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 overgrown 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. Local government concerns about traffic, air quality, and noise, as well as development of a marina in a habitat of concern. NPS is considering county contributions to these costs.

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 upstream 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 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

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 U.S. Fish and Wildlife Service of "premature" 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 ardent group of water and power users, recreationalists, outfitters and BuRec itself. In July BuRec convened public hearings in Salt Lake City, Vernal, and Fort Duchene, Utah; Rock Springs, Wyoming; and Grand Junction, Colorado. "Before the first hearing even took place, BuRec decided - 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

(continued on page 3)
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. And much extinction has occurred, how much sacred space has been submerg

Diversity, a 501(c)(3) tax-exempt organization.

Michael Frome, Steve Hannon, Robert Hass, Randall Hayes, Katie Lee, Juliette Majot, Tom Martin, Pamela Michael, Rachael Paschal, Janet Ross, Ken Sleight, Michael Stewart, Kieran Glen Canyon Dam is so much a part, albeit an unnecessary one. Eighty percent of the and age, and we certainly can work to repair the scars they have left behind.

The reservoir’s water quality is in fact so poor that the same agency responsible for the reservoir, up to ten percent of the Colorado River’s annual flow is lost annually, which, to energy demand will be satisfied, the lack of reverence for this “beauty” that reservoir enthusiasts hold it is litter nonetheless, and it’s time we start picking it up.

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 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 that reservoir enthusiasts hold it is litter nonetheless, and it’s time we start picking it up.

Take for example the agricultural plumbing system of the Colorado River, of which 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, lakes, fountains, or swimming pools in places like Phoenix, Las Vegas and Los Angeles.

The answers lie 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 Canyon now stands.” Actually, this is not just the canyon, but the entire river 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.

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, to work the jobs to the Navajo Nation’s economy. Such panicastic 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 Navajo Reservation and low-wage jobs to the Navajo Nation’s economy. Such panicastic developments have evolved worldwide as dams, their energy, water storage and roads facilitate access for extractive and polluting industries. One may attempt to defend

Fortunately, 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. 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.

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 grassroot 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 M. o. b. Office. LIVING RIVERS CURRENTS is a project of the Center for Biological Diversiﬁty, a 501(c)3 tax-exempt organization.

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Glen Canyon Action Network

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THANK YOU ALL!
Greetings from the Navajo Nation. We the Dineh, or Navajo, people were created in Dinóhii, our sacred homeland, and since the Creation we have learned a few important things here in Dinetah, our sacred homeland, and since the Creation we have learned a few things.

Yáa'ateh! By Thomas Morris, Jr.

Guest Column

The beauty of the Navajo Nation is all around me. That is what we are seeking, to bring back the beauty to Glen Canyon. Front of me, beauty behind me, beauty above me and beauty below me; beauty is all around us. That is why we are fighting so hard to preserve those things that make us who we are as a people.

Many Indian people today suffer from diabetes, asthma, alcoholism, and other diseases that were not found among the Dineh before contact. 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 reservation. The pollution from the smokestacks comes back to us, though, falling on our reservation. 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 respect the Navajo Nation's religious freedom.

We have no Bible; our sacred texts are the petroglyphs under the water. Just as the Dineh seek your help in protecting something sacred to them, so too must we seek your help in protecting something sacred to us.

The 1986 EA did not anticipate such an explosion of watercraft usage, nor did it account for the large increase in tourist numbers. The Antelope Point project EA does not comply with the National Environmental Policy Act. It does not account for the large increase in tourist numbers. The Antelope Point project EA does not comply with the National Environmental Policy Act.

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 don't want to encourage this by putting in gambling too."

Groups Demand EIS

Antelope Point is a place where we can see the power of the Dineh to protect their cultural heritage. There is a deep spiritual connection to Rainbow Bridge, which is a sacred place in our community. 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 the things that make us who we are as a people. We are encouraging our young people to learn the traditional ways, to serve as role models for the future generations.

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 families were moved to take the City of Page, where the white people's homes and gas stations 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 National Park or Glen Canyon National Recreation Area. They might take a boat tour to Rainbow Bridge. More than three thousand people have gone there in a single day, all coming 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 Dineh people realizes that the bridge was a vital part of their heritage and culture.

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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’ 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 $0.04 to $300.

Restoration Creamery is not only supporting 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.

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Soaping 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 while interacting with the public. As the crowd in the shop and somewhere in the back she heard a belligerent voice muttering, "I don't know why you're doing this. I think it's a disgrace." Three weeks earlier there had been a good-size crowd of other customers who had returned the ice cream at the corner talking and eating. As soon as the crowd of other customers subsided, the woman asked the volunteer behind the counter. "It would indeed," he replied, "but Lake Mead will eventually be drained. We've heard that before." The woman asked, "But isn't it true that Lake Powell is more scenic and has more recreation opportunities?" The volunteer replied, "Yes, but Lake Powell is also a cultural and historical resource for the people who live there. We want to protect it for future generations." 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 silting, dam safety, and the need to restore the Colorado River ecosystem. "In other words, NOTHING can make you happy," Bruni explained. He tugged on 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 the money but the woman insisted, "You better" grabbed the money from his 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, Jeeps and Houseboats, 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 bikes clicking, wearing skin-tight clothing, helmets, and sunglasses that transform them into a veritable human sunscreen. 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, 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 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 the shop clerks and elsewhere. We have likewise benefited tremendously from interacting with people who are and are not opposed to our campaign, are quite inquisitive about our motivations and among the friendliest of our customers.
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 Dinéh Medicine Men’s Association has recently revived this effort, demanding that all their religious sites in Glen Canyon be “uncovered” by draining the reservoir.

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.

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 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.

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 1946, 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-allocated, 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 unwieldy.

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.

WATER STORAGE

Lake Powell can store more acre-feet of water — 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.

COLORADO RIVER DELTA

Once one of the world’s great estuaries, the Colorado River no longer reaches the sea. The river’s annual flow is entirely diverted. Water releases have contributed to estuarine or tidal marsh endowment 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.
Aided from trapping water and sediment, Glen Canyon Dam traps tons of heavy metals each year. Although insufficient under natural flow conditions, the accumulation and concentration of these minerals can become toxic. Uranium mill tailings—excluding 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 recreationalists 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 gles, 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—a glimpse of Lake Powell’s future. With the river’s new waterfall, ranging in height up to 34 feet, cutting through heavy sediment deposits where the river meets the reservoir. This waterfall blocks travel both up and down the San Juan, forcing river runners to disembark at Clay Hills Crossing, often knee-deep in siltage.

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 10 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 37,000 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 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 Tetons 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 10 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. Aults 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.
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, 2002, 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
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. The river’s flow through reservoirs and their silt – 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 1997 the Grand Canyon River Guides (GCRG) education seminar, GCAN president John Weisheit, an upper basin guide, gave a presentation to secure their support for draining 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 the more influential interests threatens to undermine the efforts of the local community. The Grand Canyon outfitter industry – are causing some guides to argue economics over environmental protection. Because the Colorado’s flow through the Grand Canyon is effectively a regulated river, there are no fluctuations in the original flows. Consequently, river guide companies operating inside the Grand Canyon have to adapt to the changes.

Rob Elliot 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 next few years.”

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Some groups need a little more education. “This is creating a real problem for our passengers,” says Dave Bodner, who heads Outdoor Adventure River Specialists, in Moab. “It’s almost unbelievable today that the US government came so close to destroying a World Heritage Site and one of our premier parks,” referring to the Grand Canyon. “It ad not understood the fight then, which so many people told us that it was unbuildable, there would be no Grand Canyon 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 Lotton 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 saga.

In 1992, Congress passed the Grand Canyon Protection Act, which later established the Grand Canyon National Park. Nothing short of restoring the river’s natural processes by draining Lake Powell Can create the restoration and long-term protection of the Grand Canyon ecosystem.

Many river guides responded enthusiastically in April. Stephen Anderson said that to Litton and others with decades of experience in the Grand Canyon, the “There's little question that we would like to see Glen Canyon restored and the Grand Canyon protected,” said Willie Odem, GCBA president. “Well cherish the opportunity to run the Grand Canyon at 2,270,000-2,500,000 cfs (cubic feet per second), swim in warm and cool 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 its 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 endan-gered 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 237-mile by. 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 imple-mented, 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 Hansen 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 and 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 outfitting 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 that 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 areas’ concessions are managed by large corporations such as ARAMARK, Delware 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 outfitter industry is still operating like park concessionsaire to use as much 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 have 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 correct 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 where we want,” says Odem.

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.

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**RESTORING THE COLORADO RIVER DELTA**

A binational coalition is stepping up efforts to reverse the negative impacts US dams and diversions are having 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 lawsuit 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 robust biodiversity 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 during the 1930s. There he discovered what leafy ecological treasures such as reed sedge and salt water mangroves had been. Of the Colorado Leopold wrote, “...in fact the river was nowhere and everywhere, for he could not decide which of a hundred green laggon offered the most pleasant place to strike a path to the Gulf. So they went all around and away, and the 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 Coyote people, who once relied on the delta’s rich fish 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 have to go to court to get action, but that’s what the law says, then take them to court to get their attention,” says Kara Gillon, an attorney with Defenders of Wildlife, one of the coalition’s nine law firms. “The seven other plaintiffs are Asociacion Ecologica del Usuario del Rio Hardy-Castle, Center for Biological Diversity, Centro Regional de Estudios Ambientales y Socioeconomicos, El Centro de Derecho Ambiental y Integracion Economicera del Sur, C.A., Consejo Coordinador Empresarial De Mexico, A.C., the Human Society of the United States, and the Sierra Club.

According to Gillon, the ESA is particularly valuable 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 cunner, and the desert pupfish. Species listed as endangered only by the US, but which occur in both countries include the razorback sucker and the Southwest willow flycatcher.

The Delta and Gulf are also crucial to wading waterbirds such as hundreds of migratory shorebirds that 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.

Two segments of the human population are 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 forced 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 remains in the delta; some scientific estimates put that less than one percent of the river’s needs could be met. The delta would of course benefit from additional flows, as it is required to 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 delta’s vast riverine ecosystems.

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 because of the US 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 competitive responsibility in the hands of state and water power agencies.

"Butler 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 safe bet the water agencies running the species program will favor the status quo. For example, in 1998, state interests rejected conservation measures that would include the diversion of 6% percent of the river during the dry season.

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 ecosystem preservation program which would be used in Mexico and US.

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 purposes.

**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 back in the 1960s, the rallying cry was “protect the crown jewels” of our National System. But gains made in one-generation can be lost by the next. This year the National Park Service (NPS) quietly authorized construction of a diversion dam in Utah’s Zion National Park, and instead of challenging it, the US Forest Service is permit granting the project.

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**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 dam 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 Ranch 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>.

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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 350-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 prompted this extravagance 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 by the Sea’s current incarnation. For almost 40 years the Sea has been used by bird enthusiasts from around the world, the Sea is a terminal lake, everything deposited there that does not evaporate with the water collects and becomes 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 the Sea will not be able to sustain the bird life that has become concentrated over the Sea’s history. 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 remain in bird’s feeding in the surrounding farmlands. 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.

Man-made, as well as salt, 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 Newcastle disease and others, many 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 $130 million annually to the local economy. In the early 1970s, 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 Hok, 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 habitats 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.”

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

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 southeastern Utah activists who are deeply involved in defending the redrock wilderness from despoilers. True to its name, the GCG began production on a tabloid-format outreach piece to recruit national activism toward Glen Canyon restoration is finally taking shape with the birth of the Glen Canyon Group, “ says Lee. The publication will soon be

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.sierracanyon.org/chapter/glencanyon; hard copies may be obtained by contacting GCAN.
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 Dinosaurs 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 natural habitat for these fish on the Green. After UCREFRP's operations would achieve the best, slow the rate of their decline.

Recovery Program Scam

The initiative for BuRec's EIS grew out of a twelve-year collaborative process to address recovering the 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.

In addition, UCREFRP is a collaborative group, it is also an exclusive one, those only eligible to be as All are members 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.

Meanwhile, BuRec has expressed concern that UCREFRP's recommendations fail to provide for recovery within the boundaries of Dinosaur National Monument, 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 Green 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 would 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, without providing critical information about that project.