

THE COLORADO COLLEGE

**2011-12**

**STATE OF THE ROCKIES PROJECT:**

**THE COLORADO RIVER BASIN: AGENDA FOR USE, RESTORATION,  
AND SUSTAINABILITY FOR THE NEXT GENERATION**

SUMMER FIELD WORK 2011



# Rockies Field Work 2011

The State of the Rockies Project Summer research team headed south in 2011 with a tall task, to follow the Colorado River from its headwaters in the Rockies, to the Mexican Delta where the River traditionally reached the sea. From Colorado Springs the team crossed Colorado over the Rockies into the Colorado River Basin, then travelled south into Utah and Arizona, continuing all the way into Mexico, tracing the course of the River and investigating the issues in the Basin. From the border they headed back north, stopping at the South Rim of the Grand Canyon and the Navajo Nation, before finally making the long haul back home to Colorado Springs. Covering over 3400 miles, the trip reinforced the gravity of many issues the team had already been researching from afar at Colorado College.



## Glenwood Springs, Aspen, and Paonia, CO: July 11th

After climbing over the spine of the Rockies and passing from the Arkansas River Basin into the Colorado River Basin, the research team spent the first night of their trip along the banks of the Eagle River in Avon, CO. From there they met up with the main stem of the Colorado and followed its course through Glenwood Canyon, first in the van on I-70 and then in a raft, viewing the river up close. After emerging from the river, with an average temperature of 42-45 degrees fahrenheit, the researchers made their way to Aspen, CO to meet with Auden Schindler, the Vice President for Sustainability at Aspen Skiing Company. The day ended for the team in Paonia, CO where they learned about Western Slope agriculture and water issues from the Bradley family who run Orchard Valley Farms.



## Black Canyon of the Gunnison NP: July 12th

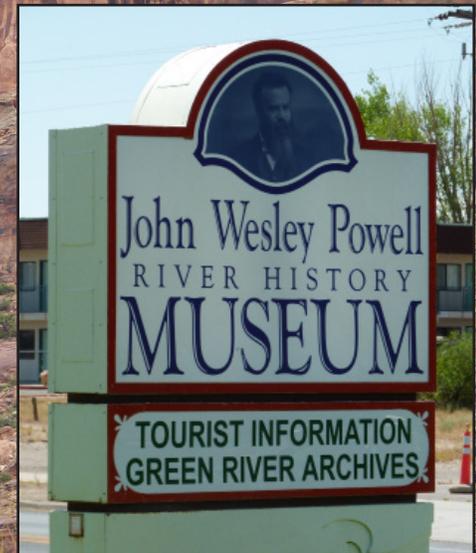
From Paonia, the Rockies research team made their way to the Black Canyon of the Gunnison National Park. During the morning the researchers scrambled down the canyon to the Gunnison River and saw up-close the high water for the summer of 2011, as well as the beauty and grandeur of the canyon. After the arduous hike up and out of the canyon, the team met up with Michael Dale, hydrologist for the park to discuss the river, the effects of the dams upstream from the park, and the in-stream flow rights recently secured for the park.



## Green River and Moab, UT: July 13

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Leaving Colorado, the Rockies research team crossed into Utah to explore the John Wesley Powell River History Museum. The museum added a historical lens to the summer research, showing the early exploration of the Green and Colorado Rivers. From there the team headed to Moab, UT where they met with Jon Weisheit of the Living Rivers organization. Jon's insight as a long-time river guide and advocate for the Colorado River brought to life many of the recreation and environmental issues the group had been researching.



## Moab, UT and Canyonlands NP: July 14th

After spending a mosquito-filled night along the banks of the Colorado at Goldbar campground near Moab, the Rockies team headed to the headquarters of the National Parks Service's Southeast Utah Group. Here they met with Paul Henderson, assistant Superintendent of the Group. Paul enlightened the group on the issues of managing the river system in Canyonlands National Park for multiple values and uses, as well as the issues associated with successfully managing amongst the plethora of government agencies working in the region. During the afternoon the researchers made the hike to the confluence of the Green and Colorado Rivers in the heart of Canyonlands NP.



## Page, AZ and Lake Powell: July 15th

From the beauty of the Canyonlands, the Rockies team continued their journey south to Lake Powell and Glen Canyon Dam. Witnessing the enormity of the dam, the researchers were left in awe as they saw where Glen Canyon ended and the reservoir began. After touring the depths of the dam and the hydroelectric system that produces energy from the passing water, the Rockies team camped on the shores of Lake Powell. With motorboats and fishing poles galore, the other values of the lake, beyond water storage and electrical generation became quite visible.



## Lees Ferry and the North Rim of the Grand Canyon: July 16th

After seeing the dam and the second largest reservoir in the United States, the Rockies team headed to Lees Ferry to see the downstream effects of Glen Canyon Dam. Lees Ferry, while seemingly a spot on the map in the middle of the Arizona desert, is a critical point in the managing of the Colorado River Basin as it is the demarcation line between the Upper and Lower Basin. For recreation purposes, Lees Ferry is also notable because it is the departure point for trips heading down through the Grand Canyon. The Rockies researchers witnessed the raft trips departing for the canyon, and felt the cold, clear Colorado River water being released from the bottom of the dam. That night the team camped on Forest Service land on the North Rim of the Grand Canyon and saw the lesser visited of the two canyon rims.



## Las Vegas and Boulder City, NV: July 17th-18th

From the solitude of the Grand Canyon's North Rim, the research team followed the Colorado River south to the metropolis of Las Vegas, NV. Meeting with officials from the Southern Nevada Water Authority, the researchers learned the difficulties associated with supplying water to a city in the desert. A trip to the Bureau of Reclamation office in Boulder City enlightened the team to the difficulties of managing the plethora of dams and diversions throughout the Colorado River Basin. From there they witnessed the largest reservoir in the United States, Lake Mead, and the Hoover Dam that regulates flows out of the Lake.



## Imperial Valley, California: July 19th

On day 10 of the Rockies research trip, the Rockies Team found themselves in California's Imperial Valley. The region is essential to the nation's food and vegetable supplies during the winter months. Meeting with Vince Brooke of the Imperial Irrigation District, the researchers toured the area's agricultural production and the infrastructure that supplies water to the valley. The team toured the Imperial Dam, and saw the All-American and Coachella Canals, all essential to supply California with Colorado River water.



## Mexico and the Cienega de Santa Clara: July 20th

From Southern California, the Rockies team continued even further south into Mexico to research the issues associated with Colorado River water south of the border. Meeting up with Osvel Hinojosa, and other members of the environmental group ProNatura, the researchers visited the Morelos Dam, the dry Colorado River bed in San Luis Rio Colorado, restoration sites in the Delta, and the Cienega de Santa Clara. In the Cienega, the research team was treated to incredible flora and fauna, and got a glimpse into the ecology of the Delta before it ran dry from diversions up-river. The ProNatura team also enlightened the Rockies team on U.S.-Mexico relations regarding the river.



## Yuma and Welton, AZ: July 21st

After reaching the end of the Colorado River at the Mexican Delta, the Rockies team started making their way north back towards Colorado. However, there was still research to be done. Back in the U.S., the researchers visited the Yuma Desalting Plant and met with Bureau of reclamation officials regarding water management on the southern section of the Colorado River. From there they travelled to Welton, AZ to meet with officials from the Welton-Mohawk Irrigation District, another large agricultural user of Colorado River water in southern Arizona.



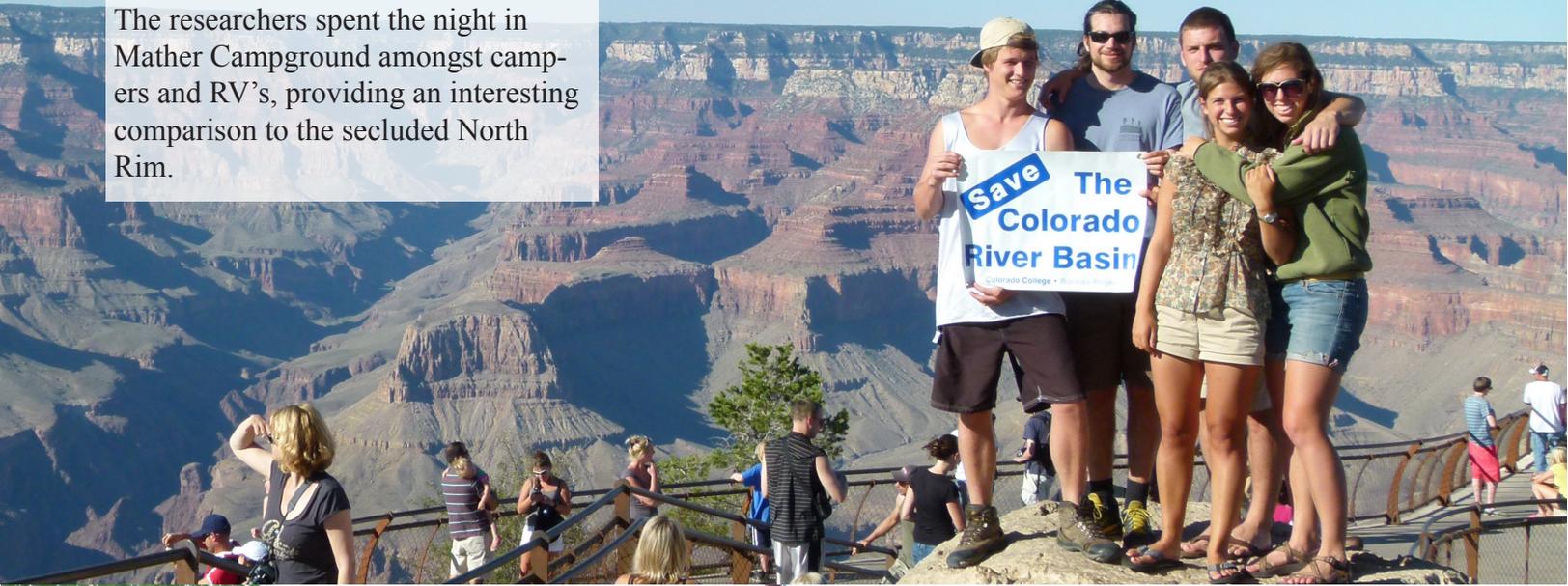
## Lake Havasu City, AZ: July 22nd

Further north, the researchers met with Bureau of Land Management officials to learn how they managed Lake Havasu for its recreational purposes amongst the other uses of the reservoir. Passing by the enormous intake pipes for the Central Arizona Project, the importance of the lake as a diversion point for irrigation also became apparent to the Rockies team.



## South Rim of the Grand Canyon: July 23rd

On day 14 of the Rockies Research trip, the team visited the southern Rim of the Grand Canyon, and witnessed the difference from the North Rim, as cars and buses filled the visitor center parking lot and throngs of tourists flocked to the edge of the canyon. The researchers spent the night in Mather Campground amongst campers and RV's, providing an interesting comparison to the secluded North Rim.



## Fort Defiance, AZ: July 24th



The final stop of the research trip brought the Rockies team to Fort Defiance, AZ to meet with Navajo Tribal Officials from the Tribe's Department of Justice- Water Rights Unit and the Water Management Branch. Here the researchers learned of the Tribe's infrastructure needs to adequately supply their people with clean drinking water and the legal issues associated with the Navajo Nation securing their own quantitative water rights. After this last meeting the Rockies team set their sights on Colorado Springs and home to complete the rest of their research for the summer, having witnessed the issues and conflicts of the Colorado River up-close.

## Students Researching, Reporting, and Engaging:

The Colorado College State of the Rockies Report Card, published annually since 2004, is the culmination of research and writing by a team of Colorado College student researchers. Each year a new team of students studies critical issues affecting the Rockies region of Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming.

Colorado College, a liberal arts college of national distinction, is indelibly linked to the Rockies. Through its Block Plan, students take one course at a time, and explore the Rockies and Southwest as classes embark in extended field study. Their sense of “place” runs deep, as they ford streams and explore acequias to study the cultural, environmental, and economic issues of water; as they camp in the Rocky Mountains to understand its geology; as they visit the West’s oil fields to learn about energy concerns and hike through forests to experience the biology of pest-ridden trees and changing owl populations. CC encourages a spirit of intellectual adventure, critical thinking, and hands-on learning, where education and life intertwine.

The Colorado College State of the Rockies Project dovetails perfectly with that philosophy, providing research opportunities for CC students and a means for the college to “give back” to the region in a meaningful way. The Report Card fosters a sense of citizenship for Colorado College graduates and the broader regional community.



### Research

During summer field work, the student researchers pack into a van and cover thousands of miles of the Rocky Mountain West as they study the landscape, interview stakeholders, and challenge assumptions. Back on campus, they mine data, crunch numbers, and analyze information.



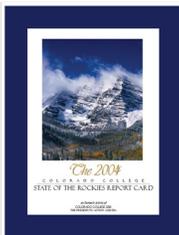
### Report

Working collaboratively with faculty, the student researchers write their reports, create charts and graphics, and work with editors to fine-tune each Report Card section. Their reports are subjected to external review before final publication.



### Engage

Through a companion lecture series on campus, the naming of a Champion of the Rockies, and the annual State of the Rockies Conference, citizens and experts meet to discuss the future of our region.



Each Report Card has great impact: Media coverage of Report Cards has reached millions of readers, and the 2006 report section on climate change was included in a brief presented to the U.S. Supreme Court. Government leaders, scientists, ranchers, environmentalists, sociologists, journalists, and concerned citizens refer to the Colorado College State of the Rockies Report Card to understand the most pressing issues affecting the growing Rockies region.



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