

# LIVING RIVERS

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## CURRENTS

### GCAN Challenges Marina Proposal

In the foreground, heat waves shimmer above the broad asphalt parking lot, distorting the view across the former channel of the Colorado River to the sandy beach on the opposite side of Lake Powell reservoir. The billowing smokestacks of the Navajo Generating Station tower ominously on the horizon. Pickup trucks towing trailers back down the new concrete ramp to launch their multi-engine power boats. A jet ski roars into view, spewing its plume of water high into the air. Welcome to Antelope Point, site of another marina project at Glen Canyon National Recreation Area (GCNRA).

Veteran Colorado river runner Martin Litton stands on the shore, the power plant and outskirts of the City of Page, Arizona behind him. Looking out at the former Glen Canyon, now an oversize playground for motorboats, the former Sierra Club director wonders aloud at the immense changes planned for this relatively unknown corner of the reservoir. "We can't go on like this," the octogenarian declares as he steps around a piece of garbage lying on the bank. "We don't need any more pleasure palaces on this old river. Or what's left of it."

Pleasure – the good life – is what Antelope Point Marina is all about. Back in 1986, the National Park Service (NPS) approved a development concept plan for a marina to be jointly managed by NPS and the Navajo Nation. The focus was industrial strength recreation, and lots of it. Included in the plan are: slips for 300 boats, complete with fuel and repair dock; a 225-room hotel; an RV park; shops; a restaurant, pool, gym, and tennis courts; tour boats; a cultural center; artist studios; housing; campgrounds, and a septic tank-based sewage system – all scattered across this swath of Lake Powell's shoreline.

One justification for this new marina is to generate revenue for the Navajo Nation. A sizable part of the project would be constructed on Indian land overlooking GCNRA. If the marina were constructed, the Navajo would not own or operate the facilities. Instead, a concessionaire would pay fees to NPS for the marina portion of their activities, as well as fees to the Navajo for the businesses operated on their land. Environmental groups are raising objections over the impacts of increased numbers of recreational watercraft on the reservoir. And some Dineh (Navajo) people are wondering whether a new resort is the best way to provide greater economic security for the Navajo Nation.

### Alternatives to Development

About five miles west of Antelope Point is Wahweap Marina, Lake Powell's largest resort, and home to about a thousand boats. The sprawling Wahweap complex is one of five Lake Powell marinas managed by ARAMARK Corporation under an exclusive concessions contract with NPS. One of the most popular tourist attractions is the boat tour to Rainbow Bridge National Monument, 50 miles upreservoir of the marina. On peak days several thousand visitors gaze upon majestic Rainbow Bridge, one of the most sacred sites of the local medicine people. Before Glen Canyon Dam, visitors to Rainbow Bridge had to cross Navajo Nation land to visit the "Great Rock-Arch." Today, ARAMARK charges more than \$50 per person for the day trip and the Native people get nothing.

GCAN and the Dineh Medicine Men's Association believe the Dineh people should reap the benefits from Rainbow Bridge and other concessions on the reservoir. The two groups want a reconsideration of ARAMARK's monopoly contract. "We don't need to increase the amount of development at the lake for the Dineh to benefit, we should be allowed access to existing concessions," says Association President Thomas Morris, Jr.

### Where the Antelope Play

It is difficult today to imagine the scope of development planned for this windy, barren point, which for years has been used primarily by boaters as a beach. A lesser-known use of the area has been by traditional Dineh people for ceremonies. Archeological sites dot the area, dating back nearly a thousand years. This desolate site has seen habitation in the past, but nothing like what is planned for the future.

Many observers have wondered whether Antelope Point Marina would ever be built. Navajo Nation authorities, often distracted by political concerns and fiscal crises, showed little sustained interest in the project until recently. Now, however, there is evidence of forward momentum: construction of a paved access road and launch ramp

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LIVING RIVERS CURRENTS  
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### DAVID BROWER, 1912-2000: FRIEND OF GLEN CANYON & THE COLORADO RIVER

On Sunday, November 5, the Earth lost a great friend. David Ross Brower, 88 years old and active to the end, died at his home in Berkeley, California. The rivers of the West, especially the Colorado River, have lost a vigorous and eloquent defender. Brower was often compared to the other great environmental leader and visionary of the twentieth century, John Muir, who died a year after Brower's birth.



Immortalized in John McPhee's 1971 book *Encounters with the Archdruid*, Brower became known to a generation as the environmental movement's visionary leader. McPhee's account of Brower's boat trip with former Bureau of Reclamation Commissioner Floyd Dominy through the Grand Canyon and across then-filling Lake Powell reservoir helped define the environmentalist world view, in stark contrast to the pro-development paradigm represented by Dominy and the dams he built.

Those of us who have had the pleasure of rafting the Colorado River through Grand Canyon National Park or the Green River through Dinosaur National Monument owe David Brower an immeasurable debt of gratitude. Not only did he defeat for the first time in our nation's history the dam-building political machine, but he also imbued in our society a lasting legacy of awareness and concern for the beauty and integrity of the natural world.

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## ENDANGERED FISH Ignite Debate on Flaming Gorge

The US Bureau of Reclamation (BuRec) got more than it likely bargained for when it recently sought public comments on an environmental impact statement (EIS) that proposes to reoperate Flaming Gorge Dam, located on northeast Utah's Green River. A coalition of more than 50 environmental groups led by GCAN responded, calling on BuRec to investigate decommissioning Flaming Gorge as well as other dams in the Colorado River watershed as a means of recovering four species of endangered native fish harmed by dams.

The coalition also called for a comprehensive basinwide study to address Colorado River fish recovery needs, accusing BuRec and the US Fish and Wildlife Service of "piecemeal" solutions that fail to look at the cumulative effects of water development, pollution and habitat destruction throughout the species' range.

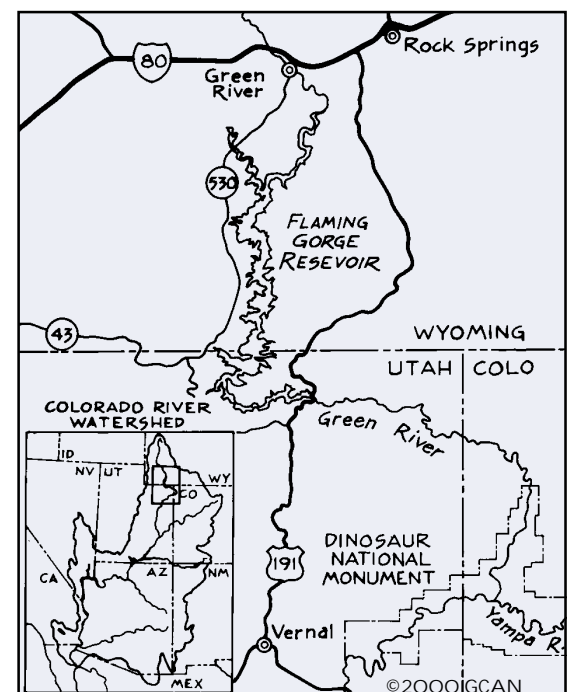
Squaring off in the debate against the coalition is an assortment of water and power users, recreationists, outfitters and BuRec itself. In July BuRec convened public hearings in Salt Lake City, Vernal, and Fort Duchesne, Utah; Rock Springs, Wyoming; and Grand Junction, Colorado. Before the first hearing even took place, BuRec declared – in apparent violation of environmental law – that no decommissioning study would be conducted.

### The Least Needed Dam

While endangered species concerns are fueling the current Flaming Gorge debate, broader questions about the dam's costs and benefits have also arisen. Completed in the 1960s, the 502-foot-high dam is the largest in Utah. Flaming Gorge can generate up to 150 megawatts of federally subsidized hydroelectric power, a relatively minor amount considering BuRec recently eliminated three times as much from Glen Canyon Dam's operations in an effort to address environmental concerns.

The need for the reservoir is likewise questionable. Flaming Gorge's only municipal water user, the small community of Dutch John, can draw water from wells or directly from the river instead of the reservoir. Similarly, no irrigation water is drawn directly from the reservoir; the reservoir is only used to help regulate flows for downstream

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## Take Out the Garbage

Peering into the many magnificent pre-dam photographs of Glen Canyon, one has to wonder how much more beauty has been temporarily taken from us by the 50,000 large dams around the world. How much extinction has occurred, how many sacred sites have been submerged, how many native cultures impacted? Add to this the effects on riverine communities forced to relocate to make way for reservoirs – some 60 million people worldwide.

In a sense, Glen Canyon is just one of many places that have been sacrificed by public officials who are willing to side-step truth, ethics and the law in order to appease the political and economic interest of a few influential individuals. On a larger scale, however, the icon status of Glen Canyon Dam, along with that of Hoover Dam downstream and Grand Coulee Dam on the Columbia River, helped the Bureau of Reclamation (BuRec) and other dam-building agencies promote large dams as models for river development throughout the world.

“Let large dams feed your people, light their homes and eliminate floods,” the marketing literature would proclaim – and still does. But at what cost, and for whose benefit? We now know that the legacy of large dams, particularly in developing countries, has been disastrous for rivers and riverine communities. We were awakening to this reality when the decision to build Glen Canyon Dam was made, yet it and many others have been and continue to be built. Many who defend Glen Canyon Dam agree: given what we now know, it should not have been built. They often, however, quickly add: given that it is already here, why take it down?

The answer lies in what is frequently said next, especially by those fond of reservoir recreation. “If we drain it, all there will be is a bleached canyon full of garbage where a beautiful lake now stands.” Actually, it is not just the canyon, but the entire river and watershed that are trashed and in need of restoration as a result of Glen Canyon Dam and the related involvement of BuRec. Multiply this model thousands of times over throughout the world, and therein lies the real motive to reverse this process at Glen Canyon – to evolve this icon of dam building into a symbol of ecological renewal. Yes, a mess has been created, not always consciously, and sometimes with good intentions, but it is litter nonetheless, and it’s time we start picking it up.

Let’s start with the canyon. By many accounts it is a full-scale garbage dump with a reservoir on top. On the bottom are scuttled houseboats and an untold quantity of furniture, appliances, carpets and automobiles surreptitiously dumped in the night. But that’s not all. Add to this the houseboating industry’s offerings of human waste, thousands of discarded lead-acid batteries, and Exxon Valdez-scale amounts of petroleum contaminants, and the lack of reverence for this “beauty” that reservoir enthusiasts hold so dear becomes quite clear.

The reservoir’s water quality is in fact so poor that the same agency responsible for treating it to meet drinking water standards avoids consuming their own product; they purchase bottled water for their employees instead. Then there is the waste from the submerged uranium mill at the mouth of White Canyon, and the growing concentrations of heavy metals – naturally occurring and harmless under natural flow conditions, but rendered toxic as they become trapped behind the dam.

But our garbage dump is not limited to the dam and reservoir alone. For just beyond Glen Canyon Dam lies the Navajo Generating Station, the nation’s eighth largest power plant polluter. Built by BuRec in order to take advantage of the cooling water available from the reservoir, the plant is believed to contribute little more than asthma to the Navajo Reservation and low-wage jobs to the Navajo Nation’s economy. Such parasitic developments have evolved worldwide as dams, their energy, water storage and roads facilitate access for extractive and polluting industries. One may attempt to defend the historical merits of some such developments, but they need not continue in this day and age, and we certainly can work to repair the scars they have left behind.

Take for example the agricultural plumbing system of the Colorado River, of which Glen Canyon Dam is so much a part, albeit an unnecessary one. Eighty percent of the

Colorado’s water is diverted for agricultural use. Needless to say, much of it is wasted. The largest consumer is the Imperial Irrigation District (IID) in Southern California, one of the richest irrigation districts in the world, although farm workers there would never know it from the wages they receive. Of the 3.2 million acre feet a year IID consumes (20 percent of the river’s average annual flow), one third of that becomes agricultural drainage, flowing into the Salton Sea, where it then completely evaporates into the atmosphere.

In geologic time, the Salton Sea was an inland sea, but an act of Calvin Coolidge turned this depression into a 365-square-mile waste pond for agribusiness. Today it is one of the most toxic bodies of water in California. Federal money is currently being used to mitigate, not eliminate, the Sea’s problems.

This of course is just one of the more visible impacts associated with agribusiness, an industry promoted by dams, subsidized water and toxic chemicals, which has proliferated to arid climates in many countries – not to feed the world’s poor, as is often advertised, but routinely for high-value crops to maximize landowner income and to aid in paying off the loans associated with dam construction.

Mandated shifts to organic farming could clean much of this up in a hurry by creating cleaner food, groundwater and soil conditions, and hence result in greater human health and environmental benefits. Moreover, a reduction of just seven percent in agricultural water use is estimated to be sufficient to meet all projected future municipal water needs in the Colorado River basin for the next 50 years. This doesn’t even require the decommissioning of any non-essential golf courses, lawns, fountains, or swimming pools in places like Phoenix, Las Vegas and Los Angeles.

The conservation approach can also be applied to eliminate the need for Glen Canyon Dam, the Navajo Generating Station, and all manner of polluting energy infrastructure. Yes, contrary to the dam-building industry’s propaganda, hydropower is not “clean” energy. The federal government recently recognized hydroelectric dams’ polluting and wasteful ways by delisting them as a “renewable” energy source. In Glen Canyon’s case, the dam has destroyed critical habitat in both Glen Canyon itself and the Grand Canyon downstream. And thanks to the evaporation and seepage associated with the reservoir, up to ten percent of the Colorado River’s annual flow is lost annually, which, were the dam not there, could be used to revive flows to the Gulf of California to restore the watershed’s historically most abundant riverine habitat.

How much of our energy is wasted on inefficient appliances, lighting or totally unnecessary products? California’s 25-year effort to address conservation and reduce energy demand will save the state the need for ten Glen Canyon dams by the year 2012. Unfortunately, most such programs have disappeared as energy markets have become deregulated. The focus, even amongst many environmental groups, has become the types of energy that we should consume, not how fast we can cut our overall energy consumption. And yet, the technologies necessary to reduce our consumption exist; only the political will is lacking.

Glen Canyon Dam, and the model it represents, are synonymous with the level of waste our culture has come to accept as normal. This cannot continue. The Colorado, other rivers worldwide and the watersheds they support have little more to give. Neither food nor energy production is reliant on the antiquated technology of dam building. Furthermore, recreation does not require a dam or a reservoir dump. We may have inherited these approaches, but whether it’s next month, next year, or next decade, resources are running out. We can and must learn to live with less.

While it may not be obvious, in many ways we already have learned to do so. Two dams that were supposed to be built in the Grand Canyon were stopped in 1968. Had they been built, and the issue before us now was their decommissioning, would our debate be any different? We have survived without dams in the Grand Canyon. So too can we survive without Glen Canyon Dam – and many others like it.

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LIVING RIVERS CURRENTS is a publication of GLEN CANYON ACTION NETWORK, a people’s movement to protect and restore the integrity of the Colorado River watershed. Through grassroots organizing, research, advocacy and litigation, GCAN works to prevent further damage to the ecosystems of the Colorado River watershed, to reverse the damage that has already occurred, and to enhance public awareness regarding river and wildlands protection and restoration. For information about membership please visit our web site, or contact our Moab office.

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GLEN CANYON ACTION NETWORK

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**THANK YOU ALL!**

# RAINBOW BRIDGE: Another Broken Promise?

Guest Column

By Thomas Morris, Jr.

*Ya'a'teh!* Greetings from the Navajo Nation. We the Dineh, or Navajo, people were created here in Dinétah, our sacred homeland, and since the Creation we have learned a few things about the land and the waters where we live. We have many stories that tell the history of our people, stories written on the land, in the rocks, in the places where the rivers come together. These sacred places tell about our creation and the things we need to know to live our lives according to the old ways, in harmony with Mother Earth.

The white people – the *bellaganna* – came from some other place, across the waters. They don't understand us or our beliefs. The lack of understanding has led to many troubles over the years. Our ancestors were taken away on the Long Walk by the US Cavalry; our homes and crops were destroyed, our people made to starve. Some froze to death. Later, white people made many promises to help us, but one after another those promises were broken. These things we know; they are our history.

Times have not been easy for many of us, but in spite of the hardships, we are still here and we will always be here. We want to be sure that our sacred places will be here, too, for one of our tasks is to protect them.

One of the places we hold in reverence is Rainbow Bridge, the great Rock-Arch, near our sacred Navajo Mountain. Traditional Dineh people consider Rainbow Bridge and other sites nearby to be holy. Important things have happened there, in the canyons around Navajo Mountain, in Glen Canyon and the San Juan River.

Some of our people lived along the river, grazed their cattle and grew fruit trees and corn. Medicine people practiced ceremonies and sang songs down there. These things were very important to us, but not important to the white people who came to build the dam.

The land that belonged to the Navajo Nation and the families who lived there was taken in order to build Glen Canyon Dam and fill the reservoir known to white people as Lake Powell. Dineh land was taken to build the City of Page, where the white man's hotels and gas stations now stand. This is the history of our land.

Today tourists come from all over the world, passing through Page on their way to Grand Canyon or Zion National Park. They might take a tour boat trip to Rainbow Bridge. More than three thousand people have gone there in a single day. Most come to take pictures then leave. The profits from all these trips go to the ARAMARK Corporation, while the Indian people get nothing.

When the dam was built, the US government promised that Rainbow Bridge would be protected from flooding by Lake Powell. Those words are written in the law. But when the waters rose in the canyons the people realized water would stand under the bridge in violation of our teachings and the white man's law. Many sacred places near Rainbow Bridge were drowned beneath the reservoir. Now we can no longer communicate with the gods who lived in the canyon, nor can we see the petroglyphs that hold special meaning for us. Glen Canyon Dam took away part of our religion.

Some medicine people decided they would take this to the US courts. They showed the judges where in the law it said that Rainbow Bridge National Monument must be protected from Lake Powell waters. The case went to the US Supreme Court but the judges said that it was more important that the white people store water in the reservoir than protect Native American religious freedom.

Preserving our cultural traditions and heritage is more important but harder to do as time goes by. Indian people have worked hard to gain protection for our spiritual beliefs and practices, for the places where we make prayers, sing songs, and hold ceremonies. We have seen some progress, but there is still a long way to go. Imagine how it might feel if the great cathedrals were bulldozed for strip malls. The Bible tells how Jesus threw the moneychangers and merchants from the temple. We can relate to that when we see Rainbow Bridge and other sacred places flooded and turned into tourist attractions.

We have no Bible; our sacred texts are the petroglyphs under the water. Just as we have respected the white people's beliefs, their temples and holy places, and their Holy Book, we ask the same respect from them. We need this for the sake of our young people, many who now question the teachings because we have nothing written down. The preservation of our culture depends on our young people becoming apprentices, learning to read the petroglyphs, so they can pass the stories on to the generation that follows theirs.

The health of our people depends on our visiting the sites to make medicine. Many Indians today suffer from diabetes, asthma, alcoholism, and other diseases that were unknown before the arrival of the white men. So not only are we losing our culture and our sacred sites but also our health. We have to struggle to survive and keep our families together.

One of the world's largest power plants is on the reservation. The "Navajo Generating Station" sends electricity to Phoenix and other cities far away. Meanwhile, the Navajo Nation must buy its power from the white man's power companies off the reservation. The pollution from the smokestacks comes back to us, though, falling on our communities. Mercury is now in the air we breathe. The skies, which once were clear, are on many days yellow or brown with haze. This is a bad sign.

We are told we need economic development and jobs to bring in revenue and provide economic security for Navajo people. Maybe so, but we need jobs that help protect and restore the Earth. Tourism jobs can cause harm too. We must be careful not to sacrifice our heritage for revenue.

The Dineh have a long history of which we are very proud. Our ancestors and elders have had to endure many challenges but perhaps the biggest one is the battle to maintain our cultural identity. We will survive as we always have, but we must strive to preserve those things that make us who we are as a people.

We are encouraging our young people to learn the traditional ways, to serve as apprentices. We need them to carry on the ancient traditions, and we need them to help us protect and restore the places where the ceremonies are held. The responsibility for these sacred sites will one day pass to them. We will undo the work of the dam builders and tour boat operators, and bring back a river that was a way of life, and will be again.

Someday soon we will be able to walk to the great Rock-Arch, Rainbow Bridge, and perform the ceremonies as in the old days. There is a Navajo saying, there is beauty in front of me, beauty behind me, beauty above me and beauty below me; beauty is all around me. That is what we are seeking, to bring back the beauty to Glen Canyon.



We look to the day when Rainbow Bridge is no longer viewed as a tourist attraction but as a symbol, a shrine devoted to the idea of the interconnectedness of all life that must be respected and protected. This is one promise that cannot be broken. The traditional Dineh seek your help in making these things come to pass, and in making a better world for the future for all of us.

Mr. Morris is President of the Dineh Medicine Men's Association. The Association may be contacted at: PO Box 1702, Window Rock, AZ 86515.

## Antelope Point (continued from page 1)

was completed in 1999. The project partner agencies – NPS, the Navajo Nation, and the Bureau of Indian Affairs – recently identified five corporations to bid on building and operating the complex. Tribal and federal government officials are planning to choose a concessionaire and hope to begin construction in 2001.

ARAMARK wants the Antelope Point contract to maintain its marina monopoly on the reservoir. ARAMARK, one of the largest concessionaires in the National Park System, has a motto of "serving more than 15 million people at over 500,000 locations every day." Among the other companies competing are the concession operators at Lake Mead, Yosemite, and the Grand Canyon.

According to NPS' environmental assessment (EA), project feasibility will likely depend upon changing tribal law to permit the sale and consumption of alcoholic beverages at the resort. Alcohol is currently prohibited on the Navajo Nation. An exemption for Antelope Point will likely be controversial within the tribe.

The Dineh Medicine Men's Association has expressed concern about the precedent that would be set by permitting alcohol sales at Antelope Point. "It would set a bad example for our children to allow liquor and drinking on the reservation," says Mr. Morris. "Alcohol abuse means more health problems and crime we don't need, and we worry that this project could bring in casino gambling too."

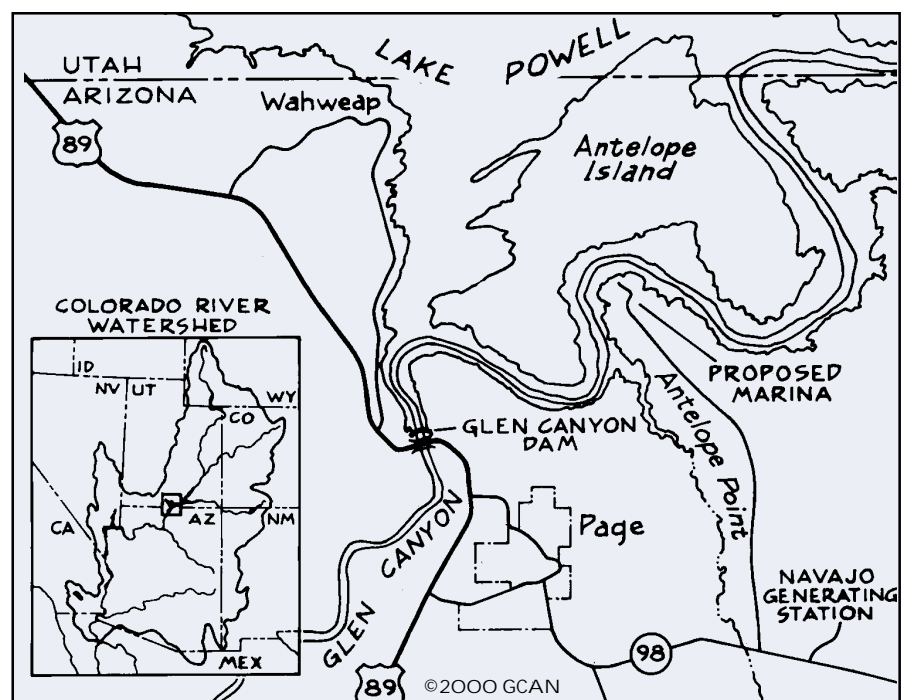
## Groups Demand EIS

GCAN, the Dineh Medicine Men's Association and other groups are calling on NPS to suspend work on the project while an environmental impact statement (EIS) is prepared to address environmental and social concerns that were not fully examined in the 1986 study. "The Antelope Point project EA does not comply with the National Environmental Policy Act," states GCAN executive director Owen Lammers. "The cumulative effects on water quality, visitor safety and damage to park resources from hundreds of additional jet skis, powerboats and houseboats in this channel have not been quantified or adequately studied."

Activists are concerned that Antelope Point will increase water and air pollution levels at Lake Powell. For example, personal watercraft (PWCs) are known to dump about 25 percent of the fuel from their exhaust systems unburned into the water. Current NPS water quality monitoring does not track petroleum pollution, so no data exist to indicate whether PWC usage may have already reached harmful levels. Public safety is also a concern, as the reservoir is presently ranked the second most dangerous location for recreation-related injuries in the National Park System.

The 1986 EA did not anticipate such an explosion of watercraft usage, nor did it explore potential alternative revenue streams for the Dineh people that would obviate the need for the project. It is also unclear how much the Navajo will actually benefit. The tribe will only receive fees from the concessionaire for a portion of the project, whereas the concessionaire will receive the bulk of the proceeds.

GCAN and the other intervening parties want to protect the cultural resources and water quality of the Navajo Nation and GCNRA. Building a major resort will only exacerbate currently unsustainable levels of pollution and resource destruction, and add to the clean-up requirements when the reservoir is drained.



## What You Can Do:

Please write NPS and request that the Antelope Point Marina Project be put on hold until an EIS is prepared. Ask for an evaluation of water quality impacts from PWCs. Also ask them to consider turning over the concessions contract for the existing Wahweap Marina to the Navajo Nation as an alternative to constructing a new marina at Antelope Point. Write to: Superintendent, Glen Canyon National Recreation Area, PO Box 1507, Page, AZ 86040. Please send a copy of your letter to GCAN at: <info@drainit.org>.

# DRAINING LAKE POWELL

## One Scoop at a Time



As any seasoned activist knows, you've got to get out and interact with the public to sell your cause. Grab your card table, brochures, petitions and donation bucket and head to the appropriate festival, rally, or street corner. Well, the folks at GCAN have added their own twist to this age-old practice, setting up an ice cream shop at their Moab headquarters that both educates the public and generates valuable revenue.

Since Restoration Creamery opened on March 17, more than 25,000 people have directly supported efforts to restore the Colorado River watershed by buying our ice cream. As about 85 percent of these customers are actually tourists from across the US and around the world, the message to restore the Colorado is spreading far and wide.

To keep things simple, Restoration Creamery only sells scoops of ice cream in cups or cones. The ice cream is purchased from a premium ice cream maker out of Salt Lake City, but is all named to reflect people and places associated with Glen Canyon. With (Edward) Abbey's Rocky Road, (David) Brower's Bear Claw, Seldom Seen Cookies 'n Cream, Music Temple Almond Fudge, and Rainbow Bridge Sherbet, the message of draining Lake Powell is ever present.

The only other merchandise sold at the Creamery are GCAN T-shirts, mugs, posters and bumper stickers. These, along with banners, brochures, fact sheets, newspaper clippings and an eight-foot-tall image of Interior Secretary Bruce Babbitt taking a sledgehammer to Glen Canyon Dam, help ensure that the shop's primary mission of education is fulfilled.

The ice cream shop also has a counter where visitors can sign up to become members, lend their name to the *Glen Canyon Declaration for the Restoration of Glen Canyon and the Colorado River*, and write down their comments about restoring the watershed.

In addition to the 65 hours of one-on-one outreach that take place at the Creamery each week, sufficient revenue is generated to support the fixed costs for GCAN's offices, which are located just beyond the retail space, as well as much of GCAN's promotional material. Instead of tips, a big jar beside the cash register accepts additional donations, which have ranged so far from \$.04 to \$100.

Restoration Creamery is not limiting its support to GCAN. The shop routinely supports other local groups, which have included: Rim to Rim Restoration, the Youth Garden Project, Four Corners Mental Health, Sierra Club Glen Canyon Group, Moab's community radio station KZMU and many more.



Probably the best aspect of the ice cream shop is that it provides GCAN staff and volunteers a fun and unique way to interact with the public each and every day. We are able to test and refine our message quickly, and identify additional outreach tools and tactics to improve the transmission of our message.

The downside, not surprisingly of course, is that team Drainit is putting on a few extra pounds! Oh well. As every seasoned activist knows, sacrifices sometimes have to be made for the cause...



Durable Vinyl Bumper Stickers \$2 each

•••• TO ORDER ANY OF THESE ITEMS, OR TO REQUEST OTHER MATERIALS AND INFORMATION: CALL GCAN AT 435.259.1063 ••••

Travel Mugs \$5 each



Long-sleeved Natural Cotton T-shirts \$12 each



16 x 21 inch, full-color posters \$5 each



## RIO GRANDE Action Network Forms

Activists in New Mexico are launching grassroots efforts to make the Rio Grande mighty once again. From its headwaters in southern Colorado, the river flows south into New Mexico, where agricultural and municipal diversions reduce the flow by more than 80 percent. River habitat important to the endangered Rio Grande silvery minnow in central New Mexico is drained dry most summers, and much longer stretches in west Texas are dry most of the year. The river's estuary at the Gulf of Mexico is severely depleted.

The Rio Grande Action Network (RGAN) has recently formed to complement ongoing efforts to reduce the impacts of diversions and restore the river to biological

health by educating watershed users and communities about less consumptive lifestyles and more appropriate technologies. Recognizing the contribution of groups already working to improve river management, RGAN seeks to send a message that includes targeting the decommissioning of dams, reversing any new diversions, and reversing the watershed degradation brought on by logging, grazing and industrial pollution.

GCAN is concerned about the impacts of development in the Rio Grande, as Colorado River basin water is transferred to the Rio Grande via the San Juan-Chama diversion project. Growing demand in New Mexico could result in an increase of siphoned water through this diversion. To contact RGAN, call Jean Brocklebank at: 505.254.0343, or email her at: <jeanbean@nmia.com>.

### David Brower (continued from page 1)

The Colorado River and its tributary the Green contain the greatest achievements as well as the greatest defeat of Brower's unparalleled career in environmental advocacy. Leading the successful effort to stop construction of Echo Park and Split Mountain dams on the Green River and Bridge Canyon and Marble Canyon dams on the Colorado River, Brower had much to be proud of, but the compromise that led to damming Glen Canyon always haunted him. In his later years, he began to ask the question that no one had ever dared ask, is it possible to drain Lake Powell and restore the canyon he had belatedly come to know and love?

A little less than a year ago, river activists met with Brower to plan an action-oriented campaign to restore the Colorado River. Out of that meeting grew Glen Canyon Action Network. On March 14, 2000, Brower led a celebration of the Century of River Restoration at Glen Canyon Dam. While he did not live to see his beloved Glen Canyon restored, David Brower will live with us as we work to realize his vision. It is with inspiration and great respect for him that we hereby dedicate ourselves to carry on this important work.

## IN MEMORIAM

In addition to the recent loss of David Brower, this past summer two other leaders for rivers, Marc Reisner and Tad Nichols, passed away.

**MARC REISNER's** book *Cadillac Desert* was a classic document of the government waste and environmental loss associated with western water development. Its detailed critique helped to fuel more widespread efforts for river protection in the western United States. Following the book's release in 1986, Reisner spoke out on behalf of a number of these efforts. Most recently he worked to promote dam removal to restore native salmon habitat.

**TAD NICHOLS** learned his trade as a boatman working for Norm Nevills' Mexican Hat Expeditions on the San Juan River in the 1940s. A pioneer river runner in Glen Canyon, Nichols was also an expert landscape photographer. His close friend Katie Lee wrote of her explorations with Nichols and fellow companion Frank Wright in her 1998 book *All My Rivers Are Gone*. Before his death, Nichols published a collection of his exquisite large format black and white photos in a book titled *Glen Canyon: Images of a Lost World*. Nichols' photographs represent a major contribution to the movement to drain Lake Powell.



Scooping ice cream to drain a reservoir and restore a watershed is not only a great way to educate people on the issue, it also makes for some interesting day-to-day encounters. Since opening Restoration Creamery we've often been asked about the public response we're receiving and what life in the shop is like. Here's a taste.

When customers enter our shop, greeted by a visual cornucopia of information on the issue, a few remain intent solely on satisfying their sweet tooth, but most do read the slogans, clippings and comments around them and do in turn voice an opinion about the message conveyed.

Here are some of the different reactions and trends we're experiencing...

**Outward Support.** Folks are often surprised that the majority of interaction we have with the public is supportive. Children and teens, who tend to be the most open about how they feel, often laugh at the Bruce Babbitt poster saying, "Cool! Drain it!" One little girl who just returned from her first visit to the reservoir left a simple message on the comment sheet: "Blow it up!" Other kids hang out and talk, often volunteering to help in the shop while they do. Many adults display exuberant delight at the prospect of our work. They linger and chat about the issue enthusiastically, often relating it to watershed issues in their own community, several returning during GCAN office hours to speak with campaign staff.

**Veiled Support.** Some visitors come in accompanied by unsupportive family or friends, which leads to an interesting dynamic. They tend to sidle up to the cash register while the rest of their party is distracted, whispering about how excited they are and that they'll return when they can speak freely. We've had several small-town schoolteachers approach us in this way, requesting materials to share with their students.

**Skepticism.** We get other customers who are clearly environmentally aware and sympathetic to the notion of restoring the Colorado, but also convinced, at times bitterly, that it will never happen and that reservoirs like Lake Powell are a *fait accompli*. Taking the time to talk to them can make a difference. For example, about a month ago a middle-aged fellow strolled in, asking creamery manager Bruni, "Remember me?" She couldn't place him right away, but then recalled him as one of a small number of people who have vocally attempted to disrupt the shop's friendly atmosphere. Three weeks earlier there had been a good-size crowd in the shop and somewhere in the back she heard a belligerent voice muttering, "You can't drain Lake Powell." When she finally had a chance to talk to him, he wasn't interested in ice cream, but did eventually calm down and agree to take our literature. He took off and Bruni never expected to see him again, yet here he was! He apologized for his rudeness during their initial meeting, and moreso for not completely understanding the issue. "I read everything you gave me, and you guys are right. We really should drain the lake," he said, adding, "I'm telling all my friends about the great work you're doing!"

**Indecision.** We have likewise benefited tremendously from interacting with people undecided about the campaign. For it is talking – and listening – to these people that really allows us to gauge and better understand the public's doubts and concerns. In turn we attempt to allay their concerns with factual information. More than anything, we are excited to see and hear visitors discussing and debating Glen Canyon's future. This dialog is in many ways our greatest reward. Here are some examples:

- Just after we opened the shop, four male high school students strolled in, turning our brochures around as they circled the room. "You see," they announced, "we want ice cream, but do not agree with draining the lake. This is our silent protest." They bought ice cream and kept asking why we want to drain the reservoir. Bruni continued engaging them in conversation, then asked the most contentious one if he would read some of our information. At the cash register she let him have his ice cream for free in exchange for keeping an open mind. Shocked, he replied, "I will read this and you better be ready to discuss it when I return." After they left, one of his friends returned saying, "Thanks for not getting angry with us and for talking to us nicely."

- One Tuesday night a young couple wandered into the shop and began examining our materials. "Wouldn't draining Lake Powell end the houseboating there?" they asked the volunteer behind the counter. "It would indeed," he replied, "but Lake Mead will still be available for recreational use." The couple took their ice cream and stood in the corner talking and eating. As soon as the crowd of other customers subsided, the woman returned to the counter and said, "You know, my husband and I were planning on investing in a houseboat at Lake Powell, but we just decided we're not interested."

- Often kids enter the shop, look around and remark to their friends, "They want to drain Lake Powell? Why?" Two teenagers recently engaged Bruni in just such a conversation, eventually volunteering that their faith assured them that the issue was moot – that God will return to Earth in the next 50 years and should he disapprove of the dam, he will restore Glen Canyon himself at that time. This prompted Bruni to ask, "If that is true, does that mean those of us alive today have a responsibility to care for the Earth, or will God simply clean up after us when he appears?" This confused the boys initially. They took some moments to think about it, concluding that it does not give humans the right to be careless. Bruni then asked, "What if God sent me to help restore the canyon?" adding that she believed she ended up working in the ice cream shop for a reason. This perplexed the boys further, but in the end they went so far as to tell her they'd ask God if perhaps she hadn't been sent to help do so.

**Opposition.** Running a shop like this, you expect visitors to come through who completely disagree with you. We endeavor to welcome them, and to be open to their views. In turn, we hope they'll reciprocate. Many do. Some change their stance on the issue as a result, but most remain steadfast and we agree to disagree. We view these as healthy and very necessary exchanges.

It is those people adamantly opposed to even discussing the issue that present the greatest challenge. We've had a few disgruntled teens skateboard past the shop swearing or banging on the windows. Other folks have left profanity and statements like "Drain it and die!" on the comment sheets.

After buying ice cream one middle-aged couple approached Bruni, the wife asking, "What is it you actually promote here?" "We want to restore the Colorado River watershed," Bruni replied. The woman responded, "What does that mean?" Bruni added, "We want to start by decommissioning Glen Canyon Dam and draining the reservoir." She then explained the problems associated with siltation, dam safety, water evaporation and pollution, impacts on the Grand Canyon, etc. The husband then asked, "If they would clean up the lake would you be happy?" Bruni explained that the other issues she had mentioned would still have to be addressed. He stepped closer and with a loud and menacing voice said, "In other words, NOTHING can make you

happy. I knew it. NOTHING can make you happy." He shoved his cup of ice cream across the counter adding, "Here, you can have your ice cream back." His wife turned her cone upside down onto his for emphasis. Bruni offered to return their money. Enraged he said, "You better!" grabbed the money from her hand and stormed out followed by his wife.

Rare exceptions like those described above do not discourage us. We continue to try to engage these individuals in dialogue assuming that our patience and commitment to rational interchange will eventually pay off.

**Cyclists and Rafters, Jeepers and Houseboaters.** It's been our good fortune to be located in such an outdoor recreation hub. The local rafting community has been very supportive, encouraging their customers to come in after their river trips. And what would Moab be without bicyclists? They come in with cleats clicking, wearing skin-tight clothing, helmets, and sunglasses that transform them into strange-looking insects. While their priority tends to be boosting blood sugar levels with large amounts of ice cream, more often than not they ask what we are all about. The jeep and houseboat enthusiasts, while generally opposed to our campaign, are quite inquisitive about our motivations and among the friendliest of our customers.

**Foreign Reaction.** Moab also attracts quite a few foreign tourists. The majority of our visitors are German, followed by the French, a smattering of Dutch, Swiss and Austrians, and the occasional Asian, African or Latin American. The Europeans, the Germans especially, are more than anything astounded that there is an environmental movement in the United States at all. They're often skeptical because of that, but tend to wish us luck.

**A Growing Awareness.** In the short period that the shop has been open, we have noticed that an increasing number of the customers coming in – whether from Salt Lake City, Seattle or St. Paul – are already aware of GCAN's campaign to restore Glen Canyon and the Colorado River. Folks used to come in, look around while waiting in line, pose questions to each other and wait for us to answer them. Now they often answer each other. Many restate the points made in the news clippings on our walls. We're pleased by this development and look forward to the increasing momentum as more satisfied customers and supporters pass through the shop.



## GCAN PHOENIX Office To Target Conservation

In November, GCAN's voice from the heart of the Colorado Plateau took root in the center of a desert metropolis. With the opening of its Phoenix office, GCAN will be initiating a new program to address the root problem affecting the health of the Colorado River, water consumption. A targeted effort will be launched to promote the conservation practices and water use strategies available to meet the needs of future generations and to enable extensive river restoration at the same time. "The problem is not whether there is enough water, but how we choose to use it," says Lisa Force, who will be heading the new office. "Arizona could support four times its existing population without a drop of Colorado River water if we so choose; so let's."

Force is an accomplished and successful advocate for river restoration in Arizona. Formerly a program director with the Center for Biological Diversity, she was lead negotiator responsible for convincing Arizona Public Service Company to decommission its Childs and Irving hydroelectric power plants, including the removal of its dams.

Ms. Force will also be launching a new moniker for GCAN, Living Rivers. "When I learned that *Living Rivers Currents* would be the name of our publication, I proposed that we use it to describe our work as well," she says. "Besides, you would be surprised how many people here in Phoenix and elsewhere do not even know where Glen Canyon is, or that our real mission is restoration of the whole watershed." Additionally, as demand for GCAN's approach has spread to other river basins, having a banner available which is not geographically specific will facilitate lending support. So get ready to hear more about Living Rivers.

# ON OUR WAY TO

In February 2000, the *Stanford Environmental Law Journal* published an 88-page analysis of the recommendations of the report. Author Scott Miller, an attorney with the Solicitor's Office, US Department of the Interior, (writing on his own) and other authors, are the political ones. Contained here is a summary of some of the key findings of Miller's report, and other reasons.

## SACRED SITES

Many sites used by traditional people for ceremonies were inundated or damaged by Lake Powell. The reservoir partially inundated Rainbow Bridge, one of the most sacred sites on the Colorado Plateau and a national monument designated by Teddy Roosevelt. This, the world's largest natural bridge, was unsuccessfully defended by lawsuits by Navajo medicine people and environmentalists. The Dineh Medicine Men's Association has recently revived this effort, demanding that all their religious sites in Glen Canyon be "uncovered" by draining the reservoir.

## RESTORATION POTENTIAL

The restoration of Glen Canyon is a linchpin in restoring the Colorado River, one of the most ecologically stressed rivers in the world. The actual cost of restoration will depend on the amount of human intervention required. The political support for large-scale restoration programs has already been established, as shown by the federal government's recent allocation of \$8 billion to restore the Florida Everglades. As the reservoir's waters recede, Glen Canyon's magnificence will reemerge. Repeat photography of side canyons during low water years has demonstrated that sediment flushing and plant regeneration takes place almost immediately.

## SEDIMENT ACCUMULATION

Sediment is a critical factor affecting the operational lifespan of Glen Canyon Dam. Some predict that sediment accumulation will, in about 150 years, force the dam's decommissioning, at which time the reservoir will resemble a massive mud flat. Waiting until this occurs will make much more difficult the restoration of Glen Canyon and the Grand Canyon downstream.

## RECREATIONAL ECONOMY

Motorized flatwater recreation on Lake Powell is an industry that is destined to disappear as the reservoir fills with sediment. By contrast, human-powered recreation in a restored canyon will bring a new form of economic vitality to the region – to continue in perpetuity. Outdoor enthusiasts interested in hiking, rafting, biking and viewing wildlife and the canyon itself will generate significant income, as already occurs elsewhere on the Colorado Plateau. Draining Lake Powell will replace the regulated canal character of the Colorado River through the Grand Canyon with a wild river. The restoration process itself will also encourage visitation, contributing further to the new tourism economy. Because sediment accumulation affects both flatwater recreation and the time necessary to restore Glen Canyon, the sooner such an economic transformation begins, the more effective it will be.

## ARCHAEOLOGY

Glen Canyon was inhabited for at least 6,000 years. More than 2,000 archeological sites were documented before the reservoir filled, but only a few were studied in detail. Glen Canyon, one of the more significant areas for archeological research in the West, revealed that the Anasazi were far more innovative in agriculture and water control than had previously been suspected. Everything – granaries, petroglyph panels, artifacts – now lies beneath the reservoir.

## COLORADO RIVER COMPACT

Ratified by Congress in 1928, the Colorado River Compact is an interstate compact regulating the use of the river among the seven states that comprise the river basin. By 1940, it had become apparent that the compact had overestimated the amount of water in the Colorado River by nearly three million acre-feet, or twenty percent. Thus, the Colorado River is over-apportioned, with more claims on its water than can be met. A reexamination of the compact and changes in the law are needed to address the political, economic, and ecological problems of the river and its allocation. An honest review will affirm that Glen Canyon Dam is unnecessary.

## GRAND CANYON ECOSYSTEM

The Colorado River through the Grand Canyon is no longer natural, but a regulated canal between Glen Canyon Dam and Lake Mead. The impact has been enormous: the dam's cold water releases have contributed to extirpation or endangerment of five of the Grand Canyon's eight native fish species. In addition, sediments that should be replenishing sandbars are trapped behind the dam. As a result, riparian and terrestrial ecosystems within the canyon have been dramatically altered. Such changes, combined with continued erosion and invasion by non-native species, will continue as long as Glen Canyon Dam remains in place.

## GULF OF CALIFORNIA/ COLORADO RIVER DELTA

The Colorado River no longer reaches the sea. The river's annual flow is entirely diverted. Once one of the world's great estuaries, the delta is today a dry salt flat. Extensive, flourishing wetlands near the Gulf of California, constituting 80 percent of the total riparian habitat of the river, provided habitat for 200-400 species of plants and animals. Less than five percent of that original ecosystem is estimated to remain today. The endangered vaquita porpoise is virtually extinct. Draining Lake Powell will make more water available to help restore the delta and allow the gulf ecosystem to flourish once again.

## ENERGY

Glen Canyon Dam has installed capacity to produce 1,300 megawatts (MW) of electricity. Under new operating restrictions designed to minimize erosion and other impacts of hydropower generation on the Grand Canyon ecosystem downstream, Glen Canyon's output has been limited to 800 MW, which account for approximately three percent of the Southwest's total potential production. This past summer, output was reduced to 300 MW. Loss of Glen Canyon's power could easily be offset through conservation and energy efficiency programs. California's 25-year program to cut energy demand has eliminated the need for 12,500 MW – equivalent to almost ten Glen Canyon dams.

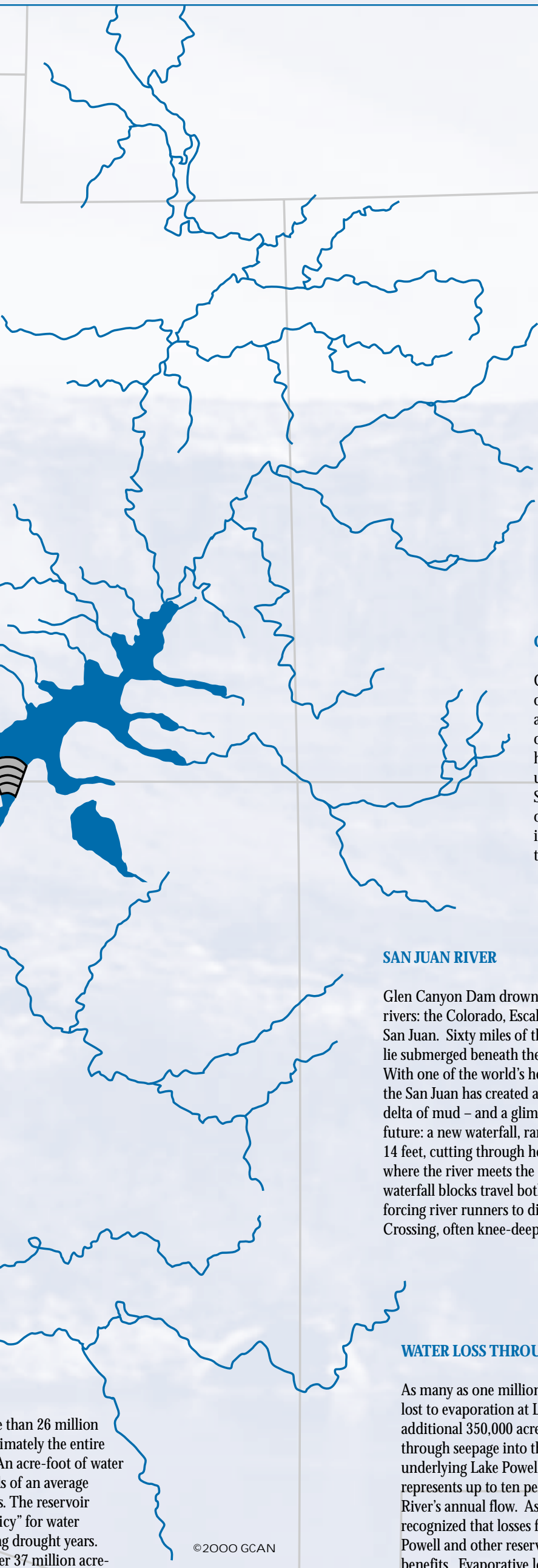
## WATER STORAGE

Lake Powell can store more than 100 million acre-feet of water – approximately 100 times the river's flow for two years. A reservoir of this size is enough to meet the need of a family of four for two years. Lake Powell provides an "insurance policy" for water delivery downstream during drought. However, there exist another 100 million acre-feet of storage within the basin, sufficient to meet drought needs.



# D GLEN CANYON

Foundation to decommission Glen Canyon Dam. This is the best study of the proposal's viability yet produced. (on its own behalf) concludes that no technical, legal or economic hurdles exist to restoring Glen Canyon, only political obstacles supporting action on this initiative now. For a copy of Miller's report, contact GCAN.



## RESERVOIR POLLUTION

Aside from trapping water and sediment, Glen Canyon Dam traps tons of heavy metals each year. Although inconsequential under natural flow conditions, the accumulation and concentration of these minerals can become toxic. Uranium mill tailings – including those from a mill inundated by Lake Powell and the Atlas mill at Moab – contribute toxins and salts to the reservoir, as do industrial pollutants and agricultural runoff from other upstream sources. Human waste, deposited by recreationists in and around the reservoir, has caused frequent beach closures. Each decade, motorized recreation on the reservoir results in oil spillage equivalent to the amount dumped by the Exxon Valdez.

## GLEN CANYON

Glen Canyon, intersected by dozens of side canyons, was a redrock wonderland of hidden arches, grottos, stone chambers, and slots. Its oak-set glens, fern-drenched alcoves, and hanging gardens added to Glen Canyon's uniqueness. "Glen Canyon," wrote Wallace Stegner, "was for delight." The gentle gradient of the Colorado River through the canyon made it all the more peaceful and contemplative for those who journeyed there.

## SAN JUAN RIVER

Glen Canyon Dam drowned segments of four rivers: the Colorado, Escalante, Dirty Devil and San Juan. Sixty miles of the San Juan River now lie submerged beneath the reservoir's waters. With one of the world's heaviest sediment loads, the San Juan has created a massive, spreading delta of mud – and a glimpse of Lake Powell's future: a new waterfall, ranging in height up to 14 feet, cutting through heavy sediment deposits where the river meets the reservoir. This waterfall blocks travel both up and downstream, forcing river runners to disembark at Clay Hills Crossing, often knee-deep in sludge.

## WATER LOSS THROUGH EVAPORATION

As many as one million acre-feet of water are lost to evaporation at Lake Powell each year; an additional 350,000 acre-feet are lost annually through seepage into the porous sandstone underlying Lake Powell. Combined, this represents up to ten percent of the Colorado River's annual flow. As early as 1959, experts recognized that losses from evaporation at Lake Powell and other reservoirs would offset storage benefits. Evaporative losses on a single Labor Day weekend could satisfy the needs of 17,000 western homes for an entire year. Draining the reservoir will conserve this water, increasing the total availability of water for downstream users and ecosystem restoration needs.

## FLOOD CONTROL

Glen Canyon Dam does not serve a major flood control function. The dam is operated to minimize the likelihood that Hoover Dam downstream will need to open its spillways to release excess water in wet years. However, in the 20 years that Hoover Dam operated before Glen Canyon's construction, no such releases occurred. Today, nine million acre-feet of additional storage above Glen Canyon exist to manage flows in high-runoff conditions.

## DAM SAFETY CONCERNS

Large dams can and do fail. The Teton Dam in southern Idaho, for example, experienced a catastrophic collapse in 1976. During the wet year of 1983, Glen Canyon Dam nearly spilled over the top because of massive damage to its spillway tunnels from normal operation. This flood, described as a once-in-25-year event, will certainly be surpassed in the future. The highly porous sandstone in which the dam is set is prone to slump and spall throughout the length of Glen Canyon. A similar splintering of rock close to the dam itself could cause catastrophic failure.

## CATARACT CANYON

In addition to Glen and Grand Canyons, draining Lake Powell will also restore Cataract Canyon, one of the world's most challenging whitewater river sections. Waves up to 30 feet, falls, massive holes, and a host of other hydraulic challenges fill the 49-mile canyon, two-thirds of which is now submerged by the reservoir. John Wesley Powell, the famed Colorado River explorer, wrote of Cataract, "The water fills it from wall to wall, giving us no landing-place at the foot of the cliff; the river is very swift and the canyon very tortuous, so that we can see but a few hundred yards ahead."

## WATER WASTE

The problem is not the availability of water, but how Colorado River water is allocated – and conserved. Eighty percent of the river is diverted for industrial irrigated agriculture, much for low-value crops grown in the desert. A switch by Arizona farmers to drip irrigation could eliminate demand for nearly ten percent of the Colorado River's annual flow. Alfalfa and other cattle feed crops dominate the use of Colorado river water, using ten times the amount of water as many food crops. In addition, fields planted with food crops can net up to 30 times the caloric value for humans as compared to those planted for cattle feed. Much of the water used for municipal purposes is not for drinking and sanitation, but instead for lawns, gardens, golf courses, fountains, and now even desert water ski parks.

more than 26 million acre-feet of water annually. This is approximately the entire flow of the Colorado River. An acre-foot of water is equal to 325,851 gallons of an average household uses. The reservoir is a "water sink" for water during drought years. It holds over 37 million acre-feet of water in its basin, more than enough to meet the needs of 10 million people for a year.

# SELDOM SEEN

## Returns

It was March 14, 2000, day two of GCAN's "Restoration Celebration and Rendezvous" at Glen Canyon Dam. This marked the fourth rally at the dam for Ken Sleight. After devoting more than half his life to fighting the world's 19th-largest dam, he was not about to miss the largest rally yet, a celebration to officially launch the formation of a people's movement to decommission the dam.

The timing of the rally was not random, for March 14 was the third International Day of Action Against Dams and For Rivers Water and Life. While Sleight and others gathered at Glen Canyon, 65 other actions in 25 countries were simultaneously taking place – all to celebrate, educate and demonstrate for dam-free rivers. The rally also fell on the eleventh anniversary of the death of acclaimed Southwest writer Edward Abbey. It was Abbey's novel *The Monkey Wrench Gang* that brought widespread public attention to the possibility of resurrecting Glen Canyon after the dam. No matter the vehicle, whether via a precision earthquake or houseboats packed with ammonium nitrate, Abbey's Gang was determined to someday see Glen Canyon again. None of the Gang longed for this more than Seldom Seen Smith – in real life Abbey's good friend Ken Sleight.

Now, standing adjacent to Abbey's pickup, the bed of which formed part of the stage, Sleight repeatedly remarked, "This is great, this is great. It's really going to happen now." Considering this single event at the dam brought together a diverse crowd of some 250 Native American activists, river lovers, organizations and businesses from across the country – and with only six weeks notice at that – it was impossible not to feel the enthusiasm present for draining the reservoir that flooded Glen Canyon.

During an interview at the dam Sleight noted, "When we first started organizing to oppose Glen Canyon Dam in 1957, we had little support." One of the first commercial river outfitters on the Colorado River, Sleight helped form Friends of Glen Canyon to fight the dam's construction. Although the dam was indeed completed in 1963, Sleight and others fought on, turning their efforts to stopping the filling of the reservoir. Through the years he persevered, challenging the reservoir's partial inundation of Rainbow Bridge National Monument, and captaining a houseboat no less on the occasion of the dam's 20th anniversary ceremony in 1983, presided over by then-Interior Secretary James Watt. "Sometimes I felt like we were out there all alone," Sleight said, "but whenever there was an opportunity, I wanted to do my part to keep up the fight."

On March 14 Sleight joined a host of other longtime Glen Canyon lovers and defenders, most notably David Brower, whose checkered history with the dam often plagues him. That story dates back to 1957, when Brower was serving as the first executive director of the Sierra Club. In this capacity he was approached by the Bureau of Reclamation (BuRec), which courted – and received – Brower's approval for a special proposal linked to Glen Canyon. In exchange for BuRec canceling plans for dams in Dinosaur National Monument, Brower consented not to oppose Glen Canyon Dam or any other dams in the Lower Colorado River Basin.

"I learned of my mistake almost immediately from my friend Wallace Stegner," Brower told the March 14 crowd. "I then tried to convince the Sierra Club board of directors that we had to change our position and oppose this dam, but they would not go along." Determined to fight this and other ill-conceived projects, David Brower and Ken Sleight teamed up in the 1960s, leading successful campaigns that stopped BuRec from building dams in the Grand Canyon. And finally, in 1996, Brower did convince the Sierra Club board to pass a unanimous resolution calling for the immediate decommissioning of Glen Canyon Dam. Prior to his death in early November, building support for Glen Canyon restoration was one of Brower's top priorities.

Another of Ken Sleight's friends on hand March 14, providing her unique blend of music, humor and wisdom, was longtime Glen Canyon river runner and folk singer Katie Lee. Lee is among a handful of individuals who had the privilege of knowing Glen Canyon intimately before it was flooded. She had always vowed never to visit Glen Canyon Dam, but came on March 14 nonetheless, agreeing with Sleight that this event



could not be missed. While reading from her book *All My Rivers Are Gone*, she described how the Bureau of Reclamation, or "Wreck the Nation" as Lee likes to call it, should strive to become the "Bureau of Restoration." As she launched into a rousing rendition of her classic "Wreck the Nation Bureau," GCAN staff unveiled a life-sized image of Interior Secretary Bruce Babbitt wielding his dambusting sledgehammer at Glen Canyon Dam before the cheering crowd.

In the spirit of Katie Lee's songs, which so effectively bring Glen Canyon to life and so eloquently make the case for its restoration, Austin, Texas folksinger Bill Oliver debuted a tune which is quickly becoming the anthem for the Glen Canyon campaign: "Drain It!" Together with fellow folksinger Peg Millett, four "Drainettes" in hardhats providing background vocals, and a ceremonial Chinese river dragon (aptly named Glen) dancing amidst the crowd, this event was clearly a celebration.

Asked why he himself did not get up on stage and speak at the event, Sleight remarked, "It was a privilege to open the two-day rendezvous in Flagstaff yesterday. I've spent plenty of time in the past preaching at this dam, and am glad to allow others the opportunity." Those others included former US Poet Laureate Robert Hass, Sage Douglas Remington of the Native Environmental Justice Advocacy Fund, and Juliette Majot of International Rivers Network, which promotes the International Day of Action around the world.

One of the most moving speakers was Dineh (Navajo) Medicine Men's Association President Thomas Morris, who provided the initial blessing. In 1974, several of Morris' predecessors joined Ken Sleight in the unsuccessful effort to sue the Department of the Interior over flooding the base of Rainbow Bridge, a Navajo sacred site. At the rally, Morris noted, "This reservoir has brought nothing but problems to our people. We cannot pray to our sacred gods because these sites have been flooded. We must get them back."

The festivities concluded with the reading and signing of the *Glen Canyon Declaration*, which calls for the restoration of Glen Canyon and the Colorado River watershed. Along with the 50-plus organizations and businesses that lent their endorsements, Ken and nearly 200 others signed their names to the declaration. "This is only the beginning; tens of thousands more are now on their way," commented GCAN President John Weisheit.

As the rally drew to a close, Sleight and new and old friends alike packed up for a post-event party 15 miles down the Colorado River at Lee's Ferry, where he and Edward Abbey first met. "We may not need that precision earthquake Seldom prayed for," said Sleight. "The social movement represented here today is going to make it happen regardless."

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## SUPPORT THE GLEN CANYON DECLARATION

Join the more than 75 groups and countless individuals that have endorsed the Glen Canyon Declaration launched at Glen Canyon Dam this past March 14. Please ask your friends, family and other organizations that you might be affiliated with to do so as well. The actions called for in the declaration are:

- The Bureau of Reclamation should begin the process of developing and then implementing a decommissioning plan for Glen Canyon Dam, including a restoration and recovery plan for those areas inundated by its reservoir and those communities adversely impacted by the reservoir's draining.
- The Bureau of Reclamation should establish a federal laboratory to serve as the nation's primary research facility for river and riverine habitat restoration, and give strong consideration to locating this facility in the town of Page, Arizona. In building their own large dams, many countries emulated what they saw as the success of Glen Canyon Dam. It is thus fitting for this site to offer new inspiration with an international center of excellence in state-of-the-art river restoration and dam decommissioning research and development.
- All new management plans affecting the Colorado River watershed should undergo rigorous analysis of basinwide impacts and a complete assessment of the potential for dam decommissioning in meeting the plan's objectives.
- No new dams within the Colorado River watershed should be constructed, nor should existing dams be reconstructed in the event of their failure.
- Operating licenses should be required for all federal dams, as has long been the case with all non-federal dams. Federal dams must be subject to periodic relicensing reviews to both ensure compliance with environmental laws and safety standards, and provide meaningful opportunities for public participation in decisions about the environmental, social, and safety impacts of these projects.
- The Bureau of Reclamation should provide the necessary funding to support scientific research on the biological and habitat requirements of the endangered native fish of the Colorado River, and to ensure the full recovery of these species.
- The National Park Service should implement a program to quantify, monitor and evaluate the presence of a wide range of pollutants including toxic and radioactive metals, petroleum compounds, bacteria, and other contaminants in Lake Powell reservoir to ensure full compliance with all laws protecting water quality within Glen Canyon National Recreation Area.

To endorse the declaration, or to receive a copy of the full text, contact GCAN or visit [www.drainit.org](http://www.drainit.org)

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## The Sustainable Water Project Tour – No Reservoirs Required

In conjunction with the Fourth International Day of Action Against Dams and For Rivers Water and Life, March 14, 2001 join GCAN and a host of other organizations planning events to publicize the tremendous waste of Colorado River water, and the conservation strategies available that will enable the river's restoration. The tour will begin in Salt Lake City in early March and conclude in Palm Springs on March 14, with stops in Albuquerque, Phoenix, Las Vegas, Los Angeles and a number of other sites in between.

For details contact GCAN or visit [www.drainit.org](http://www.drainit.org)





# GRAND CANYON

## Guides Ponder Draining

Since Fall 1996 professional river guides operating in the upper basin of the Colorado River have advocated the draining of Lake Powell; their organization is called Colorado Plateau River Guides. Trudging through reservoir slime and sludge – on both the San Juan and Colorado rivers' arms – will make a drainer out of anyone, they say. During these past four years, the same could not be said of their compatriots downstream in the Grand Canyon.

In April at the Grand Canyon River Guides (GCRG) education seminar, GCAN president John Weisheit, an upper basin river guide, gave a presentation to secure their support for restoring the integrity of the Colorado River through the Grand Canyon. Unfortunately the response at the time was mixed with no action taken. However, it was recently learned that GCRG has now decided to poll their membership on the issue.

Most guides concede that Glen Canyon Dam has inflicted serious damage on the Grand Canyon ecosystem and want to see corrections. However, pressure coming from some of their employers – companies at the core of the \$21-million-a-year Grand Canyon outfitting industry – are causing some guides to argue economics over environmental protection. Because the Colorado's flow through the Grand Canyon is effectively a regulated canal between reservoirs, the dam has eliminated a variable that could effect a company's revenues in the early and late season – sufficient water to float the river. As Rob Elliott of Arizona Raft Adventures pleaded to a congressional subcommittee in 1997 regarding the topic of decommissioning Glen Canyon Dam, "There would be lots of flies, no way to get clean, and no cold water to help our perishable foods make it through the canyon for two weeks."

Such attitudes frustrate longtime Grand Canyon activists like Martin Litton. "I guess this represents the sad state of affairs with the river education and conservation movement in this country," he told *Living Rivers Currents*. "Some groups are certifying dams as 'green' and clean energy, so I guess I should not be too surprised that such groups need a little more education."

This is why Litton and two other members of GCAN's advisory board, Ken Sleight and (the late) David Brower, issued a letter at the GCRG seminar asking the organization to endorse draining Lake Powell. Jointly the three activists wrote, "It's almost unthinkable today that the US government came so close to destroying a World Heritage Site and one of our premier national parks," referring to the Grand Canyon. "Had we not undertaken the fight then, which so many people told us was unwinnable, there would be no Grand Canyon River Guides association today, because there would be no river in the Grand Canyon upon which to do your guiding. The river did very well without Glen Canyon Dam and will do much better when it is decommissioned."

To Litton and others with decades of experience in the Grand Canyon, the devastation caused by Glen Canyon Dam is too much to take. Its massive beaches gone, three native fish species extirpated, the river runs clear, cold, nearly devoid of driftwood and other nutrients, with a shoreline that resembles an irrigation ditch rather than a vibrant desert river. It is our sincerest hope that the upcoming GCRG poll will reflect the vision of these senior activists.

In 1992, Congress passed the Grand Canyon Protection Act, which later established the Grand Canyon Monitor and Research Center to provide scientific solutions for environmental problems associated with the operation of Glen Canyon Dam. Though this work has generated some positive results within the operating parameters of the dam upstream, the Center cannot restore the truly needed processes that the river environment requires for survival. According to David Haskell, retired science director for Grand Canyon National Park, "Nothing short of restoring the river's natural processes by draining Lake Powell can ensure the resuscitation and long-term protection of the Grand Canyon ecosystem."

Many river guides responded enthusiastically in April. Stephen Anderson said that his passengers are amazed to hear how the Grand Canyon was almost dammed. "They can't believe it. Then I tell them what happened in Glen Canyon, which people are now trying to restore, and many customers want to know how to get involved."

If the success of commercial outfitting in the upper basin is any indication, Grand Canyon companies have little to worry about when Glen Canyon Dam's decommissioning returns natural flows to the Grand Canyon. Whether it's the Colorado above Glen Canyon, the Yampa, the San Juan, the Green, or even the Dolores, a multitude of companies are profiting from the flows that nature provides, not those entirely regulated by dams. Anderson sums it up well. "I know these outfitters are concerned about money, but why don't they give back more to the river that has given so much to them?"

# TRAPPED SILT

## May Halt Rafting on the San Juan

When you pay \$200 a day to float through one of the West's most beautiful rivers, you probably don't expect to spend much of that time dragging boats off sand bars. But if you travel down the San Juan River to the point where the Lake Powell reservoir begins, you can indeed expect a walk through knee-deep sediment.

After the completion of Glen Canyon Dam, the sediment that previously flowed through the canyon began backing up; it now stops 60 miles above the San Juan's confluence with the Colorado River. When the reservoir level is low, a sediment slurry materializes, making it impossible for rafters to get their equipment downstream without slogging – passengers and guides alike – through the muck on foot. Consequently, river outfitters are concerned that they may be forced to cancel their San Juan programs.

"This is creating a real problem for our passengers," says Dave Bodner, who heads up OARS (Outdoor Adventure River Specialists), in Moab. "The National Park Service spends millions to ensure houseboats can play on a reservoir. The least they can do is keep their sediment from plugging up the rest of the San Juan River." The issue was raised at the fall meeting of Utah Guides and Outfitters, where attending agencies demonstrated a willingness to discuss sediment problems at a future meeting.

Last spring Colorado Plateau River Guides and GCAN petitioned the National Park Service (NPS) to address the sediment issue. NPS is currently investigating the matter in-house and also in cooperation with the Bureau of Reclamation, the US Geological Survey (USGS), and the Bureau of Land Management. USGS will soon be conducting sediment

# PRIVATE BOATERS

## Put Canyon First While Fighting for Access

Whereas the organization representing commercial river guides in the Grand Canyon has yet to take a position on restoring Glen Canyon, only recently initiating a membership poll concerning decommissioning the dam, the board of Grand Canyon Private Boaters Association (GCPBA) already has, agreeing in June to endorse the *Glen Canyon Declaration*.

"There's little question that we would like to see Glen Canyon restored and the Grand Canyon protected," said Willie Odem, GCPBA president. "We'd cherish the opportunity to run the Grand Canyon at 127,000 or 1,200 cfs (cubic feet per second), swim in warm water and camp on real beaches amidst restored native habitat. The GCPBA board has strongly endorsed the restoration of Glen Canyon."

The group is not too concerned about those low or freezing water periods that will materialize without Glen Canyon Dam regulating the river's flow. "Sure there may be times when we can't raft the river, but that is what rafting is all about, experiencing the flow of nature, not some three-day, motorized Disneyland experience controlled by a big dam upstream," says Odem.

At present, however, private access is limited much more by policy than by concrete. As a result non-commercial boaters in the Grand Canyon are about as endangered as the Colorado's humpback chub. Commercial passengers and employees currently account for 87 percent of the total river population in Grand Canyon each year. Grand Canyon National Park estimates that beginning applicants must now wait in excess of 20 years to obtain a private permit to float the 277-mile canyon. By comparison, individuals who pay the \$1500 (or more) to book a Grand Canyon trip with a commercial outfitter can often get on the river in as little as a week.

GCPBA has been building momentum to encourage NPS to establish a more equitable policy. Just when it appeared that a revised allocation plan would be implemented, NPS put on the brakes. A group of private boaters responded this March by filing a lawsuit to force NPS back into action. This suit has since been challenged by all 16 outfitting companies operating in the Grand Canyon.

Additionally, legislation promoted by Utah Congressman Jim Hanson would enable what is happening in the Grand Canyon to become the norm on all public lands. Known as the "Outfitter" bill, this legislation would grant outfitters virtual ownership, for sale or trade, of their permits. At present, the rights to these permits, which must be renewed every few years, are held by which ever federal agency oversees the public lands an outfitter operates on. The Outfitter bill would grant commercial permits for ten-year terms, with *pro forma* renewals unless the permittee commits major violations. If the bill becomes law, federal agencies would have to buy back outfitter permits in order to increase private access.

According to some, the bill represents much more than merely limiting access. Scott Silver of Wild Wilderness, a public lands watchdog group based in Oregon, observes, "This is the latest in a growing movement toward globalization on our public lands."

Silver points out how the federal government once gave preferential treatment to small family-owned businesses to operate concessions on public lands. Now, however, nearly every national park and recreation area's concessions are managed by large corporations such as ARAMARK, Delaware North or AMFAC. While there was once a different company in each park, now just four or five operate throughout the entire country.

Most of the US outfitting industry is still operating like park concessionaires used to – with several thousand small businesses providing nearly all the services. The Outfitter bill, with its virtual permit ownership, would make these small companies much more liquid and attractive acquisitions for larger operators with greater political power. According to Silver, outfitters would retain nearly irrevocable rights to conduct their operations independent of what agencies may believe is the best commercial/private balance or appropriate carrying capacity for the area.

GCPBA is concerned that few people are even aware of how unbalanced the current permit allocations are in the Grand Canyon, and yet this is the model that is being proposed for the rest of the country. "If we don't defeat this thing, we all better get used to waiting a long time to use our public lands, or be willing to fork out a lot of money for the privilege of joining a bunch of strangers to go when we want," says Odem.



surveys in the area above Hite Marina to provide data concerning its future operations. Unfortunately, no studies will be conducted on the San Juan arm due to a lack of funding. It is our hope that continued pressure from stakeholders will lead to a sediment study for it as well.

# RESTORING The Colorado River Delta

A binational coalition is stepping up efforts to reverse the negative impacts US dam building has had on the Colorado River delta and the Gulf of California. Comprised of activists from the US and Mexico, the coalition recently filed a lawsuit against five US government agencies in the hopes of returning Colorado River flows to the sea. If successful, this litigation will help end the social and environmental degradation that has been occurring in the Colorado delta for decades. Hopefully it will also set the stage for more extensive future restoration programs in the region.

Historically, the Colorado River delta and the Gulf of California were recipients of the Colorado's entire annual flow, averaging some 13 million acre-feet of water. Aldo Leopold, the eminent ecologist who picked up where John Muir left off, journeyed through the Colorado delta and described encounters with jaguar and vast riverside jungles. Of the Colorado Leopold wrote, "...in fact the river was nowhere and everywhere, for he could not decide which of a hundred green lagoons offered the most pleasant and least speedy path to the Gulf. So he traveled them all....He divided and rejoined, he twisted and turned, he meandered in awesome jungles."

In Leopold's time, the delta supported 90 percent of the lower Colorado's riparian habitat. It is difficult to quantify how much of this habitat has been destroyed, because very few people recorded what was there prior to dam construction. We do know that today much of the gallery forests are gone, the native salt grasses are having difficulty reproducing, the river's nutrients no longer reach the Gulf, and the region's indigenous Cocopah people, who once relied on the delta's rich habitat for their survival, have dwindled down to a few hundred individuals.

In their lawsuit, the eight-member coalition is employing one of the few mechanisms available to force the US government to act: the Endangered Species Act (ESA). "It's terrible that we always have to wait until they have brought species to near extinction, then take them to court to get their attention," says Kara Gillon, an attorney with Defenders of Wildlife, one group filing suit. The seven other plaintiffs are: Asociación Ecológica de Usuarios del Río Hardy-Colorado, Center for Biological Diversity, Centro Regional de Estudios Ambientales y Socioeconomicos, El Centro de Derecho Ambiental y Integración Económica del Sur, A.C., Consejo Coordinador Empresarial De Mexicali, A.C., the Humane Society of the United States, and the Sierra Club.

According to Gillon, the ESA is particularly useful in this situation because it applies not only to endangered species in the US, but also to those in foreign countries that have been impacted by actions of the US government. There are several species listed as endangered by both the US and Mexican governments: the vaquita (the world's smallest porpoise), the totoaba, the Yuma clapper rail, and the desert pupfish. Species listed as endangered only by the US, but which occur in both countries include the razorback sucker and the Southwestern willow flycatcher.

The Gulf and delta are also crucial to wintering waterfowl as well as hundreds of migratory birds which use the delta as a stopover along the Pacific Flyway. It is estimated that the Gulf and delta, which require replenishment from freshwater flows, are home to more than 900 species of fish and marine mammals.

Reduced flows have also placed segments of the human population at risk. The Cocopah, the Native Americans who historically lived and flourished in this part of

Mexico, are facing hard times as diminished river flows have polluted the water and dramatically reduced fish catches. As a result, the Cocopah can no longer rely on traditional subsistence harvesting of Palmer's salt grass and fishing. The current situation is forcing many Cocopah to truck their boats further and further away to find work and alternative sources of income.

As the Colorado River flows across the US border into Mexico and on toward the delta, it runs dry well before reaching the Gulf. The 1.5 million acre-feet that the US is required to deliver — 11 percent of the river's annual flow — is all diverted shortly after it crosses the border. A small percentage of this could likely sustain what life remains in the delta; some scientists believe that less than one percent of the river's annual flow would be needed. The delta would of course benefit from additional flows, as it requires overbank flooding every few years simply to maintain existing vegetation. Larger floods could further enhance and extend the native riparian vegetation and increase the amount of freshwater runoff into the Gulf.

Convincing Mexico and the US to make even these small changes has proven difficult. In 1995 and 1996 Defenders of Wildlife and the Center for Biological Diversity threatened to sue the Bureau of Reclamation (BuRec) for its failure to consider the impacts dams and water diversions were having on wildlife in the US and the delta. BuRec was attempting, and continues today to attempt, to evade full compliance with the ESA by supporting the Lower Colorado River Multi-Species Conservation Program, which would put primary compliance responsibility in the hands of state water and power agencies.

"BuRec says the multi-species program will minimize and mitigate ongoing destruction of the river," says David Hogan, river programs coordinator for the Center for Biological Diversity. "When the time comes to decide between existing management diverting every last drop of river water or leaving some for wildlife, it's a safe bet the water agencies running the species program will favor the status quo. For example, in 1998, state interests rejected all proposals to include the delta region in the ecosystem plan."

The coalition's current lawsuit specifically aims to have the federal agencies involved consider the effects of water manipulation — via dams and other methods — on endangered species in the area. In addition to BuRec, the other defendants listed on the suit are: the US Fish and Wildlife Service, the National Marine Fisheries Service, and the US Departments of Interior and Commerce. Despite the threats to US-listed species that have been identified by the coalition, these agencies have refused to either analyze the impacts of their actions on the area, or develop and implement conservation measures to protect imperiled species in Mexico. "The US has a national obligation to endangered species and an international obligation to avoid harm to the natural resources of another country," adds Kara Gillon. "As each window of opportunity to protect and restore the delta closed, we took this step to ensure that US agencies assess the damage they have wrought on the delta ecosystem. US agencies must now focus on species at the brink of extinction so that their recovery becomes an integral part of river management."

In order to assure that the ecological needs of the delta are met, the coalition is proposing to add an ecological amendment to the 1944 Rivers Treaty between the US and Mexico. Several such minutes have been added in the past, and the coalition suggests adding a new one to address the full water cycle of the lower Colorado River, one which both defines ecosystem preservation as a beneficial use, and creates a mechanism whereby excess water released by the US would be used for ecological preservation in Mexico.

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## DAMMING ZION: Sacrificing Wilderness for Water Diversion?

When the Sierra Club successfully fought construction of dams in Dinosaur National Monument back in the 1950s and in Grand Canyon National Park in the 1960s, the rallying cry was "protect the crown jewels" of our National Park System. But gains made in one generation can be lost by the next. This year the National Park Service (NPS) quietly authorized construction of an irrigation diversion dam on a tributary of the Virgin River's East Fork inside Utah's Zion National Park. The proposed dam — termed a "side-vane weir" by NPS — was deemed to have insignificant effects on the environment. The implications of this project are enormous, however, given the significant precedent-setting impacts on park resources and wilderness management policy.

Summertime visitors throng spectacular Zion Canyon, where thousands enjoy hiking and swimming the famous "narrows" of the Virgin River's North Fork. The crowds rarely venture beyond the bustling confines of the stunning, steep-walled defile. But those able to hike the rugged backcountry of the Zion's southern district will find a remote, beautiful canyon known as Shunes Creek. The small, quiet stream bounded by carved, towering canyon walls is considered to be one of the last pristine habitat areas for a small fish native to the Virgin River basin, the Virgin spinedace. This increasingly rare species is in trouble throughout most of its historic range because of habitat destruction caused primarily by dams and water diversions. Biologists have recognized Shunes Creek as one of the spinedace's last refuges. NPS has recommended Shunes Creek canyon for addition to the National Wilderness Preservation System for its outstanding habitat values and solitude. That solitude has been assured in recent years by the adjacent landowner, who has forbidden park visitors access to Shunes Creek because it requires crossing his property, known as Trees Ranch. NPS officials wanting to visit the creek must first obtain written permission to cross the ranch.

Few people know that Trees Ranch, for years, operated an earthen irrigation dam on Shunes Creek inside park boundaries. But heavy rains recently overtopped the dam, washing out the diversion structure. NPS officials were alerted when Trees Ranch employees began reconstructing the dam with a backhoe in the sensitive streambed. The agency granted the landowner a permit to continue the work, but failed to conduct the required environmental analyses. When local activists discovered the error, the agency had no choice but to suspend the permit and prepare an environmental assessment (EA). When the draft EA was released, environmentalists found fault with it and forced NPS to prepare a revised document. In a highly unusual, if not unprecedented, maneuver, however, the Interior Department's Solicitor quietly granted Trees Ranch a streambed right-of-way for the diversion during the preparation of the final EA. This step was taken in spite of NPS regulations that expressly prohibit issuance of new rights-of-way in wilderness. The action placed additional pressure on the agency to select the option of building a concrete dam in the wilderness, as opposed to requiring that the diversion take place downstream, outside the park boundary. Despite the feasibility of this "outside" option, NPS took the position that the landowner should not be inconvenienced, nor be required to pay to pump water uphill, since pumping would cost more than using the gravity flow from a dam site inside the park. The irrigation water in question is proposed for use on gourmet grain crops planted in fields yet to be carved out of the natural desert landscape.

Also of concern has been the involvement and role of the Virgin River Recovery Management Program. This publicly funded collaborative group of government, private, and environmental interests has funded small habitat improvement projects for the spinedace, in part to stave off listing the fish under the Endangered Species Act. Jim Trees, owner of Trees Ranch, served for years as a board member of the Grand Canyon Trust, an environmental group participating in the Program. In consultation with the Program, the Trust financed the design of the dam. It was this design that was accepted as NPS' preferred alternative. The Program is slated to pay any additional costs for the structure that might be considered as mitigation measures for the spinedace. Mitigation costs in most development projects are typically borne by the applicant. Recovery Program objectives should promote dam removal, not help finance construction.

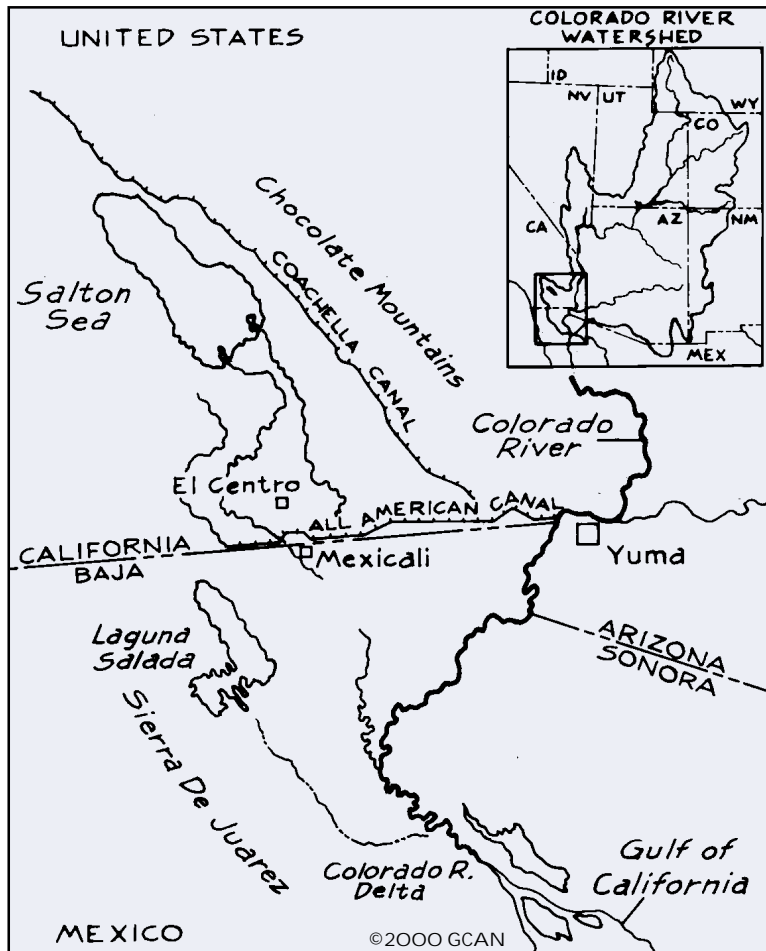
NPS regulations provide no appeal procedures for the public. The agency may decide to change its position, but the public's only legal recourse is litigation in the federal courts. A major point of contention is whether the right-of-way granted by the Interior Department was in fact legal. Questions are being raised about who should pay for any mitigation costs. The Southern Utah Wilderness Alliance, Center for Biological Diversity, and GCAN are challenging NPS' decision, and seeking to bar any diversion inside the park's boundary. A permanent structure will degrade spinedace habitat and impair the wilderness values of the National Park System. A federal right-of-way granted for a private stream diversion inside a park may encourage other water users to seek similar favorable treatment. It will also demonstrate that the conservation movement has failed to unify its own ranks and mobilize sufficient public support to protect some of the nation's most pristine park habitat from private development interests.

### What You Can Do:

Write a letter to Robert Stanton, Director, National Park Service, 1849 C Street NW, Washington, DC 20240, and ask him to rescind the decision on the Shunes Creek Diversion Dam, and to refuse a permit for any dams or diversions inside the National Park System. State in your letter that Park Service regulation NPS-41 prohibits new rights-of-way inside wilderness, and point out that adequate alternatives exist for Jim Trees to exercise his water rights by diverting water outside the park boundary. Please send a copy of your letter to GCAN at: <info@drainit.org>.

# THE SALTON SEA: To Restore or Ignore?

Just before the Colorado River crosses into Mexico, 75 percent of its flow is diverted to farms in southeastern California. Drainage from these irrigated fields in turn collects into a 35-by-15-mile sump called the Salton Sea. Although the Sea is in effect a pool of agricultural wastewater, it has become surrogate habitat to the nation's second highest concentration of bird species. With only three percent of the wetlands between the Colorado River delta and the California/Nevada border remaining, the Sea, publicized as California's largest lake, now serves as primary nesting and stopover habitat for many birds migrating the Pacific Flyway. But this byproduct of Colorado River engineering is nearing ecological collapse. And while a major effort is being launched to revive the Sea, some argue the merits and ethics of investing hundreds of millions of dollars in an artificial system when nature could offer better alternatives.



## Agricultural Irony

The Salton Sea lies in what used to be called the Colorado Desert. It is a natural depression, once part of a prehistoric lake that periodically filled and evaporated at the whim of the Colorado River during its delta formation. The Sea's current incarnation came into being in 1905 when a dike failure allowed nearly the full flow of the Colorado to change course into the Salton Basin. When crews finally repaired the dike 18 months later, 520 square miles of water remained. Over time the Salton Sea would have evaporated naturally, however President Coolidge preempted this eventuality by designating it a permanent sump to serve the region's expanding agricultural industry.

Nowadays the Salton Sea receives more than a million acre-feet of inflows every year – over 90 percent of which originates from agricultural runoff coming from the three million acre-feet of Colorado River water feeding the nation's richest irrigation district. This runoff is equivalent to the Sea's annual evaporation. Hence, were these artificial inflows stopped, the remainder of the Sea would evaporate in about ten years.

Despite its unnatural origin, the Salton Sea's unique characteristics have enabled mudflats, marshes and estuaries to evolve, habitat rendered all the more valuable to waterfowl with the stocking of fish since the early 1900s. Accordingly today some 400 species of birds can be found there, with an average of 1.5 million birds visiting each year. Protected species frequenting the Sea include the Peregrine falcon, Yuma clapper rail, bald eagle, and brown pelican. In addition, several wildlife preserves border the Sea, among them a national wildlife refuge named after late Palm Springs Congressman Sonny Bono.

## New Sierra Club Group Targets Glen Canyon Restoration

The newest Sierra Club group recently formed right here in canyon country. The Glen Canyon Group (GCG) is led by seasoned southern Utah activists who are deeply involved in defending the redrock wilderness from despoilers. True to its name, the GCG is organizing the first grassroots campaign within the Sierra Club to support draining Lake Powell. Although restoring Glen Canyon has been Sierra Club policy for four years now, no entities within the Club have yet taken on the issue.

Within a month after receiving official recognition from Sierra Club headquarters, the GCG began production on a tabloid-format outreach piece to recruit national support from within and outside the Club to help realize Glen Canyon's restoration. In the publication's lead article, Glen Canyon legend Katie Lee pays tribute to the late David Brower, the Club's first executive director. "I'm pleased that David's desire for Sierra Club activism toward Glen Canyon restoration is finally taking shape with the birth of the Glen Canyon Group," says Lee.

Also contributing to the GCG is river runner and Group executive committee leader Ken Sleight (Ed Abbey's "Seldom Seen Smith"). The publication will soon be available on the GCG's website at: [www.sierraclub.org/chapters/ut/glencanyon](http://www.sierraclub.org/chapters/ut/glencanyon); hard copies may be obtained by contacting GCAN.

While the Salton Sea is visited by bird enthusiasts from around the world, the waters that feed it are often avoided. This is not surprising considering that the New River, for one, is a viscous brown soup that flows north from Mexico carrying agricultural and industrial waste, raw sewage and slaughterhouse remains into the Salton Sea. Because the Sea is a terminal lake, everything deposited there that does not evaporate with the water collects and becomes more concentrated over time.

For example, about five million tons of salt enter the Salton Sea each year only to be left behind by evaporation. When it first formed in 1905, the Sea was primarily fresh water; now it is 25 percent more saline than the Pacific Ocean. If modifications are not made, it is predicted that fish will be unable to survive in the Sea within a decade, eliminating the primary food source for many birds.

Nutrients from fertilizers are also a major problem. They promote extensive algae growth that sometimes forms a green carpet over much of the 35-mile-long lake. As the algae dies, it consumes the water's oxygen, leading to large, sudden fish kills. On a single August day in 1999 almost eight million fish died.

In addition, over six billion pounds of pesticides are poured onto farmland draining into the Salton Sea. High levels of DDT residues have been found in birds feeding in the surrounding farmland. Elevated levels of selenium, boron and other contaminants have also been found in fish and birds in the area. Public health agencies therefore advise sportfishermen to limit consumption of certain fish.

Meanwhile, as these salts, nutrients and other contaminants have been accumulating in the Salton Sea, some 500 dead birds a day have been collected on its shores. In 1992 an estimated 145,000 eared grebes perished – the heaviest mortality of the species in North America ever known. The largest pelican die-off in history also occurred at the Sea four years ago: 8,500 white pelicans and 1,125 endangered brown pelicans. Since then, losses have continued: a total of 6,800 birds died in 1997; 18,000 died in 1998, and 3,000 more died in 1999. While many of these deaths have been attributed to diseases such as avian botulism and cholera, Newcastle disease and salmonella, many more remain unexplained, including the 1992 loss of eared grebes.

## The Question of Restoration

Interest in the Salton Sea is not a new phenomenon. The same habitat that attracted birds over the years also attracted tourists, particularly sportfishermen. By 1970, tourism contributed \$100 million annually to the local economy. Beginning in the 70s, ecosystem decline caused visitation to drop by 50 percent, prompting a variety of public and private restoration proposals. But not until the large bird die-offs began and Congress committed to help fund improvement efforts did serious attention begin to focus on managing the Salton Sea's future. Visitation has recently begun to increase.

In January 2000, the Bureau of Reclamation and Salton Sea Authority released a draft environmental impact statement (EIS) outlining potential restoration strategies. It has not received high marks from the environmental community. The Oakland, California-based Pacific Institute submitted 18 pages of comments on the EIS in April raising numerous concerns, the foremost being that alternatives proposed to clean up the Salton Sea focus only on salinity, virtually ignoring the other factors contributing to the Sea's decline. Defenders of Wildlife and a host of other environmental groups criticized the proposal for recommending increased diversions from the Colorado River, thus reducing flows to the delta.

Some activists are even more skeptical. Roy van de Hoek, director of restoration and research for Wetlands Action Network, argues that although science and engineering may be able to relieve some of the stresses affecting wildlife mortality, many factors remain unknown. He notes, "Hundreds of millions of taxpayer dollars could be invested and we may still see increased rates of disease and die-offs."

The Sierra Club's California wetlands chair Marcia Hanscom worries that the Salton Sea draft EIS just further diverts public attention from, and hence delays action on, the real solutions necessary to protect the birds. "The public is being sold on the viability of artificial habitat in order to further insulate the agricultural industry from our demands that they clean up their act. The industry must begin giving back the wetlands and water to reverse this game of musical chairs it has been playing with waterfowl habitat for the past century."

Hanscom and others aim to restore 25 to 30 percent of historic wetlands in California and the Colorado delta, and are finding it more difficult to advance this agenda with so much attention focused on the Salton Sea. "We should be concentrating on the restoration of historic wetlands, as is occurring up north in San Francisco and Monterey, not preserving those that should have never been here," says Hanscom.

At the center of the debate are differing views regarding how loss of the Salton Sea would impact migrating birds. The Pacific Institute, Audubon Society and others fear an irreparable gap in the Pacific Flyway would result, making it critical that the Sea be preserved. "When we first got involved, we were skeptical that any compelling need existed to preserve the Sea," states Michael Cohen, a Pacific Institute research associate. "As we investigated the situation more thoroughly, we came to the conclusion that there would not be sufficient habitat elsewhere to accommodate the needs of birds migrating the Flyway."

Roy van de Hoek points out that the birds are opportunistic and will go elsewhere if the Sea is gone. He believes that if flows are increased to the Colorado delta, just 60 miles away, sufficient habitat will exist there to stave off the loss of the Flyway. Federal programs scheduled to get under way within the next few years to restore 100,000 acres of wetlands annually could further help reverse the decline, van de Hoek adds. He fears that birds that have gravitated away from the Salton Sea to natural wetlands, such as the American White Pelican which now nests in San Diego, may be compelled to return to the Sea should restoration efforts proceed. "We should work to manage the decommissioning of the Salton Sea, as well as the types of agricultural practices that created this crisis, not help to promote them in perpetuity."

For starters, van de Hoek proposes allowing the Sea to become super-saline and shallow with a large percentage of mudflats. This would eliminate the fish, an objective desirable for two reasons. First, fish are the source responsible for much of the disease currently affecting the birds. Fish-eating birds could travel elsewhere, while those that feed on shrimp and invertebrates could remain. Second, many of the fish in the Salton Sea are not native. Eliminating them would address a related problem, as the spread of invasive species is seen as the second greatest contributor to biodiversity decline after habitat loss.

Regardless of the outcome, the Salton Sea debate is yet another example illustrating that the Colorado River is stretched beyond its limits.

## Flaming Gorge (continued from page 1)

farmers. Although the reservoir currently supports a recreational boating and non-native trout fishing industry, a restored Green River might generate as many tourists interested in river rafting.

The prospect of maintaining the dam has high ecological costs. The Green River ecosystem is in decline. Floods and natural flows are needed to reverse the habitat degradation occurring in Dinosaur National Monument downstream. Of critical concern are the four endangered fish that prompted much of the recent debate over the dam: Colorado pikeminnow, humpback chub, bonytail, and razorback sucker. Removing Flaming Gorge would open up a 500-mile stretch of free-flowing river below the town of Green River, Wyoming, and restore much of the native habitat for these fish on the Green. Altering the dam's operations would, at best, slow the rate of their decline.

## Recovery Program Scam

The impetus for BuRec's EIS grew out of a twelve-year collaborative process to address recovering these endangered fish. The Upper Colorado River Endangered Fish Recovery Program (UCREFRP) was created in 1988 and included a number of federal and state agencies, water and power interests, and environmental organizations. At the time of its implementation, this use of stakeholder decision making for development of a recovery plan was a novel approach, but its use by BuRec and others now appears to be in violation of federal environmental law.

While UCREFRP is a collaborative group, it is also an exclusive one; only those applicants acceptable to all members are allowed to participate. For example, despite the critical interests of the National Park Service (NPS) with regard to Dinosaur National Monument, their request to participate was rejected by water and power users. UCREFRP recommendations therefore are not reflective of all public concerns. BuRec, however, is treating them as such, utilizing UCREFRP input as a surrogate for the broad-based public input required by the National Environmental Policy Act (NEPA) for all EISs.

In addition, BuRec is limiting the focus of its EIS examining reoperation of Flaming Gorge Dam to the alternative put forward by UCREFRP, which calls only for slight changes in dam releases to more closely mimic the river's natural flow patterns. This violates the NEPA requirement that agencies evaluate "all" alternatives when conducting an EIS. In the case of a dam like Flaming Gorge, this would include everything from doing nothing to fully decommissioning the dam.

Meanwhile, NPS has expressed concern that UCREFRP's recommendations fail to provide for fish recovery within the boundaries of Dinosaur National Monument, or above the confluence of the Green and Yampa rivers, where the Green is most impacted by Flaming Gorge Dam. The Environmental Protection Agency has gone one step further and urged BuRec to address fish recovery within the context of the species' range, i.e. the entire Colorado River watershed.

BuRec has steadfastly rejected looking at any approaches outside those asking the right recommended by UCREFRP. Jack Schmidt, noted Utah State University stream morphologist and an expert on the Green River, told the *Salt Lake Tribune* recently that examining the decommissioning alternative on Flaming Gorge Dam would be like

opening "Pandora's Box." In other words, asking such questions will lead to answers some do not want to hear.

As further evidence of BuRec's mocking of the EIS process, copies of UCREFRP's flow recommendations – the very focus of the EIS process – were not even available until one month after the conclusion of the public scoping period. This is akin to soliciting public input on a project, while not providing critical information about that project.

## Need for a Basinwide Approach

Before the era of dam building, the native fish species in question inhabited most of the streams of the Colorado River watershed. The Colorado pikeminnow was at one time known as the Colorado River White Salmon for its migratory behavior and large size, up to six feet in length. Although they once ruled the river, these fish now barely survive in isolated backwaters and eddies. Their populations are genetically and physically isolated between dams and reservoirs. And most of the young fish alive today were reared in hatcheries; successful reproduction of wild fish seems to have all but stopped throughout the basin.

Nearly three decades have elapsed since these fish were listed as endangered, yet functional recovery plans are still not in place. Some UCREFRP goals are actually in conflict. For example, one stated goal is facilitating additional water withdrawals, even though withdrawals are known to be a primary cause of species endangerment. In addition, large sums have been spent devising complex solutions that realize marginal ecological gains for the listed species. Last year, for instance, a project in Colorado was declared a success when roughly a half-dozen endangered fish used an expensive fish ladder.

GCAN is simultaneously watching similar recovery plan-related processes. Scoping meetings for a multiple species conservation plan in the lower basin were conducted in early August. A draft EIS on reoperating Navajo Dam, the largest dam on the San Juan River, to benefit endangered fish, is due to be published in early 2001. An EIS on the Aspinall Storage Unit dams on Colorado's Gunnison River will also be prepared in 2001.

The public now has an unusual opportunity to comment on documents which address endangered species throughout the Colorado River basin. GCAN's call for a comprehensive basinwide EIS would allow for a synthesis of these plans, to be analyzed together with decommissioning alternatives to provide the best available scientific study to date on the Colorado River ecosystem and the potential for its restoration.

## What You Can Do:

Please write BuRec and urge them to prepare a decommissioning study on Flaming Gorge Dam as well as a comprehensive basinwide EIS on the Colorado River water management system. Address your comments to: Mr. Kerry Schwartz, Environmental Protection Specialist, US Bureau of Reclamation, 302 East 1860 South, Provo, UT 84606-7317. Email: <kschwartz@uc.usbr.gov>; Phone: 801.379.1167; Fax: 801.379.1159. Please forward a copy of your comments to GCAN at: <info@drainit.org>.

# B A C K W A T E R R E T A W K C A B

## Utility Stumps to Retain Dams

In May, the Colorado River Energy Distributors Association (CREDA) passed a resolution opposing the decommissioning of any dams in the Colorado River basin and urging Congress to do the same. This is not so surprising considering CREDA represents consumers of hydroelectric power generated by dams within the Colorado River watershed. CREDA then proceeded a step further, asking municipalities to adopt similar resolutions. In July, the City of Farmington, New Mexico became the first municipal power customer to do CREDA's bidding.

"While I'm open to alternative sources of energy, we must make sure they are viable before we throw away the hydroelectric energy we do have," City Councilor Hormuzd Rassam told Farmington's *Daily Times*. CREDA's member companies have for years enjoyed heavily subsidized electric power financed by federal taxpayers, while environmental costs remained largely ignored. Without the dams, CREDA argues, household utility rates could increase from \$1 to \$3 per month. Even if true, this is hardly a major increase relative to those many ratepayers across the country are now experiencing as a result of energy deregulation. GCAN approached the Farmington City Council on this point, suggesting that their customers may well be willing to pay the added costs to benefit the environment.

## Friends of Lake Powell Targets Sierra Club and GCAN

This past summer the main group opposing restoration of Glen Canyon stepped up its public defense of Lake Powell. On Memorial Day weekend, Friends of Lake Powell began erecting billboards along freeways in the Phoenix metro area, on highways leading to the reservoir, and within Glen Canyon National Recreation Area. "Don't Let the Sierra Club Drain Lake Powell," was the message emblazoned across images of the reservoir.

In the vicinity of Lake Powell, four-by-eight-foot corrugated plastic signs were illegally posted on public rights-of-way, including State Scenic Highway 95 in Utah and US 89 through Glen Canyon National Recreation Area. The National Park Service (NPS) immediately removed signs in their jurisdictions and those along other routes came down soon thereafter.

In September GCAN was told that NPS had cited Ed Weeks, a Friends of Lake Powell board member and Navajo Generating Station employee, for the illegal sign placement.

The commercial billboards in the Phoenix metro area remain standing at press time, although the *Arizona Republic* reports the text has occasionally been altered by restoration supporters. The newspaper also reported that Salt River Project, the majority owner of the Navajo Generating Station in Page, funded the billboard campaign.

This spring Friends of Lake Powell membership brochures also began appearing at retail establishments near the reservoir and at select locations along highways leading to it. The text of the glossy color brochure contains several fallacious statements, among them: "...the Peregrine Falcon... was recently removed from the endangered species list as a result of habitat improvement resulting from Glen Canyon Dam and Lake Powell...."

Some 400,000 households rely directly on Glen Canyon Dam.... 60,000 people per year now river raft through Grand Canyon, while before the dam fewer than 2,000 people per year did so." Rather:

- \* Recovery of the Peregrine falcon has been achieved as a result of banning DDT, protecting nesting habitat, and other efforts across the United States.
- \* Glen Canyon Dam generated barely 25 percent of its capacity this summer, a fraction of the amount needed to provide air conditioning to the homes in question.
- \* Increased recreational use of the Grand Canyon resulted from widespread growth in the outdoor industry. The dam has actually reduced opportunities for river recreation, not expanded them.

In addition, the brochure singles out GCAN staff, derides GCAN's March 14 celebration at the dam, and warns that GCAN has "millions" of dollars – all to generate donations for Friends of Lake Powell. For your own copy of the brochure, call the Friends at 888-845-POWE(LL).

## Don't Forget the Guns! Call to Arms to Defend Reservoir

Fighting Glen Canyon Dam could become dangerous work. At an April meeting of the St. George Chamber of Commerce, Utah State Senator Lorin Jones told business leaders that defending the dam may require taking up weapons. According to the Associated Press, Jones told the crowd of business leaders, "There are wackos out there that want to drain Lake Powell. I think if they tried to do that, we who own guns, if there are any of us left by then, will be out there to meet them."

## GCAN Apparently Preparing to Drain Central Arizona

"Economic ghost town" – that's been the sound bite reverberating from Page, Arizona ever since GCAN launched its Glen Canyon restoration campaign. Now that scare tactic is being applied to the whole state. Head of the Central Arizona Project (CAP) Robert Lynch stated the following in a July op-ed piece in the *Arizona Republic*.

"Our economic future, tied as it is to the Central Arizona Project water supply, is at risk if this wrongheaded idea gains credence. Literally, draining Lake Powell could drain central Arizona.... Water supply is the controlling factor for 21st century growth in Arizona. So if you read, watch or hear discussions about turning back the clock to restore a 'pristine' Glen Canyon (an unproven result), understand that clock is the timer on an economic time bomb for central Arizona."

Completed in 1993, the CAP was to divert 1.5 million acre-feet of water from the Colorado River for Arizona farms and swimming pools. However, the project was virtually bankrupt on arrival. Construction costs went 2.5 times over budget. Today farmers cannot afford to purchase the water, so the only new customers are municipal hook-ups. The State of Arizona could easily implement aggressive water conservation strategies and get by without the CAP. Thus, in order to preserve itself, the CAP tends to challenge any and all speculation about the state's over-consumptive water practices.