

LIVING RIVERS

Published by LIVING RIVERS, an advocacy organization mobilizing people to protect and restore the integrity of rivers and watersheds  Printed on Vision tree-free, kenaf paper

LR DROUGHT WATCH Demands Action to Avoid Crisis

Reservoir levels in the Colorado River watershed are at their lowest point in history. Over the past three years, they have been declining at a rate of ten percent per year and are now at 59 percent of capacity—an approximate three-year supply for the basin's 25 million residents and farmers. While historical evidence reveals that the present drought is not unprecedented and is likely to continue, the basin's water managers remain unconcerned.

The most recent sustained drought in the basin took place between 1942 and 1977. The regional climate was marked by less snow and fewer summer rains. No major crisis surfaced because Colorado River consumption was much lower than today. Last year the United States Geological Survey warned that a repeat of this drought could be "catastrophic." It is already



Lower reservoir: uncovering landscape

shaping up to be much worse than the previous one. River flows during the first several years of the present drought are 15 percent below what they were when the 1942 drought began. Despite hopes that an El Niño event would generate above-average precipitation this year, the most optimistic forecasts now call for snowpacks of 20 percent below normal.

When these issues were raised to Commissioner John Keys of the Bureau of Reclamation (BuRec) last month, he stated that his agency had "no plan" for how the federal government would

handle water shortages once reservoirs began running dry. BuRec has merely continuously revised its over-optimistic hydrologic forecasts for river flows. Its most recent, on March 3, was a 25 percent downward revision for flows into Lake Powell. In October 2002, BuRec predicted flows would be 10.14 million acre-feet in the water year of 2003. Now BuRec is predicting only 7.44 million acre-feet—62 percent of normal.

According to Living Rivers' conservation director John Weisheit, BuRec is also overestimating the amount of available water in its reservoirs. "Their available water figures from Lake Mead and Lake Powell reservoirs do not fully account for the sediment which now occupies storage space. There are another two million acre-feet of storage losses, bringing the overall storage in the basin to 55 percent of capacity."

In a letter sent to Secretary of Interior Gale Norton on March 14, on the occasion of the sixth International Day of Action Against Dams, and for Rivers Water and Life, Living Rivers demanded urgent action by the Colorado River's legally designated Water Master. As an initial step, Living Rivers is seeking the Secretary's commitment toward helping to establish a dialogue amongst the basin states, Indian tribes, water users and environmental groups, to begin tackling this critical problem.

The letter outlines two key challenges that need to be addressed. First, bring the basin's water use into balance with natural flows by re-negotiating the water allocations established in the Colorado River Compact. These allocations are 20 percent above what the river delivers in years of average flow. Second, the federal government should establish water use efficiency standards for all irrigators under contract with the Bureau of Reclamation. These users consume more than 80 percent of Colorado River water, much of it for water-intensive and low-value crops, such as alfalfa and other feed crops for livestock.

LAKE POWELL Running Out of Reservoir

Lake Powell reservoir is down 91 feet from normal; it is officially half empty. The last time it was at this level was 30 years ago when the reservoir was first filling. According to a report that was published in October 1995 by the American Water Resources Association, should a severe and sustained drought similar to past events occur, Lake Powell reservoir is likely to stay empty for approximately eight years.

The National Park Service, which oversees the marina facilities at Lake Powell, has had to make several adjustments to keep the facilities operational since last summer. Despite these adjustments, three boat ramps are presently closed and the ferry service between two other marinas is also shut down.

Additionally, the recently approved \$70-million Antelope Point Marina Resort is in jeopardy of being built but never used. To be operational, this facility is totally dependent on having a full reservoir. Right now, at Antelope Point, the reservoir is confined between the sheer vertical cliffs of the original Colorado River canyon and is inaccessible. When considering the demand for water in the lower basin states of California, Arizona and Nevada, compounded by the growing realization that a severe and sustained drought is already upon us, it is possible that the resort may not be useable for decades.

At the top of the reservoir, where the Colorado River enters, major sediment problems are surfacing. The sediment deposits of the last 40 years have built a substantial delta forcing boat ramp and campsite closures, and will eventually engulf the concession facilities and the culinary water intakes.

This situation is also causing extensive complications for white water rafters whose multi-day trips through Canyonlands National Park end at Lake Powell. Their primary facility for getting off the water, Hite Marina, is effectively shut down due to sediment. It's difficult for land vehicles to get close enough to the water without getting stuck. This could be a major problem for the multi-million-dollar commercial rafting industry that relies on this stretch of the Colorado.

It has been anticipated that the upcoming snow-melt, and the consequent reservoir rise, might bring some relief for the facilities. But a current projection supplied by the Bureau of Reclamation does not

support such a hope and indicates lowering will continue through the middle of summer. The snowmelt will actually serve to aggravate the situation because the increased river flows will erode and mobilize the suspended sediments upstream, and then redeposit them at Hite Marina where the Colorado River delta is currently expanding.

Decreased recreation is not the only potential impact of the lowering reservoir. If the present drought does not relent, within three years Lake Powell will eventually drain to the level of the penstock tubes that spin the generators at Glen Canyon Dam.

This problem is not just indicative of Lake Powell. The entire Colorado River storage system has dropped from 92 to 59 percent over the past 40 months. In Arizona, a reservoir on the Verde River is completely empty. A reservoir on the Gila River is four percent full and Lake Roosevelt reservoir on the Salt River is 14 percent full. "Lack of access to flat water recreation is the least of our worries," says Owen Lammers, executive director of Living Rivers. "The Southwest plumbing system is headed for complete catastrophe and the Bureau of Reclamation, together with the seven states that use Colorado River water, have no disaster preparedness plan." For ongoing updates, visit "Drought Watch" at the Living Rivers web page.



Lake Powell, running out of room for boats

TROUBLED DELTA

Help Save What's Left

For the past year, Living Rivers has been working to stop the Bureau of Reclamation (BuRec) from destroying the most functional piece of Colorado River delta habitat, the Cienega de Santa Clara. BuRec is preparing to submit a report to Congress that recommends the diversion of Cienega water to BuRec's Yuma Desalting Plant. Public input is needed now to help influence this report before it is finalized, as well as letters to Congress once it is submitted.

This rich 14,000-acre biosphere reserve in Mexico receives the only constant flows in the entire two-million-acre delta region. As such, it provides critical habitat for a number of endangered species, and especially for waterfowl traveling the Pacific Flyway between Alaska and South America. The Cienega and 90 percent of the surrounding delta region was destroyed when water diversions from the Colorado River by the United States and Mexico began taking every drop. The Cienega has been revitalized, however, as a result of irrigation drainage from southwestern Arizona that has been diverted into Mexico. BuRec now wishes to capture all this drainage water, and divert it through its mothballed desalting plant in Yuma, Arizona.

BuRec's motive is to add an additional 108,000 acre-feet of water back into the Colorado River, so that a similar amount could be used by farmers upstream. Finally completed in 1992 at a cost of \$253 million, the Yuma Desalting Plant was slated to treat irrigation drainage water and to ensure that water delivered to Mexico met agreed upon water quality standards. However, given the plant's operation costs of \$36 million annually, it has been more economical to obtain the 108,000 acre-feet of water from California, and allow the drainage water to flow on down to the Cienega. Starting up the plant will have the reverse effect—an ecological disaster for the Cienega, and an unnecessary economic burden for US taxpayers.

On March 7, Living Rivers, Defenders of Wildlife, Pacific Institute, Sierra Club, Environmental Defense and Southwest Rivers jointly submitted a critique of BuRec's most recent draft report to Congress. Among the most blatant omissions were hardly any reference to the Cienega and the ecological impacts associated with the loss of its only water source. There

was also no mention of the federally listed endangered species that would be affected by taking this water, including the Yuma clapper rail, desert pupfish and black rail.

To improve the economic picture, BuRec



Cienega de Santa Clara

overestimated the desalting plant's output, causing the average price per acre-foot of water produced to be 33 percent lower than what would actually occur. A similar error was made in calculating the plant's primary operating costs: electricity. BuRec used a price of \$32 per megawatt hour, when the actual price is \$44. BuRec hopes that such faulty analysis will not be questioned by Congress, nor that Congress will ask for alternative methods of achieving the required water quality standards.

In fact, the draft report did not address long-term alternatives at all. Living Rivers' analysis reveals that water rights could be purchased or leased from Arizona irrigators at a cost of 75 to 85 percent less than the cost of desalting the drainage water via the Yuma plant. By not relying on the operation of the plant, it can be permanently decommissioned, saving tax payers an additional \$5.1 million annually.

Please join Living Rivers in demanding that a more thorough economic and alternatives analysis be undertaken by BuRec before they submit their report to Congress. Write to: Robert Johnson, Regional Director; Lower Colorado River Region, U.S. Bureau of Reclamation; PO Box 61470; Boulder City, NV 89006-1470; Fax: (702) 293-8614; Email: BJohnson@lc.usbr.gov.

MILL CREEK

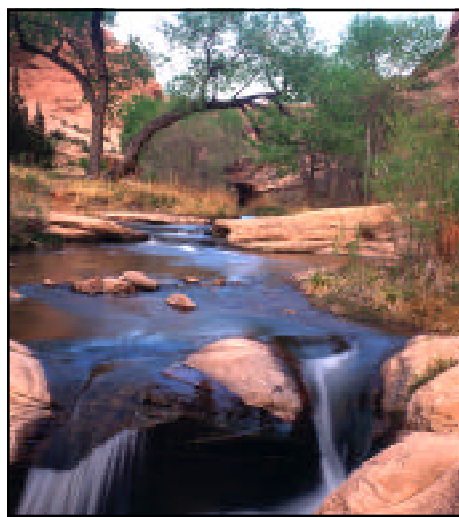
Microcosm of the Colorado River

In conjunction with the sixth International Day of Action Against Dams, and for Rivers, Water and Life, Living Rivers initiated a campaign to help revive a small tributary of the Colorado River running just 300 yards from its Moab offices. About 80 people turned out for the noon time rally on March 14.

Mill Creek drops 7,000 feet from the La Sal mountains to its confluence with the Colorado River, 25 miles away. Just like the Colorado, Mill Creek runs dry before reaching its final destination; can no longer support endangered native fish; sees most of its water diverted for taxpayer-subsidized alfalfa irrigation; and receives limited public involvement in decisions affecting its future.

Living Rivers' objective is the return of year-round stream flow by mobilizing public support to reduce the need for extensive diversions. On any given year, from 15 to 40 percent of the water diverted from Mill Creek is lost to leakage in the system's principal reservoir, Ken's Lake. Additionally, the agency responsible for managing this facility often takes more water from the creek than is allowed by their water right. Merely correcting these problems would go a long way toward reviving Mill Creek.

More important are the implementation of programs to help farmers who are potentially interested in making the transition to more water-efficient, higher-value crops. For example, alfalfa can require four times as much water as grapes, and provides the farmer with a crop that yields only \$100 per acre-foot of water, whereas good quality grapes can yield \$7,500 per acre-foot. Living Rivers is advocating similar alternatives for those who use Mill Creek water for water-intensive ornamental landscaping—promoting a switch to drought-tolerant native plants to keep more water in the creek.



Mill Creek Canyon

FLAMING GORGE

EIS to be Released

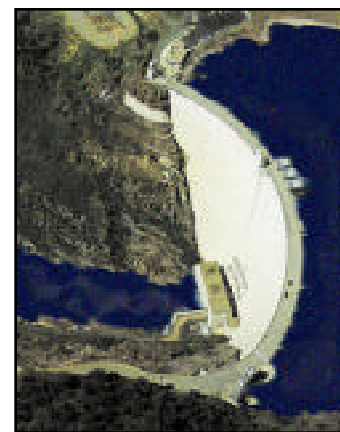
After nearly three years, the Bureau of Reclamation (BuRec) will soon be releasing its draft Environmental Impact Statement (EIS) for the reoperations of Flaming Gorge Dam. The purpose of this EIS is to recommend changes in dam operations to improve habitat for endangered fish along the Green River and in Dinosaur National Monument—the humpback chub, razorback sucker, bonytail chub and Colorado pikeminnow.

For a long time the operation of Flaming Gorge Dam has caused harm to native fish.

The introduction of a successful fishery for non-native trout in the dam's tailwaters is a testament to the conditions existing downstream of the dam that make the river inhospitable for native species, which require warmer water for successful spawning and survival. The reservoir traps vital sediments behind the dam, thereby inhibiting sandbar- and beach-building habitat necessary for protecting juvenile fish. The dam, which has no fish passage structure, forms a reservoir which is used and managed for a recreational sport fishery for several non-native species known to prey on endangered native fish. Conditions are marginal at best for endangered fish survival in the reservoir as well as downstream.

In 2000, Living Rivers formed a nationwide coalition to demand that BuRec fully consider the decommissioning of Flaming Gorge Dam as the most viable alternative to ensuring the recovery of native fish habitat in Dinosaur National Monument. Although a rather significant structure, Flaming Gorge Dam stores very little water, and generates an insignificant amount of hydroelectricity. Its decommissioning, along with that of the much smaller Fontenelle Dam upstream, would allow the Green River to again flow wild and free.

To obtain a copy of the draft EIS, write to: Beverly Heffernan; BuRec; 302 East 1860 South; Provo, UT 84606-7317; (801) 379-1161; Fax: (801) 379-1159; Email: bheffernan@uc.usbr.gov. Keep an eye on our web site for more detailed information once the draft EIS has been released.



Flaming Gorge Dam

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