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Subject: Fw: AD-NRSS Monthly Report - August 2006

This is the monthly WASO Natural Resources Stewardship and Science report. For those of you in ocean parks, see the first entry on the Marine Cooperative Agreement between NOAA and DOI.

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**Associate Director
Natural Resource Stewardship and Science
Monthly Report – August 2006**

New Developments/Heads Up

Federal Marine Executives Sign Cooperative Agreement -- NPS Director Fran Mainella joined other federal ocean conservation executives in the Departments of Interior and Commerce, August 21, 2006, to sign the nation's first four-way cooperative agreement to enhance conservation of marine resources. On hand for the signing was Kameran Onley, Deputy Assistant Secretary at DOI, Tim Keeney, Deputy Assistant Secretary for Oceans and Programs at NOAA, the Directors of NOAA's National Marine Sanctuary Program and Estuarine Reserves Division, and the Directors of DOI's U. S. Fish and Wildlife Service and the National Park Service. This action began a new era by committing these organizations to share resources and expertise. This agreement formalizes and expands upon existing outstanding local cooperation among ocean and Great Lakes parks, refuges, estuarine reserves and sanctuaries. During the next year, at series of regional workshops, site managers will explore ways to improve operating efficiencies, resource understanding, planning effectiveness, public awareness, and law enforcement and rescue capabilities. For more information, contact Gary Davis at 202-513-7178; 805-658-5707.

Proposed New Airport Near Mohave NP -- The Natural Sounds Program is working to coordinate with various parks in the NPS Pacific West and Intermountain Regions regarding the Federal Aviation Administration and BLM's recent Notice of Intent (NOI) to construct the new Ivanpahugh International Airport just outside of Mojave NP. Given the potential impacts on park resources, it is likely that NPS will request Cooperating Agency status. For more information, contact Karen Trevino at 970- 225-3563.

NPCA Air Quality Report Released -- The National Parks and Conservation Association (NPCA) released a report on air quality in the national parks entitled, *Turning Point*. Drawing heavily from information on NPS websites, the report uses stories from parks around the country to describe how air pollution (including climate change) is affecting park resources, visitor and employee health, and scenic horizons. Besides identifying the types of the pollutants and their sources, the report highlights steps being taken to reduce park air pollution (e.g., within-park actions and collaboration with regulatory agencies, other scientists and educational institutions). NPCA commended NPS efforts to monitor, understand, report on and address air pollution in parks. The report suggests the challenge of cleaning up air pollution will intensify because of energy demand and the continuing focus on fossil fuels as the way to meet demand. Nonetheless, the overall tone of the report is cautiously optimistic. The report is available on the web at: <http://www.npca.org/turningpoint/Full-Report.pdf>.

First Technical Meeting on Contamination from Canadian Zinc Smelter -- Because of contamination caused by long-term discharges of slag from the Tech-Cominco Zinc smelter in New Brunswick, Canada, the NPS Water Resources Division participated in the first DOI meeting of technical experts charged with recommending Columbia River/Lake Roosevelt risk assessment studies. The meeting allowed technical experts to become acquainted with one another and be apprised of legal and policy issues surrounding the Superfund investigations (including recent developments and discussions with the Principle Responsible Party, Tech-Cominco). Other entities at the meeting included FWS, the USGS Water Resources Division national lab, Columbia, MD, and the USGS Biological Resources Division national lab, Patuxent, MD. NPS was represented by the Pacific West Region, Air Resources Division, and Water Resources Division. For more information contact Gary Rosenlieb at 970-225-3518.

NPS and FS Sign Forest Inventory and Monitoring MOU -- Chief Bosworth, U.S. Forest Service, and Deputy Director Martin, NPS, signed an MOU in August that focuses on the location and use of Forest Inventory and Monitoring Program plots in national parks. The MOU addresses using the NPS Research Permit and Reporting System to authorize and track FS activities in parks; constraints on installation, marking, and servicing of these plots; and developing regional plans. For more information, contact John Gross at 970-267-2111.

Publication of Maximilian's North American Expedition Journal --The Joslyn Art Museum, Omaha, Nebraska, and the University of Oklahoma Press, are collaborating to translate and publish the complete journal of Prince Maximilian of Wied's expedition to North America from 1832 to 1834. Fort Union NHS and the Great Plains CESU are providing financial support. The journal documents the journey of Maximilian, a German aristocrat and scientist, along with accompanying Swiss artist, Karl Bodmer, to the upper Missouri River. Maximilian's journal is by far the most significant unpublished record of the cultural and natural heritage of the area before European settlement. It provides an early firsthand account of life at Fort Union trading post, and, as such, is a critical resource for the park. The journal will appear in 3 Volumes - Volume I in November 2007, Volume II in fall 2008, and Volume III in summer 2010.

Administrative History of CESU Network -- The Rocky Mountains CESU and the University of Montana collaborated with WASO natural and cultural resources staff to initiate documenting the

administrative history of the Cooperative Ecosystem Studies Unit network. Dr. Ted Catton, historian with the University of Montana, will begin research in the new fiscal year. He will collect oral histories from individuals in the agencies as well as partners who were responsible for building the CESU network.

Mount Rainier NP Military Overflights -- Mount Rainier NP staff requested assistance from the NPS Natural Sounds Program in contacting McChord Air Force Base about some recent low level overflight activity. Program staff contacted the Base and its airspace manager expressed a willingness to work with the park and ensure their pilots fly not less than 2,000 feet above ground noise sensitive areas per FAA Advisory Circular No. 91-36D. For additional information, contact Vicki McCusker at 970-267-2117.

Western Regional Air Partnership (WRAP) to Meet at Glacier NP -- The WRAP meeting scheduled for Sept 13-14 in Montana will focus on air quality and climate in Glacier NP. The WRAP includes environmental directors from all the western states, as well as tribal leaders within each state, and federal land managers. Jack Potter, Resource Chief at Glacier NP; Leigh Welling, Director of the Crown of the Continent Learning Center; Dan Fagre, USGS scientist; and Chris Shaver, Air Resources Division Chief, will brief the WRAP and guide a field trip to the park. For more information, contact Chris Shaver at 303-969-2074.

Oil and Gas/EIS Scoping Meeting for Big South Fork and Obed -- The NPS Environmental Quality Division, Big South Fork National River and Recreation Area, and Obed Wild and Scenic River hosted public scoping meetings for the Big South Fork and Obed Oil and Gas Management Plan/EIS in August. Three meetings were held in Tennessee, and one in Kentucky, with 67 members of the public participating. Public scoping will end on September 26. The Oil and Gas Management Plan/EIS is needed to provide a park-specific approach to the management of oil and gas. Big South Fork accounts for more than one-half of all oil and gas wells in the National Park System. For more information, contact Jake Hoogland at 202-513-7188.

Arkansas Highway Department Agrees to Fund Geothermal Research at Hot Springs NP -- A few months ago, geothermal waters appeared near a domestic well. That well was close to a new highway bypass project in the vicinity of Hot Springs NP. Personnel at the Little Rock USGS Water Laboratory, in cooperation with NPS Geologic Resources and Water Resources Divisions, helped park draft a research proposal. Such research would investigate the reason geothermal waters infiltrated domestic groundwater and determine what effects such infiltration might have on park's hot springs. On August 16, the Director of Arkansas Highways and Transportation notified the park of their willingness to fund four of the proposed research tasks over several years for approximately \$458,700. For more information, contact Deanna Greco at 303-969-2351.

Appeal in Oklahoma Groundwater Case -- After the Oklahoma Water Resources Board restricted the amount of groundwater Meridian Aggregates can pump near Chickasaw National Recreation Area, Meridian appealed that decision to the Oklahoma State District Court. The lawsuit names the NPS as a defendant even though the NPS had earlier withdrawn its protest in the case. For more information, contact Chuck Pettee, at 970 225-3505.

Accomplishments

NPS/USGS Directors Meet -- NPS Director Fran Mainella and NPS Associate Director Mike Soukup met with Acting USGS Director Pat Leahy and Associate Director Sue Haseltine on August 14 to assess the progress of work agreed upon at their last meeting. They documented accomplishments in doing cooperative research (e.g., marine and hurricane oriented science, natural resource monitoring, and water quality). They also discussed possibilities for new cooperative initiatives in global climate change, invasive species, avian influenza, eastern forest restoration, and paleontology. The meeting reaffirmed their support for jointly doing science activities. For more information, contact John Dennis at 202-513-7174.

Natural Resource Program Center Video on Invasive Species to Receive National Award -- The recently released *Invaders of the National Parks* video, which provides insight on how invasive non-native plants have emerged as one of the key challenges facing the National Park Service, has been recognized as being a finalist in the National Association for Interpretation's (NAI) annual media awards. Deb Twell, NAI's events manager, provided the following remarks "I am pleased to inform you that your *Invaders of the National Parks* entry is a finalist in the video category . . . by receiving this letter, you are guaranteed that your entry will be awarded one of the awards." Final placement will be announced at the NAI national awards ceremony, to be held this year at Albuquerque, New Mexico, on November 9. The video was a joint project between the NPS Biological Resource Management Division and Office of Education and Outreach, and Montana State University. For more information, contact Mike Whatley at 970- 225-3541 or Linda Drees at (970) 225-3595.

Media Workshop a Success; Follow-Up Planned at GWS Meeting -- The workshop *Science and the Media: Communicating Natural Resource Issues to the Press* , from August 29-31, was a great success. Twenty-eight participants, and a host of presenters, gathered at the National Association for Interpretation's national headquarters in Fort Collins for this three day workshop. The event also attracted professional journalists and natural resource subject experts. The first version of this workshop was conducted in Rhode Island in 2005, and the third rendition will be presented, in abbreviated form, at the upcoming George Wright Society meeting in Minneapolis, April 2007. In Minneapolis, radio personality Elizabeth Arnold will be the keynote speaker for the plenary session, and other media experts will be there to provide assistance. This series of workshops has been coordinated and hosted by the National Resource Program Center, the Metcalf Institute for Science and Journalism, the National Association for Interpretation, and the George Wright Society. For more information, contact Mike Whatley at (970) 225-3541 or Peter Dratch at 970-225-3596.

Reported Rockfall at El Morro NM Assessed -- Geologic Resources Division (GRD) staff traveled to El Morro NM to investigate a reported June 28 rockfall at Inscription Rock which did significant damage to the concrete trail below. The park closed the trail segment until an assessment could be completed by GRD staff, which occurred the week of July 10. Virtually no rockfall debris was found, and a comparison of the rockface to old photographs found no signs of change. Park staff revealed that lightning strikes had taken place in the immediate area. GRD

staff concluded that the damage to the trail segment was caused by a ground lightning strike. For more information, contact Deanna Greco at 303-969-2351.

Interdisciplinary Team Assists Blue Ridge Parkway -- Mark Graham with the BRMD Wildlife Health Team, Mike Mayer with the Environmental Quality Division, and Kirsten Leong and Dan Decker with Human Dimensions at Cornell University, made a site visit August 29-30 to assist NPS staff in assessing potential biological and social impacts of white-tailed deer along the Blue Ridge Parkway. The team helped park staff evaluate the significance of their data, consider what types of data to collect in the future, and explore different strategies to reduce impacts. For more information, contact Mark Graham at 970-267-2160 or mark_graham@nps.gov.

Rain Event/Debris Flows at Coronado NM -- A regional storm triggered widespread heavy rain throughout southeastern Arizona in late July, causing park erosion and sedimentation. Coronado NM was perhaps the hardest hit when 30.5 cm (12 in.) of rain fell in Montezuma Canyon July 30 - August 1. Dozens of debris flows and "floods of record" in Montezuma Creek caused extensive erosion and localized sedimentation. The main road was covered in several places with 1-3 m of soil and rock and the upper road (over Montezuma Pass) was washed out in one location. The road was reopened for park and Border Patrol personnel, but remains closed to the public. Geologic Resources Division staff visited the site August 7-9 to address: (1) the safety of workers reopening the road, the stability of the deposits, and the stabilization of the water-supply well; (2) immediate and longer term road rehabilitation needs; and (3) the feasibility of reopening facilities (e.g., the cave trail, the State of Texas Mine road, and the picnic area). Division staff will work with the Denver Service Center, Federal Highways Administration, and the Arizona Geological Survey to address long-term park needs. For more information, contact Dave Steensen at 303-969-2014.

New Publication about Isle Royale NP -- The Water Resources Division announces completion of Isle Royale NP's Water Resources Management Plan. This plan, a cooperative effort between the Great Lakes Commission, Isle Royale NP, and the NPS Midwest Regional Office and Water Resources Division, provides a detailed overview of the park's water-related resources and an assessment of water-related issues and management recommendations. Copies of this plan be requested from the Water Resources Division (David Vana-Miller at 303-969-2813) or from Jean Battle, Isle Royale NP, at 906 482-0986.

New Publication about Glacier Bay NP& P -- The Water Resources Division announces publication of an *Assessment of Coastal Water Resources and Watershed Conditions at Glacier Bay National Park & Preserve (Alaska)* [Technical Report NPS/NRWRD/NRTR-2006/353]. This report, a cooperative effort between the University of Alaska Southeast and NPS, summarizes the current status of coastal resources, including water quality, water quantity, habitat condition, and resource utilization. The report is available for review at: [http://www1.nature.nps.gov/water/watershed_reports/WSCondRpts.cfm]. For additional information, contact Mark Flora, at 970 969-2956.

Annual Air Quality Data Report Available -- The 2005 Annual Data Report Summary has been completed. It is available on the Air Resources Division's web site at

<http://www2.nature.nps.gov/air/Monitoring/ads/ADSReport.cfm>. The report summarizes ozone, sulfur dioxide, and meteorology data collected at the Gaseous Pollutant Monitoring Program monitoring stations and at state operated stations that are in or near NPS units. Additional information on air quality trends and exceedances of the National Ambient Air Quality Standards for ozone and sulfur dioxide are included. Hard copy reports are being distributed to the participant parks while PDF versions are being made available to a much broader audience. For more information, contact John Ray at 303- 969-2820.

Air Quality Atlas Updated -- The Air Resources Division's *Air Atlas* has been recently updated. The 5-year average ozone, wet deposition, and visibility interpolation maps for 2000 to 2005 are completed. For more information, contact John Ray at 303-969-2820.

Progress

New World Mining District Restoration Meeting -- Yellowstone NP and WASO representatives attended the Hydrogeology Work Group meeting and tour on August 31, 2006, in Cooke City, MT. At this meeting, the Forest Service provided an updated project summary of remediation and restoration activities for the New World Mining District. The District is in its 8th year of remediation activities, and much has been accomplished, including 1) capping and recontouring of the McLaren Pit, 2) plugging and closure of the Glengarry Mine, 3) removal and disposal to an on-site repository of acid generating waste from selected mine waste rock and mill tailings sources located throughout the District, and 4) capping of the Como Basin exposed ore body and acid drainage source area. The waste repository is now closed and no longer accepting additional District waste, and site restoration is underway. Early data from surface and ground-water monitoring indicates that these response activities are having a positive effect with an overall reduction in mass flux of metal contaminants through the hydrologic system. Project work on District property is expected to be completed in 2007 with monitoring continuing into 2008 and beyond to determine if the reduction in contaminant concentrations in District drainages will be sufficient over time to achieve Montana water quality standards. For more information, contact Peter E. Penoyer, at 970-225-3535.

CASTNet Air Quality Network Planning Meeting -- Air Resources Division staff met with the EPA and its contractors to discuss improved operations, quality assurance, and future directions for the Clean Air Status and Trends Network (CASTNet). A list of action items was developed to improve network operations and coordination between agencies. *The Monitor* newsletter (<http://www2.nature.nps.gov/air/Pubs/theMonitor.cfm>), for example, will now cover all of the CASTNet monitoring network and not just the NPS side. The CASTNet ozone and dry deposition network is projected to use more meteorological modeling and more continuous ion analysis and ammonia monitoring. EPA and NPS may issue a joint annual report in the future. For more information, contact John Ray at 303-969-2820.

Completion of Soundscape Monitoring at Sierra Network Parks -- Natural Sounds Program field staff completed sound monitoring at Yosemite and Sequoia Kings-Canyon NPs. Program and park staff selected ten locations for monitoring because they exemplified the wide range of vegetation types and habitats (or "acoustic zones") present in the Sierra Parks. During the 25 day

monitoring period, program staff gathered raw acoustic data to determine the "natural ambient sound level" in these locales (what the sites would sound like without the input of human-caused sound) as well as the sound sources at each site. Monitoring also included four hour-long sessions in which field staff logged all audible sounds on personal digital assistants (PDAs). For more information, contact Emma Lynch at 970-267-2017.

Muir Woods Soundscape Questionnaire -- OMB has approved the "Understanding and Managing Soundscapes in National Parks: Muir Woods Soundscape Questionnaire". This is a joint social science research project between Muir Woods NM / Golden Gate NRA, Colorado State University and NPS. The survey is actually a follow up to work done in the park last summer. During the first phase of the project, a study instrument capable of extracting visitor preferences for soundscape settings was empirically tested at Muir Woods. The second phase of the proposal consists of testing and refining the soundscape study instrument and assessing the effectiveness of soundscape management practices. The work will be completed by mid October. For more information, contact Karen Trevino at 970-225-3563.

Resource Information Transfer Sessions -- During weekly sessions designed to improve the public's understanding of park science and resources management, and reflecting the function of NPS Research and Education Centers, various researchers and resource managers briefed NP interpretive staff about their current work. Topics during the eight-week program included techniques of bio-monitoring streams (Union River Watershed Coalition), the forest monitoring project (Brian Mitchell of the Northeast Temperate Network I&M Program), and lichen research in the park (Nat Cleavitt of Cornell University). For more information, contact Jim McKenna at 207-288-1328.

Acadia NP Teacher Institute -- This week-long workshop was a new venture for Acadia NP's Schoodic Education and Research Center. Classroom teachers from around the state of Maine spent five days at the Institute learning how to integrate an understanding of national park research and resources into their teaching curriculum. Park education and resource management staff, as well as university researchers, presented interactive sessions on such topics as air quality, seaweed reproduction, Gulf of Maine oceanography, forest monitoring, and measuring human impact. Funding for the workshop was provided by L.L. Bean through a "Kids in Acadia" grant from Friends of Acadia. For more information, contact Jim McKenna at 207-288-1328.

Congaree NP Long-term Water Monitoring Initiated -- Long-term water quality monitoring is underway at Congaree NP. Through a joint partnership between the Old-Growth Bottomland Forest Research and Education Center and the NPS Southeast Coast Inventory and Monitoring Network, remote data loggers have been deployed in Congaree's Cedar Creek and Toms Creek. Park staff, volunteer interns, and citizen scientists will do field data collection, while overall data management and reporting will be coordinated through the NPS Inventory and Monitoring Program. Such long-term data will assist in the management and protection of Congaree NP's recently designated Outstanding National Resource Waters. For more information, contact Theresa Thom at 803-695-0214.

Professional Meeting Attendance/Papers

Chronic Wasting Disease Presentation -- At the Wildlife Disease Association's international conference in Storrs, Connecticut August 6-10, Jenny Powers, wildlife veterinarian with the Biological Resources Management Division, gave a presentation entitled; "Peripheral and internal lymphoid involvement in pre-clinical chronic wasting disease in adult mule deer (*Odocoileus hemionus*)". This work was based on data collected from deer at Rocky Mountain NP. This activity was part of an ongoing chronic wasting disease management study at the Park, and in partnership with Colorado State University. For more information, contact Jenny Powers at 970-267-2122.

National Speleological Society Convention has Strong NPS Participation -- The convention held August 7-11, at Western Washington University in Bellingham, Washington, included a special session on Caves of Our National Parks and Public Lands. In addition, there was a National Parks and Public Lands Open Reception, focus meetings for NPS cave resources management specialists, and a meeting for the Klamath Network on cave-specific vital signs. Dr. Pat Seiser, a National Cave and Karst Research Institute (NCKRI) volunteer, hosted an exhibit about NCKRI and its recent activities. Convention attendees included the superintendents of Jewel Cave NM and Carlsbad Caverns NP. Ron Kerbo, NPS national cave management coordinator, was the keynote speaker for the convention banquet. Ron can be reached at 303-969-2097.

Staff News

Natural Sounds Program Intern -- David Stack, a graduate student at Colorado State University (CSU), recently began working with the NPS Natural Sounds Program via the jointly funded CSU/ NPS social science research program. His work, and the work of this cooperative endeavor, will entail developing reliable and credible sound indicators and visitor standards, assisting parks in assessing management action effectiveness, conducting field studies, publishing research papers, and developing soundscape management interpretive tools.

Environmental Quality Fellow Rotates -- Lindy Nelson, Presidential Management Fellow with the NPS Environmental Quality Division, has begun his "rotation" in the NPS-- to Point Reyes NS as of August 25th. Lindy reports that "...I was in the field all last week surveying gravel quarries - I'm working on a project to restore some pits with fill from a levee that is being removed in a different restoration project." And to think that a year ago, he was in Baton Rouge, on a "rotation" with FEMA, in response to some other levee issues...

New Social Science Program Intern -- The NPS Social Science Program is fortunate to have a new graduate intern working on social science issues for the next three months. Rebecca Gass comes from the University of Wisconsin, where she recently received her M.S. in Forestry, with an emphasis in the social aspects. Welcome Rebecca.