues facing natural resource preservation in national parks. The ideas generated from this meeting are being summarized and reported for follow-up action and integration into everyday operations. To learn more

about the NRPC's discussions of global climate change visit the NRPC Share-point [Climate Change Response Site](#).

Meetings such as this one give the NRPC the opportunity to become a leader on the issue of climate change for the National Park Service. As complex issues that require interdivisional interaction emerge, all-hands meetings will serve as a forum for discussion and problem-solving.



An iceberg floats in Bear Glacier lake, Kenai Fjords National Park. Bear Glacier is undergoing a rapid retreat.

Life in the Fast Lane

NRPC in Brief

Director's Column

These have been exciting times in the NRPC. In the past few weeks we have seen several milestones that illustrate how the NRPC can rise to the challenge of meeting stewardship needs for national parks. Interdivisional cooperation and communication will be a cornerstone in how we do business in addressing these challenges.

The first milestone brought together key staff from across the NRPC and the Intermountain Region to plan for the implementation of the Ocean and Coastal Resources Branch. This branch will rely on expertise from across the NRPC and allow us to provide an organizational focus on oceans.

In the same week we held the all-hands meeting on climate change. I was very impressed with the quality of the discussions and your contributions to the dialog. I left that meeting feeling energized and look forward to identifying how we can become engaged and make a difference.

Finally, there has been a lot of progress on improving our communications: the all-hands meeting, this newsletter, the launch of the effort to improve our intranet presence, and the soon to be announced launch of the new NRPC SharePoint collaboration site.

All of these milestones rely on enhancing interdivisional cooperation and communication. Thank you for your efforts.

George Dickison, Center Director

A recent call to the NRPC: "I'd like an appointment with the dentist." NPS Operator: "I am sorry, you have reached an office of the National Park Service. Caller: "Well, that won't work, unless I needed my deer's teeth cleaned!"

The NRPC Divisions and Offices are busy with many different projects and activities. Here is a sampling of some of the work they are doing.

Air Resource Division • Air Briefing for Acting Assistant Secretary FWP: The Chief, NPS Air Resources Division (ARD), briefed David Verhey, Acting Assistant Secretary for Fish and Wildlife and Parks, about air quality issues associated with power plants proposed to be located near parks. The ARD currently has approximately 40 permit applications for proposed power plant projects in various stages of review. One such project, Westmoreland- Gascoyne, may adversely impact visibility at Theodore Roosevelt NP. Mr. Verhey was also briefed on proposed revisions to the Federal Land Managers' Air Quality Related Values Workgroup report.



Theodore Roosevelt National Park

Biological Resources Management Division • A group of distinguished geneticists met at the NRPC on August 29 to identify priorities for the genetic conservation of the Devils Hole pupfish. The only native population of this species occurs in Death Valley National Park, and census numbers for the last three years have not exceeded 85 adults. Not only has the species shown the loss of variation through years of bottlenecks, a population established at the nearby Point of Rocks appears to have hybridized with the closely related Ash Meadows pupfish. Scientists from three universities and government agencies addressed the genetic aspects of several complex issues, including the minimum size of the Devils Hole population to sustain removal of fish

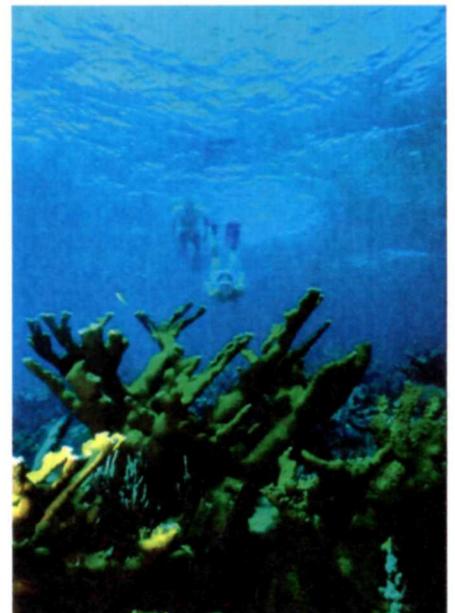
to establish a refuge population and backcrossing with a closely related species to restore variation. The meeting was hosted by BRMD and WRD, and requested by senior managers of NPS, the US Fish and Wildlife Service and the Nevada Department of Wildlife, which share responsibility for the survival of the Devils Hole pupfish.



Devils Hole Pupfish. USFWS

Environmental Quality Division • In July 2007, the Allie B and Igloo Moon Restoration Plans and Environmental Assessments (RPs/EAs) were completed and a FONSI for both documents was signed in August 2007. Both the Allie B and Igloo Moon RPs/EAs identify preferred alternatives for the restoration of coral reef injured by vessel groundings at Biscayne National Park.

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Two snorkelers explore Biscayne National Park's Elkhorn Reef.

Life Outside the NRPC

The Triple Bypass, A Ride to Remember

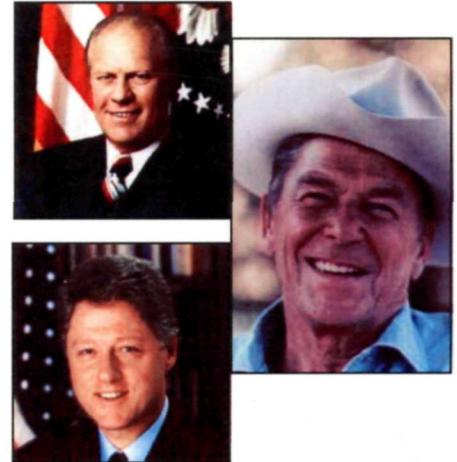
On July 14, 2007 two intrepid NRPC cyclists pedaled with a group of 3,600 riders for 120 miles over mountain passes to complete the 2007 'Triple Bypass.' Mike Britten and Bill Hansen started at 6:15 am in Evergreen, CO. The event took them over Juniper, Loveland, and Vail passes to Avon. The view of the mountains and the energy of 3,600 extremely fit riders made the 8- 1/2 hours in the saddle a memorable experience. The hardest part of the event was the climb out of Georgetown and Swan pass; Bill commented that "they call it the Triple Bypass and then they went and stuck a fourth pass in between Keystone and Breckinridge." Even after all those miles Bill said that he would probably do the ride again, "It felt great to finish a challenging race such as this for my 50th

birthday and I felt good that I passed a lot more folks on the hills than passed me. To finish the race you need to go at your own pace and feed/water your body." Mike applauded Bill's support. "Bill was great in encouraging me both to participate and in training. I had not ridden much at all before this event and Bill helped me in lots of ways from teaching me how to ride in groups and with my training." Anyone up for a ride?



Next Issue's Mystery Person

Which NRPC employee has performed for 3 presidents?



If you know someone that has a talent, skill, significant goal, amazing adventure, or is involved in extra-curricular activities that should be recognized, please send submissions to Sara_Melena@nps.gov.

NRPC in Brief

(Cont'd from p. 2)

Geologic Resource Division • Soaring mineral commodity prices along with alternative energy development requirements of the Energy Policy Act are driving development proposals that potentially affect numerous NPS units in the western U.S. GRD's Kerry Moss is working with other NRPC offices, regions, and parks to address issues such as uranium, oil shale/tar sands, and geothermal development in and near park boundaries. • As the climate warms, glacial retreat can cause lakes with



Open pit uranium mine near Coeur D'Alene, Idaho. USFWS

outburst potential to form. GRD's Deanna Greco is working with Klondike Gold Rush and the Army Cold Regions Lab to evaluate potential for outburst floods and debris flows to impact park resources and visitor safety.

Water Resources Division • With the discovery of Quagga / Zebra mussels in Lake Mead in January 2007, an ICS system was utilized to prepare the *Quagga / Zebra Mussel Infestation Prevention and Response Planning Guide*, to hopefully limit the spread to other NPS units in the west. The guide can be reviewed on Inside NPS. • The County of Hawaii Planning Director has



Zebra Mussel on Native Mussel. USFWS



Ai'Opio Fishtrap, Kaloko-Honokohau NHP. Marc Bodine

determined that the opinions of two consultants to the developer of the Shores at Kohanaiki were sufficient to satisfy concerns that the development's proposed golf- course irrigation system would not negatively impact anchialine pools in Kaloko- Honokohau National Historical Park. Although the NPS and the consultants agreed that the withdrawal of 2.2 million gallons per day of brackish water adjacent to the ocean and the national park would increase the salinity of anchialine pools, the County determined that the increase in salinity would not have a negative effect upon the anchialine (Cont'd on p. 4)

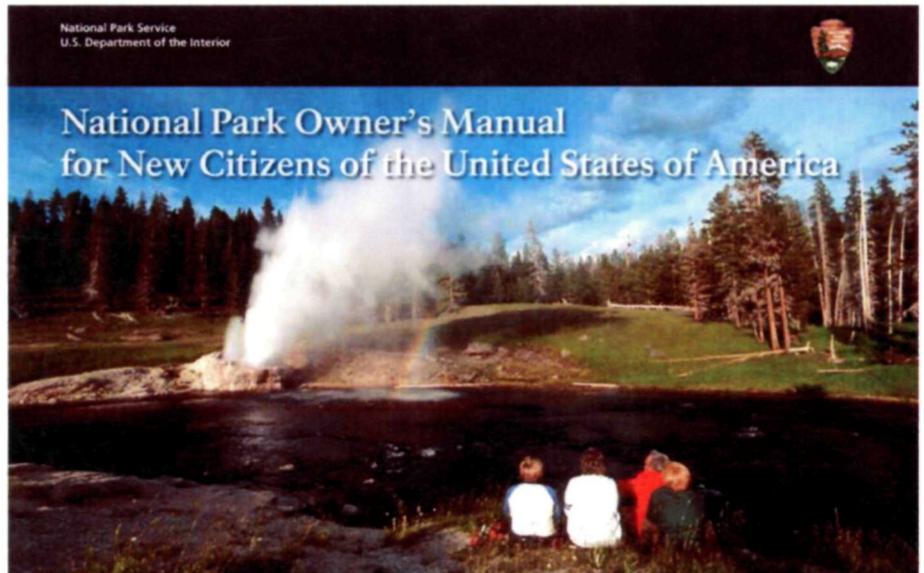
A Bright Idea

Recently, the show “Mythbusters,” on the Discovery Channel performed an experiment to determine whether it is more energy efficient to leave a light on or turn it off when you temporarily leave a room (episode #69). Many of us have operated under the belief that if you are going to be out of a room with fluorescent lights for only 5 or 10 minutes, you should leave the light on because it takes more power to restart the light than it does to run it for that short period of time.

To test this theory, the Mythbusters team performed power consumption experiments on incandescent, LED, halogen, compact florescent (CFL), and traditional florescent (4 ft. tubes) lights. Based on the amount of energy consumed turning on the bulb, they were able calculate how long the bulb would have to be turned off in order to make it worth the energy savings, i.e. "It's best to turn off the bulb if you are leaving the room for":

- Incandescent: 0.36 seconds
- CFL: 0.015 seconds
- Halogen: .51 seconds
- LED: 1.28 seconds
- Fluorescent: 23.3 seconds

In other words, it's almost always saves energy to turn the bulb off.



The new National Parks Owner's Manual, developed through the Natural Resource Partnership Program.

NRPC in Brief

(Cont'd from p. 3) pool ecosystems because the organisms in the anchialine pools are believed to be adapted to a wide range of salinities.

Office of Education & Outreach • Its been a busy quarter for OEO, highlights include Jana Friesen snagging recently retired WASO Deputy Chief of Public Affairs Elaine Sevy as a volunteer for NRPC. Elaine's great talents have already paid off, as she drafted the text for the Naturally Speaking electronic newsletter issue covering the newly developed new-citizen's "National Park Owner's Manual for New Citizens of the United States of America." So far approximately 1,000 manuals have been distributed. Much positive feedback has been received regarding this great product. Several OEO team members assisted **Diana Maxwell, NRSS Partnership Coordinator**, to get the Owner's Manual created with special credit going to **Jeff Selleck, Jana Friesen, and Jeff Goehring.**

Office of Inventory, Monitoring and Evaluation (OIME) •

Last month, John Gross (OIME) participated in the NPN (National Phenological Network) Research Coordinating Network meeting in

Milwaukee, the first meeting of a 5-year project sponsored by the National Science Foundation to facilitate and promote development of the NPN and associated research projects. NPS has been a supporting partner in developing the USA- National Phenological Network (USA- NPN) since the first planning meeting in March, 2005 and is represented on the first USA- NPN Board of Directors. The USA- NPN established a national coordinating office in Tucson, Arizona, and this past August Dr. Jake Weltzin assumed his position as Executive Director. OIME remains involved as the USA- NPN establishes citizen science projects (e.g., Project Budburst), identifies core species for a national monitoring network, develops protocols, and puts an information infrastructure in place for managing and sharing data and data products. For more information, contact John Gross or visit <http://usanpn.org/>

Office of Natural Resource Information Systems •

The Office of Natural Resource Information Systems (ONRIS) is working with the OCIO and Verizon engineers to redesign the way the NRPC connects to the greater NPS/ DOI Wide Area Network. This should result in fewer gateways or

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NRPC Work Day at ROMO

In July, NRPC employees from both Denver and Fort Collins resumed their annual assault on exotic plants in Rocky Mountain National Park. Over 40 Program Center staff, representing ARD, WRD, GRD, BRMD, and a number of affiliated Colorado State University research associates showed up to pull, pluck, yank, behead, or otherwise eradicate dalmatian toadflax, mullein, yellow and white sweetclover, musk thistle and diffuse knapweed. Yet all was not wanton destruction of plant life, as a separate team of NRPC staff also assisted in the park greenhouse, tenderly and carefully transplanting native seedlings for their eventual relocation to needed sites inside the park.

Organized by Heise-Squared (J. Heise, ROMO; B. Heise, GRD) this is the fourth consecutive year of NRPC participation on park projects and the park couldn't be happier. This year these employees, together with American Conservation Corps volunteers and Rocky Mountain National Park staff, treated over 115 acres within the park during one day. Non-park employees contributed 340 hours toward this project. The work groups gathered 49 bags (55 gallons each) for a total of 2,695 gallons of possible seed materials, which equals somewhere in the millions of actual seeds. Additionally, 540 greenhouse plants were transplanted. A pretty good day for a bunch of computer jockeys. And next summer we'll do it all over again, look for an announcement in May, 2008.



Glen Patterson, USGS and Bill Jackson, Chief, Water Resources Division, at the ROMO workday.

NRPC in Brief

(Cont'd from p. 4) "hops" in order to reach Internet services. • Various new strategies will be deployed by ONRIS early in FY08 to improve the effectiveness and efficiency of development and production servers. These opportunities are particularly exciting and will include the first blade server environment within NRPC. • NRPC remains tasked with documenting all requests for IT support services (desktop computers, printers, server configurations, software installations, phone support, etc.) in the NPS Footprints Help Desk solution at <http://npshelpdesk.nps.gov/>. The continued support of staff to use this method for requesting services is greatly appreciated.

Planning Technical Advisory Group (PTAG)

• The PTAG highlight for FY2007 was the development of a recommendation that justifies the need for a park planning summit. Jointly developed by PTAG members, the recommendation was presented by chairperson, David Vana-Miller, to members of the NPS Planning Leadership Group (PLG) when that group met this past June in Washington, D.C. The recommendation highlights the lack of consistent implementation of the 2004 park planning framework, suggesting the need for more coordination among those engaged with elements of the framework. The summit would bring together key staff from throughout the NPS community and provide each a better perspective on the framework and the implications of their actions. The idea was well received by the PLG; PTAG will work with the PLG to make this summit a reality.

Restoration Technical Advisory Group (RTAG)

• A committee formed of RTAG members met in Ft. Collins in June to discuss the use of PMIS to identify natural resource restoration projects. Searching PMIS typically is done by RTAG members in response to funding

opportunities, budget exercises, or other such requests. Because the purposes and criteria for each search is different, RTAG feels that queries of the PMIS system should have the ability to be done quickly and produce a project list that is focused enough to respond efficiently to various requests for restoration related project information. To make PMIS more useful for this purpose, the RTAG committee agreed that the PMIS search engine should have the capability to query on keywords in the narrative text (i.e. "Description," "Justification," and "Measurable Results" sections) of each PMIS project entry. This recommendation was sent forward to NRPC representatives to PMIS.

Outreach Technical Advisory Group (OTAG)

• The NRPC communication plan and outreach efforts have been a top priority for OTAG. Results from this effort include: development of a draft communication plan, evaluation of the NRPC intranet, a proposal for hiring a design firm to develop a marketing strategy and branding for the NRPC, the NRPC newsletter. This effort will continue with a survey to parks and regions to understand their communication needs and development of other outreach efforts. Ask your OTAG representative to learn more.

Policy Advisory Group (PAG)

• PAG is comprised of a representative and an alternate from each NRPC division and the Office of the Associate Director, a division chief liaison and a chair. The inaugural meeting of PAG was this past spring, and the group has since discussed topics ranging from climate change to genetically modified organisms to the policy process within NPS. PAG brings in other staff as needed to address various issues, as we did when organizing the NRPC Climate Change meeting last month. The need as recognized by the NRPC management team is to address policy issues that often span across two or more divisions and

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Ch- ch- ch- ch- Changes

Gary Davis, Chief, Ocean and Coastal Resources Branch, WRD, will retire on October 4th, 2007 with more than 40 years of service. Gary has dedicated his career to ensuring that future generations will experience abundant ocean life and has been extremely effective in promoting marine conservation with the U.S. and around the world. His NPS career began at Virgin Islands National Park in 1968 and he has since then worked at Everglades and Channel Islands National Parks. Gary has served more than 70 national parks as the National Park Service's Chief Scientist for Ocean Programs.

David Joseph is retiring at the end of September. Dave has been with the ARD for almost 24 years. He started with the Environmental Protection Agency in 1972 and joined the NPS Air Quality Di-

vision in 1983. Dave has been the man behind the scenes ensuring that the ARD is producing first- class products from first- class data. His great perspective and hard work will be sorely missed.

Aaron Vimont, an ARD summer intern who helped with data entry and retrieval, completed his summer detail and is headed off to college.

Madelyn Carpenter, an Environmental Protection Specialist with EQD will be going on a detail to Sequoia/Kings Canyon, leading the park's environmental compliance for the month of September.

Briana Colier has joined EQD's Response program as an SCA partner. She will be working with EQD for six months.

Kirsten Leong joins the NRPC in September as the first leader of the Human

Dimensions Program in BRMD. Many people will have met Kirsten during her visits and summer stays in Fort Collins, as she completed her PhD at Cornell University as an NPS SCEP. The subject of her dissertation research was the human dimensions of deer issues in Northeastern national parks. Kirsten brings a broad ranch of biological skills to BRMD. In addition to her PhD, she holds a MS in wildlife ecology from the University of Florida and a BS from Brown University. Before going to Cornell, Kirsten was a research associate on the staff that opened Disney's Animal Kingdom in Florida, where she designed a long- term study on African elephant vocalizations, behavior and reproduction.

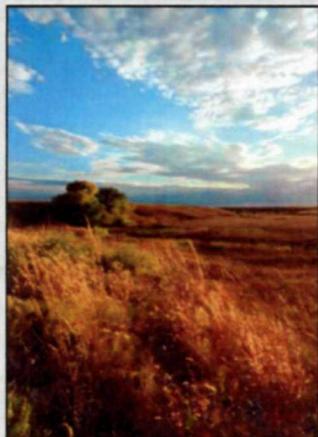
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Tallgrass Prairie National Preserve.

People in the News

Several members of the NRPC will be honored at the Department of Interior Awards Ceremony on September 12.

Mike Mayer (EQD), **Jake Hoogland** (EQD) and **Greg Eckert** (BRMD) join **John Dennis** (NRSS) and **Peggy Sandretzky** (NPS Liaison at the FWS National Conservation Training Center) with employees from all DOI Bureaus who developed the Adaptive Management Technical Guide. The group designed and launched the website and training program that takes adaptive management beyond the catch phrase to a practical tool. The next broadcast that begins to go into the detail of adaptive management steps found in the handbook is currently scheduled for September 27, with a final roll- out broadcast tentatively set for November. For those who would like to see the first broadcast, which features

Eckert and Mayer wearing ties and sounding smart, it is available on tape from Joe Chambers at NRPC.

Rebecca Landewe, EPA Intern with WRD this summer, has returned to EPA Region 7 in Kansas City, KS. During her stay, she produced a technical report, *Scope of Contaminants of Emerging Concern in National Parks*.

NRPC in Brief

(Cont'd from p. 5) may otherwise fall through the cracks. This will involve examining (or developing) a process by which various policy documents are reviewed in draft form as well as reviewing current policy documents for current relevance. PAG also provides a forum for the discussion of policy substance when changes or new policies are contemplated. Finally, the group is interested in promoting consistent interpretation and application of existing natural resources policies throughout NPS.