

COLORADO
PLATEAU

SUMMER/FALL 2007

Advocate

GRAND CANYON TRUST



ANNUAL

REPORT

Contents

- Letter from the Executive Director **2**
- Amending the Production Tax Credit **4**
- A Fork in the River:
Coping with Change on the Colorado **6**
- Moving Beyond Arizona's Fire Drill **11**
- Trial By Fire **12**
- Science, Policy, and Management:
Untangling the Threads of Stewardship **14**
- Good Trade **18**
- Breaking New Energy Ground **20**
- Cattle Conversation **22**
- The Power of Partnership:
The Kaibab-Vermilion
Cliffs Heritage Alliance **24**
- Kane and Two Mile
Ranches: A Storied History **26**
- Staff Notes **28**
- Annual Report **30**
- Planned Giving **31**

Editor's Note: The views expressed by the guest writers in this issue are solely their own and do not necessarily represent the views of the Grand Canyon Trust.

You can help the Grand Canyon Trust by taking action on any of the issues presented in this magazine by going to the **"Take Action"** section of our website at: www.grandcanyontrust.org; by writing a letter to the editor or an opinion-editorial piece for your local newspaper; by circulating a petition or writing a letter for presentation to your elected officials; or by organizing a forum and speaking out in your community.

This issue of the *Advocate* was not supposed to be about climate change—that was the subject of last winter's edition. Instead, I asked staff and guest writers for reports about Colorado River management, forest restoration, open space protection, native species conservation, and the Kane Ranch operation. And yet, when I read over the articles, I realized that climate change again weaves all through the work of the Grand Canyon Trust and everybody else who cares about the future of the Southwest.

It is remarkable how rapidly people are realizing that big changes are coming that won't just affect some unlucky coastal cities in Bangladesh. The latest models predict a 6 degree centigrade rise in average temperature for the Colorado Plateau over the next few decades. That will mean essentially no snowpack on the western Rockies, Wasatch, Uintah, La Sal and San Francisco Peaks. Instead, we will get sporadic, destructive rainfall events, flashing off the land carrying away our topsoil. Flows in the Colorado River will be far below the 17 million acre feet apportioned among the basin states in the 1922 Compact.

This is the reality behind the story told by Southern Nevada Water Authority Manager Pat Mulroy in this issue. Charged with finding water for one of the country's fastest growing cities in a place that was the lonesome outback when the Colorado River Compact was negotiated, she is perforce one of the most creative thinkers about Colorado River issues. We asked her to muse about the sustainable use of the river and she replied with the tale of how the basin states have united in a plan to share the pain of shortage. It is a first crack in the imposing edifice of river law that may crash down when the growing disparity between water rights and actual water can no longer be papered over.

Waning winter moisture means that forest communities across Arizona begin each summer looking fearfully at the woods for signs of fire that may send them running for their lives. Ethan Aumack, who co-chairs Governor Napolitano's Forest Health Advisory

LETTER FROM THE EXECUTIVE DIRECTOR
BILL HEDDEN

Committee, writes about how this new reality has driven an effort to make restoration, fire management, and community protection the centerpieces of statewide forest management. Underscoring the urgency, this document, which might have been an esoteric policy piece, is filled with action items aimed at allowing communities and forests to coexist in a dry future without either destroying the other.

The altered climate is also expected to push many species in the canyon country to the brink of trouble, especially ones (like boreal toads and humans) that live in small, moisture dependent niches. It is important, for that reason, to minimize avoidable sources of further stress on these vulnerable natives. Two articles in these pages describe aspects of the Trust's work in southern Utah to keep the original inhabitants on the land: Mary O'Brien writes about her efforts to change the way grazing, the most pervasive use of the federal lands, is managed on the Fishlake National Forest; and Laura Kamala gives the next installment in the long-running saga of getting legislation passed that will protect 48,000 acres of State Trust Lands along the Colorado River. Both initiatives spring from the belief that we had better do all we can now to preserve viable homes on this ark of ours.

It is important to keep in mind that climate change will alter natural systems in complex ways that will defy our preconceptions. To avoid too much blundering in our management of the vast Kane and Two Mile ranches, we are enlisting the help of archaeologists, historians and scientists so that we know as much about the past and present of that landscape as possible. Rose Houk tells the story of the establishment of the Kaibab-Vermilion Cliffs Heritage Alliance, which will study the earliest human inhabitation of the eastern Arizona Strip and preserve the cultural remains. Ranch manager John Heyneman documents what is known about the more modern history of the livestock operations, beginning with the Mormon settlers of the Civil War era. Northern Arizona



University conservation biologist Tom Sisk, who is science advisor to our ranch project, talks about the right use of science to guide on the ground actions and Ethan Aumack describes the actual projects that are being done. Overall, many people are helping us meet the challenges of stewardship in one of the country's most compelling spots.

We are in a transition period when national leaders still fear the thorough-going change that will be needed to avoid the worst consequences of our climate alteration. Nationally, congress seems bent on massive subsidies for coal-to-liquids, which may help security but does nothing about greenhouse gases. Utah still labors under a 1998 legislative mandate prohibiting state agencies from implementing any strategies to reduce greenhouse gases, but Governor Huntsman just signed the state on to the Western Regional Climate Action Initiative. Roger Clark and Congressman Raul Grijalva write in this edition about novel efforts to help build renewable energy generation capacity on Native American lands. In these times, leadership is emerging everywhere because the costs of continued inaction are unthinkable. 🌀



AMENDING THE PRODUCTION TAX CREDIT: Combating Global Warming Through a Clean Energy Partnership with Tribes

by Raúl M. Grijalva
Congressman, District 7, Arizona

In December, 2006, the “Tribal Lands Climate Conference” was held on the Cocopah Tribe’s land near Yuma, Arizona. Organized by tribes and environmental organizations such as the National Wildlife Federation, the conference brought together tribal peoples from all over the United States, including Alaska, to discuss the issue of global warming, its impacts on Native people, and solutions to the crisis.

A key discussion point during this conference was how central to the issue Native peoples are: not only do they experience the impacts of global warming more acutely than most due to their inter-dependence on wildlife and natural resources, but they have also suffered disproportionate health impacts from coal mining and other fossil fuel extraction on their lands, as well as the burning of coal by large power plants nearby.

Another issue discussed at length during the conference was the important role that tribes will play in our energy future. While tribal lands comprise only

5% of the land of the United States, these lands contain some of the richest deposits of non-renewable resources like coal, uranium and oil. These lands are also excellent sites for tapping into renewable power. Even excluding many areas where development is prohibited, tribal wind generation potential is roughly equal to 14% of the total U.S. electric generation, and a solar electricity potential of roughly 4.5 times the total U.S. electric generation, according to Department of Energy figures for 2004.

Traditionally, tribes have dealt with tremendous poverty, and many may turn to further extraction of their mineral resources as a way to make ends meet. However, increasingly, tribes are looking at renewable energy projects as a means to develop self-sustaining businesses for their people. Because of a quirk in current law, however, tribes are at a disadvantage when trying to attract renewable energy projects to their lands.

Last month I introduced a bill in the 110th Congress that, if enacted, could promote the development of

renewable energy projects on tribal lands that otherwise would not be built. I am hopeful that Congress will quickly pass this legislation in order to provide tribes with a critical tool they can use to tap into the renewables market.

The Production Tax Credit is a federal tax credit, established by Congress to promote the development of renewable energy projects, such as wind, biomass, and geothermal. The Production Tax Credit (PTC) provides a 1.9-cent per kilowatt-hour (kWh) benefit for the first ten years of a renewable energy facility's operation.

Under current law, tribal governments, who are tax-exempt, cannot benefit from the PTC. Because tribal governments frequently do not have the start-up capital to finance the construction of large renewable energy projects on their own, they have sought to enter into joint venture partnerships with outside private businesses that are looking for land on which to construct these projects. These can be useful partnerships, with outside partners providing capital and tribes contributing land in areas with high renewable energy potential.

The current PTC, however, was not designed for tax-exempt entities like Native American tribes and it prevents tribes from transferring the unusable share of the tax credit to these private business partners. While an outside financing company can take 100% of the tax credit if they place their project on private lands, if they locate on tribal lands, they may only receive a percentage of the credit based on their ownership interest, even if they are providing all of the financing for the project. This situation puts tribes at a tremendous disadvantage in the renewable energy field.

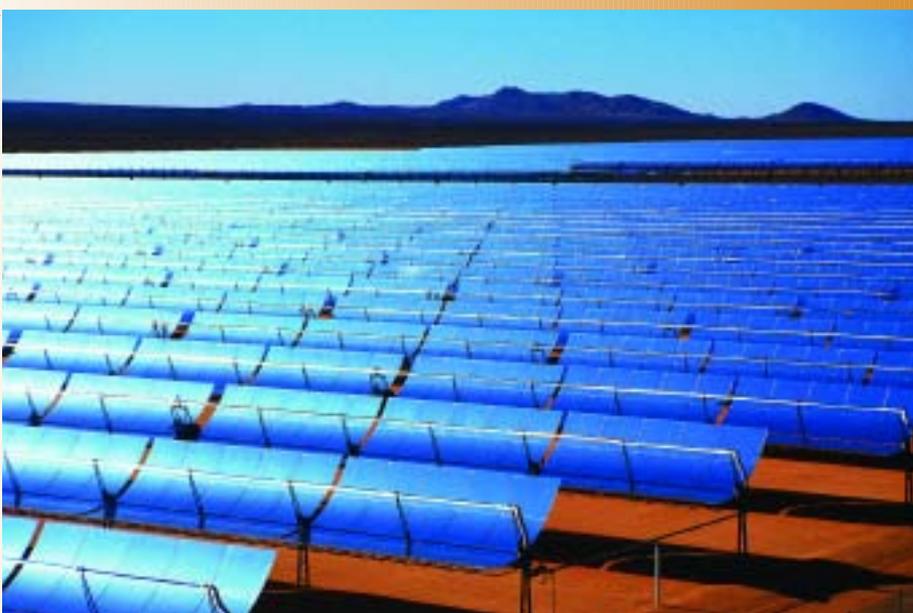
Because the federal government has a trust responsibility to Native American tribes, I feel strongly that this situation must be remedied, in order to both promote sustainable economic development on tribal lands, as well as ensure our country fully utilizes its renewable energy resources.

The legislation I have introduced would level the playing field for tribes by allowing them to transfer

their share of the tax credit to their partners in a joint venture, essentially ending the PTC's current discriminatory effect, and allowing tribes to develop utility-scale projects on their lands. This concept was endorsed by the Western Governors' Association last year, and it has the support of individual tribes as well as the National Congress of American Indians.

I am proud to have Representatives Ed Pastor (AZ), Dennis Moore (KS), and Betty McCollum (MN) as cosponsors of my bill. Earlier this month, I testified before the Ways and Means Committee on the bill

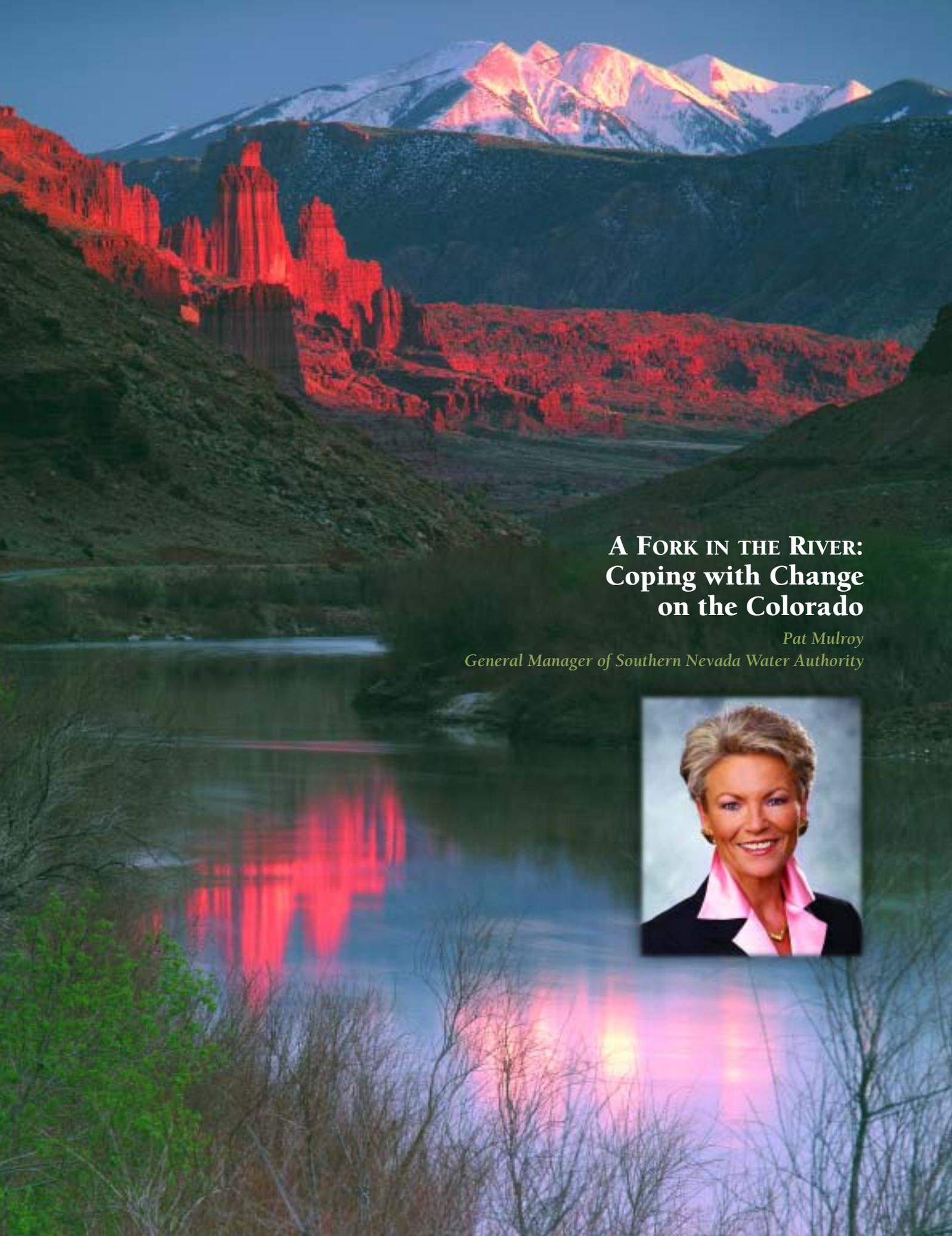
Corbis/MediaBakery



Congressman Grijalva's Production Tax Credit bill would help promote development of utility scale wind and solar power projects as depicted in the photos seen on upper left and above.

and Committee leadership expressed interest in it. I will continue to work hard in the coming months to move this bill to final passage. In the meantime, I also am cosponsoring efforts to expand and extend the current Production Tax Credit beyond the end of 2008 when it is set to expire.

The bill I have sponsored will allow tribes to tap into clean, non-polluting economic opportunities that do not rely on extraction of finite fossil resources, for the betterment of their own people, and ultimately for the benefit of everyone, as we seek solutions to the climate crisis we face. 🌱



**A FORK IN THE RIVER:
Coping with Change
on the Colorado**

*Pat Mulroy
General Manager of Southern Nevada Water Authority*



We are, depending upon one's perspective, entering a time of either tremendous hardship or unparalleled opportunity. The drought that descended upon the Colorado River seven years ago has shattered our illusion of resource security and forced each of us who depend on this 1,000-mile-long liquid ribbon to face a stark new reality. Carefully crafted plans have evaporated like the wind-whipped snow from the Rocky Mountains. Reservoirs that were literally brimming with water less than a decade ago shrink by the day, a vivid white chalk line marking richer times.

Yet I do not despair. Sixteenth-century English statesman and author Sir Francis Bacon observed that, "Prosperity is not without many fears and distastes; and adversity is not without comforts and hopes." These words have proven true recently when, in an unprecedented display of unanimity and compromise, the seven Colorado River Basin states submitted an operations plan to the Secretary of the Interior designed to address the uncertainties and challenges posed by the drought. Some might see it as merely another bureaucratic exercise, a document destined to join countless others in the archives. To view it that way, however, would be to dismiss one of the greatest accomplishments of the Colorado River Compact era—one that has the potential to redefine how water is viewed in the West. We have reached the point where the river diverges; which path we choose to follow will define our legacy as water managers and environmental stewards.

To fully grasp the magnitude of the Basin States proposal, submitted as part of a package of comments in response to the Bureau of Reclamation's Draft Environmental Impact Statement regarding Colorado River operations, one must go back more than 80 years and consider the original Colorado River Compact of 1922. The original compact was created as a means to impose structure on what was at that point unregulated use of the Colorado River. It was intentionally rigid, and reflected the realities of the day. While some have derided its seeming rigidity, I have often said that the compact is as flexible as the states choose to be.

Although times of plenty usually provide little incentive for change, the current progressive movement within the Colorado River Basin actually began in the high-flow years of the 1990s, when the Interim Surplus Guidelines were crafted and adopted. Water

banking—a concept that until then had not been considered viable by many—actually became a reality. The thaw in interstate relationships was as plain as a spring day in Colorado. It was not so much an alignment of the stars as an alignment of personalities—forward-thinking and intelligent, the Basin States' representatives were more receptive than ever before to innovation and change. The results were dramatic and, for a time, seemed to chart the river's immediate future.

Then came the unpredicted drought. Water managers have been criticized for not being more prepared for the Colorado River drought, but in fact there was no way to predict the weather pattern that has dominated the decade to date. The U.S. Bureau of Reclamation employs talented professionals with access to sophisticated modeling technology to predict elevations in the Colorado's primary reservoirs. At the time the Quantification Settlement Agreement was being finalized at the turn of the century, the statistical probability that Lake Mead would plummet to its current level was zero. In retrospect, of course, we recognize from tree ring studies that extended droughts are part of life in this region, just as water planners realized decades after the fact that the Colorado River was allocated following a series of unusually high-flow years.

There are, however, a number of positives that have emerged from the drought. The first is an ethic of water efficiency that would have been nearly impossible to engender without a crisis as severe as this. Agriculture uses the majority of the Colorado River's water; as the dominant land use in the early 20th century, this was as it was intended. The Southwest was built upon the culture of farming, and it remains critical to our region and country. Yet, with the migration of people from the eastern seaboard and Midwest to the Southwest, agricultural users suddenly found increasing numbers of municipal water users next to them at the trough. Even though the Southwest's decades-long population boom has made scarcely a dent in the percentage of Colorado River water dedicated to agriculture, some farmers became concerned that municipalities would soon target their water rights, while municipalities recognized that there was little to no chance of acquiring additional supplies from the Colorado. The only response that could alleviate the agricultural community's concerns

Title page photo: Fisher Towers and the Colorado River, Utah.
 Below: Colorado River from Lipan Point, Grand Canyon NP South Rim.
 Right: Flood runoff turns Colorado River orange.
 Far right: Morning light at Dead Horse Point State Park, Utah.



Martha Hehn

and at the same time meet the demands of growing cities was improved water efficiency.

Tucson, of course, was far ahead of the other southwestern cities. It had two natural advantages: First, because of its scenic desert location, the natural landscape is inherently palatable to residents. Second, it was water-efficient from its inception. As the drought's impact began to be felt, however, other cities began to make the painful transition from excess to efficiency. No place was this more challenging than Las Vegas, where, before the Southern Nevada Water Authority was created in 1991, municipal water agencies operated on a "use it or lose it" basis. Low water rates based on delivery costs discouraged conservation, and the majority of new residents hailed from greener climes and wanted to bring their landscaping with them.

While the Southern Nevada Water Authority's efforts to encourage voluntary conservation date back nearly to its inception, the drought elevated the public's consciousness of water scarcity. In fact, most residents at first assumed that we had unlimited access to Lake Mead and couldn't understand why we would send "our water" downstream to California and

Arizona. The drought provided a platform from which we could increase understanding of how the Colorado River is shared and why water efficiency is so important to our community's continued prosperity. A citizens advisory committee convened to consider the Authority's drought plan also was overwhelmingly supportive of mandatory conservation measures such as those severely limiting the use of grass in new home and commercial landscapes, a mandatory watering schedule for all customer classes, golf course water budgets and other restrictions. The end result is that, despite an influx of more than 330,000 people between 2002 and 2006, our community's consumptive use of Colorado River water actually decreased by approximately 18 billion gallons annually during that span. And the ethic is spreading. Water industry publications report that community after community is implementing stringent water efficiency measures, in essence coming to terms with the new reality.

Some have suggested that southwestern communities—particularly Las Vegas—should simply pull up the drawbridge and stop growth. Looking at it from that perspective, the broader question is not whether we should stop, but rather where people should go. Given increased life spans and low birth mortality rates, there are simply more people than ever before. Should New York City have been girdled by its indigenous water supply, or Los Angeles?

For that matter, if natural barriers to development such as proximity to water resources or susceptibility to climatic events are to dictate land use, perhaps cities should not be allowed in flood plains, tornado alleys or earthquake zones. Rather than building levees or

earthquake-resistant structures, would it not be more prudent to simply abandon coastal Florida, the Gulf Coast states, a sizeable portion of the Midwest, and California? While that seems farcical, it is not far afield from the argument being made by critics of southwestern development.

I believe the real question is not whether the Southwest grows, but rather how it grows. We are a nation of innovators, fueled by possibilities and undaunted by challenges. As poet George Crabbe wrote 200 years ago this year, “Be there a will, and wisdom finds a way.”

As encouraging as our region’s strides toward water efficiency have been, they pale in significance compared with the Seven Basin States Colorado River operating plan, which was encased in comments submitted as part of the Bureau of Reclamation’s Environmental Impact Statement related to river operations. The proposal’s details, while of tremendous importance because of the certainty and flexibility they provide water users, aren’t what truly make it momentous. Its significance is the fact that seven states with competing interests were able to set aside their differences and work together to find solutions that allow everyone to emerge intact. This accord was only possible because of the representatives’ ability to consider the broader consequences of their decisions. I am optimistic that the Secretary of the Interior will recognize the relevance of the states’ unanimity and incorporate the proposal into the record of decision later this year. And while the work of the Basin States representatives will probably never be fully recognized outside the water industry, its importance to the 30-plus million people who rely upon the Colorado River cannot be overstated.

I believe that the accord’s full impact will not be felt until long after the drought has abated. We are in the midst of a fundamental metamorphosis, a profound change in how we who rely upon the Colorado River view both the resource and one another. The Old West—represented by intransigence and independence—is evolving into a New West marked by flexibility and interdependence. At the same time, people from both ends of the philosophical spectrum are recognizing that the future rests somewhere in the middle. It is a transformation that transcends individuals and goes to the heart of Western culture.

If there is a word that encapsulates the good evoked by the drought, it is “flexibility.” The historic agreements and court decisions that underpin the Law of the River are bedrock-solid from a legal perspective, but crumble like sandstone in the face of political and economic reality. Consider, for instance, the idea of a “call” on the Upper Basin. What happens in Denver matters in Phoenix, and vice versa. The Colorado River Basin needs to be managed as one watershed; one community cannot survive at another’s expense. The Seven Basin States proposal encourages water efficiency and augmentation projects and reduces the level of uncertainty faced by water planners.

Tom Till



It also utilizes an impermanent approach to operational decisions and solutions, which is precisely what is needed to deal with increasing climatic uncertainty. Had the framers of the Colorado River Compact realized they were basing allocations on high-flow years, the results would have certainly been different. Had Nevada’s representative at the 1928 negotiations realized that Las Vegas would someday be a major metropolitan city, they most certainly would have argued for a larger share of the Colorado’s flows. Permanent arrangements are difficult to amend in the face of changing conditions. The Seven States proposal is a critical step toward a common future that respects the needs of the agricultural community, municipal uses, and the environment.

Along this journey, we should continue to increase our collective understanding of who the stakeholders are and what needs they have. Non-governmental organizations, too often cast in the role of adversary, should be engaged in the search for mutually acceptable solutions. Some of the issues—such as the effect of water temperature variations on species such as the razorback sucker and humpback chub—have less to



Tom Till

Buttermilk clouds above Colorado River.

do with how much water is released than they do with the manner in which it is released. Just as environmental stakeholders must recognize the importance of hydroelectric operations to Western power users, system operators must respect environmental needs and seek ways to accommodate both uses. Similarly, we are at a key point in the efforts to address sediment within the Colorado River channel for sandbars and recreation by changing flow regimens. The experiments conducted to date have been promising, but need to be advanced and expanded. Other issues, such as the limitrophe at the international boundary with Mexico, are even more complex and will require international cooperation. For that to happen, Mexico needs to be invited to the discussions and afforded access to programs that will enable conservation measures within that country.

The pie is shrinking, while hunger is growing among all users. However, there are significant opportunities to improve efficiency, not only in the cities but within agricultural delivery and irrigation systems. This is not to suggest that agriculture subordinate itself to municipal use. We recognize the importance of food crops to the regional economy and our country's independence. There are dangers associated with becoming overly reliant upon imported produce. However, wise investments in system efficiencies could generate substantial water savings while ensuring that everyone remains whole. Similarly, it may, under certain circumstances, benefit farmers to take a small portion of their fields out of production for a limited term on a rotating basis and lease that water to municipalities. This would generate significant revenue for agricultural interests without requiring them to relinquish their water rights.

Recovering the Colorado River's primary reservoirs has become a top priority for all users. One of the most important elements in many of the individual projects proposed through the Seven Basin States proposal was the idea that any conserved water would be shared between the participating entity or entities and the river system itself. For instance, through the proposed Drop 2 Reservoir project, Nevada would receive a portion—but not the majority, by any means—of the water conserved over the life of the project. This equitable formula provides Nevada a critical bridge supply but also helps maintain reservoir levels upstream, to the benefit of all. Similarly, the concept that would allow states to “bank” water in Lake Mead reserves a portion of that water for system health. There is an opportunity with the Yuma Desalting Plant to benefit both the Basin States and the Colorado River system.

The drought did more than simply send a wake-up call through the region; it opened a window of opportunity to change the way the river is managed. Fortunately for all of us, the Basin States representatives had the wisdom and fortitude to capitalize upon our good fortune. 🍷

MOVING BEYOND ARIZONA'S FIRE DRILL

by Ethan Aumack

Every year, as spring snow melts, gusty winds buffet ponderosa pine country, and July monsoons seem impossibly distant, northern Arizona residents run through an intense yet predictable fire drill. With fire danger ascending from low to moderate to extreme, and natural and human-caused fires beginning to spot up, it's not uncommon to see hotshot crews racing across town—intent on vanquishing flames before they arc out of control. Fires bull their way onto newspaper front pages, a distinct edginess and sense of foreboding descends upon forest-embedded communities, and residents begin wondering whether a mass exodus is imminent. Fire season is here again.

Northern Arizona wildfires have blown their tops with increasing frequency over the past two decades. Each year wildfires burn thousands, and sometimes even hundreds of thousands of acres across the region. Such emergencies tend to show human nature's most hopeful side, surfacing a sense of cohesion and compassion amidst the chaos engulfing affected communities. Unfortunately, many elected officials, activists, opinion leaders, decision-makers, industry representatives, and land managers also take the opportunity to grandstand, finger-point, and pass the buck.

Many Arizonans have worked diligently over the past decade to define and implement forest restoration, community protection, and fire management strategies. Yet, at times, it seems that progress in these realms is unbearably slow.

Recognizing the need to “get ahead of the curve” on forest restoration needs and opportunities across the state, we began working with Arizona citizens statewide two summers ago to lay out a strategy for achieving substantial forest restoration progress over the next 20 years. Under the purview of Governor Napolitano's Forest Health Councils, a small but ever-expanding group began to develop the *Statewide Strategy for Restoring Arizona's Forests*.

Over the past two years, the *Statewide Strategy* document has put on weight and now totals some 130 pages. Within it we have worked to clarify a long-term vision, a set of strategies, and associated action items that must be undertaken if we hope to affect landscape-scale forest restoration, community protection, and fire management across the state.



Ethan Aumack, co-chair of the Arizona Forest Health Advisory Council, Diane Vosick and Jean Palumbo present the “Statewide Strategy” to Governor Napolitano.

Guided by the notion that forest management must be restoration-centered, collaborative, and science-based, the *Statewide Strategy* team identified 5 key strategies, 16 specific recommendations, and 50 action items. Recognizing the complexity of the challenge ahead of us over the coming decades, the team identified several clear and compelling needs:

1. Increase resources dedicated to collaborative, science-based restoration, fire management, and community protection.
2. Increase coordination between restoration, fire management, and community protection planning and implementation at landscape scales.
3. Increase strategic prioritization of restoration, fire management, and community protection activities.
4. Increase support for ecologically sustainable forest-based economic activities to offset cost.
5. Increase public awareness of the need and opportunities for integrating restoration, fire management, and community protection goals.

On June 21, 2007, the *Statewide Strategy* was formally presented to Governor Napolitano. After the Governor's endorsement, the document will be incorporated into ongoing forest planning efforts. With the Governor, land managers, community leaders, and others we will use the *Statewide Strategy* to guide our work over the coming years to ensure that forests and communities across the state have a healthy future. In time, early summer in northern Arizona will no longer be a time of fear, but a time of renewal, hope, and inspiration. 🌲



Center for Biological Diversity



TRIAL BY FIRE

by Ethan Aumack

After dancing lightly for days among the Kaibab Plateau's majestic old ponderosa pine, slowly consuming decades of thick, accumulated duff, and charring dense "dog-hair thickets," the Warm Fire began to pick up steam.

Pushed by unusual southerly winds, the fire galloped towards the Grand Canyon's north rim, running simultaneously through the forest canopy and along the forest floor. Judging by the height of the towering smoke plume on June 25, it appeared to the casual onlooker as if the entire Kaibab Plateau would be incinerated.

By July 4, the Warm Fire was contained after burning approximately 60,000 acres across the Plateau's north end. After a brief respite from the fire, torrential monsoons inundated the Plateau—washing soot, topsoil, boulders and downed trees from the Plateau's crown, through Rock Canyon and across House Rock Valley in a wide and tumultuous river of black. Rafters floating the Colorado River reported ebony waterfalls cascading over redwall pour-offs near House Rock rapids.

Fire can be a display of elegance and grace, a slow and tactful source of renewal in a fire-starved landscape. It can also be an impetuous freight train, barreling across wind-whipped landscapes and torching thickly forested slopes. Ultimately, the Warm Fire was both.

Nearly a year has passed since the Warm Fire burned across the Plateau. Following the fire and floods, many voiced their confusion, vented their

frustration, and expressed their dismay that a fire could have burned so large, so intensely, and ultimately so uncontrollably. Apologies were offered and lessons were learned. With time, however, most have turned their attention to the future of the burned area.

The Warm Fire burned across diverse vegetation types, ranging from pinyon-juniper woodlands off the sides of the Plateau, to ponderosa pine forests, mixed conifer forests and aspen glades at higher elevations. Across each of these areas, fire effects have been different, as will be the long-term management and restoration challenges associated with the fire.

STEMMING CHEATGRASS INVASION IN BURNED PINYON-JUNIPER WOODLANDS

At the fire's lowest elevation, more than 5,000 acres of pinyon-juniper burned with extreme intensity. Today, blackened tree skeletons stand in stark contrast to the white Kaibab limestone-laden earth beneath. Intense fires such as this are not necessarily unnatural in pinyon-juniper woodlands. Emerging scientific evidence suggests that many pinyon-juniper woodlands burned very intensely every 300 to 500 years—cycling between open grassland savannas and dense woodlands.

The burned woodlands across the Kaibab Plateau's east monocline may respond to the Warm Fire in a relatively "natural" manner, but their recovery is likely to be confounded by cheatgrass, an invasive non-native species. Cheatgrass was introduced to North America from the Eurasian steppes in 1861. It thrives on nitrogen released from fires, and moves into burned areas

Far left: Post-Warm Fire hazard tree removal.
 Left: Aspen regeneration, Northeast Kaibab Plateau.
 Right: Cheatgrass invasion, post-Bridger-Knoll fire 1996.

with a vengeance. Eventually, in some locations, it becomes so dominant that it forms a thick mat, forcing native plants out, and providing very little benefit to native insects, birds, and mammals that would otherwise find sustenance in the area.

Working with volunteers and in collaboration with the U.S. Forest Service (USFS), we are mapping cheatgrass within and outside of the Warm Fire burn area. By determining its current location and monitoring its initial post-fire spread, we can identify the most strategic locations for native species re-seeding and invasive species removal efforts. We intend to work diligently over the coming years to minimize cheatgrass spread into the burn area, thereby giving native plant species additional time to re-establish. With sustained effort over the coming years we just might be able to help restore a sense of naturalness and resiliency to the Kaibab Plateau's northeastern flank.

ALLOWING HIGHER ELEVATION FORESTS TO RECOVER NATURALLY

At its higher elevations, the Warm Fire burned tens of thousands of acres blanketed by ponderosa pine and mixed conifer forests. Initial response to this portion of the burn by the USFS has inspired a vigorous debate that is likely to continue well into the future.

Arguing the need to recover economic value, reforest burned conifer stands, and break up “fuel continuity” in the burn area, USFS staff in December 2006 proposed salvage logging approximately 9,900 acres of severely burned forest stands. On balance, the Forest Service argued, the positive economic and ecological effects of such salvage logging would outweigh its negative impacts.

While Trust staff have worked and will continue to work collaboratively with the USFS on a number of post-fire monitoring, cheatgrass control, and rehabilitation projects within the Warm Fire area, we strongly disagree with proposed large-scale salvage logging activities. We believe, based on a systematic review of the best available science, that salvage logging is likely to accelerate soil erosion, remove biologically valuable building blocks of future forests,



stunt natural recovery processes, and contribute to the spread of invasive, non-native species across the burn area. Overall economic gain realized from harvesting and selling fire-killed trees is likely to be minimal, especially given high harvest and transport costs. We believe that alternative, less intrusive fuels treatments (such as controlled prescribed burning and strategic fuels breaks), in combination with natural decay processes, will sufficiently reduce future fire hazards in the burn area.

In sum, we believe large-scale salvage logging is unnecessary and likely to cause harm to the Kaibab Plateau, its forests and inhabitants. Rather than risking the ecological harm posed by large-scale salvage logging, we believe a recovery plan should focus on limited hazard tree removal, erosion mitigation, invasive species control, and monitoring that tracks the ecological effects of intense fire in an ecologically invaluable portion of the Kaibab Plateau. We will continue to work over the coming months to focus recovery planning around these critical issues.

From cheatgrass invasion to salvage logging, the Warm Fire presents a series of technical land management challenges, ecological uncertainties, and philosophical dilemmas. Collaboration, negotiation, and conflict are bound to simultaneously pervade post-fire planning and decision-making. Throughout the process, our collective patience, wisdom, foresight, and humility will be tested. In the end, however, we believe that the Kaibab Plateau will, in its wildness, austere integrity, and resilience inspire a sense of passion, conviction, and connection that will help guide forest activists, scientists, planners, and community members alike towards a visionary and well-considered recovery plan. 🌀

SCIENCE, POLICY, AND MANAGEMENT:

Untangling the Threads of Stewardship on the Arizona Strip

by Tom Sisk



Conservationists often say their work is “science-based”—it conveys credibility and provides confidence heading into negotiations that can have more to do with land management policy and legal interpretations than research or ecology. Conservation victories are often forged by politics, and science is often present in name only once the resolution to a controversial issue has been hammered out. That’s a difficult pill for people like me—a conservation biologist by training and profession—to swallow, but it’s the way our world seems to work, especially recently, when government agencies have encouraged the disavowal or rewriting of science to fit predetermined policy objectives.

Yet despite its current sideline status at the national level, conservation science continues to advance, and the Grand Canyon Trust is increasingly turning to science to inform strategy and on-the-ground actions. On the Kane and Two Mile Ranches, where hundreds

of day-to-day decisions are required to manage 850,000 acres of the nation’s most spectacular public lands, the Trust has nurtured a science-based approach to ecological restoration that is beginning to bear fruit. Immediately after purchasing the ranches, the Trust engaged a group of scientific advisors from around the country, and during the first summer GCT staff and volunteers conducted a comprehensive ecological assessment that has informed management decisions and guided significant new projects, including grassland restoration planning for the House Rock Valley and the Trust’s response to the 2006 Warm Fire. These efforts provide a solid foundation for effective collaboration with other organizations, such as the Arizona Deer Association, and partnering agencies, including the Forest Service, Bureau of Land Management, and Arizona Game and Fish Department.

What we stand to gain in terms of improved local management is enormous, but the integration of science into the fundamental operations of a leading conservation organization like the Trust is also creating a new model for what can be accomplished when ecological understanding is combined with clear objectives, ethical considerations, and the engagement of diverse perspectives, representing both local and national interests. Central to this model is “learning by doing” and here science provides an especially valuable focus. Adaptive Management—a process in which emerging scientific information about the actual outcomes of management efforts is used to revise and improve future plans—remains an often-promoted but largely unrealized objective of land managers. Through its efforts on the ranches, the Grand Canyon Trust and its partners are building a practical approach for implementing adaptive management through the development of shared goals, identification of appropriate on-the-ground actions, and commitment to a robust monitoring program. While such efforts take time to fully unfold, the early successes are exciting.

The Trust and its partners stand at a pivotal point in a century-long effort to inform policy with the best science. Early visionaries, including Gifford Pinchot and Aldo Leopold, articulated a role for science in land management that was rapidly promoted and adopted in concept, but only slowly realized. The promise of science-based management on the Kane and Two Mile Ranches may not generate the sound bites needed for mass consumption—the spectacular landscapes and the pressing conservation challenges provide those in abundance—but the Trust’s commitment is stimulating constructive working relationships, concrete actions, and a growing sense of trust among many stakeholders and land managers across the Arizona Strip. This is conservation biology in action, drawing on science in appropriate ways to inform the day-to-day work of restoring and conserving wildlands, while inspiring innovative models for stewardship that demonstrate effective new approaches to conservation planning and land management policy. 🌱



Kari Malen

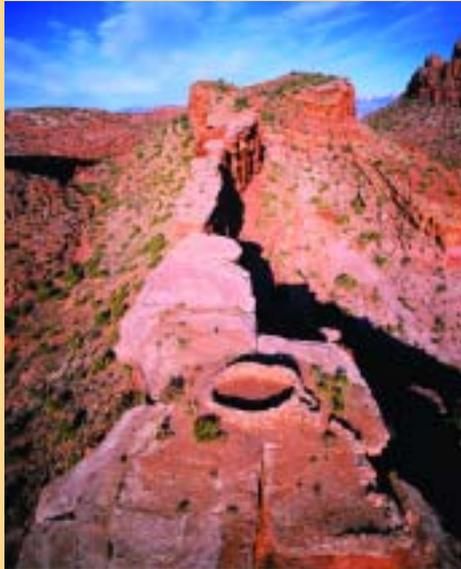


Ethan Aumack

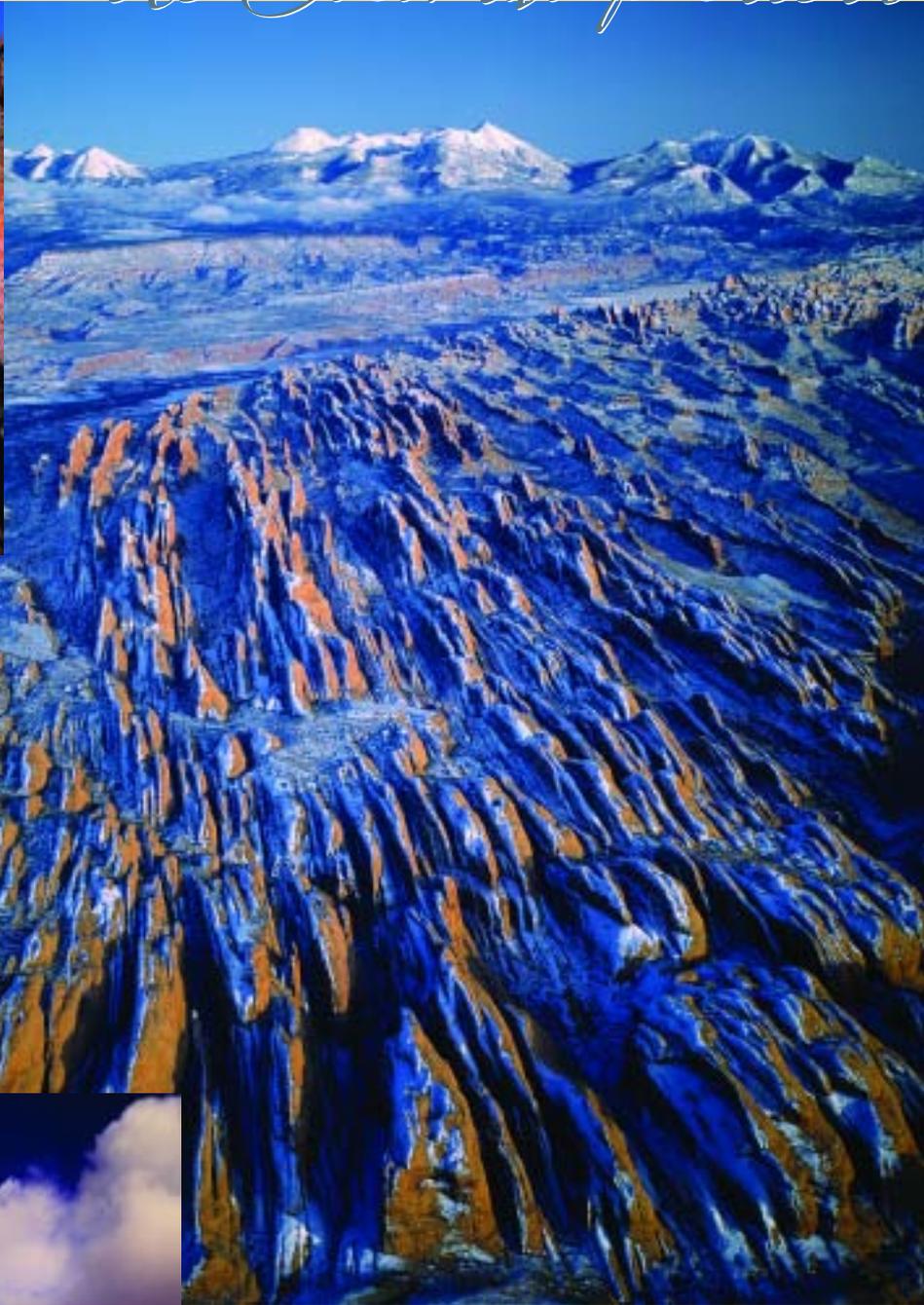
Left: Experimental grassland restoration plots, House Rock Valley.
 Top: Tamarisk mapping, Kanab Creek.
 Above: Cheatgrass mapping, Warm Fire burn on Kaibab Plateau.

Tom Sisk is professor of ecology at Northern Arizona University, where he teaches and supervises a graduate program in Environmental Sciences and Policy. His research group specializes in landscape ecology and conservation. In 2005 he helped organize the Trust’s Science Advisory Council, and over the next year he will expand his involvement, serving as the Trust’s Senior Science Advisor. Tom is a member of the Board of Governors of the Society for Conservation Biology and an Aldo Leopold Leadership Fellow of the Ecological Society of America. For more information, see http://home.nau.edu/envsci/sisk_lab.asp

PRESERVING *the Colorado Plateau*



Watchtower Ruins



Snow covered fins, Behind-The-Rocks proposed wilderness



Corona Arch



PROTECTING THESE REMARKABLE PLACES IS WHY CONGRESS MUST APPROVE THE 2007 UTAH RECREATIONAL LAND EXCHANGE ACT



SHOULD BE A NATIONAL IMPERATIVE

All photos by Tom Till

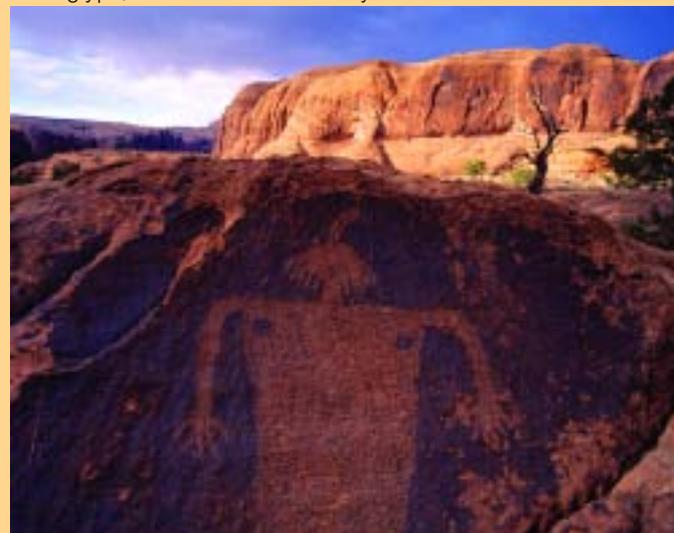


Fisher Towers, La Sal Mountains and Colorado River



Waterfall into Colorado River

Petroglyph, BLM Wilderness Study Area



GOOD TRADE

by Laura Kamala



These days a lot of frenetic building activity is going on in Moab and, according to my friends in the construction business, cement is scarce. While my neighbors passionately debate house size limits in our small, rural community located outside the bustling metropolis, prospective inhabitants buzz overhead in Lear jets taking in the spectacular views.

Moab was a dying town when I first landed in southeast Utah many years ago. People were *leaving* because nothing was going on after the Atlas Uranium Mill shut down. However, Moab was quickly resuscitated and, according to some measurements, is currently thriving. Reflecting on his days as a Grand County commissioner, Bill Hedden once said, “We went fishing for a little tourist business and hooked a great white shark.” Visitors have since become vacation home owners, property investors, and occasionally full-time residents. Today, the most notable change is the ever-growing imprint on the surrounding red desert that has lately drawn so many people in with its ineffable beauty.

The sudden, market-driven development pressure created a need for raw land to develop and Utah’s School and Institutional Trust Lands Administration (SITLA) is a primary provider. The agency is required to produce money from its 3.5 million acre estate for its beneficiaries, Utah’s school children. In southeast Utah, SITLA owns approximately 620,000 acres in Grand and San Juan counties. A Utah land ownership map reveals the blue squares depicting state lands; affectionately known as the ‘blue rash’ because they are randomly scattered across the federal lands comprising 70 percent of the state. This arrangement has caused conflict for SITLA where the agency has chosen to dispose of or develop blocks of land in biologically sensitive, scenic, recreational, and cultural areas.

In 2004, Grand Canyon Trust began working with SITLA on a plan to consolidate federal lands in southeast Utah via a land exchange that would trade state land inholdings out of places that are better suited for conservation purposes. We are now in our fourth year of lobbying Capitol Hill to support the Utah Recreational Land Exchange Act. The bills—S.390 and H.R. 1210—intend to convey approximately 48,000 acres of SITLA lands to the BLM and protect

from development critical watersheds and wildlife habitat, valuable scenic and recreational lands, and lands in Wilderness Study Areas. Included are: Morning Glory Arch, Mineral Canyon, Hellroaring Canyon, Corona Arch, Millcreek Canyon, Polar Mesa, Westwater Canyon, Kokopelli Trail, Pritchett Arch, Mary Jane Canyon, Professor Valley, Behind-The-Rocks, Castle Valley, Slickrock Bike Trail, Fisher Valley, Blue Chief Mesa, Hideout Canyon, Dinosaur National Monument, Desolation Canyon and others. The bill includes a provision to permanently withdraw 20,000 acres of these sensitive lands from oil and gas leasing to protect conservation values.

SITLA will receive approximately 42,000 acres of BLM lands within the Bookcliffs state roadless area, on Moon Ridge on the Roan Cliffs, in the gas field on Tavaputs Plateau at Agency Draw, Winter Ridge and PR Canyon, within the Town of Green River and at Moab Airport. These lands were vetted by Grand Canyon Trust and the Utah Wilderness Coalition early in the mapping process and fulfill SITLA’s mandate of generating revenues for Utah’s school children.

In early 2007 the Utah Recreational Land Exchange Act was reintroduced by the entire Utah delegation. The bipartisan bill is supported by Grand, San Juan and Uintah counties, the City of Moab, the Town of Castle Valley, Governor Huntsman and the Utah legislature, the Utah Education Association, Grand County Backcountry Council, the Nature Conservancy, Utah Open Lands, Southern Utah Wilderness Alliance, Utah Wilderness Coalition, Utah Rivers Council, Outdoor Industry Association, the National Parks and Conservation Association, Utah Guides and Outfitters, and the Grand Canyon Trust.

We testified in support of the legislation for the third time at a Senate hearing on May 3. Jim Hughes, acting director of the BLM, also gave favorable testimony on behalf of the Bush Administration. House Natural Resources Committee staffers say a floor vote in late May or early June is likely, with Senate passage and a presidential signature then needed before it becomes law. The legislation first cleared the House in September 2006 and we worked hard to gain Senate approval. However, the legislation failed when it was attached to an ill-fated package of bills in the waning

MORNING GLORY ARCH
MINERAL CANYON
HELLROARING CANYON
CORONA ARCH
MILLCREEK CANYON
POLAR MESA

hours of a lame-duck session. When navigating the long legislative process it's best to remember Yogi Berra's famous line: "It ain't over till it's over."

Grand Canyon Trust has now spent over three years negotiating, rewriting, and perfecting the Utah Recreational Land Exchange Act with SITLA, Interior, conservation organization colleagues, and congressional committee staff. We have succeeded in creating a non-controversial, bipartisan, revenue-neutral bill that we believe will pass this session.

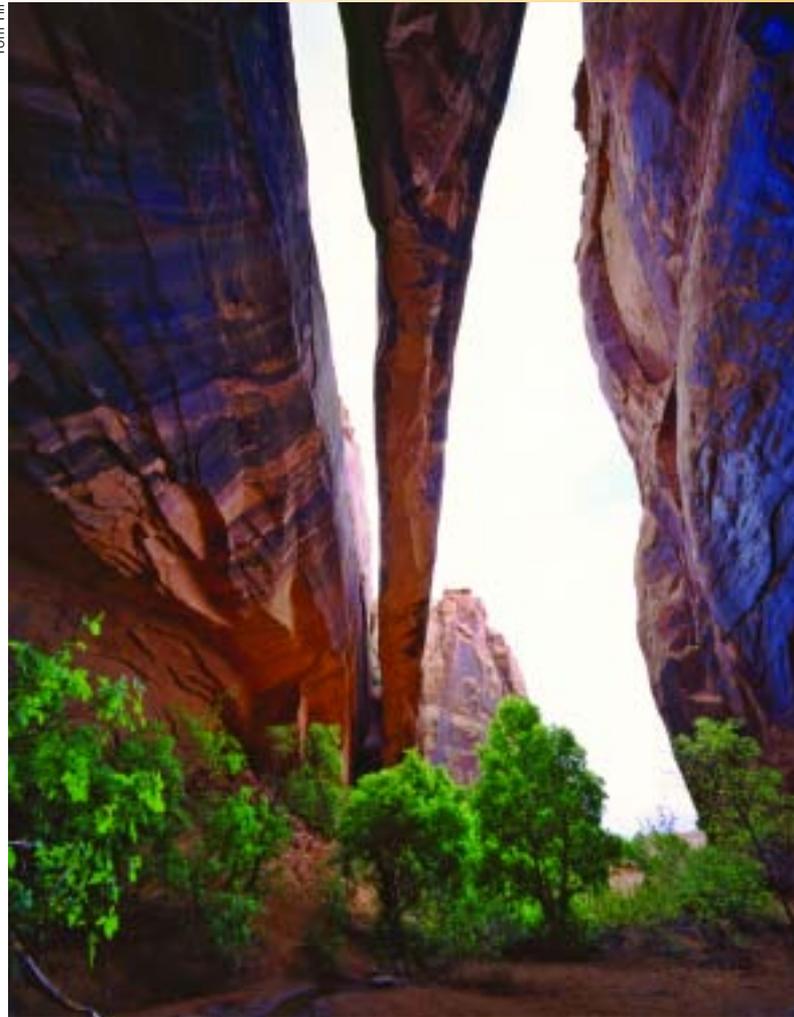
Preventing development of SITLA inholdings in the federal estate also ensures that acres of wild BLM lands will not be disturbed to provide "reasonable" access and utility corridors to properties that would otherwise be on the development chopping block. We are working with the BLM on best management practices for their anticipated new acquisitions and remind you that citizen input is very important to emerging Draft BLM Resource Management Plans.

Sheer numbers of people moving across a beloved landscape, no matter how carefully, will eventually destroy it. There must be roads for the jeepers; trails for hikers, horses, and pack animals; single-track for the bicyclists; boulder piles for the rock-crawlers; and dirt super-highways for the oil and gas developers. A BLM manager once said to me, "Multiple Use does not mean every use on every inch of ground." Indeed, some extractive "uses" are so destructive that they preclude any other activity, let alone the mere existence of native plants and animals.

Unrestricted recreational use also strips resources from our public lands. On Main Street in Moab during this year's Jeep Safari event, I saw a rock-crawler's (aka a jeep on steroids) license plate that read: HOMWRECKR. I doubt the owner intended the meaning I took from that statement. My fervent prayer is that all visitors and new residents coming to this delicate and beautiful place treat the land as they do their most cherished belongings. I'm reminded of a line from a favorite Richard Shelton poem, "...but *oh my desert, yours is the only death I cannot bear.*"

If the Utah Recreational Land Exchange has passed by the time you read this, celebrate with us. Otherwise, please contact your representative and senators to support H.R.1210 and S. 390. 🌍

Tom Till



Morning Glory Arch.

WESTWATER CANYON
KOKOPELLI TRAIL
PRITCHETT ARCH
MARY JANE CANYON
PROFESSOR VALLEY
BEHIND-THE-ROCKS
CASTLE VALLEY
SLICKROCK BIKE TRAIL
FISHER VALLEY
BLUE CHIEF MESA
HIDEOUT CANYON
DINOSAUR NATL MONUMENT
DESOLATION CANYON

BREAKING NEW ENERGY GROUND

by Roger Clark

Old coal plants are giant bulwarks against change, mechanical beasts that are holding back a flood of ideas and innovation. When we muster up the courage to knock them down, the revolution will begin.

—Jeff Goodell, *Big Coal*, 2006

Signs of change are sprouting in stubborn places. An overwhelming majority of voters in Arizona, Nevada, and New Mexico now believe that “global warming is happening.” An increasing number of those support “strong and immediate actions” to reduce greenhouse gas emissions. Altered attitudes might just begin to arrest our addiction to fossil fuels.

A coalition of clean energy advocates recently asked a Navajo energy director: “If someone offered you an opportunity to invest \$20 million per year developing renewable energy projects on tribal lands, would you be interested?” His positive response surprised the group. The Nation’s centralized government is deeply dependent on coal royalties to function. Official attitudes are often antagonistic toward clean energy alternatives.

Another departure from business as usual is the unprecedented decision by owners of Mohave Generating Station to shut the plant down. It was one of their most profitable power plants, generating electricity that sustained unbridled growth throughout the Southwest.

But Mohave was also one of the dirtiest and most profligate coal-fired power plants on the planet. It wasted billions of gallons of water in its cooling towers, located in a desperately dry desert. Each year it pumped more than ten million tons of greenhouse gasses into the earth’s atmosphere.

Mohave’s closure caused the Navajo Nation and the Hopi Tribe to lose approximately \$20 million per year. The power plant burned coal, strip-mined from Black Mesa, sacred land belonging to both sovereign nations. The decision also caused Peabody Coal to lay

off scores of Hopi and Navajo workers, many of them employed at the mine since operations began in the early 1970s.

Although the coal company, the plant owners, and government officials warned of dire economic consequences to the tribes if Mohave closed, they refused to adopt plans to address the predicted hardship. Instead, they insisted that Mohave would never shut, or that if it did, it would soon reopen. They were wrong on both counts.

Southern California Edison, Mohave’s operator and majority owner, announced last year that it would not seek to restart the plant. Los Angeles Department of Water and Power was already on a fossil fuel recovery program and wanted no part of Mohave’s return to service. Salt River Project (SRP) was the last of Mohave’s owners to hold out hope for panhandling more than a billion dollars it needed to resurrect the retired plant. SRP quit its gambit earlier this year.

While those who profited from keeping Mohave open quelled calls to consider options for mitigating the economic impacts of the plant’s closure, Grand Canyon Trust, in cooperation with a coalition of grass-roots advocates for environmental justice, developed a backup plan. The *Just Transition Coalition* crafted a concept to create economic benefits for indigenous people who were forced to leave their land so that others could reap the rewards of cheap electricity (people whose sacrifices continue to subsidize explosive growth in Phoenix and Las Vegas).

The *Just Transition Coalition* filed a proposal with the California Public Utilities Commission (CPUC) to invest in renewable energy projects on tribal lands. The *Coalition*’s proposal seeks to redirect revenues resulting from Mohave’s closure toward making the transition to cleaner energy alternatives.

The revenues at issue stem from a 1990 law designed to reduce acid rain caused by sulfur dioxide emissions. Although the legislation is intended to pay utilities for installing expensive pollution controls, it inadvertently rewards owners for deciding to shut down. Sales of sulfur allowances from Mohave’s closure could have netted its owners approximately \$50 million per year, in perpetuity, for doing nothing.

But the Just Transition Coalition intervened. And its unique proposal is beginning to create a new pathway toward financing renewable energy on tribal lands. In May of 2006, the CPUC affirmed that revenues from sulfur allowances belong to ratepayers, not to Edison's shareholders. They ordered the company to establish a restricted account for tracking its 58 percent share of the allowances and to propose a plan for investing revenues from allowance sales by the end of the year.

In April of 2007, CPUC Administrative Law Judge Carol Brown assigned a mediator in the issue of distributing revenues from the sale of Mohave's sulfur allowances. She ruled that substantial common ground existed among proposals submitted by ratepayer advocates, the Hopi and Navajo nations, and the Just Transition Coalition. The mediation process began in San Francisco during the last week of May.

If successful, the parties will agree to establish a renewable energy investment fund, providing seed money for projects to benefit California ratepayers and Hopi and Navajo people. Such projects include the following:

- A wind project located on private lands owned by the Navajo Nation north of Seligman, AZ.
- Sunshine Wind Farm, a fully permitted and ready-to-develop wind project partially located on private land owned by the Hopi Tribe.
- A concentrated solar project located on the Fort Mohave Reservation, to be developed by its tribal utility company as a joint venture with Hopi and Navajo investment assets.
- A concentrated solar project on Hopi lands located south of the village of Moenkopi.
- Wind development on Navajo lands near Gray Mountain.

These and many more initiatives are in the pipeline. They are breaking new ground and nurturing clean energy options.

Michael Dyer



Rick Shin from ENRAIL captures students' attention at Shonto Energy Fair.

California is leading the nation in promoting policies aimed at stopping global warming. Its fuel-efficient car proposal is spreading rapidly from state to state. British Columbia and five western states recently joined California in forming the Western Regional Climate Action Initiative. It will develop market-based means to reduce greenhouse gas emissions, something that Washington politicians have failed to enact after more than four years of fighting.

California Governor Schwarzenegger issued this warning to stubborn legislators who refuse to support measures to stop global warming: "Your political base will melt away as surely as the polar ice caps—I can guarantee you of that. You will become a political penguin on a smaller and smaller ice flow, drifting out to sea. Goodbye my little friend."

Seeds are germinating. The Just Transition Coalition is testing the bond between big coal companies and centralized government. Similarly, the State of California is threatening to break the historic hegemony that exists between Congress and oil, gas, and coal interests. Fertile new energy terrain can fuel our future, provided that we outgrow toxic impediments to change. The alliance forming between California and native nations is a fruitful first step in the right direction. 🌱

CATTLE CONVERSATION

by Mary O'Brien

One of the most difficult, multi-sided conversations to have in southern Utah is one about public lands cattle grazing. One such conversation is about to begin regarding two allotments on the Fishlake National Forest (NF), and will continue through spring 2009. Representatives from Grand Canyon Trust, Red Rock Forests, Sierra Club (Utah Chapter), Utah Environmental Congress, Wild Utah Project, Western Watersheds Project; the two allotments' permittees; Fishlake NF; county and Utah state governments; and the Utah Division of Wildlife Resources will be talking to each other. A neutral, skilled facilitator will ensure the conversation is respectful, thoughtful, and based on scientific information.

The topic: *What livestock management and restoration should occur on Ten Mile and Pine-Creek Sulphurdale Allotments?*

These are two of eight allotments whose "term grazing permits" (i.e., permits to continue grazing cattle for ten years) went up for renewal in 2004 within a National Environmental Policy Act (NEPA) environmental impact statement (EIS).

ALTERNATIVES EXIST

The foundation of NEPA regulations is one called "alternatives including the proposed action." This regulation requires any federal agency proposing an action that might have significant environmental impacts to "rigorously explore and objectively evaluate all reasonable alternatives."

As soon as the Fishlake NF announced it would be writing an EIS for renewing the grazing permits of eight allotments in southwest Utah's Tushar Mountains, the Trust worked with six other Three Forests Coalition conservation organizations to submit a reasonable alternative. We proposed numerous, environment-protecting changes to the U.S. Forest Service (USFS) alternative. For example, we suggested that relief from grazing be brought to streams where more than 15% of the banks are being trampled (the USFS allows 30%). We proposed that cattle be kept out of those aspen clones where most young sprouts ("ramets") are being chewed off before they can become trees. In order to ensure that food is available to native wildlife,

we proposed that no more than 25% of grasses and forbs (non-woody, broad-leaved plants) be consumed by cattle (the USFS allows 60% consumption). We also proposed that this consumption should go down to 20% during drought.

The USFS ignored our alternative in the Draft EIS, but *did* include it in the Final EIS, which concluded our alternative would be better than the agency alternative for essentially all environmental consequences examined. The USFS list included "reversal of downward trends in riparian (streamside) systems;" better storage of water and sediments; better habitat for sensitive species such as peregrine falcon, mule deer, and flammulated owls; increase in willows; reduction of conflicts between cattle and recreationists; and improved aspen regeneration.

In the end, however, the agency rejected our alternative because the assumed reductions in cattle numbers would supposedly "not maintain high standards of living." The Final EIS estimated that our alternative would cost local counties \$6 million every year.

The Trust then contracted with Dr. Thomas Power, chair of the University of Montana Economics Department, to analyze this claim. Power found that by using outdated economic information, non-professional assumptions, and arithmetic errors, the USFS had grossly overestimated county losses by a factor of 19. According to Power, local economic losses associated with our alternative would be insignificant. (In 2004, Power had demonstrated similarly negligible economic losses associated with removal of cattle from the ten Grand Staircase-Escalante National Monument allotments whose permits the Trust had purchased).

REVISITING ALTERNATIVES

So how did we move from the USFS rejection of our alternative to a two-year, on-ground, many-sided conversation about management on two of the eight allotments?

The Trust and its six Three Forest Coalition counterparts appealed the agency's decision and then proposed an appeal resolution. We offered to drop our appeal if they would agree to a multi-stakeholder collaboration on two of the most environmentally-hammered allotments: Ten Mile Allotment and one other. The



photos by Mary O'Brien

Left to right: Cattle grazed national forest uplands, Tushar Mountain, Fishlake National Forest; Cattle browsed mountain mahogany, Tushar Mountain; Cattle trampled wetlands, Tushar Mountain.

collaborative group would, for instance, examine how to restore aspen and mountain mahogany regeneration on these allotments. The group would plan for restoring beaver habitat (especially willow food) on at least one stream, which had been recommended for such restoration by a USFS stream assessment contractor. Trampled springs, denuded streambanks, and over-grazed sagebrush could likewise be topics of conversation.

In addition, we proposed that the Appellants and the USFS would work one year with the agency's regional economist to develop best practices for economic analyses of alternatives in a livestock EIS. Drafts of the best practices would be peer-reviewed by a variety of economists.

The USFS agreed to our proposal and suggested that Pine-Creek Sulphurdale be the second allotment. Both this allotment and Ten Mile are among the most damaged of the eight allotments. The collaborative process begins with three days of June meetings (two of them in the allotments).

HOPES FOR CONVERSATION

This agreement offers the opportunity to:

- **Face livestock damage.** Too often, conversations in southern Utah overlook current livestock grazing (as opposed to “historical overgrazing”) as a source of environmental damage. With this collaborative process, permittees, conservation advocates, and local, state, and federal agency personnel will look jointly at the same pieces of ground to address problems that have already been acknowledged to be related to current livestock grazing by the USFS.
- **Face livestock economics.** It is common for USFS and BLM documents to predict dire economic consequences if livestock numbers are reduced or removed from sensitive or damaged public lands. This agreement to bring economic analysis prac-

tices into the bright light of professional economists in order to develop a “best practices” white paper will hopefully halt the stream of claims that respecting ecological needs of our public lands spells local economic disaster.

- **Use scientific information.** While some values may differ, on-ground evidence of trampled banks, repeatedly-browsed sprouts, bare ground, and eroding slopes is hard to deny. The collaborative process is an opportunity to translate scientific findings into plain language, separate ideologies from on-ground evidence, and propose restoration that has worked in similar habitats.
- **Re-think beaver benefits.** The USFS primary contract stream assessor has repeatedly urged restoration of beaver food supplies, protection of beaver dams, and reintroduction of beaver in potential beaver habitat. The commitment to purposefully restore beaver to at least one stream is a first for the Fishlake NF. Hopefully, it will light the way to welcoming the extraordinary, stream-healing, hydrological skills of beaver into additional watersheds on the forest.

This is an exciting moment in the Trust's relationship with Fishlake NF managers and the various sectors that visit, use, and manage this portion of the Colorado Plateau.

The Tushar Range Appeal resolution establishing the collaborative process and economics analysis can be found at www.threeforests.org/tushar_appeal_res.htm

Photos of Pine Creek/Sulphurdale and Ten Mile Allotments are available at www.threeforests.org/Comments_EIS_Final_Tushar_Range_cattle_permits_A.htm 📷

THE POWER OF PARTNERSHIP: The Kaibab-Vermilion Cliffs Heritage Alliance

by Rose Houk

Streamers of surveyor's tape flutter like prayer flags from the branches of blackened pinyon trees. Clouds float over the crest of the Kaibab Plateau like big ocean freighters. I look up from my notebook jottings and see no one.

Then, a voice beckons me over to check out a grove of fresh green oaks sprouting along a wash. They're growing in a patch of soil that looks a little different from the limestone mosaic that covers most of this ground. Jerry Ehrhardt wonders about the intriguing arrangement, and we discuss his idea that they could be marking old garden plots—very old garden plots.

Jerry, one of 10 volunteers who've come to inventory archaeological sites on the Kaibab, is far more experienced than I am noticing subtle variations that may be the faint traces left by the prehistoric people who lived on these lands.

Kaibab National Forest archaeologists Erin Woodard, Connie Reid, Britt Betenson, and Colleen Nicholas direct these volunteers, who venture out each day to a new area to survey for sites. They're working in a portion of the 60,000-acre Warm Fire that charred the forest last summer, gaining a rare chance to see sites without the usual cloak of plant life.

The plan for this breezy May morning is to record a pueblo, a complex site showing signs of humans dating back perhaps more than 2,000 years, who may have lived here in at least two distinct periods. With no overstory left in this stand of pinyon and juniper, the subtle rock layout of the dwelling is easily visible even to a novice like me.

Armed with compasses, tapes, and red pin flags, the crew walks slowly, eyes trained on the ground, looking intently for potsherds, projectile points, and any other artifacts scattered about. From the extent of artifacts they discern the bounds of the site, marking the perimeter with that tape. They'll spend the remainder of the day drawing a detailed map of the site, showing all the features, including a possible pithouse, and the various important artifacts, like the small, exquisite, white stone point that created quite a stir upon discovery.

Such work is what the Kaibab-Vermilion Cliffs Heritage Alliance is all about. This partnership brings people together to learn more about cultures that have lived on the eastern Arizona Strip north of Grand Canyon and east of Kanab Creek. The alchemy can happen anytime—around the breakfast table or the evening campfire, as a museum archaeologist, an agency person, and a volunteer compare notes about an interesting theory or some unusual find. It's all about that process we call networking, when people with common interests meet face to face, sharing what's known and wondering what isn't.

The genesis of the Alliance came when Coconino County Supervisor Carl Taylor visited the newly designated Vermilion Cliffs National Monument back in 2005, about the same time the Trust bought the Kane and Two Mile Ranches. Realizing the challenges facing agency archaeologists in managing cultural resources over this heroic landscape of a couple million acres, Taylor and the Trust proposed forming a group to assist them in achieving their goals. The Alliance became "official" in the spring of 2006, and at a workshop at Big Springs on the North Kaibab in the fall participants identified a list of issues and tasks they wanted to undertake.

The Alliance's stated mission is to help protect and preserve cultural resources by bringing together interested agencies, tribes, organizations, and individuals to help monitor, document, manage, research, and interpret those resources. Agencies include the Kaibab National Forest North District, the Arizona Strip Office of the Bureau of Land Management, Grand Canyon National Park, and Coconino County. Institutions include the Trust, Northern Arizona University, and the Museum of Northern Arizona. A number of freelance archaeologists, site stewards, and others are also involved.

At quarterly meetings, the Alliance steering committee sets priorities and directs the group's activities. A top priority is to recruit able and willing volunteers to do on-the-ground projects to help the management agencies. In the immediate term, that means accomplishing such things as site surveys that need the effort



Prehistoric petroglyphs in Coyote Wash, western slope of Paria Plateau, northwest Arizona.

of many eyes and hands. It will include bringing on a graduate intern to do a literature search that can provide the foundation for a research design and a full-fledged field school. And it means finding ways to interpret what's known to the general public. The list of possible ideas and projects is limited only by the needs and desires of Alliance participants as they fit the Alliance's mission and goals, and funding to do them.



As I get ready to leave the volunteers out on the Kaibab, a broad-tailed hummingbird zings by my ear. The bell-like whirr of his wings—the essence of living energy—symbolize to me the promise of

people who care deeply about a place, come together, and focus on doing real work.



Thanks to all the volunteers who worked on the May 2007 site survey on the North Kaibab National Forest: Chuck Biddulph, Rich Bryant, Jerry Ehrhardt, June Freden, Dick Fuhler, Mike Grebinski, Brad Heap, Bud Henderson, Roger McPeck, and David Wilcox.

For more information or if you're interested in joining in the work of the Kaibab-Vermilion Cliffs Heritage Alliance, go to www.grandcanyontrust.org/programs/kane/kvcha.php, or contact the coordinator by email at mprch@msn.com, by telephone at 928-779-2962.

KANE AND TWO MILE RANCHES:

A Storied History

by John Heyneman

In September 2005 North Rim Ranch LLC, a subsidiary of the Grand Canyon Trust, purchased the Kane and Two Mile Ranches. These two ranches encompass over 850,000 acres of Forest Service, BLM, and Arizona State Trust grazing permits. North Rim Ranch is the most recent in a storied history of

What began as small flock of sheep and 50 cows quickly grew into a significant presence. By 1875 the Canaan Livestock Cooperative held 5,000 sheep and 500 cattle and were grazing cattle in House Rock Valley...

owners for both ranches, but only the second to own both ranches; until 1999 the two ranches were owned separately. In fact, for most of its ranching history, both of what we know as the Kane and Two Mile ranches were comprised of several smaller ranches that were consolidated over time into the entities we recognize today.

In 1776, as war between colonists and the British Empire raged in the northeast, the House Rock Valley area was seen for the first time by Europeans. Two Franciscan friars and their exploration party crossed the area in attempts to travel overland from northern Mexico to California. Approximately fifty years later Spanish traders again came into the area seeking to establish a trade route. They were unsuccessful and never established any permanent structures or influence in the area.

Mormon contact began in the late 1840s and within twenty years the area's potential was recognized and families began to arrive to construct permanent settlements. In the 1860s hostilities with the Navajo temporarily slowed the influx of families but individuals had already begun to lay claim to various water sources in and around Kanab, House Rock Valley and the Kaibab. In 1870 the Mormon Church established the Canaan Cooperative Stock Company, based at Pipe Springs to handle its growing cattle herd and the modern ranching era began.

What began as a small flock of sheep and 50 cows quickly grew into a significant presence. By 1875 the Canaan Livestock Cooperative held 5,000 sheep and



500 cattle and were grazing cattle in House Rock Valley during winter months and moving the livestock to the cool of the Kaibab Plateau during the summer. However initially successful, both cooperatives began to suffer financial losses. Within little more than a decade both cooperatives were forced to divest most of their holdings to John W. Young who reorganized the cooperatives' holdings into the Kaibab Cattle Company.

In the early 1890s the federal government began exercising oversight of grazing practices on federal lands. Additionally, the Forest Service established a forest reserve and a game preserve on the Kaibab Plateau.

In 1896 the Kaibab Cattle Company was sold to B.F. Saunders, the first non-Mormon rancher to come into the area. Saunders quickly moved to consolidate the remaining assets of the Canaan Cooperative into the Grand Canyon Cattle Company with the famous Bar Z brand. Saunders operated the Bar Z for nearly a decade. During that time he worked to solidify his legal hold on the few sources of permanent water available as well as develop new lines of business such as hunting and Cattalo or Beefalo. Neither scheme was successful and by 1910 Saunders, perhaps in anticipation of increased federal government presence, sold his holdings. The new owners expanded by acquiring Lee's Ferry and the affiliated ranching operation. The identity of the new owners is unclear but it is suspected the owners were made up of several of Saunderson's previous partners. The ranch was still known as the Grand Canyon Cattle Company or the Bar Z, and although accounts vary widely, Bar Z cattle are said to have numbered between 20,000 and 60,000. This was the heyday of area ranching and the ranch operated for nearly twenty years without changing owners.

In 1930 Henry Stephenson purchased the Grand Canyon Cattle Company. Over the next fifteen years he bought and sold various parcels of land and water rights to local ranchers before selling the remaining assets in 1945. Again the ownership records are somewhat unclear, but it is believed that the Woolley family became the Bar Z's primary owners. In 1955

they sold to four other Kanab area ranchers who divided up the lands amongst themselves. This sale marks the breakup of the old Bar Z outfit and marks the decline of the glory days of ranching in House Rock Valley.

Since the mid 1950s smaller parcels of land have been bought and sold; usually new owners sold them within five years of the original purchase. However, two separate owners made important consolidations that have permanently impacted the area. First, in the early 1990s, Kay Sturdevant bought out all the smaller



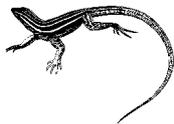
Left: John W. Young, Edwin Wooley and Dan Seegmiller host Buffalo Bill and an entourage of English aristocrats at Kane Ranch in 1891. Attempts to convince the aristocrats to invest in the Kaibab as a hunting retreat were rebuffed. Above: Due to its strategic location, control of Lee's Ferry was a source of contention between area ranchers in the late 1800s and early 1900s. Photos by Utah State Historical Society

ranches on the Paria Plateau and consolidated them into the Two Mile ranch. Second, in 1997, David Gelbaum bought the Kane Ranch and in 1998, in perhaps the most important transaction in the history of these ranches, acquired the Two Mile ranch, bringing both ranches and the grazing permits they hold for 830,000 acres under one owner and into the structure that exists today. 🌐

ARRIVALS

Ben Jones became a member of the Trust team in May 2007 as the Native America Program Manager. Previously Ben worked for the Seventh Generation Fund helping Native communities reestablish economic self-reliance; managed the non-profit Navajo Family Farms in Leupp, Arizona utilizing the Israeli drip-irrigation techniques and worked with Israeli advisors producing, developing Native seed banks and marketing strains of traditional Navajo crops; and was an AmeriCorps member working with the Coconino County Board of Supervisors on revitalizing the Navajo Wool Marketing. He also served as the Executive Director of the Institute for Integrated Rural Development at Diné College and, during Kelsey Begaye's presidency, served as the Division Director of the Division of Community Development.

Ben earned a B.S. in Business Administration and an M.B.A and M.A. in Political Science from NAU. He is currently working there on his Ph.D. with an emphasis in public policy and Navajo economic and legal discourse on water rights. He is a Navajo (Big-Water Clan), and lives in Leupp, Arizona. He has served on the boards of Native Seeds Search, Coconino County Inter-Tribal Diversity Council, and several Native grassroots organizations.



Neil Levine became the Staff Attorney for the Trust in June 2007. For the past 15 years, Neil has been litigating cases for environmental and community groups throughout the country on a wide range of issues from grazing in National Parks to protecting imperiled species under the Endangered Species Act to protecting private lands from coal-bed methane development. Neil has previously worked as an attorney for Earthjustice and Earthlaw both in Denver and the Environmental Defense Center in Santa Barbara. Neil received his law degree from Tulane Law School and recently returned from exploring Patagonia.

Kyle Mickelson joined the Trust in May 2007 as Finance Director. Previously Kyle was a senior auditor performing audits on non-profit, governmental, and commercial entities for a national audit firm. He brings to the Trust highly regarded skills in audit preparation and financial reporting.

As Finance Director, Kyle will focus on the Trust's financial reporting, bookkeeping, and audit preparation while assisting the Senior Director of Finance with daily operations. Responsibilities include maintaining account balances, preparing payroll, and drafting quarterly GAAP financial statements for the board and management.

Mr. Mickelson received his B.S. in Accounting from Northern Arizona University in May 2004. Kyle loves spending time with family and friends while enjoying the outdoors.



Mary O'Brien was named Southern Utah Forests Project Manager for the Trust in January 2007. She first joined us in October of 2003 as a consultant to help organize and co-coordinate the Three Forests Coalition's efforts to obtain greater care for native wildlife, vegetation, and ecosystems on southern Utah's three national forests, the Dixie, Fishlake, and Manti-La Sal.

Since earning a B.S. in Sociology, a Masters in Elementary Education, and a Ph.D. in Botany, Mary has worked as a staff scientist for toxics reform, environmental law, and public lands conservation organizations for 25 years. She thinks backpacking and hiking are particularly amazing ways to spend days on Earth.



David Smuin came to the Trust in May 2007 as the Utah Watersheds Manager. David is a fourth generation westerner with roots in the farming and ranching communities of eastern Utah and western Colorado. He started his professional career in southern Utah 30 years ago as a uranium exploration geologist. Later he worked on environmental site investigation and restoration projects for the Department of Energy and Department of Defense.

He is leading a landscape-scale watershed conservation and restoration program in southern Utah. The program will involve identifying key lands, acquiring properties, placing conservation easements and restoring stream and riparian habitats. He has a B.S. in geology from Mesa State College and an M.S. in Hydrology from the University of Nevada in Reno. He has a life-long passion for wildlife and wild country as a naturalist, fisherman, hunter, and tracker.



DEPARTURES

Martha Hahn, formerly Associate Director of the Trust, left in May 2007. Martha accepted a position as Director of the Science Center at Grand Canyon National Park.

Vanessa Vandever, Native America Program Manager, left the Trust in May 2007 to move to San Diego. She continues to do contracted work on GCT projects as a consultant.

Kristin Carden completed her term as Staff Attorney in June and moved to Santa Barbara to pursue a Ph.D. in Ecology, Evolution and Marine Biology at the University of California.

The staff of Grand Canyon Trust wishes them all the best in their future endeavors.

SCHOLARSHIP WINNERS

THE GRAND CANYON TRUST'S COLORADO PLATEAU SCHOLARS PROGRAM RECENTLY COMPLETED ITS SELECTION OF SCHOLARSHIP WINNERS FOR 2007. INSTITUTED IN 2006, THE PROGRAM AWARDS \$1000 UNRESTRICTED SCHOLARSHIPS TO DESERVING STUDENTS ATTENDING PUBLIC HIGH SCHOOLS IN THE COLORADO PLATEAU COMMUNITIES IN WHICH THE TRUST WORKS.

THE 2007 COLORADO PLATEAU SCHOLARS ARE:

TRICIA L. MONTGOMERY

KANAB HIGH SCHOOL, KANAB, UTAH

DEREK M. DOMIS

FREDONIA HIGH SCHOOL, FREDONIA, ARIZONA

MALIA GROESBECK

GRAND COUNTY HIGH SCHOOL, MOAB, UTAH

TAMARA C. WHITEROCK

GREYHILLS ACADEMY HIGH SCHOOL,
TUBA CITY, ARIZONA

CHRISTOPHER S. HOLVE

TUBA CITY HIGH SCHOOL, TUBA CITY, ARIZONA

CHEYENNE HARDING

HOPI HIGH SCHOOL, KEAMS CANYON, ARIZONA



ANNUAL REPORT 2006

STATEMENTS OF FINANCIAL POSITION for the twelve months ended December 31, 2006

ASSETS	2006
Current Assets:	
Cash	\$1,978,223
Contributions receivable	148,808
Prepaid expenses	13,855
Deposits	<u>0</u>
Total current assets	2,140,886
Long-Term Contributions Receivable	44,000
Property and Equipment, net	1,510,166
Investments	2,086,108
Investment in North Rim Ranch, LLC	1,315,581
Conservation Easement	1,295,000
Beneficial Interest in Remainder Trust	60,446
Total Assets	<u><u>\$8,452,187</u></u>
LIABILITIES AND NET ASSETS	
Current Liabilities:	
Account payable	\$69,144
Accrued expenses	<u>37,860</u>
Total current liabilities	107,004
Note Payable	893,265
Total liabilities	1,000,269
Net Assets:	
Unrestricted	4,912,529
Temporarily restricted	744,389
Permanently restricted	<u>1,795,000</u>
Total net assets	<u>7,451,918</u>
Total liabilities and net assets	<u><u>\$8,452,187</u></u>

STATEMENTS OF ACTIVITY for the twelve months ended December 31, 2006

CHANGES IN UNRESTRICTED NET ASSETS	2006
Revenues:	
Grants	\$537,362
Contributions	1,217,268
Membership income	345,729
Donated materials and services	32,536
Investment income	279,447
Change in value of beneficial interest in remainder trust	1,593
Equity share of net income/(loss) of investee	-515,520
Other income	47,607
Gain on investments	6,786
Net assets released from restrictions	<u>826,531</u>
Total unrestricted revenues	<u>2,779,339</u>
Expenses:	
Program services	1,785,052
Education	144,286
Development and membership	241,852
General and administrative	<u>222,685</u>
Total expenses	<u>2,393,875</u>
Net increase in unrestricted net assets	<u>385,464</u>
Net assets at beginning of year	<u>4,527,065</u>
Net assets at end of year	<u><u>\$4,912,529</u></u>



**I HAVE FOUND THAT AMONG ITS
OTHER BENEFITS, GIVING LIBERATES
THE SOUL OF THE GIVER.
—MAYA ANGELOU**



Steve Fluck

Have you ever wished you could do more to support Grand Canyon Trust, in addition to your regular gift? As a member, a volunteer, and now a full-time staff member, I give regularly to the Trust because, like you, I care deeply about the magnificent place we call the Colorado Plateau. Earlier this month I found myself hiking up the Spencer Trail above Lee's Ferry, watching a red-tail hawk circle near the Vermilion Cliffs. As I looked over the landscape, I was reminded how important our preservation and restoration work is, and realized that ensuring the Trust's longevity is critical to continued protection of our canyon country.

One way you could do more to help guarantee that the Trust's mission is carried out in years to come would be to simply remember us in your will. It's a straightforward, easy way to keep our work moving forward and provide additional support without a financial burden to you. As development manager, I'd be happy to discuss any questions you might have about making a bequest. Just give me a call, write, drop me an email at rslayton@grandcanyontrust.org or visit our website at www.grandcanyontrust.org. And thank you for all you do to support Grand Canyon Trust. We couldn't do it without you!

—Robyn Slayton-Martin

Staff Members

Board of Trustees

Headquarters Office

Bill Hedden
Executive Director

Christine Albano
Restoration Coordinator

Darcy Allen
Director of Administration

Ethan Aumack
Director of Restoration Programs

Roger Clark
Director of Air and Energy Program

Maria Clementi
Volunteer Assistant

Steve Fluck
GIS Analyst

John Heyneman
Manager, North Rim Ranch, LLC.

Ben Jones
Native America Program Manager

Neil Levine
Staff Attorney

Kari Malen
Volunteer Coordinator

Richard Mayol
Director of Communications

Kyle Mickelson
Finance Director

Rick Moore
*Director, Kane and Two Mile
Ranches Program*

Mary O'Brien
Utah Forest Project Manager

Kim Phelps
Development Assistant

Nikolai Ramsey
Program Director, Water Issues

Evelyn Sawyers
Senior Director of Finance

Tony Skrelunas
*Director of Native America
Program*

Robyn Slayton-Martin
Development Manager

Moab, Utah Office

Eleanor Bliss
Executive Assistant

Laura Kamala
*Program Director,
Southeast Utah*

Teasdale, Utah Office

David Smuin
Utah Watersheds Program Manager

Louis H. Callister
*Chairman
Salt Lake City, UT*

Pam Hait
*Vice-Chair
Phoenix, AZ*

Ty Cobb
*Secretary-Treasurer
Washington, DC*

James E. Babbitt
Flagstaff, AZ

Carter F. Bales
New York, NY

Ann Bingaman
Washington, DC

David Bonderman
Fort Worth, TX

Bill Budinger
Aspen, CO

Robert Elliott
Flagstaff, AZ

Jim Enote
Zuni, NM

Kevin Gover
Phoenix, AZ

John Leshy
San Francisco, CA

Ivan Makil
Scottsdale, AZ

Bud Marx
Laguna Beach, CA

Owen Olpin
Teasdale, UT

Eva Patten
Bozeman, MT

Amy Redford
New York, NY

Garry Snook
Aspen, CO

Jennifer Speers
Salt Lake City, UT

Rebecca Tsosie
Phoenix, AZ

Charles F. Wilkinson
Boulder, CO

Hansjörg Wyss
West Chester, PA

Jim Trees
*Founder and Emeritus Chair
San Francisco, CA*

N. Scott Momaday
*Poet Laureate
Santa Fe, NM*

Stewart L. Udall
*Counselor
Jemez Springs, NM*

The Colorado Plateau Advocate

... is a publication of the Grand Canyon Trust, a non-profit organization dedicated to protecting and restoring the Colorado Plateau

Advocate Staff

Editor: *Richard Mayol*
Design: *Joan Carstensen Design*
Printing: *Arizona Lithographers*

Headquarters
2601 N. Fort Valley Road
Flagstaff, AZ 86001
(928) 774-7488
(928) 774-7570 Fax

Moab, Utah Office
HC 64, Box 1801
Moab, Utah 84532
(435) 259-5284

This publication is printed with soy based inks.



Permission is hereby granted to reprint sections of the *Colorado Plateau Advocate* for non-commercial purposes provided that nothing is altered or edited in any way and that an appropriate credit line and copyright notice are included (©Grand Canyon Trust).

GUEST WRITERS

Pat Mulroy oversees the operations of the Las Vegas Valley Water District, which serves more than 300,000 customers, and the Southern Nevada Water Authority, which is responsible for acquiring, treating and delivering water to local agencies that collectively serve 1.8 million residents and nearly 40 million annual visitors. She was a principal architect of the Water Authority, which has served as a model for other Western water agencies since its creation in 1991

Raúl M. Grijalva represents the 7th Congressional District of Arizona in the U.S. House of Representatives. He serves on the Committee on Education and Labor, the Committee on Natural Resources—of which he is the Chairman of the Subcommittee on National Parks, Forests and Public Lands—and the Committee on Small Business. He is a leading advocate for working families, defending our environment, preserving Social Security and Medicare, universal health care, protecting our civil liberties, immigration reform and a comprehensive border policy; and increased support for public education, including financial aid for higher education.

Cover photo: Sunset on the Colorado River as seen from Toroweap Point on the Grand Canyon's North Rim by Photodisc/MediaBakery

© Illustrations by Zackery Zdinak

Mission

The mission of the Grand Canyon Trust is to protect and restore the Colorado Plateau—its spectacular landscapes, flowing rivers, clean air, diversity of plants and animals, and areas of beauty and solitude.

Vision

We work toward a region where generations of people and all of nature can thrive in harmony. Our vision for the Colorado Plateau one hundred years from now is:

- A region still characterized by vast open spaces with restored, healthy ecosystems and habitat for all native plants and animals.
- A sustaining relationship between human communities and the natural environment.
- People living and visiting here who are willing and enthusiastic stewards of the region's natural resources and beauty.

Grand Canyon Trust

2601 N. Fort Valley Road
Flagstaff, Arizona 86001
(928) 774-7488

NONPROFIT ORGANIZATION
U.S. POSTAGE PAID
Flagstaff, AZ
Permit No. 43

Visit our website at
www.grandcanyontrust.org