

# DRAIN IT TIMES

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## SEDIMENT-AL JOURNEY

### Roadshow for the Grand Canyon

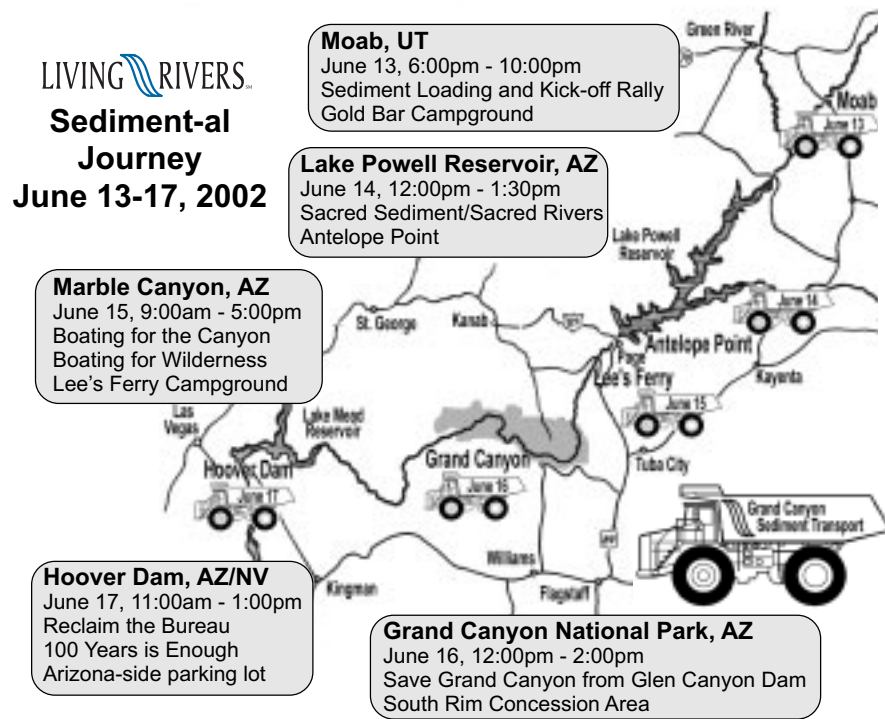
Moving the Bureau of Reclamation (BuRec) to move sediment is the focus of LIVING RIVERS' upcoming "Sediment-al Journey." June 17, 2002 is the 100<sup>th</sup> anniversary of BuRec's founding, marking a century of river devastation. The victimization of the Colorado River through the Grand Canyon is a case study of the Bureau's exploits.

Caught between BuRec's two largest concrete dams, Hoover and Glen Canyon, the Grand Canyon is slowly becoming sterile. Glen Canyon Dam disrupts the food chain because it traps the nutrient-laden sediment. The dam also causes drastic water temperature changes, and tames the formerly life-giving seasonal flood flows. Five of eight Grand Canyon native fish species are either gone or on the verge of collapse, beaches are disappearing, and damaging exotics are choking out native vegetation.

Public officials and others who've profited at the expense of the river will celebrate BuRec's anniversary at Hoover Dam. LIVING RIVERS and the Grand Canyon Restoration Coalition will be there too, but with a different message. The Sediment-al Journey, which will conclude its five-day road trip at Hoover Dam on June 17, will draw public attention to the extensive environmental damage that is BuRec's 600-dam legacy.

Our journey will begin with an evening rally and banquet on the banks of the Colorado near Canyonlands National Park. People will be bringing sediment from throughout the basin to load into a dump truck for transport to the Grand Canyon. Participants will then head to Antelope Point, on the edge of Lake Powell, to collect more sediment and to support Navajo activists in their opposition to a proposed marina (see back page). Then it's off to Glen Canyon Dam and the first ceremonial sediment dump below the dam. We'll then spend two nights along the river at Lee's Ferry, passing out sediment to those embarking on their Grand Canyon river trips, as well as taking a day-long trip ourselves from Glen Canyon Dam back to Lee's Ferry.

On the eve of arriving at Hoover Dam we will gather at Grand Canyon National Park to rally and inform visitors of the Park's dying ecosystem at the hands of BuRec. Riverside music, cookouts and camping will round out the festivities as we promote the need for BuRec to transform its mission from one of devastation to restoration. Please join us.



## SEDIMENT PROBLEMS

### The Beginning of the End for Lake

In late March LIVING RIVERS completed a reconnaissance of the upper Colorado River arm at Lake Powell reservoir to further ascertain the gravity of the sediment build-up and delta formation at the head of the reservoir. With the reservoir at its lowest level in nine years, we were provided with a vivid picture of nature's progress toward forcing the decommissioning of the reservoir marinas, and ultimately Glen Canyon Dam.

As anticipated, there was extensive sediment accumulation in both the main stem and side canyons. In many places the Colorado is cutting channels 25-foot deep, with perched segments calving off like glacier slabs along the Alaska coastline. River travel is difficult, as a minefield of sandbars and mudflats significantly complicate navigation through much of the main channel as it enters the reservoir.

An examination of the Dirty Devil River, one of the major tributaries flowing into the reservoir, revealed a ticking time bomb. Its river channel is completely full of stored sediment, a situation we observed in many of the side canyons. This suggests that a significant amount of sediment will be dumped beyond the suspended pile and into Hite Bay when strong summer storms resume on the Colorado Plateau.



Sediment filling in Lake Powell reservoir

There was also evidence of the river remobilizing sediment for transport toward the dam. With the reservoir level down 54 feet, the Colorado River has regained 30 miles of current, which is churning up and reworking the sediment down-reservoir. Because of new operating guidelines to store more Colorado River water in California, and cumulative poor snow packs in the headwaters, it will be difficult to keep Lake Powell reservoir full. The low reservoir levels will restore a flowing river over sediment, which will mobilize and quickly advance the delta and associated turbidity flows towards Glen Canyon Dam. Turbidity flows are the suspended sediments that continue flowing along the bottom of the reservoir and pile up before the front of the dam.

Currently the main delta sits about 150 miles from the dam, and less than one mile from Hite Marina. The delta's advancement will soon force the closure of this marina, possibly as early as the end of this year. The sediment accumulation and reduced marina access will create problems for private and commercial river runners who end their Colorado River Cataract Canyon trips at Hite Marina. A similar situation already exists for river runners on the San Juan River arm of the reservoir. The San Juan delta is growing nearly as fast as the Colorado's, and has only about 100 miles to travel before reaching Glen Canyon Dam.

According to Dr. John Dohrenwend, a geomorphologist formerly with the US Geological Survey who took part in the expedition, reservoir and dam managers may be in for a shock. Similar to how BuRec planners misjudged the amount of water in the Colorado watershed, giving away 22% more water on paper than the river actually delivers, they may have misjudged the sedimentation rates too. Researchers have documented incredible cycles of erosion followed by deposition in the arroyos and rivers of the Colorado Plateau. In the 1880s, for example, a cycle of arroyo cutting and sediment movement began in the Southwest; this cycle ended in the early 1940s. Since then, there has been less erosion and more valley bottom deposition. "Thus," says Dohrenwend, "sedimentation in Lake Powell, from its creation to the present, occurred during a time of relatively slow landscape change that is not fully representative of historic times. Indeed, a return to the conditions that prevailed during the first half of the twentieth century would significantly accelerate sedimentation in Lake Powell and would significantly affect future use and operation of this reservoir."

# SIMULATED FLOODS

## No Help for the Grand Canyon

The Bureau of Reclamation (BuRec) is working on another public relations charade to combat mounting pressure that it is not doing enough to stop the decline of the Grand Canyon ecosystem caused by Glen Canyon Dam. As a result they are contemplating a two-year series of experimental flows from Glen Canyon Dam to improve habitat conditions for hump-back chub, an endangered native fish. But like similar exercises conducted over the past five years, these too are doomed to fail.



The Colorado River in the Grand Canyon

Lack of sediment and driftwood has eliminated beaches and changed the carbon base, which in turn has caused the near disappearance of the Canyon's natural food web. The historic food source for native fish has vanished; no insects native to the Canyon remain and riparian vegetation is struggling in the sterile soil.

At best these experimental flows will move a tiny fraction of the Canyon's remaining sediment. Moreover, since these flows are not designed to exceed 45,000 cubic feet per second, when pre-dam flows were routinely twice this, the overall benefit to native fish and plants will be further compromised.

Manipulating the dam won't change the chilly water temperatures either. Water released from Glen Canyon Dam is a constant 46° F., causing the river temperature to seldom exceed 55° F. Native fish require warmer water with temperatures reaching 80° F., the natural pre-dam summer temperature of the water.

In 1996 BuRec received a huge public relations boost for implementing simulated flood flows from the dam, but the native habitat gained nothing. "Here we are five years and \$40 million later, ready to repeat history," says John Weisheit, LIVING RIVERS' Conservation Director. "That's why we are building a new Grand Canyon Restoration Coalition to mobilize widespread support for true restoration of the Grand Canyon."

# DAM RISKS

## Interior Denies Public Right to Know

LIVING RIVERS' efforts to obtain information on the communities impacted, should Glen Canyon and Hoover dams fail, are headed for the courts. On April 2, the Department of Interior denied LIVING RIVERS' appeal of the BuRec's November 2001 decision to deny its Freedom of Information Act request for dam failure inundation maps.

At issue is BuRec's claim that this information should be withheld because it pertains solely to the internal operations of the agency. LIVING RIVERS contends that the tremendous risks associated with the failure of one or both of these dams should be made known to the public. BuRec documents obtained through other sources reveal that if Glen Canyon Dam failed, a 500-foot wall of water will scour much of the Grand Canyon. This will cause tremendous ecological damage, loss of sacred sites, and the certain death of any recreationists unable to escape to higher ground.

But of potentially greater concern are the impacts this torrent will have when it reaches Hoover Dam. It is estimated that a 75-foot wall of water will overtop Hoover Dam, posing significant threat to dams downstream, riverside communities such as Laughlin, Nevada and Blythe, California, as well as several Indian nations. Such a flood could also threaten the water supplies of tens of millions of people. If Hoover Dam failed in the process, the catastrophe would be monumental. BuRec, however, is withholding this information and keeping those who might be affected, in either scenario, in the dark.

In 1997, the US Court of Appeals forced the Department of Agriculture to release maps pertaining to spotted owl habitat to the Maricopa Audubon Society. At that time, the Federal government was asserting that such maps were germane solely to the internal operations of the agency and thus not releasable to the public. LIVING RIVERS hopes that the courts will find that inundation maps belong in the public domain too.

# ANTELOPE POINT

## LR Coalition Fights New Marina

LIVING RIVERS was recently joined by 17 other organizations in demanding suspension of the planning process for the proposed Antelope Point Marina project on Lake Powell reservoir. In an eleven-page letter sent April 14 to Glen Canyon National Recreation Area officials, the coalition expressed concern regarding violations of environmental laws, utilization of outdated planning guidelines, a bias toward servicing motorized flatwater recreation, and failure to consult with Navajo interests. The coalition demanded a revision of the Recreation Area's General Management Plan prior to any further work on the proposed marina.

At issue is a proposal to construct a 410-slip marina, 225-room hotel complex, 150-site campground, fuel dock, convenience store, restaurants and related infrastructure over a 950-acre site; 710 of which are owned by the Navajo Nation, with the remaining 240 administered by the Park Service. Of major concern is that the project evolved from a planning document which is 23 years-old and has little relevance to the reservoir's current operation.

The Diné Bidziil Coalition, representing 17 grassroots Navajo groups, and the Diné Medicinemens Association are opposed to the project, as it would impact ceremonial and sacred sites, and promote inappropriate development on the Navajo Reservation. "Our people will derive virtually no benefits from this project, only a few low-wage jobs and some lease payments. The bulk of the money flows off the reservation to a non-Indian company in Scottsdale Arizona," says Hazel James, with the Diné Bidziil Coalition. "Most families on the reservation live near or below the poverty line; we don't have houseboats and jet skis to take on Lake Powell reservoir."

"Their documents claim that they consulted with us about sacred site impacts, but no consultation ever occurred," said Thomas Morris Jr., president of the Diné Medicinemens Association. Federal regulations require the National Park Service to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners, and to avoid adversely affecting the physical integrity of such sites.

Despite this proposal being the most substantial development initiative at Lake Powell reservoir in decades, the Park Service has done only cursory environmental analysis. The likely impact on water, air, noise, and public health, not to mention the cumulative development impacts on the surrounding community, compel the Park Service to undertake an Environmental Impact Statement. More importantly, the Park Service must reassess the perceived need for this new resort marina in light of declining visitation, which is down 11 percent since 2000 and 35 percent since 1992.

LIVING RIVERS is now mobilizing legal assistance to further support Navajo activists in their efforts to stop development at Antelope Point.

# LAKE POWELL PIPELINE

## Opposition Builds on Anti-Dam Day

Water conservation and river restoration were the rallying cries outside Utah governor Mike Leavitt's office on the fifth International Day of Action Against Dams and for Rivers, Water and Life, March 14, 2002. LIVING RIVERS was joined by eleven other Utah river advocacy organizations in presenting the first annual "State of Utah's Rivers Report" which highlighted the rapidly declining health of the Green, San Juan and Colorado rivers, as a result of excessive water consumption.

Of major concern is a proposed pipeline from Lake Powell reservoir to St. George in Utah's Washington County. The proposed \$250-million project is designed to bring 70,000 acre-feet of water to southwest Utah, which is 150 percent more than the region is presently using. Washington County now wastes more water than practically any other community in the country; its per capita water use is 355 gallons per day. In contrast, the community of Tucson uses only half this amount of water: 170 gallons per person, per day.

If constructed, this pipeline would also represent the first major water diversion directly from Lake Powell reservoir. LIVING RIVERS is opposing any such infrastructure as it would be unnecessary and add to the costs associated with the eventual decommissioning of Glen Canyon Dam.



Day of Action at the Utah State Capitol

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