River News 01/04/03

RRFW Riverwire - EXPERT PANEL AND STAKEHOLDER WORKSHOP DATES SET

The dates, times and locations for the next step in the Colorado River Management Plan have been announced. This step will involve stakeholder workshops and expert panels. The stakeholder workshops will cover the noncommercial trip permit system, and the spectrum of services to be provided to the public. Certain designated attributes (e.g. flexibility, simplicity, fairness, etc.) of a permit system and types of services will be rated against each other to understand what different segments of stakeholders consider to be important considerations. The Park and its CRMP contractor, SWCA, will use this expanded information in addition to scoping comments already received to craft the new CRMP.

The original concept included 10 designated stakeholder groups. Each group was to be comprised of 4 stakeholder representatives. These representatives would then participate in each of the interactive workshops. Some of the 10 stakeholder groups identified for inclusion were: non-commercial boaters, river outfitters, commercial clients, outfitting guides, wilderness groups, scientists, Native American Tribes, and ecological groups.

River Runners for Wilderness (RRFW), the Grand Canyon Wilderness Alliance, business interests and other stakeholders have voiced concerns about a lack in depth of the representation of the non commercial segment at the stakeholder workshops. While commercial boating stakeholder groups include river concessioners, commercial passengers, and river guides for a total of 12 stakeholder seats, non commercial boaters who include permit holders, passengers, non-commercial river running advocate groups and non-commercial support services all vied for a total of 4 stakeholder seats. Mary Orton, the contractor arranging these meetings, has acknowledged the noncommercial community may be underrepresented and is exploring options to address this concern raised by RRFW.

The expert panels' topics will cover allocation of user days among user groups--sure to be a lively topic--as one, and physical, social and ecological carrying capacity, group size and seasonality of recreational use of the river for the other discussion.
All expert panels and stakeholder workshops will be held at the Arizona State Capitol building in the Governor's Protocol Room, 1700 West Washington, in downtown Phoenix, and video-conferenced to a room--as yet unspecified--at Northern Arizona University in Flagstaff.

Expert Panel #1 will be held on Wednesday, January 29, 2003 from 2:00pm to 5:00pm and 6:00pm to 9:00pm. The two Stakeholder Workshops will be held Thursday, January 30, 2003 at times to be announced. The second Expert panel will held on Friday, January 31, 2003, and be from 8:00am to 11:00am and 1:00pm to 4:00pm. In addition,

the sessions will be videotaped and made available to interested persons not able to attend the Arizona meetings.

All events will be open to the public, and the Expert Panels will allow for questions by the audience. More information will be coming your way as it is made available.

RIVERWIRE is a free service to the boating community from River Runners for Wilderness. Membership is FREE! Send your e-mail address to riverwire@rrfw.org and we'll add you to the RRFW RIVERWIRE e-mail list.

To join, visit our website at www.rrfw.org

Take Action 01/22/03

Join Living Rivers to Save Grand Canyon Fish, January 28-29

The Glen Canyon Dam Adaptive Management Program (AMP) will be holding its next meeting Tuesday, January, 28 and Wednesday, January 29 in downtown Phoenix. For the past year, Living Rivers has been encouraging the AMP to be more aggressive in its efforts to being about the recovery of endangered native fish in Grand Canyon National Park. Unfortunately, the AMP continues to drag its heels, so the plight of native fish in the Canyon continues to worsen. Humpback Chub populations have declined 80 percent to just 2,000 adult fish. Razorback Suckers have now joined the Bonytail, Roundtail Cub and Colorado Pikeminnows on the extinction list. Take some time to lend your voice to call for more urgent action!

Glen Canyon Dam Adaptive Management Program
Bureau of Indian Affairs Offices
Two Arizona Center
400 N. 5th Street, 12th Floor
Conference Rooms A&B
Phoenix AZ
9:30 a.m. - 5:00 p.m., Tuesday, January 28
9:30 a.m. - 11:30 a.m, Wednesday, January 29

Agenda [65k PDF File]

Additional Information

Information on Living Rivers efforts to restore Grand Canyon, part of our:
Canyon's of the Colorado Campaign.

Living Rivers comments on proposed AMP experiments at Glen Canyon Dam.

Letter from Living Rivers to U.S. Bureau of Reclamation, October 30, 2002
Living Rivers Coalition demands action by the Glen Canyon Dam Adaptive Management Working Group to follow the law and restore Grand Canyon.

Living Rivers letter to Michael Gabaldon, Deputy Director of Operations U.S. Bureau of Reclamation, January 18, 2002
Minority opinion of Glen Canyon Dam Adaptive Management Working Group on censorship of Living Rivers coalition's comments of January 18, 2002.

Letter from Southwest Rivers et.al. to Michael Gabaldon, Deputy Director of Operations U.S. Bureau of Reclamation, January 28, 2002
Groups Call for Action to Save Colorado River in Grand Canyon National Park

Living Rivers Press Release, July 18, 2002
Canyon Changes are Crucial

Arizona Republic: January 16, 2002
Grand Canyon: Living Rivers Calls for Immediate Action

Living Rivers Currents, January 2002
Electroshock in the Grand Canyon

Living Rivers Currents, January 2002
Native Fish: Recovery or Rhetoric?

Living Rivers Currents, January 2002
Grand Canyon Native Fish: Going, Going, Gone?

Living Rivers Currents, December 2001
Grand Canyon Fish at Risk of Extinction

Living Rivers Press Release, December 10, 2001
Living Rivers Comment Letter on Endangered Colorado River Fish to US Fish and Wildlife Service, December 10, 2001

Environmental groups criticize plan to rescue endangered fish
Associated Press, December 11, 2001

Download PDF of January 18, 2002 Save the Grand Canyon" Rally Flyer
Flap over Endangered Fish

Rocky Mountain News, December 11, 2001
Resolution of the Desert Fishes Council on Colorado River Endangered Fish Recovery, November 18, 2001

Decline of the aquatic food base in the Grand Canyon Northern Arizona Aquatic Ecology Research Laboratory

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River News 01/27/03

RRFW Riverwire – GRAND CANYON RELEASES AIRCRAFT NOISE STUDY

The National Park Service at Grand Canyon has released a report titled, Aircraft Noise Model Validation Study, dated January 2003. The report completes a study to determine which of four computer models best calculates tour aircraft audibility in the Grand Canyon. The results of the study are important because computer models are the only practical means to assess progress in meeting the requirements of Public Law 100-91 to substantially restore natural quiet at Grand Canyon National Park. Audibility is the measurement used to define substantial restoration of natural quiet. The report was prepared by Harris Miller Miller & Hanson Inc., a leading acoustics consulting firm, for the National Park Service.

In the report, which can be found on the park's website at www.nps.gov/grca, and its attached appendices, the reader will find a detailed step-by-step description of all methods, data, and results of the study. This is a highly technical scientific report prepared by experts primarily for experts. Readers are strongly encouraged to start with the Executive Summary and Study Summary at the beginning of the report.

As detailed in the report, the study methodology was developed by consultant firms with comments, advice, and review by staff from federal agencies and a team of recognized experts in acoustics, statistics and scientific methods. In the Acknowledgements section, however, the authors carefully point out that the final interpretations and words in the report are those of the authors, Harris Miller Miller & Hanson Inc., and not those of any of the other study participants.

For additional information regarding this report, please contact Dr. Kenneth Weber, Grand Canyon Science Center, at (928) 638-7753 or Maureen Oltrogge, Public Affairs Officer, at (928) 638-7779.

Maureen Oltrogge Public Affairs Officer Grand Canyon National Park (928) 638-7779

LR in the News 01/27/03

Canyon's Recovery Must Rest on Science

The Arizona Republic OpEd

The Republic's January 19 editorial "Fish fight: saving chub must be more than just killing trout" is a good introduction to the plight of our state's most valuable natural

wonder, the Grand Canyon. However, continuing to allow the Glen Canyon Dam Adaptive Management Program (AMP) to control the Grand Canyon's fate, as the Republic recommends, will only speed the current death spiral of the canyon's native ecosystems.

From its inception, the AMP has opposed implementing U.S. Fish and Wildlife Service recommendations to mimic the Colorado River's natural flow regime, thereby propping up the Grand Canyon ecosystem. Ninety-five percent of the vital sediment and nutrients that would be deposited by a free-flowing river system are now trapped behind Glen Canyon Dam. Without sediment deposition, species go extinct and beaches for mammals, native vegetation and human recreation erode away. Four native fish species have already disappeared, along with river otters, muskrats and every single native insect species that formed the base of the food chain. Yet the AMP has proposed no viable plan for moving the necessary amounts of this sediment into the Grand Canyon.

Instead, AMP has undertaken a handful of experiments to try to build beaches by moving around the meager sediment that deposits downstream of the dam. The result of AMPs efforts to date is a precipitous eighty percent decline in the humpback chub population--the principle endangered fish species AMP is supposed to be recovering.

Because of these declines the AMP is now considering stocking the Grand Canyon with hatchery fish. This is not recovery. This is a zoo. Recovery implies self-reproducing native populations, not manufactured fish which cannot reproduce and which must be constantly restocked as they die off in their unnatural and inhospitable habitat.

Had the AMP been dominated by science as was presumably intended, it might have been a worthy process, capable even of achieving its objective. The AMP boasts stellar scientists producing good ideas for restoring the Canyon. Scientists, however, have taken a backseat to AMP politics, restricting recommendations to those that are politically acceptable, else risk having AMP's funding cut.

Dominated as it has become by state water engineers, industrial irrigators, and hydroelectric merchants, the AMP has been unwilling to support the changes in Glen Canyon Dam operations necessary to reverse Grand Canyon's ecological decline. The AMP players that are truly concerned with environmental restoration are simply politically outmuscled by those who wish to retain the status quo of abusing the Colorado River system for water and energy profits.

While society has an array of technologies to meet water and energy needs, we have only one Grand Canyon. If this natural wonder is going to be protected, the AMP must be replaced with a purely scientifically-based advisory panel. Its first task must be to produce an Environmental Impact Statement considering a full range of alternatives for Glen Canyon Dam operations, including those which will be truly effective in recovering Grand Canyon's native habitats. Only through such unbiased research and recovery programs driven by scientists rather than politicians will Grand Canyon's ecosystem have any hope of salvation.

The AMP participants convene here in Phoenix this week. At the January 2002 AMP meeting, the environmental group Living Rivers exercised their right to become involved in this taxpayer-funded process by presenting a document requesting some specific definitive actions on behalf of the collapsing Grand Canyon ecosystems. A full year later AMP leaders have still not replied. Arizonans, this is our Canyon, our tax dollars and our opportunity to demand results. Attend the AMP meeting this year and insist on real protection for the Grand Canyon.

Lisa Force, Program Director, Living Rivers For more information on the AMP meeting: www.livingrivers2.org

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River News 01/28/03

RRFW Riverwire – COMMENT ON PWC USE IN GLEN CANYON NRA

This is a second comment opportunity on proposed PWC use in Powell Reservoir. The Bush Administration has proposed a rule which allows personal watercraft (PWC) operation on nearly all of Glen Canyon NRA. The ruling was published on January 17th. The administration made this decision despite the fact that the NPS' recent environmental review of PWC use at Glen Canyon found that the thrillcraft damage park resources and wildlife.

Also, there is a disproportionate acreage of the NRA open to PWC use, which is simply unfair to the majority of visitors who come to the recreation area to enjoy more contemplative forms of recreation like swimming, hiking, fishing, canoeing, kayaking, and wildlife viewing. The ruling comes despite continued overwhelming comments against personal watercraft (Jetski®) use at the National Seashore and various Parks, including Glen Canyon National Recreation Area.

PWC recreation causes significant damage to air and water quality, visitor enjoyment, public health and safety, natural soundscapes, and wildlife. At Cape Hatteras, PWC operation was the number one source of visitor complaints before the machines were finally banned there. In some instances, PWC activity and its proven threat to personal safety pushes other forms of recreation such as swimming or bird watching off a waterbody.

This is discriminatory. If you feel a full ban on PWCs in Glen Canyon NRA is the only appropriate action, please send your comments to Kitty Roberts, Superintendent of Glen Canyon National Recreation Area, and tell her that you support protecting the irreplaceable resources and wildlife of Glen Canyon from personal watercraft.

Letters should be sent to glca_pwc@nps.gov or to the address below. Superintendent Kitty Roberts Glen Canyon NRA PWC Rule-Making Box 1507 Page, Arizona 86040 RE:

RIN 1024-AC90, Comments on Draft PWC Special Regulations Had a close call or negative experience with PWCs after an otherwise idyllic Cataract Canyon trip? Include that in your letter to Supt. Roberts, along with other personal observations.

River News 02/04/03

RRFW Riverwire - LAKE POWELL DRAINED 50%

LAKE POWELL DRAINED 50%--FOUR YEARS TO GO! MARINAS LEFT HIGH AND DRY, CONCESSIONAIRES CONTEMPLATE PULLING OUT
Lake Powell reservoir is down 86 feet from normal, equating to a reservoir that is half full. The National Park Service, which manages marina facilities at Lake Powell, is busy trying to make adjustments with the hope that they can still accommodate visitors at some locations. Meanwhile, the recently approved $70 million Antelope Point Marina project is in jeopardy of never being used.

Now in the fourth year of an anticipated sustained drought, Lake Powell reservoir will soon be empty. Forecasters have informed the Park Service that the reservoir levels will only be getting lower. The reservoir is dropping faster than it can be replenished. Even when the snow begins to melt this spring, the reservoir is not expected to rise any higher than where it is right now. By July, the reservoir will again start dropping.

The United States Geological Survey 2002 report on Southwest climate change predicted that the Colorado Plateau would be heading into a 30-year period of below average river flows. Previous estimates by forecasters, on the impacts of such a sustained drought, calculated that Lake Powell would be drained within eight years. It's right on schedule. In July 1999, Lake Powell was at 90 percent. As of February 1, 2003, it was at 50 percent.

If the present drought does not relent, Lake Powell will eventually drain to the level of the penstock tubes that spin the generators at Glen Canyon Dam. According to a model that was published in October of 1995 in the Water Resources Bulletin, if a severe and sustained drought similar to the drought of the late 16th century appears, Lake Powell could stay drained for eight years.

"We're witnessing the end of Lake Powell right now," says Living Rivers' Conservation Director John Weisheit. "This was predicted, and nothing the National Park Service or the marina operators can do will change this."

o At present three of the concrete boat ramps have been closed: Antelope Point, Stateline and Hite Marina. For Stateline, the concrete ends where the wet sand and mud begins; it was officially closed on February 3. For Hite Marina, river sediment closed the concrete ramp and an alternative ramp on gravel began in the autumn of 2002. This alternative ramp too is now closed due to sediment fill from the Colorado

River. Antelope Point's ramp was the first ramp to close last year, just three years after construction in 1999.

o A $3 million emergency appropriation was made in January to extend boat ramps at Bullfrog, Hall's Crossing and Wahweap marinas. It is unclear, however, how far these ramps will be extended, or if additional funding will be sought to extend them all the way to the bottom as levels continue to drop.

LR Press Release 02/04/03

Living Rivers Welcomes New Outreach Coordinator

High-Profile Environmental Group Hires Outreach Coordinator To Target Colorado River Delta Issues as Drought Situation Worsens

As declining reservoir levels and water scarcity concerns multiply across the state and into Mexico, Living Rivers is pleased to announce the arrival of Michelle Pulich Stewart to the Arizona office, based in Scottsdale.

Before joining Living Rivers, Ms. Pulich served in a variety of non-profit, academic and government roles pertaining to resource management and habitat restoration, including: Lady Bird Johnson Wildflower Center, Texas Parks and Wildlife Dept, Maricopa Community Colleges, Sierra Club, Center for Biological Diversity and Sierra Madre Alliance.

“I’m pleased to be bringing both my research and on-the-ground organizing experience to the mounting ecological crises and restoration needs of the Colorado River here in Arizona and across the border into Mexico," says Ms. Pulich. “Even should drought conditions persist, there is more than enough water to meet the state’s human and ecological needs, but the public has not been exposed to the river management options available to achieve such a balance. I look forward to helping make that happen," adds Ms. Pulich.

Her formal education includes both a B.A. from Rice University and a Master’s degree in Environmental Resource Management from Southwest Texas State University, although she has found, streambeds, canyons, prairies, and prescribed burns to be striking repositories of knowledge.

“We are certainly excited about adding Michelle to our team," says Lisa Force, Living Rivers’ Program Director. “Her teaching experience and activism history will be valuable assets to our efforts to bring about sustainable Colorado River management here in Arizona as well as delta restoration.”

Ms. Pulich also enjoys backpacking, yoga, gardening, and of course, floating down rivers. Ms. Pulich will be married to Alex Stewart in late May of this year.

Living Rivers works to mobilize people to protect and restore the integrity of rivers and watersheds.

LR Press Release 02/04/03

Lake Powell drained 50%--four years to go!
Marinas Left High and Dry, Concessionaires Contemplate Pulling Out
Contact:

John Weisheit (435-259-1063 or 435-259-8077)

Lake Powell reservoir is down 86 feet from normal, equating to a reservoir that is half full. The National Park Service, which manages marina facilities at Lake Powell, is busy trying to make adjustments with the hope that they can still accommodate visitors at some locations. Meanwhile, the recently approved $70 million Antelope Point Marina project is in jeopardy of never being used.

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- Potable water is becoming a problem at Hite Marina. The site draws its drinking water directly from the reservoir, treats it and then stores it in tanks for consumption. But the intake buoy is about to go aground and needs to be extended into deeper water. Besides being expensive to modify the intake, there is no assurance that deep water can be maintained as Lake Powell's delta continues to advance beyond the bay at Hite.

- The planned marina at Antelope Point will find a 500-foot cliff being exposed where the second launch ramp is proposed. Calls to Antelope Point Holdings and their engineers, revealed no comment to the feasibility of the project. According to the National Park Service, construction was supposed to begin in March, but it has now been delayed to at least May.

- The problems at Hite Marina are causing the concessionaire, Aramark, to question whether they should shut their Hite operation down altogether. To preserve the marina may require moving it, a cost Aramark may not wish to incur. No decision has yet been taken. With visitation through Glen Canyon National Recreation Area dropping by 10 percent per year, Aramark may be looking to pull out of the other marinas as well.

- The fate of the white-water rafting industry, which concludes trips at the top of Lake Powell, is also a major question. With sediment and mud clogging the marina and boat ramp at Hite, rafters will have a very difficult time getting off the water.

"As the drought persists, it is going to be very difficult, if not impossible, to conduct business as normal with the river and reservoir users. This includes the Grand Canyon river runners who will lose the large Glen Canyon Dam releases they need to run their large motorized boats through the canyon only to arrive at the sediment-choked Lake Mead," adds Weisheit.

Lake Powell is not the only problem. The entire Colorado River storage system has droped from 92 to 60 percent over the past 40 months. "Lack of access to flat water recreation is the least of our worries," concludes Weisheit. "The Southwest plumbing system is headed for complete catastrophe, and the Bureau of Reclamation and the seven states that use Colorado River water have no disaster preparedness."

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Web pages on Southwest climate change:

Severe and Sustained Drought for the Colorado River Watershed

Precipitation History of the Colordo Plateau

River News 02/07/03

RRFW Riverwire – NO WILDERNESS BILL WITHOUT THE RIVER

WILDERNESS COALITION DISCOURAGES LEGISLATION By Brad Fuqua Grand Canyon News Editor Sunday, February 02, 2003

As the next phase of the Colorado River Management Plan process gets ready to begin today in Phoenix, the Arizona Wilderness Coalition believes there could be something happening behind the scenes in Washington. Kim Crumbo, Grand Canyon regional coordinator for the Arizona Wilderness Coalition and former National Park Service river guide, said the federal agency's congressional liaison office in Washington has wilderness designation legislation on its docket, although "not signed off."

"The only way a wilderness bill would pass this Congress is to eliminate the river from wilderness consideration or grandfather in motorize use," Crumbo said Thursday. "All this should take place in the planning process ... why the Park Service is considering wilderness legislation at this time makes us suspicious. We're asking them to just pull it; let's wait until the appropriate time."

Grand Canyon National Park sources, including CRMP planning leader Rick Ernenwein, said they were not aware of any legislative activity in Washington. Therefore, they could not comment on AWC's information.

In a press release dated Jan. 22, the AWC claims the potential legislation "could blindside the American people with a 1.1-million-acre wilderness proposal that removes the Colorado River from wilderness protection, thereby ensuring continued ecological damage from large crowds and pollution from motors." "We just want all that to stop until the public involvement process is completed," Crumbo said. "It's inappropriate to be pursuing this before the public process runs its course."

The AWC supports recommendations to not decrease use on the river, but spread it out over a longer time period while eliminating motors. At the same time, Crumbo said commercial allocations could remain the same while the cost of a river trip could become more affordable and available to more people.

River outfitters have a different set of recommendations on the issue to support their beliefs and Crumbo said they "have the best arguments." "We'll see what transpires,"

Crumbo said. "It should go on for another full year." In the meantime, the AWC planned to encourage people to attend this week's expert panels and workshops in Phoenix and Flagstaff.

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River News 02/14/03

RRFW Riverwire – LAWSUIT FILED TO START DESCHUTES COMMON POOL

A group of Deschutes River users filed suit Thursday, February 13th against Oregon's Department of Parks and Recreation (OPRD) and director Mike Carrier. The suit contends that the OPRD has violated Oregon law with its current role and stance in delaying implementation of a "common pool" permit system, that provides equal access to all, as called for in the Lower Deschutes River Management Plan (LDRMP).
The motion was filed by the Northwest Rafters Association (NWRA), and Mark Shuholm representing the general public. This action is also being supported by National Organization for Rivers (NORS), River Runners for Wilderness, and the American Canoe Association (ACA).

The Plaintiff's position is that full implementation of the LDRMP will insure the greatest level of access to the Deschutes River by the general public for generations to come. A failure to immediately implement the LDRMP, as currently written and required by Oregon Law, jeopardizes future access by the general public to this public resource.

Under the guidelines of Oregon State Statue ORS 390.934, the LDRMP and its supplement were developed over several years with input from the OPRD, BLM, The Confederate Tribes of the Warm Springs Reservation, other government agencies – as well as the general public. The Lower Deschutes River Management Plan was finished in 1993 and the supplement in 1997. Both the LDRMP and the supplement were adopted by the OPRD under administrative rule OAR 736-040-0070. The LDRMP and its supplement call for implementation of a limited access "common pool" permit system once certain trigger levels of use have been reached for various segments of the river. A "common pool" system offers equal access to all parties – without preference given for any specific group or interest. If and once these trigger levels of use are reached for any year, then a "common pool" permit system is to be implemented the following year. Levels of use that would trigger implementation of the "common pool" permit system were reached in 1997, 1998, 1999, 2000, 2001, and 2002. Although the LDRMP has therefore called for implementation in each of the years 1998, 1999, 2000, 2001, 2002, and 2003, the OPRD has not taken the legally required action relating to implementation of the system.

Further, the OPRD is currently promoting an agenda counter to that outlined by the LDRMP. At a November 14th meeting of managers from the various agencies, the OPRD proposed a 3 year further delay in implementation of the "common pool" permit

system - as well as re-introducing the topic of a “split allocation” permit system - a system that would guarantee access to commercial interests by limiting access to the general public.

The Suit asks that the OPRD be found to have unlawfully refused to act and unreasonably delayed taking action in implementation of the LDRMP - and that the OPRD be compelled to implement the “common pool” permit system for the 2003 season.

LR in the News 02/16/03

From panic to denial on water: Reactions to crisis disparate in Four Corners states' plans

By Michael Booth

Denver Post Staff Writer
Sunday, February 16, 2003 - The multiyear drought in the Four Corners states has brought sacrifice to some cities and recreation areas, and a mere shrug of the shoulders from others.

From Salt Lake City to Aurora, and Albuquerque to Phoenix, water managers and their constituencies react to the absence of snow with the full range from panic to denial. Some scramble to prop up reservoir levels at all costs; others argue the definition of "reservoir" is a bank of water that gets drawn to zero in dry times.

Phoenix will exhaust its local reserves this summer.

Yet Rocky Mountain snowmelt coming down the Colorado River means the largest city in the Southwest has no lawn-watering curbs. Well-soaked residents even plant a winter variety of seed over their dormant summer bluegrass to ensure green color all year.

At half-full Lake Powell, the water playground for millions of Westerners, boaters this summer might want a taxi to get from the marina to the fast-receding Colorado River water. But the lucrative tourist season looms, and National Park Service officials contemplate blowing up a rock formation uncovered by the drought at the Arizona end so this summer's demanding boat traffic can avoid a 7-mile detour.

The Southwestern approach to drought is "definitely head-in-the-sand," said Owen Lammers of Utah-based environmental group Living Rivers, which is sharply critical of how federal dams and what it calls greedy cities rearrange Western water flows. "We're characterizing this as the Enron of water management. The government keeps saying lake levels will get better, and the reality is that things are going down, down, down."

The wide variance in public water restrictions can deflate conservation efforts by prompting complaints of unfair treatment and downstream waste, water experts said. And even if downstream draws from the Colorado River are legal, they may injure streams or lakes in a way that everybody has to pay for in the future.

"The river that many of these states depend on is being overtaxed, so despite what your rights are, there are reasons here to be concerned," said Bart Miller, water projects director for Land and Water Fund of the Rockies. "It strikes the average citizen as unfair or strange when others are using much, much more water."

Cities with looser water policies defend the lack of rules as a benefit of well-secured supplies.

"All these decades of planning for water resources and storage have paid off," said Ken Kroski, spokesman for the Phoenix water supply, where the main reservoir for the perpetual boom city is down to 14 percent of capacity. As Aurora tells people they can't plant a single flower this spring, and Denver ponders a year-round shut-off of lawn sprinkling, Phoenix is still in Stage 1 of its drought plan, asking for voluntary 5 percent cutbacks in home water use with no rules for what days to water.

Knowing there will be no water available from Arizona snowmelt or rain this summer, Phoenix is confident its share of Colorado River water coming down the cement channels of the Central Arizona Project will be more than enough for city lawns in 2003.

Checking in with other cities shows just how disjointed Western water policy can be - while Denver, Phoenix and Salt Lake City watch their reservoirs drain, Albuquerque will switch from more predictable well water to a new reservoir system over the next three years.

Santa Fe drivers can't drive through a car wash more than once a month. Tourists to the high- desert jewel won't get their hotel sheets changed until their fourth day.

Currently in Albuquerque, "when it's dry, we just pump more from the aquifer," Mayor Marty Chavez said. "But we're depleting the aquifer. We can get away with it for a summer or two, but not in the long term."

Realizing the underground supply may be used far faster than it is recharged by runoff, Albuquerque sought voluntary water savings last summer - of only 3 percent to 5 percent, a far cry from Denver's goal of cutting use from a normal year by 30 percent.

Around the Four Corners, these cities and recreation areas hope for snow with varying degrees of fervency:

Phoenix: Open taps in the desert

Phoenix has some of the lowest water rates in the West, and the only mandatory cut in effect right now is a 5 percent slice from government use.

"A lot of people automatically and incorrectly associate the desert with no water," Kroski said.

But the free-flow philosophy permeating Arizona does frustrate some water officials, including Phoenix's conservation coordinator, Tom Babcock.

"There really hasn't been a debate on more restrictions," he said. "It's ludicrous when you consider we're in the Sonoran Desert."

Phoenix did try a stair-stepped system for water rates, raising the fee per 1,000 gallons every time homeowners reached certain benchmarks. (Denver operates under that system, with drought surcharges added on top.) It didn't work for Phoenix, Babcock said, putting a disproportionate burden of the rates on lower-income residents with large families "and the crummiest plumbing."

The city is now back to a seasonal rate, charging more in summer for water than the winter base rate.

Even without water dribbling down from Arizona sources, Phoenix claims it has plenty of supply in the next few years because it draws a major allocation from Colorado River dams under federal interstate compacts. Siphoned off from Lake Havasu at the Central Arizona aqueduct project, most of the water for Phoenix this year will be Colorado snowmelt.

Salt Lake City: Bracing for the worst

Salt Lake City ends up with some water from the Colorado River basin, pumped across the Wasatch mountain range, but relies most heavily on snowfall in its famous ski areas to melt and flow down Deer Creek. Until late last year, Salt Lake had avoided the more severe droughts seen in neighboring states.

Now the city is preparing for the worst, water spokeswoman Stephanie Doerr said. Last year, it made up for shortfalls in its own basin through water purchases from the Central Utah Project, which brings Colorado River basin water under the Wasatch mountains. "That water just isn't available this year, because no one else has water, either," Doerr said.

Preparing for a hot summer, Salt Lake expanded the months for its higher summer water rates, recognizing what Denver saw last year in people watering heavily from May through October. The city also wants a stepped rate structure this summer, charging more for higher use, and will also start water meters "from the first gallon" rather than allowing a free minimum on each bill.

"We're nowhere near cracking this drought," Doerr said. "There is no winter. It's just not happening."

Lake Powell: Scrambling to stay afloat

Lake Powell has fallen to levels the massive Utah and Arizona reservoir hasn't seen since it was still filling up in May 1973. Last year, for the first time, Lake Powell did not

rise at all in the spring: Because the reservoir had to keep releasing water downstream to satisfy calls in California and Arizona, snowmelt running in added nothing to the pool. The same is likely to happen this spring, meaning the recreation pool starts low and will get lower.

Lake Powell is shutting some boat launch ramps and extending others with gravel, while considering what to do with entire marinas left too high and dry. At the southern end, the Castle Rock cut allowing boaters from the Wahweep marina to save 7 miles of travel now juts up above water, and the Park Service is debating whether earthmovers or explosives should be used to reopen the channel.

Environmentalists heckle the idea of going hard-rock mining to find more water, calling it typical of the way governments have deformed Western waterways in catering to jet skis and lawn sprinklers.

"In the name of emergencies, they'll do that kind of thing and ask questions later," said Lammers of Living Rivers. "Given the climatic conditions, we're going to be looking at a major crisis very soon."

Other cities need to think twice, though, before pointing fingers at Phoenix or Lake Powell management, said Barry Worth of the U.S. Bureau of Reclamation's Glen Canyon Dam office. If it weren't for water-banking systems such as Powell and Mead, upper Colorado River states such as Colorado and Utah would have to let far more river water go by their land this summer to satisfy compacts guaranteeing flows to California, Arizona and Mexico.

"Sometimes people will say, why does somebody in Colorado or Wyoming care about Lake Powell, because it's long gone from our state," Worth said. "It just happens to be where their insurance account resides."

Santa Fe: Cracking down on users

Santa Fe got serious about drought response before many Southwestern cities knew they had a problem, implementing its current severe stage of curbs on April 10.

Restrictions there include no new plantings of perennials and flowers, delaying hotel sheet changes, no washing of cars at home and only once a month at a commercial wash, one-day-a-week lawn watering and heavy surcharges. While Denver charges $1.90 on each 1,000 gallons of water over 20,000, Santa Fe charges $25.

Also in Santa Fe, water caught fleeing the scene of a crime - a leaky or misdirected lawn sprinkler - is officially dubbed "fugitive water" and can cost the homeowner a hefty ticket.

City reservoirs are 29 percent full, compared with 65 percent in the comparable season of an average year, spokesman Juan Rios said.

A major portion of Santa Fe water comes from wells mining the aquifers connected to the Rio Grande, but depleting those is a major concern, Rios said. Two more months of

drought will force the City Council to consider a complete watering ban or even a building moratorium, he said.

"We started out the winter very well. But it seems El Nino dried us up and left us hanging," Rios said.

Albuquerque: Switching philosophies

Albuquerque is overhauling both its physical and cultural approaches to water.

Over the next three years, the city will switch from well water to surface water, captured in reservoirs near the New Mexico-Colorado border and brought down the Chama-Rio Grande river systems. That means Albuquerque residents will be praying just as hard for Colorado snowfall as the residents of Denver do, Mayor Chavez said.

Environmental groups, however, question the new draws from the Rio Grande because they may further endanger the silvery minnow and other river life.

The cultural overhaul will take longer, Chavez added. "For years our building codes required X minimum amount of grass. We've changed that, but the cultural shift has been a little slow. It's hard to tell businesses to plant grass, then two years later say, take out your grass. Getting there takes time," Chavez said.

Las Vegas: Light on the restrictions

Las Vegas doesn't fall under the Four Corners moniker, but draws 88 percent of its water from the all-important Colorado River system through Lake Mead.

But one river doesn't make one uniform policy - under current drought restrictions, Las Vegas homeowners can water lawns every other day this coming summer, even though natural rainfall at 4 inches a year is less than one-third of Denver's.

The Las Vegas conservation program focuses on stopping water waste although a citizens advisory committee is considering small drought surcharges for this summer's water rates, said spokeswoman Tracy Bower.

Denver Post staff writer Michael Booth can be reached at mbooth@denverpost.com or 303-820-1686.

LR Event 02/23/03
Hear the Echo...

50th Anniversary Yampa & Green River Trip, June 2-6, 2003

In June, 1953 Living Rivers' co-founder, the late David R. Brower, launched the modern-day river advocacy movement with a trip down the Yampa and Green Rivers in Dinosaur

National Monument. His objective, which was achieved, was to raise awareness to defeat the proposed Echo Park Dam and to save the Monument from inundation.

Join Living Rivers and the Colorado Riverkeeper, in association with Holiday River Expeditions and other leading Colorado watershed advocates, as we relive this historic trip and launch a new initiative to save Dinosaur from the much slower death caused by Flaming Gorge Dam upstream. The trip is limited to 25 people, so act quickly. The cost is $1,000.

Participants in this river trip will include activists and naturalists who will openly share their river knowledge with you and your friends. We will discuss the river campaigns of the past and the present, and keep our river ecosystems healthy and our national parks protected. These respected members of the river community include:

Dr. Roderick Nash, who wrote the conservation classic *"Wilderness and the American Mind,"* will row his beautiful wood dory through the towering sandstone cliffs of the Yampa River. The most remarkable cliff face is called Tiger Wall, where tapestries of desert varnish color the surface like the fur of a Bengal tiger.

Jeff Ingram was hired by David Brower when he was the executive director of the Sierra Club, and specifically to help him with the campaign to keep dams out of the Grand Canyon. Mr. Ingram is currently writing a book about this successful campaign and will share this knowledge around the evening campfires after a satisfying dinner.

Dee and Sue Holladay founded Holiday River Expeditions in 1965 and have completed hundreds of river trips in Dinosaur NM. They will share their intimate knowledge of the human and natural history of Dinosaur National Monument as we hike to places of interest.

Kim Crumbo is a famous Colorado River boatman and professional river guide. He is also a passionate advocate of wilderness protection for the river corridors of the Colorado River basin. He is also a respected historian and naturalist, and the author of an excellent river guide that focuses on the human history of the Grand Canyon.

John Weisheit is the trip leader of this expedition and another long-time river guide of the Colorado, and a strong advocate for a free-flowing Green River. He has co-authored a book about the Colorado River in Canyonlands National Park, which will be issued

soon by the University of California at Berkeley. The Waterkeeper Alliance recently designated John as the Colorado Riverkeeper for his dedication to protect this endangered watershed.

For more information contact John Weisheit at (435)259-1063.

Holiday River Expedition's home page

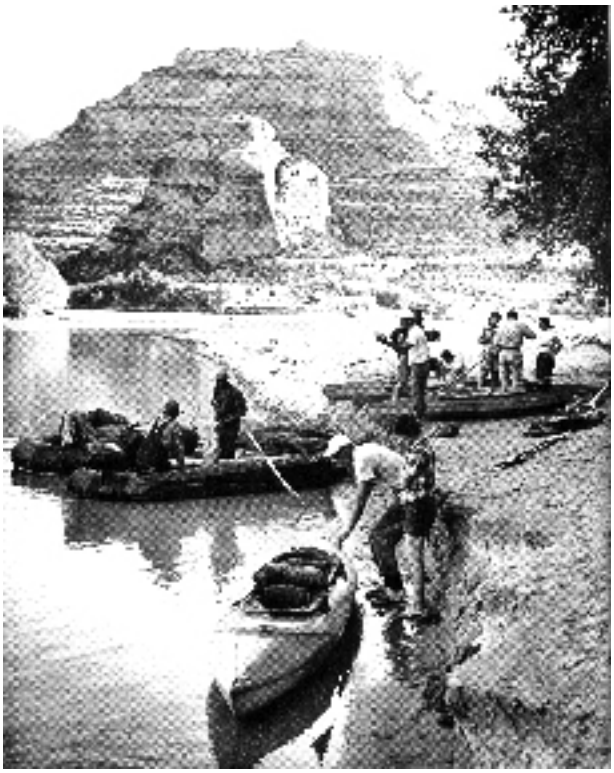
Holiday River Expedition's Yampa River trip

Maps of Dinosaur National Monument

Living Rivers' scoping comments on the Flaming Gorge Dam EIS

PDF of Hear the Echo flyer [592 PDF File]

The History of the Echo Park Dam Controversy and the Birth of the River Protection Movement



The Bureau of Reclamation (the Bureau) became a very bold bureaucracy after the completion of Hoover Dam on the lower Colorado River. With the construction of that high dam, the Bureau was transformed into a government-owned business that provided electricity for the consumer market, which was a deviance from its original mission to provide irrigation water for farmers. This set a precedent for the United States government, because it could now compete with private industries and with its infrastructure subsidized by the US taxpayer.

In later years that boldness took another step, just like an expanding corporation, in the form of a search for new dam sites and with the assistance of western, pork barrel politicians. The Bureau tested the waters, so to speak, by proposing that a dam be built in Glacier National Park, which, as all national parks are, protected by the Organic Act of 1916. That cornerstone Act mandates that park values be forever left "unimpaired by man." That plan rightfully met stiff opposition and the Bureau immediately acquiesced, but did not relent. They decided to try their luck with Dinosaur National Monument, which is protected under the Antiquities Act of 1906.

A certain professor at Harvard University, who had received the Pulitzer Prize for a history novel, steamed under his collar when he heard about the Bureau's continued aggression on our national treasures. His name was Bernard DeVoto, born and bred in Ogden, Utah, and he wrote a scathing article in 1950 for the *Saturday Evening Post* and sparked a movement to save river ecosystems that continues to this day.

In 1952 the Sierra Club hired its first executive director, David Brower, from Berkeley, California. Brower went to work immediately to further build the grassroots campaign that DeVoto started. He formed a coalition of conservation groups that included the Wilderness Society and the Issac Walton League. He involved another professor and Pulitzer Prize winning author from Stanford University, Wallace Stegner, to edit a book called *This is Dinosaur*, that would eventually end up in the hands of every member in Congress. Brower also organized week-long river trips to show Sierra Club members and supporters what was to be destroyed should the Bureau's dam be built. The campaign was successful by using all these organizing components and, by 1956, a vexed Congress killed the authorization to build Echo Park Dam.

Undaunted, the Bureau continued in their relentless campaign to build dams and power plants at the sacrifice of river ecosystems and taxpayers. In 1959 Floyd Dominy, from Wyoming, was appointed as the Bureau's commissioner and would match the organizing skills of David Brower, but in a contrary, top-down fashion. Audaciously, he envisioned building dams in the Grand Canyon, the most sublime canyon on the planet. Since dams could not be built in lands protected by the National Park Service, Floyd would build them above and below these protected lands. At that time Grand Canyon was a smaller national park, centered at Grand Canyon Village near the south rim.

Brower didn't waste any time and countered Dominy at every turn to successfully stop these two dams from being built and by using the same grassroots organizing skills as before. But a new twist was added to the campaign, which included a full-page ad in the *New York Times* and the *San Francisco Chronicle*. The ad's headline said, "Should we also flood the Sistine Chapel so tourists can get closer to the ceiling?" In 1975, Grand Canyon Park was enlarged and brought under the protection of the Organic Act.

Unfortunately, Brower was not successful in stopping the construction of Glen Canyon Dam. Before he died, in November of 2000, he launched yet another grassroots campaign to decommission this dam before its scheduled 100-year life span is completed; when sediment reaches the intakes of the emergency bypass tubes. On March 14, 2000, on the third "International Day of Action Against Dams, and for Rivers, Water and Life" held at Glen Canyon Dam, Brower, participants and 60 other environmental groups signed the "Glen Canyon Declaration." This document promises to restore the Colorado River in Glen and Grand Canyons to their full natural heritage by means of a grassroots campaign, that includes doing river trips.

Please consider your attendance on our Yampa River expedition, June 2 – 6, 2003, to commemorate a fantastic and exciting future for river restoration.

John Weisheit
Colorado Riverkeeper

Take Action 02/26/03

Living Rivers Director Runs for Sierra Club Board

Living Rivers and the Sierra Club have long shared some common goals, primary among them the restoration of Glen Canyon and the preservation of the currently threatened Grand Canyon ecosystems. So when the Sierra Club's nominating committee asked our own Lisa Force to run for a seat on the Club's national board of directors, it seemed a natural fit.
Ms. Force accepted the honor and is on the ballot for the 2003 Sierra Club Board of Directors. She is running with four other candidates on a slate which promotes an aggressive conservation agenda. The five candidates on Ms. Force's slate will be running against eleven other candidates for the five open board seats.

The other candidates on the slate are: Connie Hanson Gordon LaBedz Nancy Rauch Don Young

Please watch for your ballot statement from the Sierra Club, via mail or email, in the first week of March, and vote to save the planet!

Ms. Force's ballot statement is below. To access the statements of the other four candidates, please see www.johnmuirlives.org.

Sierra Club Ballot Statement:

LISA B. FORCE
Residence: Scottsdale, Arizona
Occupation: Program Director, Living Rivers
Contact: 480-990-7839; LForce@LivingRivers.org
Current Member since: 1998

Background:
Originally from Colorado, I've lived in Arizona for 15 years where I've worked for two leading environmental organizations, fighting for protection of endangered species and restoration of the Grand Canyon, Glen Canyon and the Southwest's wild rivers.

- Previously, owned a successful management consulting business for 8 years
- Longtime Sierra Club activist on sprawl, wilderness, energy and water issues
- Led grassroots activists in anti-logging campaigns
- Defeated state anti-wildlife referendums
- Successfully negotiated with government agencies for river and wildlands restoration
- Launched a Western Grazing Reform program

- Featured in National Geographic and BBC documentaries highlighting US/ Mexico environmental issues
- Education: MBA; Bachelor of Science.

Endorsements include current Board members Marcia Hanscom, and Ed Dobson – who says: "Lisa Force is the fastest rising star in the Sierra Club's firmament. She has the skills, passion, and tact to excel at the most demanding of Club positions. We are blessed that she is ready and willing to serve."

Statement: My success in grassroots activism, plus strong business experience, will be assets to the Board. I need and appreciate your vote! Key committees in the new Congress are now chaired by stalwart allies of polluting industries, taking deadly aim at our forests, the Arctic, Yellowstone and more of our last wild places. We must unite now to stop Bush's attack on the environment. We must recruit more Sierra Club members, strengthen our legal tactics and promote aggressive on-the-ground activism. I'll champion Club efforts to defend hard-earned achievements, while creating and taking advantage of new advocacy opportunities at Chapter and National levels.

I'll help the Club achieve a groundswell of action to awaken and motivate the American people to:

- Aggressively protect our parks and wilderness areas;
- Uphold and strengthen environmental legislation;
- Protect public lands from development;
- Promote sustainable agriculture; and
- Create livable, sprawl-free communities.

I'll use my environmental advocacy skills, extensive fundraising background and experience as a successful businesswoman to promote a national agenda that will make the Sierra Club an even more powerful force by:

- Making sure Chapters and Groups get the resources they need. We must use every dollar more efficiently.
- Mobilizing all environmentally concerned citizens to support Club efforts, through expanded grassroots activism and media campaigns.
- Maintaining our strong Outings Program.
- Listening and responding to our members.

I want to hear from you how I can help make the Club work for you. Please contact me!

LR in the News 02/27/03

The Lake Effect

by Christopher Smart
The Salt Lake Tribune

BULLFROG -- Tourism promoters as well as environmentalists who despise Utah's largest reservoir agree on one thing: This is the year to visit Lake Powell.

Thanks to record-low lake levels, new beaches and eye-popping sandstone formations hidden underwater for years have surfaced.

The Lake Powell recreational experience, tourism promoters boast, is as breathtaking as ever. And this year promises to be the best bass-fishing year since 1996 along the reservoir's 2,000 miles of shoreline, say state fisheries biologists.

Meanwhile, environmentalists who favor decommissioning Glen Canyon Dam and draining the Colorado River water it impounds say chances to visit Powell are dwindling. If the drought continues for four more years, they contend, there will not be a Lake Powell. So those wishing to visit the lake should not wait any longer.

Boat ramps at Bullfrog in Utah and at Wahweap in Arizona have been lengthened to reach the receding waters. Now at a record low of 3,612 feet above sea level (equivalent to the low mark set 10 years ago), Lake Powell still provides excellent boating and fishing and superlatives still cannot describe its natural wonders.

However, the lake does not snake up its many narrow canyons as far as it did last summer, according to Morris Christensen, Bullfrog boat-rental manager. In the past, boaters navigating Forgotten Canyon could dock just below the Anasazi ruin known as Defiance House. This year visitors must hike a half-mile up the canyon to reach the ruin.

"It's so weird to come to a place where you were swimming last summer and now there's no water," Christensen says.

In the creek bed below Defiance House, green grass stands in bright contrast to the red rock walls and the 86-foot-high whitish bathtub ring that defines the drought and the diminished waters.

At Hite, where the Colorado River enters the reservoir, acres of mucky silt have sprouted weeds. The boat ramp has been moved several times, but the National Park Service and Lake Powell marina operator ARAMARK are just about out of moves until the water rises. In addition, pumps that supply the Hite community with culinary water from the lake must be moved before the silt clogs them. Boat ramps at Stateline and Antelope Point are closed.

But Dan Resmondo, the director of operations for ARAMARK's North Lake Powell marinas, says it is business as usual. "It's normal operation for us to follow the lake up and down," he says. "We're seeing the same levels we saw in February 1993."

"From a recreation standpoint, it gives a different perspective," Resmondo says. "The canyons look different. If you haven't been here for a while, it will look quite different and provide a new experience." Certainly Bullfrog does not look like it did four years ago, when the lake was at a record high of 3,698 feet. What once was a narrow waterway between Bullfrog and Halls Creek now appears as a hill. Four years ago, the dock was

not far from the marina store. Now, it's a quarter-mile away and looks to be sitting in an empty redrock basin surrounded by dusty buoys.

The Lake Is Open: The National Park Service will spend about $2 million refurbishing and lengthening boat ramps at Bullfrog, Wahweap and Halls Crossing, says spokeswoman Char Obergh.

"We want people to know the lake is open," she says. "There may be some delays in launching, but we're doing everything we can to make it a good experience."

Lake Powell consistently ranks as the second- or third-most-popular Utah tourist attraction. Last year visitation dipped to 2.1 million from 2.3 million in 2001, says Jon Kemp, Utah Travel Council research analyst. He blamed the downturn on the aftermath of 9-11, as well as a perception that the lower water level hinders boating and the scenic experience.

However, the 200,000-visitor drop did little damage to the state's $4 billion tourist economy, Kemp explained. "It's almost impossible to quantify any economic impact" from the 9 percent drop in Powell visitors.

All that could change, argues John Weisheit of Living Rivers, an environmental organization that favors draining Lake Powell. If the severe drought persists for four more years, he notes, the reservoir will effectively be drained -- dam or no dam.

"It's going to continue to drop. And it's going to drop dramatically. The boat ramps are going to run out of topography," he says.

That may sound like a wild claim, but it is not out of the question, concedes Andrew Gilmore, hydraulic engineer for the U.S. Bureau of Reclamation. "It's conceivable that we could run out of water at Lake Powell. If we had another four years [of drought], we'd be awfully close," he says.

According to bureau calculations, the lake level will fall until the spring snow runoff, when the water will begin to rise, Gilmore says. "Our current inflow forecast has Lake Powell dropping another seven feet until April, when it will begin to fill up."

But unlike 10 years ago -- when the lake level jumped by 60 feet during a spring with substantial snowpack across the Colorado River drainage system -- this year's melt will be modest. "The snowpack is fairly meager across the whole basin," Gilmore says. "Our forecast is for 58 percent [of normal] runoff."

Periods of low precipitation are the reason Glen Canyon Dam was built, Gilmore says. "We look at it like it's performing its job. In a drought, Lake Powell is doing its job," he says of its water-storage capabilities.

At 53 percent full, Lake Powell now holds about 13 million acre-feet of water, Gilmore says. The forecast calls for the reservoir to gain about 4 million acre-feet in runoff. But under the Colorado River Compact signed by the seven states in the Colorado River drainage, Lake Powell must deliver annually 8.23 million acre-feet of water downstream, where it is impounded at Lake Mead.

"In these drought years, more goes out than comes in," Gilmore says.

No one is sure whether the drought will continue. But a study in the Feb. 11 edition of Geophysical Research Letters tracking ocean temperatures and tree rings anticipates the drought will linger, according to one of its authors, Julio Betancourt.

A research scientist for the U.S. Geological Survey and an adjunct professor at the University of Arizona, Betancourt explains that the last time the South Pacific was as cold as it is now and the North Atlantic was as warm, the Colorado River drainage experienced the drought of the 1950s, which lasted 25 to 30 years in some places. "We are now in a megadrought," Betancourt says, "in that it stretches from Montana to New Mexico and involves several seasons."

Good for the Fish: Analysis of tree rings during a 750-year period in the region revealed that dry and wet patterns do not occur at regular intervals. "You can't predict drought by time. The tree rings show that droughts don't occur cyclically," he says.

Whether Lake Powell eventually turns into a mud puddle remains the stuff of conjecture. But in the short term, the drought is good for the warm-water fishery, according to Wayne Gustaveson, a biologist with the state Division of Wildlife Resources.

"We need these low periods to re-establish habitat and nutrients,"

LR Press Release 03/03/03

Living Rivers to Target Mill Creek Revival on March 14

We've seen it every summer: a dried-up creek along our beautiful Mill Creek Parkway, the most blatant example of the growing ecological crisis occurring along this much appreciated drainage. Water may be pouring off the La Sals, but by the time it makes its way into Moab, every drop has been diverted. As drought and water demands persist, it's unlikely this situation is going to change without community support to bring our beloved Mill Creek back to life. Living Rivers will be kicking-off a new campaign to aid in the Creek's defense on Friday, March 14, the Sixth Annual International Day of Action Against Dams, and for Rivers, Water and Life.

The festivities begin with a noon rally and picnic on the lawn at the County Courthouse. Longtime environmental musician Peter Neils will help set a festive mood while a host of concerned citizens present information on how and why we need Mill Creek's flow. A set of recommendations for the County Council consideration will also be presented, along with ways in which the community can become involved in promoting them.

That evening, beginning about 9:00 P.M., Living Rivers will be hosting the "Mill Creek Revival & Colorado River Fiesta" at the MARC (100 North and 100 East). This free party will emphasize a revival spirit with dancing, costumes and games. There is no

admission charge and refreshments are free. Also at the MARC that evening, beginning at 7:00 P.M., is a free film "U.S. Foreign Policy: The War Against the Third World" sponsored by Moab Citizen's for Peace and Global Justice.

Mill Creek's ecology is being devastated. Native fish, such as the flannelmouth and bluehead suckers, depend on a flowing Mill Creek. Other critters, like beavers and muskrats, need Mill Creek too. The most critical habitat of Mill Creek is near the mouth, which provides a refuge and food source for the endangered and threatened fish species of the Colorado River.

"What's happenning here in Grand County is emblematic of the larger problem affecting the entire Colorado River watershed," says John Weisheit, Living Rivers conservation director. "Despite nature's warnings that we are using far too much water, we continue to focus on getting more and not on conservation."

Last month the Grand County Water Conservancy District asked the Bureau of Land Management for permission to reduce by half the amount of water it leaves in Mill Creek below the diversion for Ken's Lake. This request will likely be denied. But the search for water continues as an expensive proposal to pump Colorado River water into Ken's Lake moves forward.

Evaporation and seepage losses to Ken's Lake alone amount to 30 to 70 percent of the water diverted from Mill Creek. Increasing this storage efficiency could go a long way towards helping to get water back into the creek.

Additionally, many of those irrigating with Mill Creek water are given no incentive to conserve. Their water rights are often based on what is known as a "use it or lose it" principle. If irrigators do not use the amount of water the state of Utah believes is necessary for them to grow their particular crops, they can lose their right to this water. Some farmers have stated that they would be glad to leave some water in the creek, if a system could be put in place to allow this to occur. For example, The Nature Conservancy has received approval to transfer water rights to the Utah Division of Wildlife Resources for increasing stream flow.

Most of the water diverted from Mill Creek is used for alfalfa, which, if not irrigated efficiently, can be a very water intensive crop. However, no help is available for those 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. Implemented properly, such programs could not only aid in improving Mill Creek, but also increase the economic output of the community. It has also been documented that home values increase when they are associated with a functioning and attractive riparian ecosystem.

LR Letter 03/07/03
YDP Comments to the Bureau

March 6, 2003

Mr. Robert Johnson Regional Director Lower Colorado River Region U.S. Bureau of Reclamation PO Box 61470 Boulder City, Nevada 89006-1470

By fax: (702) 293-8614

Dear Mr. Johnson:

Thank you for presenting the Bureau's most recent draft of Modifications to Projects of Title I of the Colorado River Basin Salinity Control Act (CRBSCA) (Public Law 93-320) on February 25, 2003. We write in response to that presentation and to reiterate our opposition to the Bureau's plan to request appropriations to upgrade and prepare the Yuma Desalting Plant (Desalter) for operations. We further emphasize our concern with the Bureau's failure to respond to Congress' request in the draft report presented this week.

The current version of the report to Congress includes a number of fallacies, inconsistencies and highly unlikely assumptions that overstate the economic feasibility of operating the Desalter and understate the feasibility of alternative measures for replacing the bypass flow. We again remind the Bureau that this report subjects the Secretary of Interior to a reprimand from Congress, which has legislated that:

The Secretary is authorized to provide for modifications of the projects … to the extent he determines appropriate for purposes of meeting the international settlement objective of this subchapter at the lowest overall cost to the United States. 43 U.S.C. § 1574 (emphasis added).

Further, the Bureau has failed to produce the information requested by Congress concerning alternatives to operating the Desalter. Congress specifically requested a "report on alternatives to meeting Treaty requirements without the YDP, and actions the Bureau of Reclamation can take to reduce the high annual operation and maintenance costs." S. Rep No. 58, 106th Cong. 1st Sess. 80 (1999) (emphasis added).

We appreciate your correction of the estimated low-end cost of acquiring short-term leases of water, referred to in this draft as forbearance agreements, as well as the inclusion of the cost comparison table. However, to reiterate the other questions raised in our November 22 letter would be to virtually rewrite the entire letter. Therefore we refer you to our previous letter and again request answers to the questions and concerns therein.

In addition to the concerns already expressed, we request corrections to the current report and answers to additional questions as outlined in this letter.

Environmental Review

A complete environmental review of the impacts of re-operation of the Desalter or other alternatives must be completed prior to any implementation of actions to further the recommendations included in the report, including seeking congressional appropriations. We are concerned that the Bureau has already begun to channel funds towards preparation for reoperation without the benefit of environmental review, and without the benefit of analysis of fully developed alternatives.

The Bureau has also not yet secured a discharge permit for product water from the Arizona Department of Environmental Quality. Proceeding with appropriations requests and funding of Desalter readying activities without the appropriate environmental reviews would be pre-decisional.

Furthermore, we wish to point out that the language included in the current report and the cover letter from the Secretary which talks about assuring the operation of the YDP is pre-decisional in that it precludes a No Action alternative . Such language must be eliminated from the report and cover letter before transmittal to Congress.

Discussion of the Cienega de Santa Clara is incomplete, serves only to mask the importance of the wetlands to wildlife and humans, and retreats from the enhanced description in the previous draft. The Cienega de Santa Clara (not once referred to in full) provides habitat not only for migratory waterfowl and shorebirds, but also for threatened and endangered species. What is more, these species -- including the desert pupfish, Yuma clapper rail, and black rail -- have been listed pursuant to the U.S.'s and Mexico's endangered species statutes. Deletion of endangered species sustained by the Cienega does not eliminate the Bureau's obligations to endangered species, and what is more, the Bureau has glossed over a significant piece of information that we are sure Congress would appreciate having when weighing the costs and benefits of operating the Desalter.

Likewise, the reduced volume of water coupled with increased salinity of water reaching the salinity will degrade the ecosystem. This ecosystem is part of a Biosphere Reserve as designated by Mexico, is a major link in the Pacific Flyway and supports the vast majority of the Yuma clapper rail population. To claim that these effects "may" happen (p. 4) is deceptive and underestimates the impact to the environment that will most certainly occur as a result of operating the Desalter. Again, costs in the form of adverse impacts to the environment have been missed.

We also suggest you refrain from qualifying the Cienega as an "isolated" wetland. It is not, and this is a blatant attempt to minimize the size and importance of this wetland complex.

Economic Analysis

There are several fallacies and assumptions included in the economic analysis of operating the Desalter and implementing the alternatives. Many of the assumptions do not withstand the test of simple mathematical principles. Others are so optimistic as to be deceptive. In modeling projections, assumptions are necessary and in providing a

cost estimate range, optimistic assumptions can be utilized in predicting the low-end cost. If such assumptions are employed, however, equally pessimistic assumptions must be used in predicting the upper-end of cost ranges. This is not at all the case in the Bureau's analysis.

Without performing a full analysis of our own as yet, we cannot divine every fallacy in the Bureau's analysis. However, some of the more obvious are as follows:

· Including the Desalter ready-reserve maintenance expenditures in the cost of obtaining forbearance agreements is misleading and completely unacceptable. Including it in this analysis is an insult to Congress and to the public. Desalter maintenance and pursuit of forbearance agreements are completely unrelated processes; either can quite obviously exist without the other. Linking them for the purposes of economic analysis in this report falsely inflates the costs of alternatives to operating the Desalter.

· Including $2.4 million in research in the $5.1 million annual cost of keeping the Desalter in ready-reserve mode is erroneous. The Desalter could be kept in ready-reserve without doing extraneous research. This is at best poor math and at worst a blatant effort to delude Congress. It needs to be backed out of the equation.

· While the analysis includes extraneous unrelated costs to estimate forbearance costs, it fails to include estimates of environmental mitigation costs for Desalter operations. The Bureau fails to note that operation of the Desalter would degrade the Cienega de Santa Clara but references studies with these conclusions (p.16); it is therefore appropriate to include the potential costs of avoiding, minimizing, and mitigating such impacts within the total projected cost of Desalter operation.

· Even using the Bureau's unrealistic assumptions, the analysis does not provide the accurate cost of operating the Desalter in its five-year and ten-year scenarios. By the Bureau's estimates, the Desalter would have to operate at one-third to two-third capacity for four years. Yet the analysis calculates cost of product water using the admittedly impossible assumption of full capacity. Operations at one-third and two-thirds capacity produce water not at the stated cost of $305/acre foot, but at an estimated cost of $689/acre foot and $325/acre foot respectively. The Bureau should revise the report to accurately reflect the increased costs associated with necessary maintenance and system downtime. Assuming two years of operations at one-third capacity and two years at two-thirds capacity, as suggested in the Bureau's Gantt Chart (per HJA Consulting) product water in the five-year scenario averages $466/acre foot.

· The low-end estimate of $32/MWh for power costs to operate the plant is unrealistic. The best price available for a strip of power (four quarters averaged) on the bulk power market today on the southwest grid is approximately $44/MWh, even assuming the plant will be operating during less expensive shoulder hours. While the bulk power market is arguably volatile, this is not a liquid market. The Forward Curve for the market does not predict excesses of supply over demand, and with build-out time for power plants of five to ten years, the Curve tends to be accurate. The low-end estimate used in

this analysis is unlikely to be available for a long-term contract in the massive quantity needed for full capacity Desalter operations.

· The report fails to analyze a one-time cost of decommissioning the Desalter as an action the Bureau of Reclamation can take to reduce the high annual operation and maintenance costs of the Desalter. This alternative should be compared against keeping the Desalter in ready-reserve mode and/or operation of the Desalter at various partial or full capacity levels.

Operations Decision Criteria

The Bureau stated in its presentation that decisions on the percentage of capacity at which the Desalter would be operated would be made annually. Yet the Bureau was unable to adequately answer our question concerning what the decision criteria will be. Please answer the following questions regarding operating capacity and decision criteria: · What are all the elements of the decision criteria? · What will be the timing of determining percentage of capacity for operations? · Who beside the Bureau will participate in developing and applying the criteria? · Will the development of these criteria be subject to public review? We have similar concerns and questions regarding the replacement criteria (p.20).

Scientific Debate The report states that "Operation of the YDP would decrease the volume and increase the salinity of bypass water reaching the Cienega and may degrade its ecological value. Operation of YDP would be met with substantial controversy, and additional scientific debate." (page 5) The phrase “additional scientific debate” has not appeared in previous drafts: why was it included in this draft? The disruption of bypass flows to the Cienega in 1993, due to flood damage and subsequent repairs of the bypass canal, significantly degraded the Cienega. These impacts are clearly documented in the scientific literature. If, as we suspect, the Bureau is unable to document any “debate” about the expected degradation of the Cienega due to Desalter operation, then all references to “scientific debate” should be expunged from the report.

Federal Obligation Previously, we disputed the Bureau’s apparent claim that the “interim period,” in which the United States received credit for the Coachella Canal Lining Program, had ended. Given the Secretary’s decision to reduce California water orders to 4.4 million acre-feet for calendar year 2003, we believe that this “interim period” has ended. Given that the Secretary authorized the delivery of some 200,000 acre-feet of additional Colorado River water to California’s agricultural contractors last November – despite the existence of extraordinary drought throughout the basin – it is quite clear that the interim period was in effect through 2002. Further given that the Coachella Canal Lining Program salvages some 132,000 acre-feet per year, 24,000 acre-feet per year more than flows to Mexico via the Bypass Drain, and that there has not been a flood release from Hoover Dam since 1999, it is reasonable to assume that the United States has accumulated 72,000 acre-feet of bypass-flow credits, that can be applied to the current year’s obligation. This federal credit should be noted in the report.

Water Supplies and Needs While we understand the concerns surrounding tightening water supplies, particularly those of Arizona contract holders, we do not trust in the

rationale that operation of the Desalter seeks to address those concerns (p.14). Were the Bureau truly interested in alleviating the pressures on Lake Mead storage and lower priority water users, this interest would be reflected in other Bureau proposals and policies – unfortunately, it is not. For example, in the FEIS for the Inadvertent Overrun and Payback Policy, the Bureau would allow any and all debt to be forgiven in the event of a flood control release. If the Bureau were aiming to maximize water storage, the agency would require full payback of all debt.

Thank you for the opportunity to comment. We hope these concerns will be accommodated in a new draft report. However, should you continue to include the elements that we find objectionable, we insist that you adjust the language of the report under “Consultation with Affected and Interested Parties” to remove any implication that we concur with the report as written. This could be effected by changing the last sentence at the end of that section to read, “This report of the Secretary of the Interior reflects the views and proposals of the Department after consideration of the comments and suggestions received in that review process. It does not reflect a consensus of the parties with which the Bureau of Reclamation consulted, nor does it represent a compromise between the different views expressed.” Should this report go forward with elements that we find objectionable and an implication that we concur with those elements, we certainly would not hesitate to contact members of Congress on our own to expose the deception being waged by the Department.

Please don’t hesitate to contact us if you have questions. Thank you.

Sincerely,

Kara Gillon
Wildlife Counsel
Defenders of Wildlife

Jennifer Pitt
Senior Resource Analyst
Environmental Defense

Lisa Force
Program Director
Living Rivers

Michael Cohen
Senior Associate
Pacific Institute

Steve Glazer
Chair, Colorado River Task Force
Sierra Club

Pamela Hyde
Executive Director
Southwest Rivers

cc: Commissioner Carlos Ramirez, IBWC
Commissioner Arturo Herrera, CILA

LR in the News 03/07/03

Writers on the Range: Lake Powell--Going, going, gone?
by John Weisheit

Who would have believed it? Water levels at Lake Powell have dropped to 50 percent for the first time since it filled in 1980. This draining is likely to continue to the point where the reservoir could vanish in the next three-to-four years.

With snowpacks below 25 percent of normal, and continued warnings from the U.S. Geological Survey, EPA and others that a severe and sustained drought should be anticipated, Lake Powell's days may be numbered. A 1995 study published by the American Water Resources Association predicted that a severe drought would lead to Lake Powell's draining within eight years. Things are right on schedule.

Now that Lake Powell is down by some 87 feet, three boat ramps have been closed: Antelope Point, Stateline and Hite. The National Park Service is working with a $3 million emergency appropriation to extend other ramps as the reservoir continues to decline. But construction of the recently approved $70 million Antelope Point marina complex is in limbo, because boats can’t be launched from what has been revealed by drought to be a cliff.

Once Lake Powell drops an additional 28 percent, it will no longer generate hydroelectricity because Glen Canyon Dam's penstocks will be exposed, and water will no longer be able to turn the generators. There's also a problem with sediment, since fluctuating river flows that occur during low reservoir levels will speed the movement of sediment toward Glen Canyon Dam.

The U.S. Geological Survey says that major droughts of the past, such as the years from1942 to 1977, went largely unnoticed. We notice this drought because the West has four times the population and we’ve been mining our groundwater.

Federal scientists have also informed us that the previous century was 20 percent wetter than normal. That means our ability to put water to work was helped by luck as much as it was by massive engineering projects. Even at those inflated levels, Colorado River water allocations are 20 percent above what the river delivered.

We’ve managed to avoid crises in the past because not all the Colorado River Basin states used their full allocations. Even so, the river reached the sea only twice in the past two decades. Add to all this a drought cycle that is predicted to last 25 years, and Lake Powell, along with every other reservoir in the upper Colorado River storage system, won’t have water to store.

Vanishing bodies of water in the Western United States shouldn't surprise us: It's part of our legacy. In 1890, the Geological Survey's first professional paper discussed the principles of global climate change. The publication analyzed how a body of water that was once 800 feet deep -- Lake Bonneville -- had reduced itself into the briny and shallow Great Salt Lake.

In the 19th century, the physical geography of the planet provided undeniable evidence that humans can become victims of climate change. In the 20th century, we gained new tools, such as tree-ring data, that allowed us to reconstruct the climate of the last 400 years. This reaffirmed that the Earth's climate varies dramatically. Whether these changes result from the effects of greenhouse gases or from natural cycles, the results are the same.

Scientists have given us ample warning, but our water-management experts don't listen. At a recent gathering in Moab, Utah, John Keys, Commissioner of the Bureau of Reclamation, worked to calm the fears of those concerned that the Colorado River may soon be unable to provide for the 25 million people plumbed into his system.

"They (the reservoirs) are doing exactly what they were designed to do," he said. But when it was pointed out that these reservoirs are declining over 10 percent per year, and thus could empty in another five to six years, he had no plan for how the federal government would handle the shortages.

Certainly many of us will be pleased to see the uncovering of Glen Canyon. It will be nature's way of reminding us that we are not in control.

It would be truly unfortunate, however, if the warnings these declining levels represent are not heeded, and all those presently reliant on the overuse of Colorado River water get plunged into a crisis with no plan of action.

John Weisheit is a contributor to Writers on the Range, a service of High Country News in Paonia, Colorado (hcn.org). He is conservation director of the nonprofit group, Living Rivers, in Moab, Utah.

Take Action 03/07/03

Cienega de Santa Clara Needs Your Support!

Please read and respond to our summary of the Bureau of Reclamation's Draft 28 Modifications to Projects of Title I of the Colorado River Basin Salinity Control Act. If the proposal put forth in the BuRec document were to be accepted, the already imperiled Cienega de Santa Clara in the Colorado River Delta could be decimated.
Background: Under the Colorado River Basin Salinity Control Act of 1974 (PL 93-320) (CRBSCA), the United States has had to bypass the highly saline agricultural drainage from the Wellton-Mohawk district through the MODE canal, in order to meet the salinity requirements of the Act. The discharge inadvertently revived the Cienega de Santa

Clara, a rich 14,000-acre wetlands, home to several endangered species and an important stop for migrating birds on the Pacific flyway. The Cienega and 90% of the delta region in which it exists was destroyed when water diversions from the Colorado River by the United States and Mexico left nothing but unscheduled reservoir "spills" to water the formerly two million acre biologically diverse region.

The CRBSCA authorized building the Yuma Desalting Plant (YDP) to desalinize the agricultural drainage. But the plant was never operated at more than one-third capacity and for more than a few months because it was not economically viable. Water produced by the YDP would come at an estimated cost of $400 - $900 per acre foot. By comparison, farmers in the Yuma area pay an average of $12 per acre foot.

Summary:

The draft report, Modifications to Projects of Title I of the Colorado River Basin Salinity Control Act, sets out the Bureau of Reclamation's (BuRec) case for operating the YDP , thereby reducing bypass flow to the Cienega de Santa Clara. At full operating capacity, the Cienega would receive only the intensely saline brine from the YDP process, which would completely destroy the wetlands.

The BuRec views the bypass flow to the Cienega as lost water because it does not count as part of the U.S.obligation of water delivery to Mexico. The amount of bypass flow is ~108,000 acre-feet per year and this bypass water has an average salinity on the order of 2800 ppm.. The YDP operations would treat Wellton-Mohawk agricultural drainage water and return it to the Colorado basin where it could be included as part of treaty obligation to Mexico at the Northern International Boundary.

The draft report exists as the basis from which BuRec can make funding requests to support forbearance agreements and request funds to ready YDP to operate at full capacity.The draft report states that the Cienega de Santa Clara has been created, but does not detail the Cienega's history of having been a component of the pre-dam wetland complex along the Colorado delta. As well, it offers no plan for supporting existence of the Cienega. The report states that the bypass drainage to the Cienega has been at the discretion of the U.S.

The next step for the BuRec after submitting this proposal to Congress is to "move forward with the expenditure of funds to implement" their proposed measures. In truth, BuRec has already increased it's funding for the YDP in 2003, and is working to correct six areas of plant deficiencies by the end of the year. Further appropriations appear to have been requested and included in the 2004 appropriations draft.

The proposal finds its justification in this reasoning: "Because the drainage water in the bypass is not desalted and returned to the River, the [current] method of operation results in the release from Lake Mead of comparable quantities of water, which otherwise would not be needed if the bypassed water was delivered to Mexico as part of the U.S. Treaty delivery obligation." The Bureau argues that this aggravated water shortages in the Colorado reservoirs. The report notes that "tightening water supplies and increased demands has raised important concerns" especially from Central

Arizonan Water Conservation District, which operates the Central Arizona Project (CAP).

The 108,000 acre-feet bypass flow to Cienega represents less than one percent of the average annual flow of the Colorado River's 12 million to 15 million acre feet. The Cienega is an incredible wetland with a diverse vegetation structure that supports an equally diverse population of birds and animals including the federally listed endangered Yuma clapper rail and the desert pupfish. The result of operating the YDP would be to cutoff flows to the Cienega so that 108,000 acre feet more of the U.S. excess water reserves could stay in its impoundments, much of it to evaporate.

The draft report explains that a “thorough environmental review of the original EIS (which dates from 1975)” would be undertaken. However, the environmental review with regard to the effects on the Cienega is largely irrelevant since the Cienega is located in Mexico. In response to a lawsuit brought by Environmental Defense against the BuRec concerning Colorado River delta species, the agency claims it is not responsible for the impact its operations have on endangered species that exist across the international border. In addition to an environmental review, the draft report states that under Section 402 of the Clean Water Act, a discharge permit must be obtained to transfer desalted product water to the Colorado River.

The report includes a section on Environmental considerations relative to the bypass flow and discusses the Cienega and its Biosphere Reserve status (p.14). The document states that “reduction of current bypass flows will be met with substantial controversy.” However the document says an environmental review will be conducted but makes no proposal for sustaining the Cienega. The reader is forced to assume that if this proposal is allowed to go forth, the Cienega’s outstanding ecological value will be severely compromised. Biodiversity will receive a crippling blow.

In the report section subtitled "Potential Sources of Replacement Water to meet Title I objectives" (p.17) in it stated thatreplacement supply for bypass flow to the Cienega must come from inside the Colorado River Basin. “The primary source of replacement water for flows in the Bypass Drain is expected to be from the Lower Basin agricultural water users, and recovery and return of Colorado River water that would otherwise be lost to Mexico as groundwater. About 4.9 million acre-feet per year of Colorado River water is used in the Lower Basin for agricultural purposes…(p.17)” The report states that this fact should yield “opportunity for the program and water agencies to acquire additional water.”

The alternative most fully explored is forbearance, essentially short-term leases of water from area agricultural interests. The cost of forbearance agreements is estimated to be $60 to $309 per acre foot. Living Rivers research has shown the least valuable production of crops in the area to be worth $53 per acre foot of water. The BuRec estimate of $60 per acre foot is realistic. However, in order to make the YDP operations appear economically feasible compared to the environmentally responsible alternative of leasing water, the agency had to include a highly exaggerated higher cost estimate. In order to reach the $309 per acre foot estimate, the agency included the cost of keeping the YDP in "ready reserve."

Since 1992, the YDP has been maintained on standby - or ready-reserve - at an annual cost of ~$5.1 million. This cost includes $2.4 million of general research concerning desalting plants. Keeping the plant in ready-reserve mode obviously has nothing to do with seeking water leases. Including the cost in alternatives to operating the YDP is a blatant lie.

The report mentions the alternatives of "extraordinary conservation" such as upgraded irrigation systems for farmers in the lower basin. It does not however develop these alternatives nor does it state even an estimated cost for these alternatives.

The draft report explains that the YDP operation would cost $26-34 million yearly. The other effect the report mentions is that water flowing to the Cienega would be decreased to reject brine. According to report predictions, the flows would be reduced to 30,000 acre feet yearly with an average salinity of ~9000ppm . The annual amount of water the YDP is predicted to process is 60,700 acre-feet to 75,400 acre-feet. Then the BuRec would blend that product water with 10,000 acre-feet per year of untreated agricultural drainage water (p.15) yielding a complete return to the Colorado (when YDP is operating at full capacity) of 70,700 to 85,400 acre-feet.

The BuRec predicts that desalted product water from the YDP at full capacity operation will cost between $305 and $480 per acre-foot. The estimates are based on completely unrealistic assumptions including insanely low power costs, and do not take into account that the plant cannot operate at full capacity for at least four years. At one third capacity, even the BuRec's unreasonably optimistic estimates show a cost of $689 per acre foot of product water.

The report concludes that BuRec intends to follow a two-pronged strategy of pursuing forbearance agreements and readying the YDP for operations.

Living Rivers and a network of other environmental groups in the US and Mexico do not intend to allow a thriving wetland to die. Nor should the phenomenal cost of operating the YDP be imposed upon taxpayers particularly in a time of national economic distress. We will be preparing comments to the BuRec report as well as our own report to Congress about the real economics of operating the YDP versus pursuing lower-cost and environmentally responsible options.

Please send the BuRec a message that their report to Congress is irresponsible and unacceptable in the fallacies it includes as well as in its erroneous conclusion. Send comments by March 31, 2003 to:

Mr. Robert Johnson, Regional Director
Lower Colorado River Region
U.S. Bureau of Reclamation
PO Box 61470
Boulder City, Nevada 89006-1470

By fax: (702) 293-8614

To access the Bureau's full draft report to Congress, click here [148k PDF File]

LR Event 03/13/03

Full Page Ad for Mill Creek Revival on Day of Action

On March 13, Living Rivers ran this full-page advertisement in the Moab *Times Independent* demanding action by the Grand County Council to aid in restoring flows to Moab's Mill Creek.

Download a copy here [284k PDF File]

Letter to LR 03/14/03

To Gale Norton Demanding Immediate Action on Colorado River Drought

Honorable Gale Norton
Secretary, United States Department of Interior
1849 C Street, NW
Washington DC, 20240
Dear Secretary Norton,

We are writing to seek your cooperation in averting the emerging social, economic and ecological crises related to Colorado River water availability. Although snow packs in the basin are improving, river flows are again predicted to be below normal for the fifth straight year. According to the National Oceanographic and Atmospheric Administration, the current El Niño event has, "reached its mature stage and is expected to weaken." Basin-wide storage is at an all-time low. With federal water allocations continuing to exceed natural deliveries, the region is quickly nearing the halfway point to catastrophe. It is vital that federal, state, Indian tribes and private groups begin developing a framework for revisiting Colorado River water allocations and the laws which govern them.

We fully appreciate the political, economic and legal complexities associated with re-opening discussions pertaining to the Colorado River Compact and the Law of the River. However, the warning signs of system collapse are apparent. Storage in reservoirs is less than 60 percent of capacity and declining at a rate of more than ten percent per year. The Geological Survey cautioned last year that Western water managers should be prepared for below average precipitation over the next several decades. They caution that "a repeat of the 1942 to 1977 drought could be catastrophic" given the Colorado Basin's increased population growth.

If precautionary mechanisms are not put in place shortly, a crisis of unquantifiable proportions could easily unfold. Ten percent of the nation's population relies on

Colorado River water, including the metropolitan areas of Los Angeles, Phoenix, Las Vegas, Salt Lake City, Albuquerque, San Diego and Denver. A $1.5 billion agricultural industry and 4200 megawatts of the Southwest's energy supply could be severely impacted. Yet, Bureau of Reclamation Commissioner John Keys stated on February 13 that his agency has no plan for how to allocate water once major shortages occur.

Such complacency will not only burden the Southwest's economy, but the federal treasury and judiciary as well. Emergency funds will be sought to compensate irrigators who shift their water to municipal users. Major lawsuits will materialize as Western states and water users battle the federal government over control of water rights. Further compromises regarding in-stream flows will burden federal courts with additional environmental complaints. Unless timely, pro-active measures are taken, an extensive amount of federal, state and local resources will unnecessarily be poured into crisis management.

Such an atmosphere will exacerbate tensions amongst competing interests and further complicate efforts to establish realistic long-term Colorado River management strategies. Given the present allocation system, it is not a matter of if, but rather of when, the Colorado River storage system will be unable to meet demand. Scientists have determined that the actual average flow of the Colorado River at Lee's Ferry is 20 percent below the original Compact allocations. The data also reflects that the Colorado River flow during the current drought cycle has been 15 percent lower than during the first four years of the 1942-1977 drought. Additional reservoirs will not solve the problem; new strategies for water allocation and use must be developed as soon as possible. We seek your commitment toward helping to establish a dialogue amongst the basin states, water users and environmental groups in order to begin tackling this critical problem.

The federal government has primacy over Colorado River management; you are the basin's legally designated Water Master. The Colorado River is held in trust for the benefit of the public, and it has become obvious that its management can no longer be relegated solely to the basin states. Uniform leadership, authority and policy development must come from the Department of the Interior. Your action at the end of last year to limit California and Nevada's deliveries to their prescribed allocations was a positive first step. We now encourage you to begin a thorough overhaul of the Colorado River Compact--one that realistically reflects present use patterns and anticipated river flows. At a minimum, water allocations need to be reduced to reflect actual historical river flows.

Bringing the basin's water use into balance with natural flows will be much easier, far more efficient and certainly less costly than the monumental engineering works of the past have been. In fact, as was calculated by the late Walter B. Langbein, the Colorado River Basin's reservoirs' evaporation and seepage losses far exceed the benefits of the additional water storage they provide.

In order for the Department of the Interior to realize a reduction in water allocation, a top priority should be the establishment of 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 not destined for Mexico; programs should be established to aid irrigators in replacing water-intensive feed crops, such as alfalfa, with produce crops that use significantly less water per acre. Such measures could reduce irrigation consumption in the Colorado River Basin by half, thereby freeing up more water than is presently being used by all the municipalities currently plumbed into the Colorado River system.

The historical theory underlying Colorado River law and management is that in years of below-average river flow the sixty million acre-feet of storage built into the system will act as an insurance policy against the effects of cyclical drought. But we are becoming increasingly aware that such insurance is not limitless. Increasing water use within the basin and changing climatic conditions are driving the system to the breaking point. This need not occur. A vast amount of additional water management understanding and experience has been accumulated since the Colorado River Compact was first crafted. The Colorado River can accommodate the future needs of the Basin states, Indian tribes and Mexico as well as the natural environment. This important goal will most effectively be accomplished when the Department of the Interior takes the lead in the evolution of management policies which recognize the Colorado River's inevitable constraints.

Thank you for your attention to the matter, and we look forward to your reply (transcribed below).

Sincerely,

Owen T. Lammers
Executive Director

cc: John Keys, Commissioner, Bureau of Reclamation

Commissioner Keys responds to LR letter United States Department of the Interior
Bureau of Reclamation
Washington, D. C. 20240
In Reply Refer To:
W-6333 June 17, 2003
ADM-13.00

Mr. Owen T. Lammers
Executive Director, Living Waters [Rivers]
P.O. Box 466
Moab, Utah 84532

Dear Mr. Lammers:

Thank you for your letter to Secretary of the Interior Gale A. Norton dated March 14, 2003, regarding Colorado River issues. The Secretary has asked that I respond to you

on her behalf. Similar to other Western rivers, the Colorado River Basin has experienced four dry years, some of which having been among the driest on record. With such a significant part of the nation dependent on water supplies from the Colorado River, it is truly fortunate that we continue to enjoy the benefits of our existing water supply facilities that help to mitigate to make up for these tough years of insufficient moisture.

As you point out in your letter, these issues are complex and sometimes contentious, and it gives me a perfect opportunity to mention the Secretary's n ew initiative, entitled Water 2025: Preventing Crises and Conflict in the West. Water 2025 recognizes the realities we face in dealing with water issues, such as explosive population growth, increasing needs for water for environmental and recreational uses, and the national importance of food and fiber production from Western. irrigated agriculture. Water 2025 sets forth a strategic plan to facilitate a vigorous and educated public discussion in key Western communities, including those that rely on the Colorado River, where the likelihood for conflict and crises over water exists or can be predicted to occur by the year 2025. I invite you to attend and participate in any of the eight regional consulting sessions hosted by the Bureau of Reclamation. The information on these sessions is located on our website, www.doi.gov/water2025.

Again, thank you for your comments and concerns about Colorado River issues. The Colorado River has been and will continue to be a top priority for our agency, and I look forward to working with you and your organization in the constructive and positive manner set forth in Water 2025.

Sincerely,

John W. Keys, III
Commissioner

LR Press Release 03/14/03
Drought Watch campaign launched: demands immediate federal action to avoid catastrophe

Contact:
Owen Lammers (435) 259-1063
John Weisheit (435) 259-1063 or (435) 259-8077

El Niño provides no Drought Relief
Colorado River Storage at lowest levels in history
"Drought Watch" Campaign demands Federal Action to Avoid Catastrophe

The National Oceanographic and Atmospheric Administration reported on March 3, 2003 that the current El Niño event has, "reached its mature stage and is expected to

weaken." What was hoped to provide a break from several years of below average precipitation, has only brought snow packs to 80 percent of normal. The result: water use in the Colorado watershed will again outpace river deliveries, causing reservoir levels to decline for the fifth year in row.

As of today, levels in the Colorado watershed's primary reservoirs are at an all time low of 59 percent, declining at a rate of ten percent per year. Abundant historical evidence reveals that the present drought is far from unprecedented, and warnings from the United States Geological Survey one year ago urged water managers to be prepared for several decades of below average precipitation. They cautioned that "a repeat of the 1942 to 1977 drought could be catastrophic," given the Colorado Basin's increased population growth and water use. River flow during the current drought cycle has been 15 percent lower than those at the beginning of the 1942-1977 drought.

However, on February 14 Commissioner John Keys of the Bureau of Reclamation stated that his agency had "no plan" for how the federal government would handle water shortage once reservoirs began running dry. The Bureau of Reclamation has merely continuously revised its over-optimistic hydrologic forecasts for river flows. The most recent, on March 3, was a 25 percent downward revision for flows into Lake Powell, the principle figure for determining water availability for California, Arizona and Nevada. In October, 2002 BuRec predicted flows would be 10.14 million acre-feet in the water year of 2003. Now they are predicting only 7.44 million acre-feet, 62 percent of normal.

"This is nothing more than the beginning of an Enron event for the 25 million people reliant on the Colorado River water," said Owen Lammers, executive director of Living Rivers, the Colorado River's principal advocacy organization. "The Bureau of Reclamation puts out inflated projections to give the public a false sense of security, meanwhile the Basin's bank accounts are going down, down, down."

In a letter sent today to Secretary of Interior Gale Norton, 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.

- Bringing 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 deliver in years of average flow.

- 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.

"The Colorado River can accommodate the future needs of the Basin states and Mexico as well as the natural environment. This important goal will most effectively be accomplished when the Department of the Interior takes the lead in the evolution of management policies which recognize the Colorado River's inevitable constraints," the letter from Living Rivers states.

Living Rivers has established "Drought Watch" as an urgent campaign focus to provide the public with accurate information about the decline in water availability in the Colorado River watershed, and opportunities for the region's water users to alter their consumption patterns without jeopardizing the meeting of human needs, the economy or the environment.

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On the Web:
Living Rivers Drought Watch Campaign

United States Geological Survey, Precipitation Survey of the Colorado Plateau Region

National Oceanographic and Atmospheric Administration Forecast

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LR in the News 03/16/03

Conservationists Bemoan Diversion of Water From Moab's Mill Creek

SALT LAKE TRIBUNE
BY LISA CHURCH

MOAB -- Grand County's water policies are destroying a sensitive riparian area and threaten to further damage the Colorado River watershed, water conservation activists say.

About 80 rallied Friday in Moab to protest those policies, an event that coincided with the sixth annual International Day of Action Against Dams and for Rivers, Water & Life.

Speakers at the rally, sponsored by Living Rivers, a Moab-based nonprofit group, accused the county of "putting greed before the welfare of the community." The activists contend the Grand County Water Conservancy District diverts too much water from Mill Creek, a stream that originates with runoff from the La Sal Mountains and flows more than 25 miles through Moab, emptying into the Colorado River. The water winds up in Ken's Lake reservoir, the main source of irrigation water for about 125 farmers and ranchers in the county's southern reaches.

"Water may be pouring off the La Sals, but by the time it makes its way into Moab, every drop has been diverted," said John Weisheit, conservation director for Living Rivers. "Mill Creek's ecology is being destroyed."

Last month, the district petitioned the federal Bureau of Land Management for permission to reduce by half the amount of water it leaves in the stream below Ken's Lake, a move Weisheit said would devastate Mill Creek's native plants and fish. The BLM denied the request. Meantime, the Grand Water and Sewer Service Agency, of which the district is a part, has approved a feasibility study on the cost of diverting Colorado River water to Ken's Lake. The agency owns rights to 10 cubic feet per second of water but has never exercised them because it had no way to get the water to the reservoir.

Increasing Mill Creek's flow is essential to maintaining a healthy riparian area, said Lee Goodman, of Moab.

"Mill Creek is everything people create in their myths as an idyllic place. When you've got something as gorgeous and as important to the human spirit, one shouldn't have to argue over how much water it can have," Goodman said.

Agency manager Dale Pierson said Friday that Grand County water districts encourage conservation. In recent years, he said, district users have reduced water consumption by 25 percent, the state water conservation standard, and last year water use was down by 28 percent from 2001.

"We're doing pretty well, but we can do better," Pierson said. "We want all our customers to be conscious of water use, and to conserve as much as possible."

He said the proposed $20 million Colorado River plan would add additional water to Ken's Lake that the district would use to establish a separate valley-wide irrigation system. That way, customers who now use water from the culinary system to water lawns and gardens could save money and help the agency cut back on the amount drawn from its aquifer.

However, he said, "We won't build it if it isn't feasible for water customers."

Living Rivers Currents 03/19/03
Volume 3, Number 1, March 2003

The Articles

- Living Rivers Drought Watch: Demands Action to Avoid Crisis
- Lake Powell: Running Out of Reservoir
- Troubled Delta: Help Save What's Left
- Mill Creek: Microcosm of the Colorado River
- Flaming Gorge: EIS to be Released

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LRC V3, N1, March 2003

Living Rivers Currents 03/19/03

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 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.

Living Rivers Currents 03/19/03

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.

Living Rivers Currents 03/19/03

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 snowmelt, 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.

Living Rivers Currents 03/19/03

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.

Scoping Comments on EIS for Flaming Gorge Scoping Comments on EIS for Flaming Gorge Scoping Comments on EIS for Flaming Gorge Dam

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.

Living Rivers Currents 03/19/03

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 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.

LR in the News 03/20/03
Mill Creek Rally organizers say Grand County water agency puts greed before welfare of land

Times-Independent by Lisa Church
Moab, UT - Grand County's water policies are destroying a sensitive riparian area and threaten to further damage the Colorado River watershed, water conservation activists said at a protest rally Friday.

The Moab event coincided with the 5th Annual International Day of Action Against Dams and for Rivers, Water & Life, and also commemorated the founding of Living Rivers, a

Moab-based non-profit group that promotes water conservation and restoration of Western rivers, officials said.

Speakers at the rally also accused the water agency of "putting greed before the welfare of the community."

Representatives from Living Rivers and other conservation groups say the Grand County Water Conservancy District annually diverts too much water from Mill Creek into the Ken's Lake Reservoir. Mill Creek originates with runoff from the La Sal Mountains and flows more than 25 miles through Moab, emptying into the Colorado River. It is the main source of irrigation water for about 125 farmers and ranchers in the county's southernmost reaches.

"Water may be pouring off the La Sals, but by the time it makes its way into Moab, every drop has been diverted," said John Weisheit, conservation director for Living Rivers. "Mill Creek's ecology is being destroyed."

Last month, the district petitioned the U.S. Bureau of Land Management for permission to reduce by half the amount of water it leaves in the stream below Ken's Lake, a move Weisheit said would devastate Mill Creek's native plants and fish. The BLM recently denied the request, but activists point to it as an example of the agency's greed.

About 80 people gathered on the Grand County courthouse lawn to protest that request and a feasibility study approved by the Grand Water and Sewer Service Agency - the district's umbrella agency - to examine the cost of diverting Colorado River water to Ken's Lake. The agency owns rights to 10 cubic feet per second of water but has never exercised the right because it had no way to get the water to its reservoir.

Increasing Mill Creek's flow - the stream drops 8,000 feet through the mountains before reaching the Moab Valley - is essential to maintaining a healthy riparian area that is important to the community, said Moab resident Lee Goodman.

"Mill Creek is everything people create in their myths as an idyllic place. When you've got something as gorgeous and as important to the human spirit, one shouldn't have to argue over how much water it can have," Good man said. "If you see your child being tortured right in front of you, it's important to stand up, to complain."

Agency manager Dale Pierson said Friday that Grand County water districts encourage conservation, and have been successful in promoting lower water use. In recent years, district users have reduced water consumption by 25 percent - the state water conservation standard - and last year, water use was down by 28 percent from 2001, he said.

"I think we're doing pretty well, but we can do better," Pierson said. "We want all our customers to be conscious of water use, and to conserve as much as possible."

He said diverting water from the Colorado River represents another step in reducing the amount of culinary water used by residents. The $20 million plus project would add

additional water to Ken's Lake that the district would use to establish a separate valley-wide irrigation system.

"If this pipeline were built, customers who currently must use water from the culinary system to water lawns and gardens, could save money and help us cut back on the amount water drawn from our underground aquifer," Pierson said. "We won't build it if it isn't feasible for water customers."

Activists hope the public protest will promote dialogue between Grand County residents and water officials.

"We want to work within the community to create responsible water use and conservation with a goal of maintaining our rivers, streams, and ecosystems. But we must also look regionally to restore the balance because we share this area with Native Americans and their values, which are older than ours and more important actually," Weisheit said. "If we continue this way like other hydro-societies, we will lose it all."

LR Letter 03/20/03
Fossil Creek Restoration Threatened

March 20, 2003
Phil Smithers
Senior Designer
APS / Generation Engineering
P.O. Box 53933, m/s 3190
Phoenix, Arizona 85210

Dear Mr. Smithers:

RE: Concerns regarding the restoration of Fossil Creek as agreed upon in the Childs Irving Hydroelectric Project Settlement Agreement and Removal and Restoration Plan between Arizona Public Service and the Intervenors, dated September 11, 2000.

Thank you for submitting the "Childs-Irving Hydroelectric Decommissioning Update" dated February 03, 2003. We commend you for your work to support the decommissioning of the plants as agreed upon in the Offer of Settlement, Childs/Irving Hydroelectric Project, Project No. 2069 between the intervenors and Arizona Public Service, submitted September 15, 2000 and the Settlement Agreement (Agreement), dated September 11, 2000.

Your February 3, 2003 Update includes an item under "Ongoing issues related to decommissioning" which is of concern. It reads" Historical – The R & R plan for this project describes removal of the surge tank at the top of the Childs penstock and the removal of contents from the Childs powerhouse. SHPO has raised issues with both. We support leaving the majority of contents in the Childs powerhouse for historical purposes and never intended to gut the building. These are the only issues SHPO has at this time."

First, this is not an ongoing issue as the Agreement includes a Removal and Restoration Plan (Exhibit M) which was negotiated at length between the intervenors and APS, and for which input was received from the US Forest Service, SHPO and other agencies with a stake in the Proceedings. The Removal and Restoration Plan clearly states:

"The standpipe (30x30') shall be removed" (page 30); and "The Childs powerhouse shall remain as historical feature. All equipment, electrical, mechanical and maintenance will be removed" (page 31).

We will address the surge tank issue first. Leaving the surge tank in place is unacceptable.

Removal of the tank has already been negotiated and agreed upon as is stated in the Offer of Settlement (Offer) between APS and the Intervenors. SHPO and the USFS were both included in those discussions, as stated in the Offer (page 3), with the conclusion that the participants agreed to the Removal and Restoration Plan:

"These negotiations were designed to address the concerns of all interested parties, whether Intervenors in the relicensing proceeding or not. In fact, the settlement negotiations involved several additional parties that did not intervene in the relicensing proceeding, including …the USFS,…State Historic Preservation Office…

"As a result of the collaboration discussed above, APS, the Intervenors and the Non-Intervenors have reached agreement for the surrender of the Project license and removal of the Project works, as described in the Childs/Irving Hydroelectric Plants Removal and Restoration Plan…"

The Agreement, Section 1.1 reads "The Participants have entered into this Agreement for the purpose of …(b) approving the Removal and Restoration Plan…" (section 1.1) "The Participants agree that Project removal, under the terms and conditions of this Agreement, constitutes a reasonable resolution to the dispute between them…" (section 2.1)

Because the Agreement is in place and has been for more than two years, no further discussion of these items should be necessary. However, we will reiterate briefly, for the record why leaving the surge tank in place is unacceptable

The value of preserving the tank for historical interpretation is questionable The surge tank is a simple symmetrical 30-foot by 30-foot pipe made of concrete. It includes no innovative design, no natural native materials and is of little visual interest or appeal. While a surge tank was important to the production of hydropower at this facility, the need to preserve the tank itself is highly questionable. The tank is physically located well away from the Childs plant where the bulk of historical information will likely be sought. The tank's design and purpose are easily depicted in photos, drawings or verbiage. Removing the tank will have no impact on historical depictions.

SHPO's record for preserving Native American sites is dismal, and it continues to ignore the requests of Native American stakeholders in this proceeding. The Yavapai-Apache,

stewards and residents of Fossil Creek long before the appearance of Euro-American settlers, have asked that the surge tank be removed. Yet SHPO continues to ignore them.

As stated by Vincent Randall, Tribal Chairman for the Yavapai-Apache Nation during the proceedings to FERC, September 21, 1999:

“Five-hundred years of stewardship on the land should serve as good cause for us to be acknowledged as real life stakeholders at the table. …. We believe the Nations voice should have official status along with the other participants when decisions are being made about such a traditionally significant place.”

In a letter of June 5, 2000, Vincent Randall stated:

“As we stated in the letter Chris presented on our behalf in May the Yavapai-Apache Nation was initially drawn to the process by the concept of full restoration for Fossil Creek….

“We believe the idea of full restoration is a noble one. Is the surge tank really intrinsic to the Euro-American experience in the west? … The Yavapai-Apache Nation is pro preservation, but we see it as a matter of strict triage. Can the APS story be told without the actual surge tank? Yes, we believe it can. Will the touring public be diminished if the surge tank is removed? No, we believe it will not. Is the concept of returning the landscape to as close to the pre APS condition as possible a noble one? Yes, indeed it is. Is the skylined surge tank part of that condition? No it is not.”

Over and over, in the state of Arizona, ancient Native American sites have been photographed, at best, and then bulldozed with SHPO's blessing in the name of development. Now, the Yavapai-Apache are requesting one small concession from SHPO in this historical opportunity to restore a site that holds cultural and spiritual significance for their Nation.

We find SHPO's insistence on preserving the concrete tank, against the express wishes of the Yavapai-Apache Nation, shameful and appalling. We would hope that no admonition to the USFS concerning respect for the Nation in this matter is necessary.

The goal of the restoration plan is to return the area to its natural state as much as possible The Introduction of the Removal and Restoration Plan reads, "The following plan is based on limiting damage to the surrounding environment while returning the environment as close as practicable to its native state." The native state did not include a three-story concrete tank. Moreover, the tank is a visual scar on the landscape and interferes with the enjoyment of a "natural" area.

The surge tank will be an obvious target for graffiti and will increase maintenance costs With restoration, Fossil Creek will become a more desirable recreation destination, drawing larger crowds, and with potential historical signage regarding the surge tank, drawing them specifically to the tank. The USFS and SHPO should consider whether it has the funds to continuously remove graffiti and trash from the tank. Should the tank

be left in place, we will seek designation regarding who will patrol the tank area and how often the maintenance work will be performed.

The tank represents a liability The USFS and SHPO , as well as APS, should consider the safety and legal issues they may encounter given that the tank represents an "attractive nuisance". Again leaving the tank in place and perhaps including signage drawing people to the tank is irresponsible. Putting a fence around the tank will only add to the nuisance factor and certainly does not constitute "removal and restoration."

The next issue at hand is APS' request to leave the electrical, mechanical and other equipment in place in the Child powerhouse. We recognize that APS has and will continue to incur substantial costs in complying with the terms of the Agreement and with the Federal Energy Regulatory Commission's requests for information to support APS' Surrender application. We also appreciate the contention that the contents of the powerhouse may be helpful as a means of interpreting the historical production of hydroelectric power at the plants. As such, we do not intend at this time to object to leaving the majority of the contents in the Childs powerhouse.

Sincerely,

Lisa Force
Program Director

Cc: Mr. Jim Garrison
Arizona State Historic Preservation Officer
1300 W. Washington
Phoenix, AZ 85007

Ken Anderson
District Ranger
US Forest Service
P.O. Box 300
Sedona, AZ 86339

LR in the News 03/27/03
Water and Sewer Board irked by questions raised in letters and rally

Times-Independent by Lisa Church
Moab, UT - Recent protests and letters to The Times-Independent questioning the business practices and the fairness of the Grand Water and Sewer Service Agency (GWSSA) board structure prompted one board member to ask agency employees to develop charts and literature explaining how the agency is organized and operates.

Rex Tanner, a member of the agency operating committee, took issue with statements and statistics disseminated by Living Rivers - a Moab-based non-profit group that promotes water conservation and restoration of Western rivers - in news releases and at a rally two weeks ago protesting the agency's water management practices. Tanner

characterized as "outrageous" statements made by the group, and said a letter to the editor in the March 20 issue of The Times. The letter writer called the agency to task for holding "secret meetings" in reference to legally-allowed executive session discussions held by the board, clearly show that area residents do not understand the workings of the agency and the laws governing public boards.

"There's just so much misinformation floating around out there. The newspaper should not be telling people in this county what this agency is doing. The agency should be doing that," Tanner said.

But James L. Walker, a member of the Grand County Water Conservancy District Board, disagreed. Walker said groups like Living Rivers, and others in the community will choose to misinterpret the agency's actions in order to push their own agendas.

"Every time you give them more information they still interpret it however they want," Walker said. "All you do by giving them more information is to give them more ammunition to use against us."

Agency board president Gary Wilson questioned whether developing informational literature for the public is the best use of staff time. State and federal law require all public agencies to provide certain documents and information upon request by citizens, and Wilson said the agency always complies even though doing so often constitutes a drain on staff.

"It takes a tremendous amount of the staff's time to provide this information," Wilson said. "But we do it because we have to."

River News 03/27/03

RRFW Riverwire PEARCE FERRY RAPID UPDATE

The normally tranquil waters of the Colorado River are beginning to become turbulent at two points near Pearce Ferry, Arizona just past the western boundary of Grand Canyon National Park. This reach of the Colorado River is controlled by the water level of Lake Mead. When the lake is near full pool, a large lake with no current greets river runners departing the end of Grand Canyon. But with the 4th year of drought continuing, the unusually low level of Lake Mead has caused the Colorado River to entrench into the sediment deposited in the upper reaches of the lake. The river is flowing with strong current at the Ferry. The river no longer follows its historic channel and is now flowing over low gravel hills approximately one mile north of Pearce Ferry. Two new riffles have formed in this area.

The upper riffle, at approximately river mile 280, is a series of small standing waves stretching almost all the way across the river, which is about 150 feet wide at this point.

A fast channel has developed on the river right side of the riffle. The lower riffle is forming where the river is cutting through a saddle between two small hills.

At this time, these riffles pose no difficulty to river travelers, but have the potential to upset articles laid out on watercraft decks. Night floating through this area is not recommended. This area has the potential to form serious rapids as Lake Mead is projected to drop 12 to 15 feet in the next 4 months.

Photographs of these two riffles are at www.vishnutemplepress.com/pearceferry.html

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LR in the News 03/30/03
West's water at risk as Utah lake shrinks

By Stuart Leavenworth Sacramento Bee Staff Writer Monday, March 31, 2003
LAKE POWELL, Utah -- When John Wesley Powell embarked on his historic trip down the Colorado River in 1869, he described a raging, foaming torrent of water, rapids "that reel and roll and boil ... making a wild music."

It is doubtful Powell would recognize the Colorado River now. As it enters the lake that bears his name, the river looks more like a creek than a cataclysm. Starved by four years of drought, the nation's second-largest man-made lake has dropped to its lowest point in three decades. It is the Amazing Shrinking Reservoir, and its rapid downsizing is sending ripples across the West, even up to Northern California.

Unsure about supplies from the Colorado, Southern California is buying water from Sacramento Valley rice farmers. Las Vegas also is scrounging for supplies. Environmentalists are saying "we told you so," and Lake Powell's major industry -- houseboating -- isn't floating like it once was.

On a recent weekend, boat owners Rob and Darcy Yates drove to the upper tip of Lake Powell and stood stunned by the miles of sunbaked mud flats before them.

"The environmentalists have wanted to drain Lake Powell for years," said Darcy Yates, a flight attendant from Lehi, Utah. "It looks like they will finally get their wish."

Normally holding 7.8 trillion gallons of water and stretching 180 miles into two states, Lake Powell is dropping a foot a week, slowly exposing the sinuous canyons that federal engineers flooded when they built Glen Canyon Dam in the early 1960s.

If the dry spell continues, officials of the U.S. Bureau of Reclamation will have to prepare for the unthinkable. Eventually, they say, the lake could drop so low it will stop feeding the hydroelectric penstocks that generate $70 million in power yearly for 1.7 million people throughout the Southwest. At that point, the water supply of 25 million people in California, Nevada and Arizona would also be in jeopardy.

"We could witness the draining of Lake Powell in our generation," said John Weisheit, conservation director of Living Rivers, an environmental group based in Moab, Utah. "When a big drought comes on the Colorado, no amount of reservoirs will help."

Even federal officials, who rarely acknowledge their projects are vulnerable to nature's whims, say the next few years could be crucial.

"It is never too early to start getting a little concerned," said Rusty Gattis, deputy manager of Glen Canyon Dam. "You never know what the next day may bring."

Seen from the air, Lake Powell looks like a giant blue Rorschach blotch splattered across the red-rock moonscape of southeastern Utah. When full, the reservoir holds enough water to cover Pennsylvania a foot deep. Now, it has dropped to half its volume, leaving behind a white ring of calcified rock on its vast, 1,960-mile shoreline.

Scientists disagree on what is happening to Lake Powell and other depleted reservoirs of the Colorado basin.

Some say the watershed is experiencing a normal boom-and-bust cycle -- illustrated by the huge snowstorm that walloped the Rockies two weeks ago. Others say the region is undergoing a climatic shift that could lead to multiyear droughts unseen during this century.

Nowhere are the stakes higher than in Page, Ariz., a town of 9,000 near the Utah border that is entirely dependent on Lake Powell. Some 2.5 million people visit Page and the Glen Canyon National Recreation Area each year, spending an estimated $400 million on houseboat and Jet Ski rentals, motel rooms, fishing gear, boat tours and countless gallons of sunblock.

Business leaders say despite the low water, Lake Powell is still the floating party it once was.

"The press keeps putting out the message that the lake is gone, or half-empty," said Joan Nevills Stavely, director of the Page-Lake Powell Chamber of Commerce. "We like to say that the lake is half-full."

Even so, the drought has created some challenges, as Stavely readily acknowledges. Already, three boat ramps are unusable because of the low water. The National Park Service is spending $2.5 million to extend the boat ramps before the tourist season starts in May.

The drought also has complicated the task of reaching popular destinations, such as Rainbow Bridge, the world's largest natural rock arch.

Four years ago, tourists could boat within eyesight of Rainbow Bridge. Now, they must dock a half-mile away and walk along a floating gangplank and trail to the sweeping, 290-foot-high arch.

Velma Stoss, an Arizona native who now lives in Seattle, returned to Rainbow Bridge two weeks ago and was taken aback as she hiked up the trail.

"When you think about the amount of water that has been lost, it is staggering," said Stoss, gazing at the dried-up side canyon beneath Rainbow Bridge. "I guess it is going to California."

Stoss is partly right. Although Lake Powell provides recreation and hydropower, its main function is to convey water from the upper Colorado basin to states downstream. Under the 1922 Colorado River Compact, the four states of the upper basin -- Utah, Colorado, Wyoming and New Mexico -- must release 8.2 million acre-feet (or 2.6 trillion gallons) from Powell each year, no matter how much flows into the lake.

About half of that goes to Southern California.

In effect, Lake Powell serves as a massive security blanket for the upper basin states, which might otherwise have to tap their own reservoirs to send water downstream. But it hasn't come without a cost.

As Lake Powell filled Glen Canyon, it drowned miles of fern-lined canyons, Anasazi Indian ruins, petroglyphs and mysterious rock arches and chambers like the Music Temple and Cathedral of the Desert. The casual loss of this natural heritage angered artists and environmentalists, some of whom cling to a hope that Glen Canyon Dam will one day be decommissioned and the canyon eventually restored.

One of these is Rich Ingebretsen, a Salt Lake City emergency room doctor and an unlikely activist. A descendent of Brigham Young, Ingebretsen spent his youth rafting down the upper Colorado River. When Lake Powell started to submerge some of his favorite rapids, Ingebretsen saw his calling in life and founded the Glen Canyon Institute, one of several groups committed to draining the lake.

Wearing a cap that reads "Damn Dam," Ingebretsen recently rented a motorboat and went in search of some of Glen Canyon's lost wonders.

Heading south from Hall's Crossing marina, Ingebretsen rounded one sheer cliff after another, then turned right into the Escalante arm of Lake Powell, then left at a side canyon. Soon the boat was entering an increasingly narrow, curved chamber, wide at the bottom with a slender parabola of sunlight descending from above.

"This is the entrance to one of the most famous places in Glen Canyon," pronounced Ingebretsen as he entered a cavern called the Cathedral in the Desert. "We are going to see something people haven't seen in years."

A favorite haunt of early canyon explorers, the Cathedral has been called a masterwork of natural architecture. During its heyday, a slim waterfall fell from the lower part of the cavern; now the cascade is submerged. The bottom walls are discolored from years of high water, but still the Cathedral is an ethereal place, a water-carved amphitheater of streaked sandstone, shifting light and reverberating echoes.

For seven years, Ingebretsen has been trying to rally people around the idea of bringing back these jewels by draining Lake Powell. Some say his quest is quixotic. Others call him crazy.

Not surprisingly, Ingebretsen isn't a popular figure in Page, a town whose founders helped build Glen Canyon dam. The town stopped welcoming environmentalists in 1981, when a group of Earth First! activists climbed onto the dam and unfurled a banner that depicted a giant crack down the side.

Water managers in California and Arizona also scoff at the idea of draining Powell.

Dennis Underwood, a former Bureau of Reclamation commissioner, says the drought would be far more serious if the reservoir wasn't there. Without Lake Powell, he said, lower basin states would be close to exhausting the Colorado's downstream reservoirs, such as Lake Mead, backed up by Hoover Dam. "You'd have trouble meeting the needs of the lower basin," said Underwood, who now works for the Metropolitan Water District of Southern California.

Even with Lake Powell, the region's water prospects are hardly secure.

According to the U.S. Census Bureau, the combined cities of Phoenix, Las Vegas and Los Angeles are adding about 350,000 people every year. Las Vegas in particular is a major water consumer, using 307 gallons per person daily -- about twice as much as residents in Los Angeles.

In recent months, Las Vegas officials have started restricting the water pumped to golf courses, raising the ire of resort owners. The city is mulling other conservation measures, although critics such as Weisheit, of the environmental group Living Rivers, say the measures are mostly window dressing.

For several years, various California agencies have been haggling over a proposed water sale between the Imperial Valley and San Diego, aimed at securing Southern California's access to surplus water from the Colorado River.

Now, however, federal officials are unsure if there will be much surplus water in coming years. As a result, the Metropolitan Water District has been lining up backup supplies, such as the water it is purchasing from Sacramento Valley rice farmers.

Even the recent storm in the Rocky Mountains -- which dumped several feet of snow -- didn't help prospects much.

As it melts, much of that snow is expected to soak into the parched soil of the region, leaving little for reservoirs, said Barry Wirth, a spokesman for the Bureau of Reclamation. Lake Powell as a whole is expected to drop for a few more weeks, level off with spring runoff, rise a few feet and then starting dropping again this fall.

Ultimately, many water analysts say, the western United States will have to confront some root causes of the water crunch in the Colorado basin. When they divided up water supplies in 1922, the basin states overestimated the average yield of the river and went on to develop cities, farms and reservoirs based on an unrealistic estimate of nature's bounty.

Now, say Reclamation officials, the upper basin is struggling to send water downstream as a historic drought collides with a historic population boom.

"Everything is really tight," said Wirth, who works out of Salt Lake City. "As every year goes by, and another moving van moves into Grand Junction and Salt Lake, it gets a little harder."

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LR in the News 03/31/03
Colorado blizzard not helping drought

Kansas City Star
JUDITH KOHLER
Associated Press
DENVER - Colorado's worst blizzard in nearly a century fell on the wrong side of the Continental Divide for much of the drought-parched West.

The mountain snowpack that feeds river basins serving eastern Colorado rose to more than 100 percent of average levels after the storm. But the snowpack feeding the Colorado River basin, which provides water to seven Western states, rose only slightly.

Most states plan to keep in place voluntary or mandatory water restrictions and conservation measures, saying it is too early to tell what the summer will bring.

"There's not any meaningful change," said Wayne Cook, executive director of the Upper Colorado River Commission, based in Salt Lake City. "Maybe next time you could send (the snow) over in a truck or something, dump it over the top, let it run down this side of the hill."

A 1922 agreement allocates Colorado River water among the states. Colorado, Wyoming, Utah and New Mexico get water from the upper part of the basin and California, Nevada and Arizona get water from the lower basin.

Water agencies from Las Vegas to Santa Fe, N.M, closely track storms in the Colorado mountains, where snowpack is even more critical in drought years.

"What impacts us is snow in the Colorado Rockies," said Vince Alberta, spokesman for the Southern Nevada Water Authority, which serves Las Vegas.

The blizzard dumped up to 8 feet of snow in a 500-mile swath in Colorado and southeastern Wyoming the week of March 17, primarily falling on the east side of the Continental Divide.

In river basins serving eastern Colorado, the storm increased projected snowpack runoff from 61 percent of the historical average to 65 percent this year. That is up from the 14 percent recorded at the end of the spring melt last year.

The blizzard barely registered in the Colorado River's lower basin, where the projected runoff remained at about 62 percent, said Colleen Dwyer, spokeswoman for the U.S. Bureau of Reclamation in Boulder City, Nev.

The snowpack percentage is measured against a 30-year average. Melting snow contributes about 80 percent of the water in rivers, streams, lakes and reservoirs, which comprise much of Colorado's water supply.

The blizzard was encouraging but one good season won't wipe out four years of below-average snowpack, Alberta said. His water authority will maintain limits on outdoor watering and types of lawns and water recycling.

In Wyoming, the snow will help parched grasslands in the southeastern region where ranchers have struggled to keep their cattle fed. The rest of the state will benefit little, state climatologist Jan Curtis said.

"Having been in a drought for three to four years now, we are probably so far behind so far as moisture deficit that it would probably take seven of these types of storms to get back to normal," she said.

In the Denver area, paralyzed for days by hip-deep snow, initial glee about the storm's impact on the drought has turned into measured enthusiasm.

"How wonderful! This is really going to help us out," Peter Binney, utilities chief in the Denver suburb of Aurora, said when heavy snow started March 18. Reservoirs that feed Aurora are so low that there's a ban on new lawns and planting vegetables and new flowers.

A week later, Binney was still optimistic, but cautious. "I'd like to see a couple more of these in the next couple weeks," he said.

More snow and rain were predicted for the mountains and foothills, where spring can be the wettest time of the year. El Nino is credited with breaking the region's dry cycle this year.

Vivienne Fink still plans to tear out her Kentucky bluegrass lawn and replace it with ornamental grasses, boulders and native plants.

"I just really don't want to have to pay for watering a lawn that probably shouldn't be there in the first place," she said.

The moisture will allow farmers to delay irrigating for a couple weeks, but "it certainly doesn't end the drought crisis," said Bob Sakata, one of Colorado's largest vegetable producers.

Colorado's blizzard won't do much to relieve the drought in the West, said John Weisheit of the environmental group Living Rivers in Moab, Utah.

He said he is concerned that a wet spring will lead people to ease up on conservation. The Colorado River can't meet the area's growing demand even in good years because the water is overallocated, he said.

Wetter-than-normal seasons in the 1980s and 1990s helped mask that fact, Weisheit said.

"We've been lucky, is what we've been," he said. "Now our luck's run out.

River News 04/02/03
RRFW Riverwire

RIVER PLAN DRAFT NOW SET FOR OCTOBER RELEASE

Grand Canyon National Park planners have pushed back the release of the release of the Draft Management Plan for the Colorado River Management Plan to the fall of this year. RRFW has learned that the NPS is now looking for release of the Draft River Management Plan for no later than October 31, 2003.
RRFW has also learned that the reason for the delay is to allow Grand Canyon National Park planners to include advice from a National Park Advisory Board subcommittee made up of concessioners, nonprofit groups and others. RRFW has not yet discovered how this group will be formed, however we do know that among those pushing for the formation of this Advisory Board subgroup are Grand Canyon River Outfitters Association Executive Director Mark Grisham and GCROA consultant Destry Jarvis.

Besides releasing a Preferred Alternative, Grand Canyon National Park planners expect to have 5 to 6 other alternatives in the draft. One of the alternatives will be a motor-free alternative. Park planners are still looking to have a Final CRMP by December 31, 2004, so that river concessions contracts can be renewed in 2005. All 16 of the river concession contracts will terminate if not renewed on December 31, 2005.

River News 04/07/03
RRFW RIVERWIRE - CONCESSIONAIRES HIRE DC LOBBYIST

T. Destry Jarvis has recently been hired to lobby for the Grand Canyon River Outfitters Association, a trade association established to protect the economic interests of 16 Grand Canyon river concessionaires. Mr. Jarvis will be influencing the CRMP to benefit his employers, especially in Washington D.C., where he lives. Mr. Jarvis recently noted that powerboats on the Colorado River in Grand Canyon are “necessary for the future good condition of the park and the provision of high quality visitor river experience there.” He also stated in a recent article for the Boatman’s Quarterly Review (Spring, 2003), that “…all concerned should come to realize that the river experience is enhanced, and the park’s resources are better conserved, with motors, while both the experience and the resource are diminished without.”

Jarvis' position is that the exceptions to the Wilderness Act that have allowed motors shape the real application of it more than the Act's actual language. This is relevant since his various interpretations of the Wilderness Act appear to hinge on where his paycheck comes from. While employed as Federal Policy Director at National Parks Conservation Association, Jarvis wrote a letter defending the 1980 CRMP's proposed phase-out of motors in Grand Canyon National Park to NPS Director Russell E. Dickenson.

"…the decisions to ban motors in the Grand Canyon…were not made lightly, but only after years of discussion, study and consideration." he admonishes the Director. Mr. Jarvis went on to say, "The Service can not afford to allow additional years of contentious debate on these issues, if progress is to be made in any other of the many problem areas deserving your attention. NPCA urges you to stand firm on these important principles."

"What changed his mind? There have been no amendments to the Wilderness Act, no changes in the underlying spirit, values and principles of Wilderness. The intent of Zahniser and wilderness advocates and contemporaries Olaus Murie, Aldo Leopold, Supreme Court Justice William O. Douglas and Bob Marshall is clear. Time and again they wrote that motorized transportation is antithetical to Wilderness." notes Jo Johnson, co-director of River Runners for Wilderness.

Johnson went on to observe "If Jarvis is so sure powerboats are fine in Wilderness, why is it necessary for him to lobby legislators for a Grand Canyon Wilderness Bill that leaves its heart--the Colorado River--out? Why not just allow Congress to designate the entire Grand Canyon, with the River, Wilderness? Is it possible he isn't convinced and therefore must hedge his, or rather, GCROA's, bets?"

"Now more than ever, we need the peace and solace of motor free Wildernesses in Grand Canyon and elsewhere. The meaning of Wilderness was clear in 1964, it was clear at the time of Mr. Jarvis' 1980 impassioned plea to get rid of motors, and it remains clear now. If there is any place on Earth that deserves to be free of motors, it has to be Grand Canyon." Johnson remarked.

Regional News 04/10/03
Trying to make sense of current water controversy (part one)

Times-Independent
Moab, UT
by Lisa Church
contributing writer

Ask a dozen people in Grand County to explain how the Grand Water and Sewer Service Agency works, and you're likely to get a dozen different answers. Factor in the three individual water districts that have pooled their resources under the GWSSA umbrella and the confusion deepens to bewilderment.

In the West, where control of water wields considerable power, it is not surprising, then, that this complex organizational structure devised to manage and distribute culinary and irrigation water in Spanish Valley and throughout Grand County has become a lightning rod for critics who contend that too much water in the valley is now controlled by governing bodies representing the interests of too few county residents. Conversely, staunch defenders of the system maintain that the agency serves the interests of the public by protecting and preserving the valley's valuable water resources.

This great divide in public thinking is deeply rooted in the history of modern water development in Grand County and the chain of events that led to the creation of GWSSA in 1998.

First there was a dam: Creation of the Grand County Water Conservancy District

In the early 1970s, most water rights in Grand County were still privately owned, or were vested in the Moab Irrigation Company, a private corporation made up of individuals who elected to convert their water rights into shares of stock in the larger company. Because growth in any modern community is intrinsically tied to that community's ability to provide its residents with adequate water and sewer services, Grand County officials during this time recognized the need to begin developing a stable water system within the valley.

Their solution: form a water conservancy district that could acquire water rights, build infrastructure including a dam, storage and delivery system, and offer water services to farmers, ranchers and residents in Spanish Valley.

Under state law, water conservancy districts are formed by district courts, and are considered state, not county, agencies. The governor appoints the district's five board members, although the county may recommend names for appointment. However, state law requires a petition, signed by at least 20 percent of landholders within the district, be presented to the court requesting the court to create the conservancy district.

Like all state water conservancy districts, the Grand County Water Conservancy District, created by the 7th District Court in 1971, has the right to hold water rights, and to provide irrigation and culinary water service to customers within the service district. GCWCD's district includes all of Grand County, and 370 adjacent acres in the San Juan County portion of Spanish Valley.

When GCWCD was formed, the district immediately began work to develop the Mill Creek Project – a water storage system that includes constructing a dam to divert water from Mill Creek into a reservoir at Ken's Lake, and the lake's delivery system that now provides irrigation water to shareholders within the district.

To accomplish this massive project, the district needed financing. The State of Utah's Division of Water Resources agreed to provide a low-interest loan to pay for the project, but in order to receive financing, the GCWCD first had to acquire water rights, which

they purchased from the Moab Irrigation Company, to be held by the state as partial collateral for the loan.

The district's initial 1979 agreement with the state estimated the cost of the Mill Creek Project at about $3.7 million, but construction delays, and the county's economic downturn in the early 1980s –largely a result of the demise of the uranium business – forced the district to seek an additional $900,000 in funding over a period of several years.

To recoup part of the cost, the district elected to sell irrigation shares to valley farmers and ranchers. Today, about 125 individuals and corporations purchase irrigation water shares in Ken's Lake water, and the annual proceeds from the sale of those shares helps cover the annual loan payment to the state.

The district initially believed it could also generated revenue through the sale of industrial water to mining and other business entities. But as the mining industry went bust, those hopes dried up, said James Walker, president of the Moab Irrigation Company, and a current member of the GCWCD board.

Unfortunately, the water shares owned by GCWCD were strictly irrigation water, so in 1979, the district entered into an exchange agreement with local farmer George White that provided the district with a minimum of 625 acre feet of culinary quality water from White's numerous wells, in exchange for an equal amount of irrigation water from Ken's Lake. The district set about constructing a storage system and pipes to transport the water from White's wells to a storage tank that would eventually provide culinary water to Spanish Valley residents.

Delivering Culinary Water and Sewer Services: The creation of Spanish Valley Water and Sewer Improvement District

Because state law prohibits water conservancy districts from operating a sanitary sewer system, the county commission, in 1974, created the Spanish Valley Water and Sewer Improvement District. The district's boundaries were tightly drawn to encompass only Spanish Valley, and then, only that portion of the valley located within Grand County.

SVWSID is charged with the responsibility of building and operating a culinary water distribution system, storm drainage, and a sewer collection system to service Spanish Valley residents.

The district's five-member board, appointed by the Grand County Council, consists of individuals residing within the district's boundaries.

Since its formation, SVWSID has systematically built infrastructure to deliver culinary water, and sanitary sewer services to Spanish Valley, including the recent $5.4 million expansion project that extended those services to outlying areas of the valley and created additional culinary water storage tanks that will hold water generated from new wells recently approved for partial development by the state.

Under the original agreement, SVWSID purchased culinary water at wholesale prices from GCWCD, then provided the water at retail cost to customers. Rather than incur the expense of building and maintaining a sewer treatment plant, SVWSID contracts with the city of Moab for sewer treatment, and recoups the cost through user fees.

Currently, SVWSID revenues pay a portion of three separate bonds incurred to cover costs of water delivery systems and development of culinary water and sewer services.

Financing: Creating the Grand County Special Service Water District

Developing water services and storage facilities is an expensive business. In Grand County, financing the host of projects dating to the original Mill Creek Project was a challenge that, like many other Utah counties, commissioners resolved by proposing creation of a special service water district. The Grand County Special Service Water District, approved by Grand County voters in 1977, possesses specific powers to raise funds through taxes and bonds – powers not bestowed upon GCWCD and SVWSID. The GCSSWD may also raise funds through various federal and state granting agencies.

The creation of GCSSWD enabled Grand County to acquire additional funding – through taxes and bonds – needed for the construction of the Mill Creek Project, as well as monies required for building a culinary water and sewer delivery system in Spanish Valley. The agency is an independent district but is governed by Grand County, which appoints the district's five board members.

Primarily a financing agency, GWSSA works in tandem with the Grand County Water Conservancy District, and with Spanish Valley Water and Sewer Improvement District, to secure funding and make payment on outstanding loans and bonds for Grand County water and sewer projects, said Grand County water planning administrator, Lance Christie.

Combining Resources: Creation of the Grand Water and Sewer Service Agency

As all three water-related agencies worked to develop their joint and individual projects, the issue of managing Grand County's water systems surfaced as a significant problem. From the beginning, the boards of GCWCD and GCSSWD met jointly and shared the same chairman and vice-chairman. The two districts were bound by an agreement, signed in 1979, that gave GCSSWD authority to act as the conservancy district's agent for construction of the Mill Creek Project, and making payments on the project loans.

In 1980, SVWSID and GCWCD agreed to share staff and office space. The conservancy district hired staff, and SVWSID paid a percentage of staff salaries and benefits through reimbursements to GCWCD. These districts were also bound through an agreement by which GCWCD leased culinary water and storage to SVWSID, which then distributed the water to Spanish Valley customers.

These confusing arrangements were, perhaps, not ideal, but as Christie points out, they were likely necessary.

"This complicated mess of agencies was required because of the limitations and powers in the Utah State Code which are extended to Water Conservancy Districts, Special Service Districts, and Water and Sewer Improvement Districts," Christie has said. "It may be a mess, but it's the best mess we could come up with."

In an effort to simplify matters, the three districts agreed in 1998 to create one management agency that would oversee the daily operations and ongoing financial management of Grand County's water projects.

The Grand Water and Sewer Service Agency has, perhaps, become the most contentious part of the county water puzzle. Many find the agency's organization difficult to understand, and some question whether it gives each individual district equal representation at the table.

But the agency's structure is fairly simple. The GWSSA board consists of all members of each of the individual district boards, and board members have equal voting power. However, the agency also has a seven-member operating committee, charged with overseeing the agency's day-to-day business. That committee, consisting of three members each from the boards of the GCWCD and SVWSID, and one member from the GCSSWD board, has no power to set budgets, and may not conduct elections, but the committee is empowered to approve agency expenditures up to $10,000. The operating committee appears to hold no clear power over the agency's full board because any member of the agency's full board may vote on issues brought before the operating committee.

GWSSA manager Dale Pierson is empowered through the interlocal agreement signed by all three districts, to "perform and carry out the functions, activities, and responsibilities of improvement districts," and to act as the financial agent, disbursing debt payments and collecting annual revenues for the individual districts. Under the agreement, the individual districts retain ownership of all property, and resources, and they also remain responsible for any outstanding district debts.

Is GWSSA Here to Stay?

Those who support the GWSSA structure say it saves all the districts money by streamlining staff and operations, and has improved communications between districts that sometimes in the past appeared to be working at cross purposes.

But critics charge that GWSSA staff, originally hired by GCWCD, rarely has the interests of SVWSID users at heart. To illustrate, SVWSID board member Barb Morra points to the fact that the titles to culinary water rights purchased through the agency are always held by the conservancy district. Spanish Valley Improvement District, she said, has never been offered the chance to own water rights even though it has the largest and only culinary water customer base.

Resolving these issues may be the greatest challenge confronting GWSSA staff, and the boards of Grand County's individual water districts. In the next several weeks, the

Times-Independent will examine in-depth the inner-workings of GWSSA, and water issues facing Grand County's water districts.

Editor's Note: This is the first detailed installment of a series, a heavily researched series on how things operate in Spanish Valley's complex water and sewer agencies. The situation is critical to the future of Grand County, and needs to be understood. Though controversial, we believe it is essential.

Regional News 04/17/03
Umbrella agency may be causing confusion, conflict (part two)

Times-Independent
Moab, UT
by Lisa Church
contributing writer

When Grand County's three water districts agreed in 1998 to create an umbrella agency to oversee operations and management of culinary and irrigation water systems the plan was touted as a cost-saving measure for all water users in Spanish Valley.

Today, some Spanish Valley water users believe the arrangement has created an unwieldy financial structure that forces culinary water users to unfairly subsidize about 125 irrigation water users.

The plan to combine the districts seemed logical at the time, past board members have said. The three districts – Spanish Valley Water and Sewer Improvement District (SVWSID), Grand County Water Conservancy District (GCWCD), and Grand County Special Service Water District (GCSSWD) – already shared staff and office space, and the culinary and irrigation systems were dependent on one another because the Conservancy District, which built the Mill Creek Project and Ken's Lake Reservoir, owned the culinary water rights, storage tank and tank delivery systems and sold culinary water to the Improvement District, which provided drinking water to Spanish Valley customers but did not own substantial culinary water rights or storage facilities. The Conservancy District paid staff, then billed the Improvement District for the time staff logged working on Improvement District projects.

By creating the agency, many argued, districts had little to lose and everything to gain. Districts would still own all their property and resources, but revenues, except those from property taxes, would be billed by and paid directly to the Grand Water and Sewer Service Agency (GWSSA), and the agency, in turn, would issue payments for outstanding revenue bonds and other ongoing agency expenses. GWSSA staff would continue to oversee the daily operations of the culinary water and sewer system, and the Ken's Lake irrigation system, but could focus all their attention on work rather than spending valuable time tracking daily hours by project so the Improvement District could be billed separately.

"Some days I felt like I was spending more time writing down what I was doing that I actually spent doing the work," GWSSA manager Dale Pierson said. "Now, we can focus completely on our jobs."

Improvement District board member Barb Morra is not convinced.

"We don't know how their time is spent now. The Improvement District contributes four times the revenue of the Conservancy District, but are we getting four times the work? I don't know. And [agency staff] has no documentation," Morra said.

Pierson said the staff "probably spends that much more time" doing work for the Improvement District because maintaining culinary water and sanitary sewer systems is far more costly, both in time and money, than maintaining the Conservancy's irrigation system. In addition, he said, the Improvement District has grown, and the agency employs a staff member whose time is largely spent handling monthly billing for water and sewer service customers.

"The Improvement District is our primary focus," Pierson said. "There's health and human welfare involved there. If we have two jobs to do, and one is irrigation and the other is drinking water or sewer, the drinking water or sewer job takes top priority. It's that simple."

For critics, on-site staff accountability is but one of several problems with the agency arrangement. Morra says. In 2002, the Improvement District contributed more than $1 million in revenues to the agency, compared to $362,000 contributed by the Conservancy District. The agency budget shows that Improvement District Costs totaled $910,000 – a gross profit of about $100,000 – while the Conservancy District had $360,000 in expenses.

"The whole thing about the agency is every time you try to figure out something fiscal, it's like trying to hit a moving target," Morra said. "We're contributing 90 percent to the agency while the other districts are contributing 10 percent. Where is our money going? I'd like to know specifically."

Spanish Valley resident Bill Love believes he knows. The agency, he charges, is using Improvement District revenues to "subsidize" the 125 irrigators who annually purchase Ken's Lake water.

In a detailed written statement to the Times-Independent, Love argues that the agency regularly uses Improvement District revenues to pay for work and maintenance of the irrigation water system and Ken's Lake Reservoir.

Love rightly points out that state-backed loans for the Mill Creek Project which created Ken's Lake are annually paid through property taxes charged to all Grand County taxpayers. That bond was approved by taxpayers in 1980, and will be completely paid in 2018. Love argues that through those property taxes, all Grand County residents are "subsidizing" the irrigation water users of Ken's Lake.

And it is true that the lake would likely not exist without the tax revenues. But Pierson points out that voters approved the bond, in part, because Ken's Lake is also a recreation area that is open to the public.

"A lot of people use Ken's Lake every year. A lot of people here see it as an amenity," Pierson said. "The lake isn't just for irrigators."

Love also believes recent water fees from Spanish Valley customers are being used by the agency to pay Conservancy District expenses.

"The fees from the culinary users and irrigation users are co-mingled to pay expenses of $490,477 for the operations and maintenance of the irrigation system, the culinary water system, and debts. GWSSA claims that they are unable to identify which fee is used to pay which bill without extensive analysis," Love wrote.

And he charges that the water rate structure of Spanish Valley – a conservation-oriented structure that charges increased fees for higher water consumption – are unfair, compared to the rate structure for irrigation customers whose fees per acre-foot of water decrease with higher consumption. Irrigators pay between $21 and about $35 per acre foot, depending on use, Pierson said.

"The culinary water users are now completely unprotected from GWSSA using their fees to subsidize the 125 irrigation Ken Lake and the golf course," Love said.

Pierson said the rate structure for irrigation users is "typical" for Utah.

"There are a very few number of irrigation customers who actually try to make a living from farming," Pierson said. "We don't want the water to be so expensive we put them out of business."

Lance Christie, the water planning administrator for Grand County, said it is not uncommon in the West for drinking water customers to subsidize irrigators. But in many parts of the state, he said, the culinary water users pay much higher fees.

"It's a common practice. But from my research, the people in Spanish Valley are subsidizing at a much lower rate than in most other places," Christie said.

A 2001 report by the state's Division of Drinking Water backs up Christie's claim. According to that report, culinary water agencies in Utah charge, on average, $1.39 per 1,000 gallons of water. In Spanish Valley, customers pay between $.50 and $1.25 per 1,000 gallons depending on how much water they use. The state report shows that the average Utah home customer pays $33.89 per month for drinking water. Bills in Spanish Valley average about $24 per month, GWSSA staff said. Sewer charges are billed separately.

For critics of GWSSA, the monthly cost of water is less important than whether the agency is properly managing the financial resources of the Spanish Valley Improvement District. Agency staff now view revenues from all districts – except tax revenues, which are kept in separate accounts – as agency revenues, not separate revenues from

individual districts. And supporters of the agency say the arrangement works to the advantage of all districts because all three are interconnected through the complex network of culinary and irrigation water supply lines and storage facilities.

"It may not be perfect, but things work a lot better now," said Conservancy District board member James L. Walker. "The idea here is for all the districts to work together. We all have the best interests of Grand County at heart."

Pierson puts it another way. "One district wouldn't exist without the other," he said. "It's that simple." Morra believes otherwise.

"I think the Improvement District would be better off as a separate district," Morra said. "The agency isn't doing us any favors."

Next week, this Times-Independent series will examine arguments for and against an agency plan to purchase wells and property that they currently lease, and which district should own the water rights if the purchase is completed.

Regional News 04/27/03

Exposed Upper Colorado River Deltals Rapidly Eroding Into Lake Powell

Click here to read this story by Lori Stiles of *University of Arizona News*

Regional News 04/27/03

Exposed Upper Colorado River Deltals Rapidly Eroding Into Lake Powell

The investigations of Professor John Dohrenwend

Click here to read this story by Lori Stiles of *University of Arizona News*

Regional News 04/28/03

How district got culinary water rights (part three)

Moab Times Independent by Lisa Church contributing writer

From their inception in the 1970s, Grand County's two main water districts have struggled with a serious dilemma – both had authority to provide culinary water to Spanish Valley, but neither district owned any culinary water rights.

Because the state had placed a moratorium on further water exploration in the valley more than a decade before, the county could only secure culinary water by purchasing or leasing existing water rights. In 1979, the Grand Water Conservancy District solved this massive problem by striking a deal with local rancher George White. In exchange for a maximum of 625 acre feet of irrigation water from Ken's Lake, White agreed to provide the district with an equal amount of culinary water from his wells.

That 50-year agreement between White and the Conservancy District enabled the district to provide wholesale culinary water to the Spanish Valley Water and Sewer Improvement District, which delivered the water at retail prices to customers in Spanish Valley. For some, the pact also marks the beginning of a water monopoly in the valley.

In recent years, district and county officials have mulled, with increasing concern, the county's prospects for securing culinary water rights beyond 2029 when the exchange agreement with White is set to expire. So when a pair of those wells came up for sale, board members of the Grand Water and Sewer Service Agency – an umbrella agency created by the districts in 1998 to oversee daily management of Grand County water projects – jumped at the chance to own them outright.

With the board's near unanimous blessing – two members opposed the purchase – GWSSA in February began efforts to secure a purchase agreement with White, and the financing needed to seal the deal. The sales price will remain undisclosed until final negotiations are completed, but Dale Pierson, GWSSA manager, has said the agency hopes to recoup much of the cost by selling land – about 130 acres – that is also included in the deal.

The plan approved by board members gives the agency staff authority to pursue the purchase, and places ownership of the White water rights and land in the hands of the Grand Water Conservancy District. That decision, some charge, gives the Conservancy District a monopoly on valley water, and forces Spanish Valley water users to remain forever dependent on the Conservancy District for its culinary water supply.

"There's no reason the [Spanish Valley Improvement] district should not own that water," said SVWSID board member Barb Morra. "If we purchase the water, we can become independent of the Conservancy District. But they don't want that to happen. Basically, we're allowing the Ken's Lake water users to control the agency, and that means they control where the water is going and how much Spanish Valley users pay."

For Spanish Valley resident Bill Love, the plan represents a "boondoggle" that gives the Conservancy District total control over Spanish Valley water users. Love said the agency should hold a public hearing before making a final decision about the purchase.

"This water is for the use of the culinary rate payers in Spanish Valley. The negotiations are controlled by the irrigators' board members," Love said in a letter to the Times-Independent. "The irrigators, per a June 6, 1979 agreement, can charge the culinary rate payers any fee they "fixed from time to time" for the culinary water. If the new culinary water is given to the irrigators, they will have the ability to charge the culinary users any fee they decide is sufficient to pay all their expenses."

Morra points to the fact that agency board chairman, Gary Wilson, is “one of the largest users of irrigation water in the district,” as evidence that the members of the Conservancy District control the GWSSA board.

Wilson and other board members take issue with Morra’s characterization.

“To me, the whole purpose of this agency is for us all to work together,” Rex Tanner said at a recent meeting. Tanner, a Grand County Council member and a GCWCD board member, dismissed Morra’s allegations as “paranoia.”

“It’s not us against them here. It’s one pool that we’re working from,” Tanner said. “We started down this road to purchase this water because of the long-term goal to better serve the community. This seems like a good business deal to me, and I hope we go through with it.”

During several board meetings, Morra and Love have also repeatedly questioned why the Improvement District has not been given the option to purchase the White wells. Pierson said the decision is purely financial – banks view the Conservancy District as a “better risk” than the Improvement District because GCWCD has fewer outstanding debts.

Currently, SVWSID makes annual payments on eight outstanding revenue bonds totaling almost $5 million– most associated with a recent system expansion – and one general obligation bond, paid through property taxes collected from Spanish Valley residents, totaling $126,000 that will be paid off in 2006. The revenue bonds have payoff dates ranging from 2006 to 2040, depending on the specific bond, Pierson said.

The Conservancy District has one outstanding bond, Pierson said. That bond, a $1.5 million general obligation bond paid through annual property taxes assessed all county property owners, will be paid off in 2018, he said.

“Either district could purchase the White property and wells. But from what our attorneys and the bank tell me, the Conservancy District is in a better position to borrow the funds,” Pierson said. “Banks want to be at or near the top as lien holders. In the case of the Improvement District, that just isn’t possible because they already have several outstanding revenue bonds.”

But Morra said that simply is not true.

“I’ve had conversations with the bank, and they’ve said we can buy the property,” she said. “I just don’t see what the problem is here.”

Pierson said bank representatives “prefer” making the loan to the Conservancy District for reasons stated earlier.

“The Improvement District may be able to secure financing, but it would be much more difficult, if it’s even possible,” Pierson said.

Some agency board members fear that the ongoing debate will derail the White purchase, leaving Grand County vulnerable in future years should the Whites sell the wells to someone else.

“Barb has some good points to make, but I think we need to move on this,” said James Walker, Conservancy District board member. “No one has ulterior motives with this purchase. But proven wells like this don’t come along often. We need to buy them while we can.”

The agency has yet to finalize a contract for the White well purchase, but Pierson said an agreement is “close.” So far, the board has not responded to Love’s call for a public hearing on the issue.

Next week, in the final installment of this series, the Times-Independent will explore the effectiveness of the GWSSA agreement, and examine arguments for and against dissolving the agency.

Letter to LR 05/02/03
Response from BuRec: Glen Canyon Dam's Adaptive Management

United States Department of the Interior
Bureau of Reclamation
Washington, D.C. 20240
In Reply Refer To: ADM - 2.00

Ms. Lisa Force
Program Director
Living Rivers
P.O. Box 1589
Scottsdale, AZ 85252

Letter to Gabaldon (January, 2002)

http://www.livingrivers2.org/archives/article.cfm?NewsID=234

Dear Ms. Force:

Thank you for your participation as a member of the public in meetings of the Glen Canyon Dam Adaptive Management Work Group (AMWG). The AMWG was formed as a Federal Advisory Committee to make recommendations to the Secretary of the Interior on the operation of Glen Canyon Dam and the use of other management authorities to achieve the resource protection objectives of the Grand Canyon Protection Act and the Glen Canyon Dam Environmental Impact Statement (GCDEIS) Record of Decision (ROD). You have raised concern for many of the important resources downstream of Glen Canyon Dam, and have encouraged the AMWG to take action to protect these resources. We have integrated your specific comments into the areas of endangered

species protection, sediment conservation, administrative activities, and public outreach.

Endangered Species

Protection of endangered species is one of the paramount mandates of all Federal agencies, and the AMWG strategic plan is framed from that perspective. Many recent discussions within the Adaptive Management Program (AMP) have addressed the apparent decline in juvenile recruitment and adult population estimates of the humpback chub. The cause of this decline is unknown, but may be related to non-native competition and predation, parasitic infestation, habitat conditions, or adverse effects from handling and sampling. It is the current opinion of the Grand Canyon Monitoring and Research Center (GCMRC) that negative effects from non-native fish predation and competition overshadow other factors.

Collecting and addressing this type of new information and hypotheses is one of the strengths of adaptive management. At its January 2002 meeting, the AMWG passed the following motion calling for the control of non-native fish:

"In support of goal 2 (of the Strategic Plan), the AMWG recommends the following actions subject to environmental compliance to include assessing recreational use, Endangered Species Act (ESA), in consultation with the tribes and other affected state agencies.

1 . evaluate methods to remove non-native fish, except rainbow trout, from Bright Angel Creek in 2002,

2. evaluate methods to remove non-native fish from the LCR in 2002,

3. gather public input and conduct public education and environmental compliance on long-ten-n removals in #1 and 2 above,

4. establish a Technical Work Group (TWG) ad hoc committee to develop a 2002 - 2006 research monitoring and management work plan for meeting MO 2.5 and 2.6 of the August 17, 2001, Draft of the AMP Strategic Plan. The TWG will report back to the AMWG at the next meeting,

5. using data from #1 - 4 above to make recommendations on future removal."

Through a combination of National Park Service and Bureau of Reclamation funding, appropriate environmental compliance, and approval by the Secretary of the Interior, these nonnative fish control efforts began this year. The authority and responsibility for these non-native control actions rest with appropriate Federal and State agencies, the National Park Service for the Glen Canyon National Recreation Area and Grand Canyon National Park and the Arizona Game and Fish Department for the State of Arizona. Results from initial evaluations will guide future decisions about management actions and dam operations.

Testing experimental dam releases to benefit the humpback chub is also an important part of the Biological Opinion (BO) on the Operation of the GCDEIS. The BO discusses implementing these test releases in low release years of approximately 8.23 million acre-feet (maf). Reclamation has agreed to implement such experiments through the AMP. Several years ago, GCMRC coordinated the preparation of a program of experimental flows to address this requirement. The resultant work product called for the establishment of baseline conditions, followed by a steady release with moderately high spring flows and low flows the remainder of the year. In fiscal year 2000, we tested these steady spring and summer flows, even though the annual water year release was greater than 8.23 maf, In water years 2001 and 2002, the dam made releases according to the GCDEIS ROD, and baseline data was collected. This baseline data will be compared with data from future experiments, the nature of which is still evolving among native fish experts through the AMP.

As described in more detail below, GCMRC followed this initial experimental design with a 2003-2004 experiment designed to benefit humpback chub and conserve sediment inputs. In all these adaptive management actions, the U.S. Fish and Wildlife Service (Service) has actively participated, and Reclamation has continually discussed with the Service the resulting effects to ensure that sufficient progress is being made toward removing jeopardy from the humpback chub and achieving the recently published U.S. Fish and Wildlife Service Recovery Goals for the humpback chub.

Sediment Conservation

The 1996 Beach Habitat Building Flow (BHBF) was highly successful in depositing sand above the normal maximum discharge stage. Subsequent wind and water erosion of these deposits was expected, as was the need for periodic redeposition of sediment. Since that time, additional research has indicated that the previous assumption of interannual sediment conservation of tributary sediment inputs is likely incorrect, indicating a relatively short residence time for the finer fractions of tributary inputs. As a result, the AMWG passed the following motion at the January meeting relating to further testing of BHBFs:

"In concert with Reasonable Prudent Alternative flows for native fish, during 2002-2003 request that the GCMRC, in consultation with the TWG, design an experimental flow sequence that tests hypotheses for conservation of sediment. Report to AMWG in April 2002 on the proposed flow sequence."

In response to this motion, GCMRC proposed an integrated experiment in February 2002, addressing specific assumptions and hypotheses for the humpback chub and sediment conservation. To counter the short residence time of fall tributary sediment inputs, this experiment tests two strategies to preserve these inputs until high flow tests can be conducted the following January. The fall flows of these tests are hypothesized to benefit the humpback chub and would complement the results of the 2000 Low Steady Summer Flow experiment. Nonnative fish control efforts during 2003-2004 are also expected to reduce the deaths of humpback chub from predation and competition. This experiment is now underway. In addition, GCMRC and the AMWG are now working

to develop an overall program of experimentation that addresses the ecosystem as a whole, including all the resources considered by the AMP.

Administrative Actions

During the past 2 years, the AMP has succeeded in developing a strategic plan, the completion of which has represented a significant increase in the ability of stakeholders to work together on common goals. We recognize that some reject the concepts of collaboration and consensus, but we believe that these approaches will produce more effective resource protection results than litigation and conflict. In addition to completing the strategic plan, the AMP has sequenced the strategic plan research information needs, which will guide future sclientific work.

Reclamation and the GCMRC have restructured their websites to facilitate public access of AMP documents such as the GCMRC State of the Natural and Cultural Resources in the Colorado River Ecosystem report and the annual report to Congress required by the Grand Canyon Protection Act. These reports include results from the monitoring and research activities conducted as part of the AMP. The AMWG meeting minutes also contain scientific presentations at technical and management meetings on the status of resources.

Public Outreach

Public involvement is a key part of the AMP. Stakeholder membership on the AMWG was carefully selected to provide representation of public interests. It is important to note that any AMWG recommendation to the Secretary of the Interior is implemented only after completing appropriate National Environmental Policy Act (NEPA) compliance with applicable federal law (e.g., NEPA), a step that ensures additional public participation. In addition to inviting the public to AMP meetings, we have attempted to keep all information about the program visible and accessible. We recognize that to date, few outside public comments have been given at our meetings, and that the AMWG's response to your comments has been less than you desired. In future meetings, we will encourage AMWG members to continue their discussion after public comments are received to ensure understanding, prior to voting on recommendations. It would also likely be more effective for public comments to be received prior to any meeting to allow AMWG members time to consider comments. Since most of the issues addressed during the AMWG meetings are first discussed by technical and ad hoc groups, we would encourage you to become involved in the technical presentations and discussions which form the basis for AMWG recommendations.

In conclusion, we believe the AMP is a successful example of a collaborative, multi-stakeholder process. Moreover, we believe that this critical program is fulfilling the role envisioned by the Grand Canyon Protection Act, the 1996 Glen Canyon Dam EIS, and the Federal Advisory Committee Act. The Department of the Interior is taking action to address resource concerns revealed by scientific monitoring and have enlisted prominent scientific advisors and other forms of peer review to enhance the quality of analysis in this process. We appreciate your comments and welcome your continued involvement in all our meetings.

Sincerely,

Michael R. Gabaldon
Director, Policy Management
And Technical Services

cc: See attached list

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LR Letter 05/17/03
Lake Powell's 'new marina' another Park Service fumble

May 17, 2003 12:00 AM
Arizona Republic
Letter to the Editor
The May 5 article "New marina at Lake Powell 30 years in making" omitted two significant facts:

• Low reservoir levels make the marina unusable.

• The Diné will receive only low-level jobs, while profits go to non-Diné developers.

The Diné Medicinemens Association, along with Living Rivers and others, asked for a proper environmental impact statement. The concerns were disavowed by the National Park Service, which determined that this $75 million project on virgin Diné land would have "no significant impact" on the human or natural environment.

The Diné leaders asked the Park Service to consider dedicating this spiritually significant site as a place for their people to be educated in the traditional ways of their cultural heritage. This alternative deserves a respectful response by the National Park Service.

The Park Service wants to provide economic opportunities for the Diné, yet it refused to study Living Rivers' proposal to allow the Diné to become the concessionaire at Wahweap Marina. Living Rivers also stressed that building another marina when visitation has been declining does indeed impact humans and the environment.

Antelope Point is perched on top of a canyon wall. To operate this facility the reservoir must be nearly full. Currently the reservoir is down 95 feet and the public boat ramp ends at the cliff's edge. Current high demands for an already over-allocated Colorado River, compounded by a present and future drought cycles, makes Antelope Point a boondoggle.

How can a facility that must face the hardships of natural topography and drought during a period of decreased visitation be considered without a study? The Park Service should be delighted to provide taxpayers with a thoughtful process, especially if it will demonstrate true benefit to the Diné.

John Weisheit Moab, Utah

The writer is conservation director of Living Rivers, an Arizona-based non-profit environmental organization.

LR Press Release 06/05/03
Secretary Gale Norton's 2025 Water Plan--propaganda to mask reality

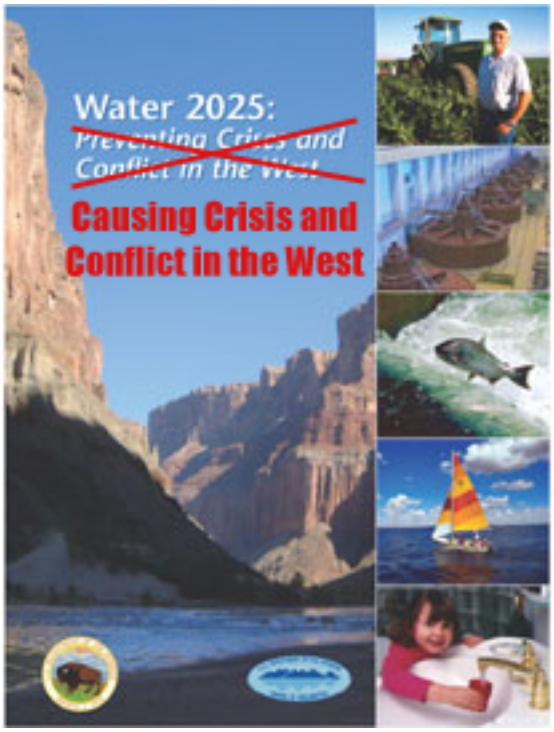
Colorado River water users should prepare for the worst

Contact: Owen Lammers (435) 259-1063

On Friday, June 6, Denver will play host to Interior Secretary Gale Norton and one of the greatest public relations charades in the history of western river management. At a time when many Western states are experiencing major problems with water allocation, the Department of Interior is selling the public "band-aids for gun-shot wounds," says the Colorado River advocacy group Living Rivers.

Secretary Norton's initiative "Water 2025 Plan: Preventing Crisis and Conflict in the West," is little more than a repackaging of management strategies Interior is already implementing combined with a heightened push for desalinization technology. It contains no proposals for how to substantively address major water shortages, such as those looming in the Colorado River watershed.

"Minor efficiency gains and conservation measures as Secretary Norton prescribes will bring about some savings, but these are merely drops in the bucket given that the Colorado River is providing barely half the water the Department of Interior is contracted to deliver," says Owen Lammers, Executive Director of Living Rivers.



Abundant historical evidence reveals that the present drought in the Colorado watershed is far from unprecedented, and warnings from the United States Geological Survey one year ago urged water managers to be prepared for several decades of below average precipitation. Lammers notes, "Water 2025 demonstrates that the Department of Interior is ignoring this responsibility."

- The Plan emphasizes Interior's long-standing tradition of acquiescing to the states for resolving disputes. However, as eighty years of conflict reveals, cooperation is rare, even in the best of

times. Moreover, as California recently demonstrated, reaching agreement amongst Colorado River water users within states is problematic. This internal dispute forced federal action in January to reduce Colorado River flows into California.

- The Plan's market-driven water banks and transfers from farmers to municipalities during times of shortages are laudable on a small scale, but there is no discussion of what will happen when the real crisis hits. Certainly, the 25 million people reliant on Colorado River water will not be deprived, but what will it cost? Farmers are becoming increasingly reluctant to make water transfers, as San Diego has recently experienced. Without strict federal guidelines and policies, municipalities like Los Angeles, Phoenix, Los Vegas and Salt Lake City will be forced into a cost environment not unlike what California energy utilities faced three years ago.

- Crop substitutions, which represent the greatest opportunities for water savings are completely ignored by the Plan. Nearly half of Colorado River water is used to grow water-intensive alfalfa and other forms of cattle feed. Much of this water could be saved by growing crops for human consumption.

- The Plan relegates environmental stewardship as merely aspects of conflict, not as an integral part of what society now demands of its river managers. Despite the fact that all the water referred to in the Plan comes from rivers integral to this continent's natural heritage, the Plan does not even mention or use the word river, other than when using place names. In describing its "Five Realities" the Plan completely ignores the reality that the riverine ecology throughout the watershed, such as in Grand Canyon National Park, Dinosaur National Monument and the Colorado River delta, has been dramatically altered, while the public is becoming increasingly vocal about reversing the damage.

- The Plan advocates maintaining and enhancing existing infrastructure. However, much of this infrastructure is responsible for the loss of up to 20 percent of the Colorado River's flow due to evaporation and seepage amongst its reservoirs. The draining of Lake Powell reservoir, for example, will eliminate enough water loss to service the municipal water needs of the state of Arizona.

- Not until the 25-page report's last 100 words does the term "drought" receive much attention. This should be Interior's main focus at this time. Questions Interior needs to be asking include: outlining specific federal management tactics it may employ; how farmers will be enticed or forced to release their water to preserve municipal economies, and will Interior enforce strict conservation strategies and efficiency standards?

"This report is all about carrots with no federal stick," adds Lammers. "Interior must begin developing water use standards and practices, as well as allocation strategies to

be implemented as this drought situation worsens. Absent this, crisis is inevitable, despite Secretary Norton's report and marketing strategy titled to prevent it."
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For more information:
Living Rivers

Water 2025 Plan: Preventing Crisis and Conflict in the West

United States Geological Survey, Precipitation Survey of the Colorado Plateau Region

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LR in the News 06/16/03
A River, Saved: Wild Yampa and Green nearly went the way of Glen Canyon

A River, Saved: Wild Yampa and Green nearly went the way of Glen Canyon
By Judy Fahys The Salt Lake Tribune
THE YAMPA RIVER, Colo. -- This wild place might have been entirely different were it not for a fateful boat trip a half-century ago. Fifty years ago this month, David Brower fell in love with the Yampa, and the Green and the Colorado rivers downstream. In the years that followed, a time before the word "environmentalist" existed, the activist rallied the nation against two dams planned for canyons just below the Yampa, dams that would have forever changed the landscape into vast lakes. This history was unknown to Salt Lake City resident Bob Hausser when he signed up for a white-water rafting adventure this month. In fact, the retired Kennecott engineer wore his "Lake Powell" T-shirt as Brower's one-time aides talked about the significance of Brower's fight for wild rivers and urged listeners to follow the example of his spirit.

Hausser's trip leader was John Weisheit, who sipped all day from a plastic coffee mug that proclaims, "Just Drain It!" referring, of course, to the same Lake Powell beloved by Hausser. Weisheit is director of the Moab-based environmental

group Living Rivers, which through its Colorado Riverkeeper project organized the 50-year anniversary raft trip.

"We have things to do," Weisheit said at the outset. "We're going to get going again."

"Going," in this case, means reviving the broad-based conservation ethic that made it possible for activists such as Brower to help shape the modern West.

Brower, who died in 2000, took his trip in the U.S. Bureau of Reclamation's heyday, when it had more than 140 dams on its project list. And, after he drifted through Dinosaur National Monument's scenic redrock canyons, he made a career of harnessing American outrage over the destruction of national treasures for water and electricity intended to profit the bureau alone.

Two of the proposed dams would have braced against canyon walls visited on this month's Riverkeeper trip.

The bureau proposed one for below Echo Park, at the confluence of the Yampa and the Green. The other would have been more than 20 miles below at Split Mountain on the Green. If they had been built, the dams would have inundated 140 miles of canyon, up to Flaming Gorge on the Green and to Deerlodge Park on the Yampa.

"What happened here 50 years ago changed the world," said Rod Nash, the noted wilderness historian who joined the Brower commemorative trip in his dory, Canyon Dancer.

Brower fought dams with statistics that showed they would not conserve as much water, nor provide as much power, as the Bureau of Reclamation projected. When the bureau had finished building its Colorado River Basin dams, the two Dinosaur dams were not among them. "We have a living river here -- the Yampa is undammed," Nash told the 20 commemorative trip clients in one after-dinner talk. "It's a miracle in the American West." The guide: What might have been lost can be seen by anyone floating the rivers with Dee Holiday. He has been guiding for about 42 years, much of it with his wife, Sue, co-owner of their Holiday Expeditions, which hosted the commemorative trip.

Tall and wiry, Holiday probably knows the Yampa as well as a human can after spending roughly 2,000 days of his life on it.

He is the naturalist who can point out a chokecherry forest on the trail and tell about a woman named Josie whose chokecherry wine was the county's best. He is the oarsman who can pull a fast-moving raft away from the dangerous waves and dips of a rapid.

He is the historian who knows the story behind Pat Lynch, the hermit whose initials are chipped into canyon and cave walls. He can point out an unusual wild, desert orchid, rare spawning grounds for endangered fish and secret sea fossils captured in canyon stone.

Holiday is also the hiking guide who asks visitors to be respectful inside a cavern that holds ancient American Indian ruins.

"It's a real special place to me," he says, nearly whispering. "But it's sacred to the Native Americans."

The song and feel of rivers has always gripped Holiday, and its hold has only tightened with time.

"When you are younger, you do rivers for the experience," he said. "The longer you do it -- that's when I started to love the river." Slack water: To the activists, loving Western rivers means, in many cases, trying to undo the damage wrought by mankind. Where dam advocates point to the electricity Colorado Basin dams provide to 9 million people and the water they deliver to 30 million people, the activists see environmental havoc.

Wherever dams have been constructed, the surrounding ecology has fundamentally changed, usually harming the plants and animals around it. A good example is Glen Canyon, which was filled with water behind a dam built just outside the boundaries of Grand Canyon National Park, a dam Brower didn't fight but always wished he had.

Its riverbed spawning grounds for endangered fish species have been ruined by the dam flow's unnatural currents. And the trophy trout planted in the cold water below the dam are blamed for making meals of the federally protected humpback chub, flannelmouth sucker and the bluehead sucker.

More recently, the Bureau of Reclamation's renewed efforts to desalt the lower Colorado River have environmentalists worried about the fate of species-rich wetlands near the river's end, in Mexico and California.

Meanwhile, a near-war continues between the Grand Canyon's commercial rafting outfitters, who insist on using motorized boats to speed clients downriver, and wilderness advocates who say the Colorado, by law, should be motor-free in the park.

Weisheit's group has spearheaded the 4-year-old campaign to remove Glen Canyon Dam, which forms Lake Powell. Living Rivers charges that, besides imperiling or wiping out seven fish species, weak canyon walls and pressure from silt buildup will someday make the dam fail.

While dam supporters have laughed at the idea, Weisheit remains confident the dam will be removed and Lake Powell will be drained. "We can do it, and we can do it soon."

Kim Crumbo, a retired Grand Canyon river ranger and wilderness advocate, takes a starker, more ominous view.

"The victories are ephemeral," he says. "The defeats are forever." To dam or not to dam: Heady as the debates and history lessons might have been for the 20 paying customers on this trip, it was the wild Yampa that swayed their hearts.

Ranging in age from 7 to 70-something, they came from Portland, Ore., and Scottsdale, Ariz., and the nation's capital to run the Yampa and sections of the Green.

They saw how, because there is no dam, the Yampa's water is brown with silt and carries a forest of tree-size snags on its boisterous current. They observed migrating

pelicans and browsing deer. They might have seen small rabbits, snakes or the fossil remains of prehistoric life.

Still, they didn't always agree with the activist-leaders.

For instance, Denise Dion, a Maryland-based regulatory consultant and rafting enthusiast, agrees that motors should be restricted in the Grand Canyon, but not banned, because motorized rafts make the place much more accessible to the public.

"I want to go to pristine areas," she said. "But my aunt, she wants to see them, too. She's 70," and cannot get around easily without the help of paved paths and motorized conveyances.

Dion called the push for a motor ban "elitist."

"You have to think about how you can serve many masters," she said.

A retired political science professor on the trip commented: "For most people, wilderness is not having a flush toilet and a motel."

Hausser, meanwhile, has not lost any affection for his Lake Powell houseboat, although he did gain a new appreciation for conserving water and efforts to block future dams. He says activists are "unrealistic" about decommissioning Glen Canyon Dam.

"I love the idealism of the people on the trip," he said, "but they are not going to be able to take back what is done." "Don't give up": Some activists are optimistic that this, the latest effort to engage the public in the debate in the fight for the West's rivers, will succeed. Others have doubts.

Lisa Force, a project director for Living Rivers, predicts that the movement will not gain broad public support until society has a crisis, perhaps a fit of guilt over its wasteful use of the Colorado River and the ecological damage that is being left for future generations.

"The hope is we'll recognize humans are part of the Earth community," said Force, who serves on the Sierra Club's board of national directors.

Jeff Ingram, another speaker on the trip, reminded the group that Americans deeply value the places they have set aside in parks, wilderness and preserves such as the wild Yampa. Ingram is a mathematician and Grand Canyon advocate who has been described by Cadillac Desert author Marc Riesner as Brower's secret weapon in the fight against dams proposed for the Grand Canyon.

Recalling Brower's seemingly futile efforts to protect wild, Western rivers, he pressed listeners to hold fast to their ideals, think independently and pursue those ideals even in the face of what seems like hopeless odds.

Parks, wilderness and wild places are something that all Americans cherish, he said.

"You may get defeated, but don't give up." fahys@sltrib.com

LR in the News 06/17/03

Water: BuRec to alter flows at Utah's Flaming Gorge Dam to protect endangered fish

April Reese
Land Letter Colorado correspondent

The Bureau of Reclamation is putting the finishing touches on a proposal to change the way it operates Flaming Gorge Dam on the Green River in Utah to help recover endangered fish downstream, agency officials say. While federal biologists say the new flow regime will go a long way to meet recovery goals, some environmentalists contend that decommissioning the dam is the only way to help the fish over the long run.

The forthcoming draft environmental impact statement, over three years in the making, will likely call for releasing more water from the dam in the spring, said Beverly Heffernan, environmental protection specialist in the BuRec's Provo, Utah office. Providing peak spring flows will bring sediment downstream, where it forms sandbars and replenishes beaches -- important nursery habitat for endangered fish.

"The proposed action is to change the way we operate the dam so it more closely resembles a natural river flow," Heffernan said.

The draft EIS, initially scheduled to be released this spring, is now expected to be issued in October. The delay is necessary to give the agency a chance to incorporate new water temperature data into the document, Heffernan said.

The dam, authorized by Congress as part of the Colorado River Storage project in 1956 and completed in 1964, was primarily built to create a 91-mile-long reservoir that would store water promised to users in the Upper Colorado River Basin as part of the Colorado River Compact. The dam -- the largest on the Green River, a major tributary of the Colorado -- also provides hydropower: The Flaming Gorge power plant's net generation in 2002 was about 217 million kilowatt hours (kWh).

But in the 1980s, federal wildlife biologists began to suspect that the dam was harming native fish downstream in Dinosaur National Monument. In 1992, FWS issued a biological opinion that found the dam was contributing to the decline of four species of endangered fish in the Green River: the razorback sucker, Colorado pikeminnow, humpback chub and bonytail.

That prompted BuRec, which operates the dam, to study how changing the operation of the dam might help the fish. The resulting flow recommendations, completed in 2000, provided the basis for the new proposal, Heffernan said.

Under the new plan, BuRec would allow as much as 11,900 cubic feet per second (cfs) of water to flow over the dam in the spring. Currently, flows below the dam fluctuate between 830 cfs and 4,000 cfs, peaking in summer and winter, when electricity demand

is greatest. But operating the dam to simulate natural flows will not have a significant effect on power generation, Heffernan said.

Larry Crist, a fisheries biologist with FWS who helped develop the 2000 flow recommendations in his previous position with BuRec, said that while altering the operation of the dam is "a big step forward," it's only part of the solution. "It's an important element, but it's not the only element in recovering these fish," he said. "You'll have to do that in conjunction with dealing with non-native species and reintroducing native fish in places where they're no longer found."

The Moab, Utah-based environmental group Living Rivers says altering flows is not enough to recover the fish. It has urged BuRec to consider decommissioning the dam, and hoped the agency would include dismantling as an alternative in the draft EIS. But Heffernan said taking out the dam is not an option. "We can protect fish while maintaining other functions of the dam," she said.

John Weisheit, conservation director for the group Living Rivers, is skeptical.

"It's not going to work, in my opinion," he said. "They're applying band-aids to stay out of court, to show they're trying to keep the fish alive. But as long as that dam is there, affecting temperature and sediment, recovery of those fish is not going to happen."

Crist acknowledged that a natural system would be "the most ideal situation," but he said the new flow regime is "a good compromise" considering the realities of demands for power, irrigation and recreation.

"When you deal with the Endangered Species Act and you deal with recovery, it doesn't mean returning all the way to natural conditions," he said. "I think endangered fish can tolerate a certain amount of development."

And with snowmelt still below average in some watersheds, Lake Flaming Gorge provides an important source of water for a growing population, Heffernan said.

"The current drought we're in shows the value of these reservoirs, for both water storage and endangered species. It provides a source of water for everybody in a period where there wouldn't be water otherwise," she said.

"Unless we can get everybody to not move to the state of Utah, (the dam) will continue to figure in our water needs substantially."

Complicating recovery efforts is the presence of an economically important blue-ribbon trout fishery below the dam. While the endangered razorback sucker, Colorado pikeminnow, humpback chub and bonytail require warm water, trout need cool water.

Crist said the new flow regime will create temperatures agreeable to both endangered fish and trout. But Weisheit sees that scenario as overly optimistic. "You can't manage for both endangered native fish and exotic fish in the same system," he said.

Letter to LR 06/17/03
Commissioner Keys responds to LR letter

United States Department of the Interior
Bureau of Reclamation
Washington, D. C. 20240
In Reply Refer To:
W-6333 June 17, 2003
ADM-13.00

Mr. Owen T. Lammers
Executive Director, Living Waters [Rivers]
P.O. Box 466
Moab, Utah 84532

Dear Mr. Lammers:

Thank you for your letter to Secretary of the Interior Gale A. Norton dated March 14, 2003, regarding Colorado River issues. The Secretary has asked that I respond to you on her behalf. Similar to other Western rivers, the Colorado River Basin has experienced four dry years, some of which having been among the driest on record. With such a significant part of the nation dependent on water supplies from the Colorado River, it is truly fortunate that we continue to enjoy the benefits of our existing water supply facilities that help to mitigate to make up for these tough years of insufficient moisture.

As you point out in your letter, these issues are complex and sometimes contentious, and it gives me a perfect opportunity to mention the Secretary's n ew initiative, entitled Water 2025: Preventing Crises and Conflict in the West. Water 2025 recognizes the realities we face in dealing with water issues, such as explosive population growth, increasing needs for water for environmental and recreational uses, and the national importance of food and fiber production from Western. irrigated agriculture. Water 2025 sets forth a strategic plan to facilitate a vigorous and educated public discussion in key Western communities, including those that rely on the Colorado River, where the likelihood for conflict and crises over water exists or can be predicted to occur by the year 2025. I invite you to attend and participate in any of the eight regional consulting sessions hosted by the Bureau of Reclamation. The information on these sessions is located on our website, www.doi.gov/water2025.

Again, thank you for your comments and concerns about Colorado River issues. The Colorado River has been and will continue to be a top priority for our agency, and I look forward to working with you and your organization in the constructive and positive manner set forth in Water 2025.

Sincerely,

John W. Keys, III
Commissioner

LR in the News 06/30/03

Colorado River basin unprepared for shrinking reservoir capacity

April Reese, Land Letter Colorado correspondent

PAONIA, Colo. -- The intricate plumbing system that has turned the arid Colorado River basin into a patchwork of irrigated fields and fast-growing cities is at risk of running dry if water managers do not focus more effort on keeping sediment from building up behind the river's dams, some water experts and river advocates warn.

The Colorado River stretches 1,450 miles from the Rocky Mountains to the Gulf of California and the Sea of Cortez, draining a 244,000-square mile basin. More than 30 million people in seven states depend on water stored in the basin's reservoirs to provide a steady and reliable supply for irrigation, hydropower and municipal water use. But while the dams allow large volumes of water to be stored and distributed, they also intercept sediment that would otherwise be carried downstream in the silt-heavy river. Sediment is slowing accumulating in the system's reservoirs, and eventually will render their usefulness for water storage obsolete, water experts say.

"If we allow those reservoirs to fill up with sediment, we'll have severe water shortages, and we will not be able to meet our water needs," said Ron Christensen, an independent water engineer based in Salt Lake City.

Scientists say siltation is affecting areas downstream as well: Reservoirs are collecting sediment that in a natural river system would flow downstream and replenish sandbars and riverbanks, resulting in erosion and a deepening of the river channel.

Barry Wirth, who handles communications for the Bureau of Reclamation's Upper Colorado River Basin office, said sedimentation "will present some challenges," but not until "many years down the road."

Wirth said it will take centuries for silt to have a major impact on water storage capacity in the basin's reservoirs. As an example, he cited Lake Powell, the reservoir created by Glen Canyon Dam in Arizona and one of the Colorado's largest. It will not silt up for another 500 to 700 years, he said, adding that that estimate is based "somewhat on conjecture."

But some water experts say that is an overly optimistic scenario that fails to take into account the vagaries of weather, climate change, water demand and other variables.

Christensen said capacity can shrink dramatically long before silt reaches the top of a dam.

For instance, "Lake Powell has gone from full to half empty," because of the current drought, he said. "If the reservoir was half full with sediment [when the drought hit], you'd be done today, basically. All the water you'd have is what's coming down the river

- there would be nothing in storage." Glen Canyon Dam and Lake Powell. Photo courtesy of BuRec.

John Weisheit, conservation director for the Moab, Utah-based group Living Rivers, said that BuRec's wait-and-see approach could backfire.

"It puts the entire system in jeopardy, and it's going to be embarrassing for them," he said. "They're in denial. They knew this was going to happen when the dams were built."

All of the dams -- including the massive Hoover Dam, built in the 1930s -- were constructed with extra storage capacity to account for sedimentation buildup, said Bob Walsh, Wirth's counterpart in BuRec's Lower Colorado River Basin office. Dam engineers estimated how much sediment was likely to build up behind the dam and expanded the reservoir's depth accordingly, Walsh said. For example, of Lake Mead's 32 million acre-feet capacity, 2.5 million acre-feet were set aside for sediment. (One acre-foot is the amount of water needed to cover an acre of land in one foot of water.)

"Some of the organizations that would like to see the dams removed would like to tell people the dams are going to silt up and be useless. But we've never seen anything that provides hard evidence of that," Walsh said. "The engineers that planned and built these dams knew the Colorado was a silty river and they took special precautions for that. These dams were built to handle sedimentation."

It's too soon to come up with solutions to a problem that isn't likely to surface for centuries, Walsh said. And when that day comes, "there will be ways to remove the sediment, if that's necessary," he said.

Wirth added that with the water supply for 30 million people -- and counting -- hanging in the balance, BuRec would not hesitate to address the sediment problem if the agency felt it was a pressing concern.

"It's to our advantage to do as thorough a job as we can, because it's in our best interest," he said. "We want to ensure the water is there to be allocated."

In the meantime, BuRec faces more immediate challenges, such as meeting the water needs of the current generation, Wirth said. "I just don't think in the year 2003, we can make an allocation decision for the people who will be here in 500 years. But we can do that for people who will be here in 2030," Wirth said. "Those dams were built according to what society wanted in those years. Now that we have 30 million people in the basin, how do we best utilize those resources?"

But as far back as the early 20th Century, before the dams were built, federal officials were expressing concern about sedimentation. In 1910, F. H. Newell of the Geological Survey, who later became the first Director of the Reclamation Service (now BuRec) wrote: "The upper ends of all reservoirs are rapidly filled with silt and it becomes an important question to the projectors of storage works as to how many years will elapse before the value of the reservoir is practically destroyed and whether its use can be restored in part by subsequent removal of some of this material."

Wirth said that as far as he knows, none of the reservoirs in the basin have plans for handling sediment buildup.

"I think that there are ways to wash the sediment out or stop it before it gets into the reservoirs. But no one's doing anything about it," Christensen said. "I think they ought to do it sooner rather than later because we need the water storage that we're losing to sediment," Christensen said. "We ought to be maintaining our storage capacity rather than letting it fill up."

As Colorado River-dependent cities like Tuscon, Salt Lake City and San Diego continue to grow, and demands on limited water supplies increase, maintaining full storage capacity in the system's reservoirs is becoming more crucial.

"Everybody's worried about how to get more water. Not nearly as many are worried about their reservoirs filling up with sediment," Christensen added. "And they're not going to worry about it until it becomes a problem."

Although BuRec and environmental groups have completed a handful of sedimentation studies of reservoirs in the basin, many are outdated or flawed, and "very little research is being done," Christensen said.

Water experts say the little research that has been done suggests that sediment is expensive to remove or control and difficult to dispose of.

But Weisheit said taking on the problem now, while it's still in the early stages, is preferable to waiting until diversion pipes are clogged with silt.

"A sediment survey for the whole Colorado River basin is an appropriate thing to ask for and accomplish," he said. "The longer they wait, the greater the amount of sediment they will have to deal with and the more it will cost to mitigate."

LR in the News 07/06/03
Water: Growing demand, dwindling supply

Shaun McKinnon The Arizona Republic Jul. 6, 2003
Lesson No. 1 about water in the West: There's never enough to go around, and no one's making any more.

Competition for what there is has intensified as growth and drought tighten the supply. The struggle threatens everything from economic development and tourism to agriculture and municipal water supplies.

Courts are deciding who can use the water and who can't. Cities are preparing to buy or lease from farmers or Indian tribes for 10 times the current cost.

If you go Phoenix will host the first of eight regional meetings to discuss issues raised by "Water 2025," Interior Secretary Gale Norton's blueprint for reventing water crises and conflict.

The half-day conference will be held from 1 to 5 p.m. Tuesday at the downtown Hyatt Regency Hotel.

Two sessions are scheduled, one to talk about specific Arizona issues and the other focusing on resolving conflicts. Participants include Herb Guenther, director of the state Department of Water Resources; Sid Wilson, general manager of the Central Arizona Project; Douglas Nelson of the Arizona Rural Water Association; and representatives from Indian tribes, environmental groups and local governments.

Additional sessions are scheduled throughout the summer in Las Vegas; Sacramento; Salt Lake City; Boise, Idaho; Billings, Mont.; Albuquerque and Austin.

Input from the sessions could help shape Water 2025 as well as other Interior Department water policies.

The Phoenix sessions are open to the public, but advance registration is required. Information is available by logging on to www.doi.gov/water2025/az/main.cfm.

And on the eve of a series of meetings aimed at quelling some of the unrest, the federal government lobbed its own bomb, ruling on Thursday that farmers in California's Imperial Valley are wasting water and will receive less beginning next year. Furious farmers are already preparing a legal challenge that will likely drag on for months and could eventually draw in Arizona and other states.

The escalating battles pushed Interior Secretary Gale Norton to step in and try to negotiate a truce. She introduced "Water 2025" in May as blueprint for preventing crisis and conflict and planned to begin discussing it with regional water leaders beginning Tuesday in Phoenix.

"When water crises and conflict pit neighbor against neighbor, species against species and business against recreation, when they threaten your way of life, we cannot afford to stand on the sideline," Norton said last month from Denver. "The consequences . . . are just too severe."

Critics have already dismissed Norton's plan as, among other things, "Band-Aids for gunshot wounds," as the environmental group Living Rivers called it. State and local water managers bemoan its puny budget, fearing more unfunded federal mandates. But some water experts believe it's a reasonable approach to a nearly unreasonable situation.

"The water supply is finite, and the demands are growing," said University of Arizona law Professor Robert Glennon, an authority on Western water issues. "There will be no new Central Arizona Project, no second era of dam building. That's just not going to happen. What the West is looking at is the fastest-growing section of the country, a population boom that's going on unabated. The question is, What's going to give?"

Among the issues that fuel the fiercest fights:

*Growth. More than 25 million people rely on the Colorado River, which is now controlled by dams and reservoirs for much of its 1,400-mile length. Nevada has exhausted its legal allocation of the river and is now searching for alternatives. Colorado lawmakers recently approved a plan to build a new pipeline that will carry more of that state's share of the river to its most populous cities east of the Rockies.

Related links
* Saving Southwestern willow flycatcher
* Special report: A long, dry streak

The story is similar on other rivers, which strain to serve growing populations. "Almost every major river in the West is overappropriated," said John Keyes, commissioner of the Bureau of Reclamation, the agency that operates most of the region's water delivery systems. In Arizona, the groundwater supply is at greater risk of depletion, especially in rural areas.

*Environment. Courts are increasingly siding with environmental groups who want water set aside for wildlife and natural habitat. Salt River Project must spend $20 million to create and maintain a habitat for the Southwestern willow flycatcher, an endangered bird that moved into the drought-stricken edges of Roosevelt Lake. Another court ordered the Army to reduce its pumping near Sierra Vista, ruling that growth there was endangering the San Pedro River.

Just last month, a New Mexico court ruled that Albuquerque must take less water from the Rio Grande to accommodate the endangered silvery minnow. That decision is "huge," said Lisa Force, Arizona program director for Living Rivers. "It has the potential of impacting Western water law."

* Politics. Few issues have fueled the kind of political battles that water has in the West. And it has rarely been more evident than the past year in California, where the powerful Imperial Irrigation District has dug in to protect its huge water supply from San Diego, Los Angeles and the U.S. government.

Federal officials said Thursday that the district is wasting some of its allocation and will lose up to 9 percent of its water next year. Imperial holds the rights to more water than any single user on the river, more than the entire states of Nevada, Wyoming and New Mexico.

In Arizona, tribal water claims are crawling through Congress, the Legislature and the courts. The Navajo Nation earlier this year filed suit to force action on its claim to the Colorado and Little Colorado rivers, a move that could set off new skirmishes over who must give up water to satisfy any settlement.

If the tribes decide to lease water back to urban providers, they could demand premium costs. Valley cities that now pay roughly $30 to $100 per acre-foot could find bills topping $1,000 per acre-foot, according to water experts. (An acre-foot equals 325,851 gallons.)

* Agriculture. Despite the urban growth explosion, farmers still use more water than anyone else in the West. The Imperial Irrigation District in southern California holds the largest single allocation on the Colorado River, larger even than all of Arizona's. That gives farmers power, but in many cases, it also gives cities a source of water for new growth. The battles will focus on how farmers will reduce their consumption and how much cities will have to pay them to do so.

* Drought and climate. The one pressure point out of anyone's direct control, drought has reshaped many of the arguments in recent years simply by reducing the amount of water available. Both the Colorado River and the Salt and Gila rivers in Arizona produced record-low runoff last year, forcing cities to draw heavily on reservoirs. Lake Powell is now at half-capacity, and Lake Mead dropped low enough to trigger limits on some states.

Drought cycle

University of Arizona hydrologist Julio Betancourt predicts the Southwest is headed into a long-term drought cycle that would choke the water supply for years or even decades. But that may be just the beginning, according to Tim Barnett, a researcher at Scripps Institution of Oceanography who is studying abrupt climate change.

Warming seasonal temperatures will shorten the snow-melting season in the West's high country and will reduce runoff by 17 percent to one-third on the Colorado River and other systems, leaving them unable to meet demands for the foreseeable future, Barnett asserts.

Those pressure points form much of the foundation for Norton's Water 2025 initiative, which begins with what she calls "the five realities:" growth, existing water shortages, conflicts caused by those shortages, aging water delivery and treatment systems, and ineffective crisis management.

From there, she proposes four tools to help stave off future crisis and conflict: improving water management through conservation, efficiency and water markets, such as Arizona's water bank; collaboration among cities, farmers, environmental groups and others who have a stake in the West's water; boosting supplies with technology such as desalinization of water that otherwise would be wasted; and adjusting policy and even law to more efficiently use existing supplies.

The proposal included an $11 million appropriation for the first year, an amount reclamation chief Keyes acknowledges would barely address issues in Phoenix but still "money to get things started." The Interior Department will encourage state and local leaders to develop ideas and plans suitable for their specific situations.

Water experts say the plan falls short of addressing some of the most critical conflicts still looming. One potentially blockbuster showdown is brewing just over the border in Mexico, where environmental groups in that country and this one are trying to force their governments to restore the Colorado River Delta. That once lush riparian area most years now receives no water from the overtaxed river.

Restoring it would cost tens of millions of dollars and billions of gallons of water, which someone would have to give up at such a significant cost that few U.S. leaders will even consider it. Some delta advocates have tried instead to focus on minor successes that could lead to a long-term approach.

One such example is a tiny edge of the delta just south of Yuma, where runoff from farms has created a new riparian habitat that supports birds and other wildlife.

"The big lesson is that it is possible on very small water budgets to finally incorporate wildlife and the river itself into the way we manage the river," said Charles Bergman, whose book Red Delta chronicles the transformation.

The one hitch: The water that runs into the marshes is the same water that some officials want to treat and desalt, making more efficient use of it.

The only way around such conflicts is to settle feuds, set aside differences and cooperate, said Patricia Mulroy, general manager of the Southern Nevada Water Authority.

'This is all political'

"The consequences of not cooperating are very real and very immediate," Mulroy said. "If this drought continues, there is no way, given the current separatist approach of the lower basin states, that we can all make it through. This is all political. The hydrology of the river has made those politics more acute."

She said Arizona's willingness to bank water for Nevada is one sign that politics aren't forever. Norton actually cited the water bank in her initiative as an example of what should happen throughout the West.

"Long-lasting solutions will come from the people who must live with or learn to live without the water they need," Norton said.

"Doing nothing is an option, but only if we are willing to accept the drastic consequences that follow."

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LR in the News 07/12/03
Thirsty Colorado Is Proposing to Stick a 'Big Straw' Into Its Namesake River

July 12, 2003 LA Times Headlines
By Bettina Boxall, Times Staff Writer

GRAND JUNCTION, Colo. - It's an audacious - some say absurd - scheme: Take Colorado River water just before it slips over the Utah border, pump it east more than

200 miles, lift it 5,000 feet over the Rocky Mountains and deliver it to the state's burgeoning Front Range communities.

Nicknamed the "Big Straw," it is a big, old-fashioned kind of idea, reminiscent of the mega-water projects that greened the West in the 20th century. Estimates of its cost start at $2.5 billion and climb. Opponents call it a giant boondoggle in the making that would suck water from some of Utah's most popular rafting spots and deplete flows needed by endangered fish.

The Big Straw's grand scope underscores Colorado's keen desire to protect its full share of the 1,400-mile-long river that cleaves the Southwest like a rusty saw. Downstream in California, the plan is seen as a harbinger of the future, when the rising demands of other states along the Colorado will inevitably staunch the bounteous surplus on which the Golden State has long depended.

The water hog of the Colorado, California has no choice but to stand by while other states move to tap their full entitlements meted out by Congress and a multi-state compact in the 1920s and '40s. "They have a right to develop their apportionment," said Dennis Underwood, vice president of the giant Metropolitan Water District of Southern California.

California's prodigious thirst looms large in Western water policy and is helping drive the Big Straw proposal. Politicians see it as a way to keep Colorado water in Colorado - and out of the swimming pools and sprinkler systems of Southern California.

"While Coloradans are carefully considering which day they are allowed to turn their home sprinklers on, California lawns are lush and green, thanks to Colorado's water," Gov. Bill Owens lamented during a water policy discussion this spring.

The Big Straw proposal is still in the earliest stages of review. A $500,000 study, due out in the fall, will determine only if the project is worth pursuing, not whether it will be built.

Nobody can say at this point how much electrical power it would take to transport the water, how much the project would cost, who would pay for it, what the route of the pipeline would be, or how much treatment the water would require. Nor can anyone say precisely who would use the water, which is coveted more for the Front Range's future growth than current consumption.

But Grand Junction water attorney and Big Straw backer Gregory Hoskin believes there is a ready market, even if the water proves expensive.

"This is the desert. People can't stand the desert. They need trees. They need green," insisted Hoskin, a member of the Colorado Water Conservation Board. "I don't know what people will pay for water. But I know people with money will pay anything to water their lawn."

Were it not for a mismatch of geography, Coloradans would probably already be using their full share of the river. But the Colorado, like most of the state's water, is on the

western side of the Rockies, while most of its people - and growth - are on the eastern side in a stretch of development that runs from Colorado Springs to Denver and beyond.

Starting in the 1930s, the state and the federal Bureau of Reclamation developed a complex system of reservoirs, aqueducts and mountain tunnels to ship water to the eastern side of the Continental Divide. The Big Straw would reach farther, pulling water through a 10-foot-wide pipe all the way from Colorado's westernmost border. The pipeline would climb 4,000 to 5,600 feet over the Rockies, higher than California's most grandiose projects. Although the State Water Project in California sends water a greater distance - 600 miles south to Los Angeles from the Sacramento-San Joaquin Delta - its rise across the Tehachapi Mountains is no more than 2,000 feet.

By waiting to tap the river after western Colorado has used what it wants, the Big Straw would avoid many messy in-state water brawls. But removing at least several hundred thousand acre-feet of water annually - an acre-foot would supply two Southern California households for a year - could change the nature of the river in the downstream states.

There would be much less flow for the river's four endangered fish species, for the huge reservoirs that store water for the Lower Basin, and for the rafting outfitters who play a significant role in Utah's recreation economy.

"We think it's horrible. It could put the river-running industry at risk," warned John Weisheit, conservation director of Living Rivers in Moab, Utah, and a member of several river outfitter boards. "It is going to be a huge burden to the taxpayer, when the more reasonable alternative is conservation."

The proposal has its critics in Colorado as well. "I don't think average, everyday Coloradans want to pay through the nose for a project like this," said state Sen. Terry Phillips, a Democrat from the Denver suburb of Louisville who scoffed at the Big Straw as an extravagant fantasy when the Legislature appropriated funding for the preliminary study. "It's ridiculous."

At the Colorado Canyons National Conservation Area, manager Greg Gnesios fears the pipeline's massive infrastructure could blight the scenic red rock canyons of the 123,000-acre tract bordering the river at the state's western edge.

"It's almost like putting it through the national park," Gnesios said. "That could create some problems for the Big Straw folks."

Dan Luecke, a hydrologist who works for several Colorado environmental groups, doubts that the scheme will survive close scrutiny.

"I think an evenhanded study will drive a stake in its heart," he said. "It's a bad idea. It will be enormously expensive. It will require an enormous amount of energy to pump that water. It will have incredible water quality problems."

Born amid the 13,000-foot peaks of Rocky Mountain National Park, the Colorado is far from pristine when it hits the Utah border. Often it resembles a giant, murky irrigation ditch.

On its course down the western slope of the Rockies, the river picks up salts and selenium from the riverbed and farm runoff, as well as urban effluent. The river's salinity levels at the Utah border are 10 times greater than they are at its headwaters. Selenium levels at times exceed state standards. If pumped untreated to high-country reservoirs on its way to the Front Range, the border water would be warmer and dirtier than the supplies into which it is piped, lowering overall water quality.

"From our standpoint, that is the biggest concern," David Nickum, executive director of the Colorado Council of Trout Unlimited, said as he stood near a mountain reservoir that flows into a trout-fishing river. "If you envision taking a large amount of water out of the Colorado and bringing it up here, it's hard to imagine the magnitude of the change [in quality] or the magnitude of treatment."

Using more water in the Colorado's Upper Basin also means that less water would reach the Lower Basin, where California has been sucking more than its share from the river for nearly half a century.

It could do so because the other six Western states that draw from the Colorado didn't need their full allocations. But as the West grows, that is changing. Arizona and Nevada have both begun to use their full river entitlements in the last three years.

"Now the reason there are surpluses is because the Upper Basin states have not developed their allocations," observed Jerry Zimmerman, executive director of the Colorado River Board of California. "In the future, there will not be surpluses nearly as frequently."

Nor is there as much water in the Colorado as everybody thought when the river's flow was divvied up between the Upper and Lower basins in a 1922 interstate compact.

Hydrologists had figured that 18 million acre-feet of water a year spilled down the river's rock-walled canyons to the Gulf of Mexico. But that estimate, based on a wet period, turned out to be too high by about 3 million acre-feet a year. The average river flow is in fact less than the total legally allotted to the seven basin states and Mexico.

"If you have a river overcommitted, then the chances of getting shortages are there. That's why you need to look at more effective ways of doing things," said the MWD's Underwood.

Ironically, the Big Straw idea grew out of love of another river. Ralph Clark III, a private environmental planner, first proposed it in the late 1980s as a way of protecting the headwaters of the Gunnison River in western Colorado. Better, he thought, to take water from the Colorado at the state border than divert the upper reaches of his beloved Gunnison to the east side of the Rockies.

But even Clark is not yet prepared to endorse its construction. He thinks of the Big Straw, which he more mundanely calls the Colorado Aqueduct Return Project, as a last resort. * Times staff writer Doug Smith contributed to this report.

LR in the News 07/17/03
Reclamation chief won't drain Powell

Arizona Daily Sun
By PAUL FOY
Associated Press Writer

SALT LAKE CITY -- Advocates of draining Lake Powell and allowing the Colorado River to flow freely through southern Utah again pitched their idea Wednesday to the head of the Bureau of Reclamation, but he dismissed it out of hand, declaring: "That's never going to happen."

Reclamation Commissioner John Keys convened the fourth of eight regional conferences on Western water problems Wednesday in Salt Lake City.

Speaking to about 350 government and water district officials, Keys advocated conservation, collaboration and planning. He told officials they shouldn't look to the federal government for money as a solution.

"I didn't come here with a bag of money to solve everyone's water problems," Keys said.

Advocates of draining Lake Powell argued that four years of drought have left the huge reservoir on the Utah-Arizona border only about half full.

John Weisheit, director of the Moab group Living Rivers, said Lake Powell could be sucked dry in eight years if the drought continues. Keys disputed that, saying Lake Powell never would run dry. And he said it would be irresponsible to drain Lake Powell or Lake Mead, the two largest Colorado River reservoirs.

Weisheit said the reservoirs squander huge quantities of water to evaporation and seepage -- a loss Keys dismissed as the "cost of doing business."

Without Lake Powell or Lake Mead, Keys said, the 23 million people who depend on the lower Colorado River basin would have had only 40 percent of their normal water supplies last year.

"It's something that's never going to happen," he said in an interview of the idea of tearing out Glen Canyon Dam. "I won't spend a dollar studying it.

LR Press Release 07/22/03

House votes to destroy Colorado River Delta wetlands

Taxpayer money to be wasted on mothballed desalting plant; Senate yet to act

Contacts:
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The U.S. House of Representatives voted last Friday to retool a defunct desalting plant near Yuma, Arizona. The Bureau of Reclamation (Bureau) estimates the cost of repairing the now obsolete plant technology at $26 million. The decision was made despite the reality that operating the plant will destroy the majority of wetland habitat in the Colorado River delta region, and that far less costly measures are available to meet US treaty obligations for water delivery to Mexico.

"At a time when federal deficits are skyrocketing, it's unbelievable that Congress would consider throwing away taxpayers dollars to retool this plant, " says Lisa Force, program director for Living Rivers. "This is pork barrel politics at its worst."

The inclusion of the provision in the House report on the 2004 Energy and Water Appropriations bill allows for re-operating the Yuma Desalting Plant, a measure which the Bureau estimates will cost a minimum of $36 million annually. Completed in 1992 at a cost of $256 million to clean up brackish wastewater from farms in southern Arizona, the plant was shut down several months later due to extremely high operating costs. The Bureau of Reclamation has downplayed an alternative solution costing 33% to 85 % less--just $6 million to $26 million annually--involving paying willing sellers to lease water they presently do not need.

The agricultural wastewater that the plant would process is now funneled into the Cienega de Santa Clara, a 40,000-acre open water ecosystem in the Colorado River delta region. The desalting plant would remove the entire flow from the cienega and return only highly saline brine to the wetlands.

“This provision would destroy an extremely important wetland in Mexico that contains the largest remaining population of Yuma Clapper Rail in the world,” says Bill Snape, Defenders of Wildlife Vice President for Law and Litigation. "It will be impossible to replace the value of the Cienega de Santa Clara to the Colorado River ecosystem.”

The cienega is the largest remaining wetland in the southwest Americas and is home to fifty-six threatened, endangered and declining species. Several scientific studies funded by the Depatment of Interior confirm that the wetland would be completely destroyed by desalter operations.

"This is reminiscent of the days of old, when the Bureau wasted tax payer money left and right, leaving renowned habitat laid to waste," says John Weisheit, conservation director of Living Rivers and the designated Colorado Riverkeeper.

"We are disappointed that some members of Congress wish to move forward with such an expensive and destructive proposal. Congress mandated public involvement in Colorado River management but we fear the public is not being heard," says Steve Glazer, Chair of the Sierra Club Colorado River Task Force.

"We're fighting hard to ensure the Senate does not duplicate the folly of the House," adds Lisa Force. The U.S. Senate is expected to vote on the water and energy appropriations bill as early as this week.

LR Press Release 08/11/03
Sediment forces closure of Hite Marina

For immediate release
August 11, 2003

Contact: John Weisheit (435) 259-1063

Sediment makes access to Hite Marina impossible

Glen Canyon Dam hydropower at risk

As predicted two years ago by the environmental group Living Rivers in Moab, Utah, Colorado River sediment at Hite Marina has necessitated the removal of all reservoir conveniences such as the floating store, fuel docks, water and septic lines, boat rentals, and courtesy docks. With the blessing of the National Park Service the concessions operator, ARAMARK, has literally lifted anchor and towed their floating facilities down-reservoir to keep their investment from becoming engulfed in mud.

A "use at your own risk" boat launch currently remains open for the convenience of river runners and small, hard-hull boaters. Because Lake Powell reservoir is dropping fast, this primitive boat ramp will be completely unusable by the first of September, and will force river runners to go another 45 miles down-reservoir to exit instead at Bullfrog Marina.

The land-based facilities at Hite, which includes a store, gasoline, drinking water and a sewer clean-out, will remain open to service the needs of the residents and the traveling public.

In 1986 the Bureau of Reclamation determined that the delta for the Colorado River arm was located at Dark Canyon, which is 15 miles above Hite. The National Park Service and ARAMARK jointly authorized a sediment survey to be conducted by Mussetter Engineering of Denver in 2000. The engineers had determined that the delta advanced from Dark Canyon to the mouth of the Dirty Devil River at a rate of about one-mile per

year. At present the delta is just beyond Hite Marina where the original river channel is 245 feet below the full reservoir elevation of 3700 feet.

According to the 2000 survey, reservoir managers were given another 35 years of service at Hite Marina provided the reservoir could be maintained at full pool. "Such a projection is incredibly optimistic," says John Weisheit, conservation director of Living Rivers. "Considering the downstream demand for water, the present drought situation, and how the river erodes into the exposed sediment and feeds the delta, the facilities at Hite are basically history."

By April of 2004, Lake Powell reservoir is predicted to be 106 feet below normal. At this elevation, Bullfrog and Antelope Point marinas will also feel the effects of sustained drought. The boat ramp at Bullfrog is beginning to flatten out and the lack of incline will make it very difficult to load and unload boats--especially longer craft such as a houseboat and the highway department's ferryboat. Because Antelope Point is located on the rim of the original Colorado River canyon, the lowering reservoir level will perch this boat ramp high and dry. Already boat traffic is creating congestion problems at the narrows before Antelope Point and a no-wake designation is now being enforced to minimize hazards to navigation.

During the spring snowmelt, Lake Powell reservoir levels rose a mere 11 feet. Already the reservoir has returned to the levels of the previous winter. With no drought relief in sight, this continuing trend will eventually place power generation at risk too. The minimum storage level to safely produce electricity is set at 6 million acre-feet. Right now the reservoir is storing 12.7 million acre-feet of water at 50% of capacity. Power generation at Glen Canyon Dam could effectively end in two or three years under present drought conditions.

"This drought emphasizes the dubious nature of Lake Powell reservoir. By decommissioning Glen Canyon Dam we could restore five hundred miles of river to its natural habitat, which includes Grand Canyon National Park, while at the same time saving the water that is otherwise lost to evaporation, " concludes Weisheit, who is also the designated Colorado Riverkeeper.

LR Letter 08/11/03
Proposed Modification to Mechanical Removal of Non-native Fish from the Colorado River in Grand Canyon Arizona, dated July 25, 2003

August 11, 2003
Mr. Dennis Kubly
Bureau of Reclamation
125 South State Street
Suite 6107
Salt Lake City, UT 84138-1107

Re: Proposed Modification to Mechanical Removal of Non-native Fish from the Colorado River in Grand Canyon Arizona, dated July 25, 2003

Via Fax and E-mail

Dear Mr. Kubly ,

Thank you for the opportunity to submit comments on Proposed Modification to Mechanical Removal of Non-native Fish from the Colorado River in Grand Canyon Arizona, dated July 25, 2003.

Living Rivers finds this proposed action constitutes improper science, thus an inappropriate deviation from the original objective. Living Rivers is also disappointed that this proposed action represents yet another example of how the Adaptive Management Program (AMP) is failing to address the long-term recovery needs for endangered fish, and merely perpetuating a reactive strategy with no demonstrated results.

1) No justification for altering the experiment

As noted in materials for the 13-14 August AMP meeting, it is clear that in-migration is occurring in the existing mechanical fish removal zone. The supplemental EA stated the contrary. (The EA should be re-written to reflect this new information, and released again for public comment.) Since there is no confirmation that the experiment is indeed permanently reducing non-native population to desired levels, there is no reason to contemplate any change in the experiment.

Second, while the experiment is certainly demonstrating that fish are being killed, there is no data to support the experiment is leading to improved Humpback Chub recruitment. It is improper to change the parameters of the experiment until such time as there is a demonstrated rational to do so. Such is not the case at present, especially, as noted above, with migration now well underway.

Third, there has been no independent review of this proposal, a consistent recommendation by the National Research Council and the National Academy of Sciences of such GCMRC activities.

2) Demonstrated lack of focus on the long term objectives.

The investment of AMP resources in contemplating and studying the alteration of an incomplete, and so far, inconclusive experiment is yet another unfortunate example of poor leadership within GCMRC and the AMP. There is an extensive amount of work that needs to be undertaken to help recover Grand Canyon's native fish, the principle charge of the AMP. After nearly two decades, seven under the direction the AMP, the results have been abysmal. This is in no small part due to wasted resources, such as plans to alter an experiment with insufficient justification to do so.

A more appropriate investment in resources would be to begin studying and implementing mechanisms to address the need to reduce non-native fish with natural,

as opposed to mechanical approaches. An objective of the AMP is to reintroduce presently extirpated species, such as the Colorado Pikeminnow or Otter. Both such species would gladly feed on the non-native fish, likely at a much higher rate than the remaining natives.

With movement now by the AMP to address the need to warm the water, habitat conditions may be sufficient to support Pikeminnows. But the AMP need not wait until the temperature issue has been resolved to implement such a reintroduction, as it may petition to so for experimental purposes, despite the fact that it is unlikely that the Pikeminnow can reproduce in the present system. However, if it appears that they are helping to significantly reduce the non-native population, with minimal impact to the native fish, and thus aiding in Humpback Chub recruitment, this would be cause to accelerate efforts to realize this species recovery as well.

While the Park Service has so far been resistant to Otter reintroduction due to inconclusive evidence regarding which sub-species dominated Grand Canyon habitat, it is clear that the increased interest and assumed need to increase predation on non-native fish, amplifies the call for implementation of a reintroduction plan.

Such nature-based proposals to mimic and rebuild the natural system should be the focus of the AMP, not short-term efforts to modify inconclusive experiments.

Thank you for your attention to these concerns.

Sincerely,

John Weisheit Conservation Director

LR Letter 08/13/03
Concerns regarding Glen Canyon Dam Adaptive Management Program

August 13, 2003
Mr. Michael Gabaldon Deputy Director of Operations U.S. Bureau of Reclamation Department of Interior 1849 'C' Street, NW Washington, DC 20240

Re:Concerns regarding Glen Canyon Dam Adaptive Management Program

Dear Mr. Gabaldon,

The consistent message emanating from the Glen Canyon Dam Adaptive Management Program (AMP) is that it is failing in achieve its principal objective, the protection and recovery of endangered Humpback Chub (HBC). While the AMP and independent scientists debate how low HBC numbers are, all agree that they have declined considerably since the process began seven years ago. Living Rivers recognizes that AMP efforts are underway in an attempt to remedy this situation, but is very concerned that such efforts are not sufficiently comprehensive, nor do they justify hasty and inappropriate management practices.

Furthermore, Living Rivers believes that more than sufficient "new information" now exists to warrant the immediate undertaking of an entirely new, or supplemental, Environmental Impact Statement (EIS). Additionally, such new information also warrants an EIS be prepared for the planned Temperature Control Device (TCD) or the potential installation of generations on the dam's bypass tubes.

1. Emphasis on HBC numbers insufficient to address recovery needs

The AMP and Grand Canyon Monitoring and Research Center (GCMRC) focuses undue emphasis on yet conclusive approaches of counting of fish, and little to no resources on understanding their physical condition, nor the biological parameters necessary for their recovery. After nearly seven years of operation, all GCMRC has learned is that HBC populations are declining, but cannot determine by how much. The present estimate has an one hundred percent level of variability of 2,000 to 4,000 fish. Why has GCMRC yet to develop a mechanism to provided reliable fish counts, nor can the scientists within the AMP agree on whether the present counts constitute a crisis as far as the near extirpation of HBC in Grand Canyon?

The AMP's priority should not just be numbers of fish, but knowing their physical condition and what biological parameters must exist for preservation, and, as necessary, recovery. In 2000, Meretsky, et. al., published findings that indicated a possible decline in HBC condition since 1978. If true, such a trend would indicate that factors other than predation are effecting the HBC, and that undue emphasis on predation, as is presently occurring, won't address this problem. So far all reports and analysis by the AMP have focused on HBC numbers, and not their relative condition or health. While some of this data has been collected, there has not yet been any ongoing analysis of HBC condition factors as was recommended by Meretsky. Why?

Additionally, GCMRC has not developed sufficient information on HBC biological parameters. Such understanding is critical for making effective management decisions for the HBC future in Grand Canyon. At minimum, GCMRC should be investigating feeding habits, water quality, and recruitment and migration patterns for all periods of the HBC's lifespan. As the Little Colorado River presently represents the sole refuge for HBC in Grand Canyon, immediate emphasis should be placed on understanding the biological parameters to be persevered in this tributary to ensure this critical habitat is not disrupted.

Lastly, GCMRC must determine the population level, and changes in biological parameters, that would trigger a cessation of handling HBCs so as to avoid placing undue stress on the remaining population.

2. Inappropriate emphasis and approach to alien fish suppression

Scientist’s are in agreement that predation by alien fish on HBC is limiting their recruitment, and thus suppression of these predators is warranted. While Living Rivers concurs, we find GCMRC's management choices are over-emphasizing this aspect of the problem, potentially to the detriment of the HBC recovery effort, and the scientific integrity of the AMP process.

First, the non-native fish suppression flows from Glen Canyon Dam represent a significant departure from the spirit of the EIS and the Record of Decision (ROD). While the flow levels themselves are within the ROD, they are being used in an attempt to affect non-native fish, not to directly affect native fish as was contemplated in the EIS. Any departure from the river's natural hydrograph is bound to have negative effects ecosystem-wide, not just the HBC. However, because the AMP has not sufficiently addressed the biological parameters for the HBC, it is not yet qualified to determine if, and to what extent, these alien fish suppression flows are impacting HBC recovery. It is also unclear if these flows have demonstrated any formidable change in trout populations. Plans to repeat these flows in 2004 are not prudent. Also, how could these increases in daily flows compliment a Beach/Habitat Building Flow planned for January if triggers are met? They seem at odds with each other.

Living Rivers is also concerned with the lack of independent review, and competitive bidding associated with contracts being let for monitoring the results of these experimental flows. When the AMP began seven years ago, it took pride in the independence afforded in the competitive bidding process for its science programs. Now, the vast majority of this work is being moved in house to GCMRC staff. When consultants are being used, as in the case of monitoring for these experimental flows, they are awarded without any competitive bid. This appears particularly suspicious in this case, since a contract was awarded to ECO PLAN Associates, which has been under contract with the Western Area Power Administration (WAPA). As these experimental flows would benefit WAPA and its customers by affording greater flexibility in power generation ramping, and that a variety of other consultants with greater experience in this area were not considered by GCMRC, AMP's appointment of ECO PLAN Associates has the strong appearance of industry bias.

Problems with the lack of independent oversight also appear to be surfacing with the mechanical fish removal program. The recent proposal to alter this program has been prematurely developed and submitted to the AMP without sound justification. The experiment has yet to demonstrate any impact on HBC recruitment, nor that in-migration is indeed not occurring in the target zone. Independent review of such proposals as recommended by the National Research Council should be standard procedure for such modifications to AMP activities to avoid such potential missteps in future.

A more appropriate and economically sustainable plan for non-native fish removal would be to study the reintroduction of natural predators. The management objectives of the AMP are to reintroduce presently extirpated species, such as the Colorado Pikeminnow or River Otter. Both aquatic predators species would gladly feed on the non-native fish, and likely not harm the native fish population.

The AMP could petition the US Fish Wildlife Service for an experimental release of the endangered Pikeminnow, despite the fact that it is unlikely that the Pikeminnow can reproduce in the present ecosystem. Thermal modification of the river could also provide the needed habitat for recruitment of these native predators. This scenario

would provide sustainable control of alien fishes in Grand Canyon while providing for the recovery of two native fish.

There has been resistance to studying River Otter reintroduction due to inconclusive evidence regarding which sub-species dominated Grand Canyon habitat. However, it is clear that the increased interest and assumed need to increase predation of alien fish, particularly trout, amplifies the call for a reintroduction plan. Such nature-based proposals to mimic and rebuild the natural system should be the focus of the AMP, not short-term efforts to modify inconclusive experiments.

3. Need for a Supplemental Environmental Impact Statement

The assumed environmental baseline associated with the Glen Canyon Dam EIS, and the launching of the AMP has little bearing on reality. Options allowed under the ROD have been attempted and have proven to be ineffective, leading to continued impairment to all significant downstream resources since the ROD was implemented. This is now placing the AMP in uncharted territory, as evidenced by the implementation of trout suppression flow not contemplated by the EIS or the ROD. Furthermore, the continued drought conditions are effecting reservoir levels, and soon, water temperature and dam operations in a manner not evaluated in the EIS. The AMP is effectively operating without a net, and must advise the Secretary of the Interior to call for a supplemental EIS to guide and inform its future programs.

The most significant changes are in HBC populations and sediment budgets. While the AMP has yet to agree on how bad the current HBC count is, there is no doubt that the population is in significant decline since the program began. Furthermore, there has been no movement on establishing a second population in the mainstem Colorado. Beach building efforts under the ROD have not worked in a sustained manner. The number and size of beaches in the Grand Canyon have experienced a significant decline since the AMP was put into place. Not only has this negatively effected the Canyons recreational experience, but has also impacted the river corridor's cultural resources which are now prone to erosion.

Anticipated upstream impacts associated with reduced elevations of Glen Canyon Reservoir (i.e. increased temperatures, modified nutrient dynamics, etc.) will have significant effects on the downstream resources in the Grand Canyon. As the drought situation persists, these effects will become most pronounced once reservoir levels fall below the elevation of the penstocks.

The key to reinitiating compliance with the National Environmental Policy Act, through a supplemental EIS, is if new data or impacts are recognized. Clearly in the case of Glen Canyon Dam and Grand Canyon National Park, significant new data (biological and sediment) indicate that the ecosystem needs to be reevaluated and assessed. The fact that new data on the HBC, sediment deposits, cultural resources, water quality, and reservoir levels show that decisions made on the original data from the Glen Canyon Environmental Studies is now in need of reassessment.

Thank you for your attention to these matters, and we look forward to your reply.

Sincerely,

John Weisheit Conservation Director

LR Press Release 08/15/03
Draining Update: 50 percent--forcing marina closures.

Marinas left high and dry, power generation next to go.
Contact:
John Weisheit (435-259-1063 or 435-259-8077)

Lake Powell reservoir is down 90 feet from normal, equating to a reservoir that is half full. The National Park Service, which manages marina facilities at Lake Powell, is at the beginning of shutting down marina's because they can no longer accommodate launch vessels. Meanwhile, Glen Canyon Dam is just two years away from no longer being able to generate hydroelectric power.

Now in the fourth year of an anticipated sustained drought, Lake Powell reservoir will soon be empty. Forecasters have informed the Park Service that the reservoir levels will only be getting lower. The reservoir is dropping faster than it can be replenished.

The United States Geological Survey 2002 report on Southwest climate change predicted that the Colorado Plateau would be heading into a 30-year period of below average river flows. Previous estimates by forecasters, on the impacts of such a sustained drought, calculated that Lake Powell would be drained within eight years. It's right on schedule. In July 1999, Lake Powell was at 90 percent. As of August 1, 2003, it was at 50 percent.

If the present drought does not relent, within two years Lake Powell will drain to the level of the penstock tubes that spin the generators at Glen Canyon Dam. According to a model that was published in October of 1995 in the Water Resources Bulletin, if a severe and sustained drought similar to the drought of the late 16th century appears, Lake Powell could stay drained for eight years.

"We're witnessing the end of Lake Powell right now," says Living Rivers' Conservation Director John Weisheit. "This was predicted, and nothing the National Park Service or the marina operators can do will change this."

- Two of Lake Powell's six boat ramps have been closed, and another will be closed by the end of the season. River sediment has brought an end to the marina at Hite at the top of the reservoir. At the other end of the reservoir, near Glen Canyon Dam, Antelope Point's marina facilities will soon be forced to again close because they will be perched atop a cliff being exposed as the reservoir lowers. This, just four years after construction in 1999.

- A $3 million emergency appropriation was made in January to extend three other boat ramps at Bullfrog, Hall's Crossing and Wahweap marinas. But as the reservoir continues to lower, Bullfrog marina may also see its facilities shurt down. Wahweap and Hall's Crossing will probably be able to stay open until the reservoir completely drains.

- A a new $75 million marina facility is supposed to be under construction at Antelope Point, but with a 500-foot cliff being exposed where the launch ramps are proposed, progress has stalled. Calls to Antelope Point Holdings and their engineers, revealed no comment to the feasibility of the project..

- The fate of the white-water rafting industry, which concludes trips at the top of Lake Powell, is also a major question. With sediment and mud clogging the marina and boat ramp at Hite, rafters will have a very difficult time getting off the water.

"As the drought persists, it is going to be very difficult, if not impossible, to conduct business as normal with the river and reservoir users. This includes the Grand Canyon river runners who will lose the large Glen Canyon Dam releases they need to run their large motorized boats through the canyon only to arrive at the sediment-choked Lake Mead," adds Weisheit.

Lake Powell is not the only problem. The entire Colorado River storage system has droped from 92 to 60 percent over the past 44 months. "Lack of access to flat water recreation is the least of our worries," concludes Weisheit. "The Southwest plumbing system is headed for complete catastrophe, and the Bureau of Reclamation and the seven states that use Colorado River water have no disaster preparedness."

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Web pages on Southwest climate change:

Severe and Sustained Drought for the Colorado River Watershed

Precipitation History of the Colordo Plateau

Latest News on the National Campaing to Drain Lake Powell and Restore Glen and Grand Canyons

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LR in the News 08/17/03
Colorado River Battle: 100 Years of Water War

Deal: Thirsty California, desperate for water, is willing to pay reluctant farmers billions to get some of their surplus.
By Alec MacGillis
Baltimore Sun National Staff

EL CENTRO, Calif. - Inch by inch, the life's blood of a large swath of the United States - Colorado River water - seeped across the desert. Or rather, across the desert that is now Mike Cox's cotton field.

For Cox, circling the field in his pickup truck to check on the water's progress, soaking his cotton is a routine procedure. Every 10 days during the summer, he uses 7.8 million gallons of water diverted by canals from the Colorado River to irrigate the 70-acre field, just a fraction of the 1,000 acres he farms in California's Imperial Valley.

But for the rest of the Southwest, Cox's routine watering represents something more significant. In this single irrigation of a tiny corner of a broad farming plain, Cox used about as much water as 50 households use in a year - as much as all their showering, toilet-flushing and dish-washing put together.

This is the explosive equation at the heart of the battle that, after gripping the Southwest for years, is now nearing a climax.

With the cities of the western Sun Belt booming, much of the water from the Colorado River, the main water source in a parched region, continues to be used by only a few hundred farmers in the Imperial Valley along the Mexican border.

The valley won the right to the water more than 100 years ago and has guarded it ever since. But in a historic shift, the Southwest is now on the verge of a landmark transfer of Colorado water from the Imperial Valley to San Diego.

The deal, which negotiators hope to seal by next month but which could still collapse, might help resolve a conflict that has been building for a century.

The war over Colorado water has pitted cities against farmers, fomented tensions among seven states, and dominated the attention of Native American tribes, environmentalists, federal officials and Mexico. The water wars have transformed a whole corner of the country, from the construction of vast cities on arid plains to the accidental creation of a sea in the middle of the desert.

For the 25 million Americans who rely on the river as it flows 1,400 miles from the snowpacks of the Rocky Mountains to its delta across the Mexican border, the outcome of the negotiations is nothing less than a matter of their region's survival.

"The big picture is that there are more rights to water from the Colorado than there is reliable water in the river," said Robert Glennon, a law professor at the University of Arizona. "We have a train wreck ahead of us."

Under the deal, San Diego would pay the Imperial Valley $2.5 billion over 45 years to receive about 7 percent of the valley's share, water made available by more efficient irrigation. The water would compensate for the cutback California faces because of higher usage in Arizona, which now stores river water underground, leaving less for its western neighbor.

The deal, which also includes several smaller transfers within California, looks like a win-win arrangement. San Diego would get a reliable new source of water, while the Imperial Irrigation District would be able to sell water to San Diego at a rate 16 times what its own farmers pay.

But in the kind of twist so common to the water wars, a possible deal-breaker arose last year. Conserving water on Imperial farms, it turns out, would doom the Salton Sea, the giant lake in the middle of the desert at the valley's edge, imperiling millions of birds for which it is a key stop on the Pacific flyway.

Last week, amid the hoopla of the effort to recall Gov. Gray Davis, negotiators spent long days in Sacramento seeking a way to split the cost of protecting the sea and still salvage the transfer.

It is a surreal situation, with all the water machinations of the classic film Chinatown: Because of water being pumped into the Arizona sand, farmers in the California desert are being urged to sell water to a port city but are being held up by the danger of causing a landlocked sea to vanish from the Earth.

A century of change

It seemed simpler when farmer Cox's predecessors in the valley won rights to the water more than 100 years ago. Phoenix was a desert town of 5,000, San Diego a fledgling port city of 17,000 and the river water was the farmers' for the taking.

One century later, the farmers are not about to give up the water easily, no matter how many Beverly Hills lawns or Las Vegas casino gardens need to be kept a luscious green.

"It does take a lot of water, but I get a lot of production out of it," said Cox, 52, as he looked down his cotton furrows to monitor the water, which is drawn from an irrigation ditch by small siphon hoses and flows by gravity across the slightly slanted field. "Why is it OK for [cities] to use it in their fountains and spray it on their sidewalks? I think I have the right to use it for productive purposes."

But to many in the Southwest, such farmers' claims represent an entitlement the region can no longer afford. Phoenix, which has grown 75 percent in 30 years to 1.4 million people, will soon surpass Philadelphia as the fifth-largest U.S. city; Las Vegas, a railroad town of 5,000 in 1930, now has a metropolitan area population of 1.5 million.

This boom has caused the most problems for California, which uses more Colorado water than any other state. For years, California has taken more than its allocated share of the river because other states haven't used their full amount.

Now, with the Southwest growing fast and suffering a long drought, there's less extra water to go around, and California is under strict orders from the federal government to cut back.

The pressure on California is driven most by Arizona, which profoundly altered the region's water equation with the construction, in the 1980s, of a 336-mile aqueduct to carry Colorado water over the mountains and desert as far as Tucson.

This has allowed Arizona to claim its full share of river water, even though it doesn't actually use the full amount. Instead - in a tactic viewed as being unfair by some, brilliant by others - it pumps surplus water into the ground, reserving it for future use and thereby leaving no surplus for California.

Forcing California to cut back to its allocated share of the river would hit hardest in Southern California's sprawling cities, which have the legal right to far less than the state's farms, and therefore have been relying heavily on the leftover water.

That's where the deal comes in. By transferring Imperial water to San Diego, California can gradually wean itself from excessive use of the river.

Imperial Valley leaders were close to signing on to the transfer late last year when they balked, worried that the valley would be liable for the cost of restoring the Salton Sea, estimated to be as much as $2 billion. The 15-by-35-mile sea, created when floodwaters on the Colorado broke an early canal to the Imperial Valley in 1905, depends on runoff from valley farms as its main water source.

Reducing runoff would rapidly shrink the sea, threatening the birds that, deprived of other wetlands, now rely on it.

As a penalty for pulling out of the deal, Interior Department Secretary Gale A. Norton cut the valley's river allocation by 10 percent last winter, saying that farmers were wasting water.

It was a major step: The Interior Department, which has the authority to withhold water if it's not put to "reasonable and beneficial use," had rarely invoked the right before. The valley sued in protest.

Unlike the backroom water deals in Chinatown, dealing over the transfer has played out in public view. In a region where residents face rising water bills and threats of rationing, water politics is front-page news.

If a deal is reached, it could be the blueprint for future transfers from farms to ever-thirstier cities, possibly spelling the decline of agriculture in the region.

The transfer is "a model for how historic distrust between urban and agricultural water interests can be overcome," said Dennis Cushman, assistant general manager of the San Diego County Water Authority.

But if the deal falls through and Imperial farmers are forced to give up water anyway, they say they'll defend their century-old rights to the end.

"If we have to fight them in the Supreme Court, that's what we'll do," said John Pierre Menvielle, a third-generation farmer who is running for the Imperial Irrigation District board, a paid, five-member panel elected by the voters of 140,000-resident Imperial

County. "We got some hard-headed people down here - maybe because we've been in the heat for too long."

The river's journey

Once a raging river, the Colorado now peters out in marshes well short of its outlet in the Gulf of California.

It barely makes it that far. Massive dams halt its flow for storage and power generation, and wide canals carry off its water like so many needles stuck in a blood donor.

Near Parker Dam, one aqueduct heads west carrying about 1.2 million acre-feet of water a year 242 miles to Southern California, while close by another carries 1.5 million acre-feet a year 336 miles east into Arizona. (An acre-foot is the amount of water needed to cover an acre of land at a depth of 1 foot. It is about 326,000 gallons and is roughly equal to what two households use in a year.)

Farther south, near the Mexican border, 3 million acre-feet of water a year are diverted into the All-American Canal, the 82-mile canal built in 1942 to carry water into the Imperial Valley. From the canal, the water flows into a network of smaller canals connected to irrigation ditches.

The broad reach of Colorado River water is extraordinary because it is not a particularly big current to begin with, with an average depth of only about 20 feet and an annual flow that is only 3 percent of the amount of the Mississippi River's.

Indeed, seen from the riverbank at Blythe, Calif., on the border with Arizona, the Colorado looks like any other medium-size river. A few small trees sprout on its bank. Children in life vests are paddled upstream in a canoe. A man on a jet ski roars up and down.

In effect, many say, the Colorado today is less a river than a glorified water main serving seven states - a main that happens to have carved out the Grand Canyon eons ago.

"The river is extremely generous - as a desert river it produces a lot of water," said Lisa Force, a program director for Living Rivers, a group seeking to reduce Colorado River water use. "But it was seen as inexhaustible, and it's not."

Valley of green

The mining of the river began in earnest more than 100 years ago when enterprising farmers made a discovery that would change the Southwest forever: The California desert near Mexico may look bleak, with less than 3 inches of rainfall a year, but sprinkle water on it, and it turns to gold.

The desert adjacent to the river was made of silt carried from the Grand Canyon and elsewhere upstream, deposited in a broad swath by the river's shifts in direction. When irrigated, this soil was extremely fertile. And with the warm climate, farmers had a far-longer growing season than those in the rest of the country.

Cox, who has farmed for 30 years, marvels at the founders' ingenuity every time he drives out of the valley and reaches the point where green fields stop and the brown desert resumes.

"I'm in awe of this valley," he said. "I'm in awe of the people who had the foresight to divert the water from the river."

Backing up the farmers' discovery was the law. When it comes to allocating natural resources, the East operates on riparian rights: You can use water your property abuts, as long as you're not taking from your neighbor's fair share.

Not so out West. Ever since the gold rushes of the mid-19th century, natural resources on the frontier were awarded on a first-come, first-served basis. By diverting water into the desert, farmers not only won themselves newly fertile land, but they also secured the Imperial Valley's place in a series of compacts and court rulings that make up the "law of the river."

In 1922, an interstate compact divided the river's annual flow in two portions: 7.5 million acre-feet to the upper basin states of Utah, Colorado, Wyoming and New Mexico; and 7.5 million to the lower basin states of California, Arizona and Nevada. In a 1944 treaty, Mexico won rights to 1.5 million acre-feet a year.

Shares among the lower basin states were settled by the Supreme Court in 1963: California got 4.4 million acre-feet, Arizona got 2.8 million, and Nevada got 300,000. Within California, the Imperial Valley and some smaller farming districts eventually were allocated 3.85 million acre-feet, while the Metropolitan Water District, which delivers water to 18 million people in Southern California, gets only 550,000.

After all the divvying up, the Imperial Valley receives about 3.1 million acre-feet a year. That's more than all of Arizona, and nearly one-fourth of the river's flow, which has averaged about 13 million acre-feet a year, far less than the 15 million assumed in the original divisions.

This worked well enough for years; California was able to take as many as 800,000 additional acre-feet a year left over by other states. But in the past decade, the arrangement has been badly strained. Not only have Arizona and Nevada started claiming their shares, but a four-year drought has further reduced river flow.

The crop debate

With supplies running short, scrutiny has fallen on the Imperial Valley's $1 billion farming industry. Most of the valley's 470,000 acres is in water-guzzling field crops, mostly alfalfa and other grasses that feed the West's dairy and beef industries, as well as cotton, wheat and sugar beets.

Only about 55,000 acres are used for vegetables and melons, which use much less water per acre than field crops. The area's long growing season makes it ideal for winter vegetables, and its lettuce, asparagus, broccoli, cauliflower, onions and carrots are its most lucrative crops on a per-acre basis.

But many farmers prefer field crops: Their prices fluctuate less, due partly to federal price supports; they require less labor; and farmers say there is limited demand for vegetables.

"We have a huge amount of water being used in inefficient ways for crops that one might question why they're being grown in this area," said Joseph L. Sax, a law professor at the University of California, Berkeley who has consulted for the Interior Department. "It's a good place to grow avocados, but why we're growing cotton and alfalfa here is a question a lot of people have been asking for some time."

Meanwhile, having enjoyed a large share of river water for so long, valley farmers have seen little reason to limit use.

The valley's canals are unlined, allowing water to seep through their borders. Irrigating by gravity means that 15 percent of the water used runs out at the end of the field, runoff that goes into the Salton Sea. Some farmers, like Cox, now use pumps to recycle some of the runoff, but the pumps, and more costly conservation tools like drip irrigation systems, are relatively rare.

"They won't admit they're wasting water," said Adan Ortega Jr., vice president of the Metropolitan Water District. "Because they believe they have this God-given right to the water, they don't have any incentive to preserve it."

This kind of talk infuriates Imperial Valley farmers, who say they would use more efficient irrigation if they could afford it. Already, they say, they've spent thousands on tiles placed beneath their fields to keep salt from sinking too far into the soil.

Moreover, they say, it's their thousands of tons of field crops that fuel California's dairy industry (the largest in the country), feed the Southwest's cattle and help maintain America's cotton industry.

"Where's this agriculture going to go? It has to go someplace," said Steven A. Pastor, director of the Imperial County Farm Bureau. "You need your feed grown, your cotton. Do we want to rely on other countries to supply our food and fiber?"

Heidi Kuhn, an activist whose husband owns and runs one of the valley's largest farms, sums up the argument with a simple refrain for what she calls "the person sitting in Starbucks": "We're the latte in your coffee."

"We're not just doing this for our own health. We're doing it because there's a market need for it," she said. "I don't know if growing food is any less beneficial than having 112 golf courses in Palm Springs."

Hard-won success

On a tour of her family's 14,000-acre, 300-employee operation, Kuhn shows just how productive a single Imperial Valley farm can be. After passing field after field of the Kuhns' hay crops, she stops at the vast lot where the grasses are baled, compressed and stacked by the hundreds under long sheds.

Many of the bales, a grass variety called Sudan grass, will be loaded in containers to be transported to California ports by the train line running adjacent to the lot. There, they will be shipped to Japanese ranchers, who prefer Sudan grass for cattle feed but lack room to grow it.

Other bales will go to California dairies, but many stay with the Kuhns, to serve as feed at their own 4,000-cow dairy. The dairy's milk, in turn, goes across the street to a cheese-making plant that produces Muenster and Swiss cheese.

It's a thriving operation, but Kuhn says it's not hugely profitable, given slumping commodity prices and the cost of state labor and environmental regulations. Her family recently moved into her mother-in-law's old house, a three-bedroom rancher with a cracked tennis court. It's one of the nicer houses in El Centro, a struggling town of small bungalows and shuttered stores, but it's no mansion.

Indeed, many valley landowners resent the widespread notion that their big share of Colorado water has made them wildly wealthy.

"They see us driving nice pickups and cars and having a house in San Diego," said John Grizzle, a valley farmer since 1964, sitting in the office of his 7,000-acre operation. "They don't realize the hard work and the risk involved. The return on our investment is not large."

As they fend off critics, the valley's residents also face internal divisions.

There are disagreements about how to divide the $2.5 billion San Diego would pay for the 200,000 acre-feet a year it would receive under the transfer. As the deal stands, the Imperial Irrigation District would distribute most of the money among the county's roughly 400 farmers, requiring much of it to be used for more efficient irrigation, while some would go toward the larger community.

A large faction of farmers, though, believes that the money, as well as any revenue from future transfers, should go directly to landowners, who in turn would give part of it to the community. This group has sued the irrigation district.

Others view this effort as a naked grab by farmers for the millions in water revenue.

"We better make sure that if the money comes in, it's applied to increasing efficiency, to insulate us against long-term attacks on our water use," said district board member Andy Horne. "If landowners are allowed to take the money and do whatever they want with it, including sticking it in their pocket and not doing anything toward efficiency, then we haven't accomplished that."

Farmers also disagree over whether to reduce their usage by investing in more efficient irrigation or by leaving fields fallow, which would mean lower crop yields and fewer farm jobs but would require less effort and leave more water for the Salton Sea than conservation would.

To valley outsiders, the ambivalence over the transfer is hard to fathom, given how much money is involved. The valley would get $258 an acre-foot from San Diego for water that costs farmers $16 an acre-foot.

"What they're not admitting is that these are the first farmers that will be allowed to sell water at market rates," said Ortega, of the Metropolitan Water District. "They're going to create a precedent that a lot of people in the valley can benefit from."

But this is just what alarms many in the valley - including some of the non-landowning Mexican immigrants who see the farms as the biggest source of employment in the county. Once farmers start selling water, they fear, it may it be hard to stop; farmers will walk away rich, but the valley will have sold away its livelihood.

One thing unites the county residents: All see themselves as underdogs trying to keep their rights from being pried away by powerful California cities.

"We can see the handwriting on the wall: We have a very large water right, and there is a seemingly unquenchable thirst for this water around the southwestern United States," said district board member Horne. "We're such a small community facing such a huge population that doesn't care what happens to us in the future."

And all in the valley think the same thing when they hear urban critics question the wisdom of desert farming: Why doesn't the same argument apply to the cities of the arid Southwest?

"San Diego is as much of a desert as we are," Kuhn said. "Why is it any more logical for people to live there?"

Growing demand

It's a question that San Diego officials don't have the luxury of asking. Whatever the wisdom of its growth, the city is now the country's seventh largest, it lacks water of its own, and officials need supplies for 3 million area residents and counting.

The transfer deal with the Imperial Valley is the centerpiece of this effort, but it's not the only element. The San Diego County Water Authority is planning a desalination plant that would process enough ocean water, at great cost, to provide 15 percent of the county's demand.

In addition, the authority is about to finish a massive new dam in a box canyon in Olivenhain, 30 minutes north of the city, that will hold more than two months' supply of emergency water. The aqueducts that bring San Diego's water south from Los Angeles, a mix of Colorado River and northern California water, cross major fault lines, and the city's been at risk of running dry after an earthquake.

The new dam is visible proof of water's primacy in the Southwest. At 318 feet high and 250 feet long, it is designed to withstand an earthquake measuring a magnitude of 7.2. The reservoir, a giant cavity that will be filled over the coming year, is 2,552 feet long; 700,000 cubic yards of fill was blasted out of it.

"With the amount of water we have to deliver to people, we just have to build some amazing structures to do it," said project manager Jerry Reed as he oversaw work on a recent morning.

That is what happened hundreds of miles away in Arizona, where two decades ago engineers designed an aqueduct to carry 1.5 million acre-feet a year of Colorado River water as far as Tucson. The $3.8 billion Central Arizona Project uses six 60,000-horsepower pumps to lift water 824 feet above the river.

Fourteen pumps along its 336-mile route lift the water high enough so it can run downhill to the next pump. At a control room north of Phoenix, two men sitting before a big screen regulate the flow on the 80-foot-wide, 16-foot-deep canal by raising or lowering gates at checkpoints every seven miles.

Things to come

The Arizona aqueduct represents more than just the driving force behind the pressure on California to reduce its river use. The project also offers hints of what might happen in California if the San Diego water deal sets a precedent for future transfers.

That's because in Arizona, transferring water from agriculture to urban use has been the policy for decades. Unlike their counterparts in the Imperial Valley, the cotton and alfalfa growers on the plains of central Arizona lack enshrined rights to the Colorado River, and have long relied on groundwater.

When the state built the aqueduct, it allocated two-thirds of the water to farmers - but with the understanding that their share of the water would decline as farmland was developed for homes, leaving most of the water for urban users. And indeed, large tracts of former farmland around Phoenix are sprouting dense subdivisions.

This sprawl has met with relatively little official resistance. Subdivisions may cause problems, officials reason, but they have one thing going for them: They require about half as much water as the farms they replace.

"We want to sustain agriculture as long as possible, but while making sure we have a sustainable water source" for residential use, said Dennis G. Kimberlin, a state water manager in Pinal County, an agricultural area south of Phoenix that is rapidly being developed.

Those farms that remain, meanwhile, have already taken many of the steps that California farms may face. Because water is at a greater premium in Arizona, costing farmers $36 an acre-foot - more than double the Imperial Valley rate - there is incentive to conserve.

Dan Thelander, for instance, added an underground drip irrigation system four years ago at his 500-acre cotton field in Pinal County. It cost $1,500 per acre, but his cotton now uses one acre-foot less per acre.

His neighbor, C.L. "Bill" Scott, long ago leveled many of his fields so that less tailwater runs out at the end. Instead of irrigating his fields at a steady stream for a full day as Cox does in the Imperial Valley, Scott sends a stronger stream across for only two hours, producing a more even level of saturation while using less water.

Scott happens to know the Cox family and isn't about to second-guess their techniques. He chalks up his conservation to market demands: His water costs more, so he must use less.

"There are a lot of things you can do to make better use of water," he said, driving a visitor across his 6,800-acre farm. "It's a matter of economics. It makes you do things that are cheaper."

Future battles

Even if the transfer from the Imperial Valley to San Diego is approved, few expect the deal to settle the water wars for good.

Other demands for water loom: The state of Colorado is discussing building its own version of the Central Arizona Project to carry its share of the river over the Rockies to Denver and other cities. This may be prohibitively expensive, but if it happened, it would remove 400,000 more acre-feet a year from the river, about 3 percent of its flow.

More immediate is a drive by environmentalists to allow more of the river to make it to Mexico, to start restoring the delta, at a cost of 150,000 acre-feet a year. And in Arizona, Native Americans winning rights to hundreds of thousands of acre-feet, forcing cities to buy water from them.

But the biggest fights ahead, many expect, will be continued clashes between cities that will need ever more water and farms that still use most of it.

Regional water officials admit they may eventually push the limits of their supply, even with the transfer. This, they say, will force higher water prices, constraining further growth, and may even raise the once-unthinkable prospect of "toilet-to-tap," treating wastewater for drinking use.

Aware of the growing needs of the cities, Imperial Valley farmers say they are bracing for the federal government, goaded on by the Metropolitan Water District, to return and pressure them to give up even more water. If the valley refuses to sell, they fear, federal officials will again declare it is wasting water and take the water for free.

"It's a slippery slope," said Pastor, the farm bureau director. "A lot of farmers worry this isn't going to end until all the water is shipped to San Diego or Los Angeles."

Valley landowners say they owe it to their forerunners on the land not to let that happen. Their critics may question the wisdom of having created a farming valley in a desert, they say, but the transformation happened, and it can't just be reversed, 100 years later.

"This place is not unworthy of being here. It's families who are proud to be here, who put roots here, who had kids here," said Kuhn, the activist. "It's not as simple as wiping us off the map to have more water for L.A."

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River News 08/19/03
PECOS RIVER MANAGEMENT PLAN UPDATE

An Environmental Assessment containing the Pecos Wild and Scenic River Forest Plan Amendment and Management Plan was sent out for public review on April 23, 2003 thirteen years after its declaration as a Wild and Scenic River. The proposed management plan banned all boating in the Wild and Scenic Corridor as it "can only be done in short sections along the river during periods of high water flow, which commonly does not occur. Prohibiting floating would therefore not be expected to displace many users and it would enhance fishing within the corridor."
The Pecos River was declared a Wild and Scenic River in 1990. Above Cowles (mostly in the Pecos Wilderness) is designated wild. From Cowles to Terrero is designated recreational. The section from Cowles past Terrero to Windy Bridge is runnable by kayak, canoe and inflatable kayaks during spring high water each year. This is a period of heavy boating use of other rivers in New Mexico and the Pecos serves as an alternative run for boaters looking for more solitude. Although there is development along the road to Cowles, the sections of the river away from the road retain much of the wilderness characteristics of the surrounding Pecos Wilderness. The run is unique for New Mexico due to the clear water and forested environs that are reminiscent of rivers further north in Colorado and Idaho. Although the area is very popular for fishermen, they generally prefer lower water levels when the river is unrunnable by boaters.

Tom Robey (River Runners for Wilderness) noticed the public comment period for the management plan and Tim Scofield (Adobe Whitewater Club) discovered the prohibition on boating. Enlisting the help of Jason Robertson (American Whitewater Association) they undertook a campaign during Memorial Day weekend to send in comments. An excerpt from the comments submitted by Tom Robey stated:

"...There is no reasonable basis that eliminating boating would enhance fishing. It is evident that there have not been any recreational surveys of boating use on the Pecos River. Have you done any surveys of fishermen about their encounters with boaters? Have you documented any adverse impacts of boaters upon fishing? My experience is that very few fishermen encounter boaters and that encounters between fishermen dwarf any such impacts. As fast as the Pecos is moving during high water (there are few eddys) it is ludicrous to suggest that boaters have any impacts on the fish or fishing. Therefore I suggest that the management plan allow boating and that the Forest Service gather data before even considering any management action regarding boating between Cowles and Terrero."

The first item of the Decision Notice issued July 31st stated:

"Revised the provision to allow floating use. The Standard now reads, 'The use of non-motorized rafts, boats, or other conveyances to float down the river is permitted. No additional facilities (put-ins, parking areas) will be constructed to facilitate floating' ",

The entire decision and other materials should be available at www.fs.fed.us/r3/sfe or upon request from the Pecos/Las Vegas Ranger District, PO Drawer 429, Pecos, NM 87552 (phone 505-757-6121).

LR in the News 08/20/03
Drought drying up boater fun

by Tom Wharton
The Salt Lake Tribune
Prolonged drought in the western United States, particularly Utah, has left boaters high and dry on launches at many major lakes and reservoirs.

At Lake Powell, water levels have dropped below boat ramp and marina access levels, forcing closures, especially in the upper end of the huge reservoir on the Utah-Arizona border. Visitation is down 13 percent from a year ago. And the lake level is expected to drop even farther, perhaps as far as 112 feet below capacity by April. Still, Barry Wirth of the U.S. Bureau of Reclamation said there are still 12.5 million acre-feet of water in the reservoir.

"That is an awful lot of water," he said. "It is important to note that that is a pretty nice half-full body of water."

Char Obergh, of the Glen Canyon National Recreation Area, said boaters have experienced few delays launching despite the closure of Hite Ramp and "use at your own risk" warnings at Stateline and Antelope Point, a precaution to boaters that they could get stuck in the muck, or worse.

She expects some launching delays to occur during the upcoming Labor Day weekend.

"It has been an interesting year," she said. "But there is a lot of lake to enjoy. It's just a different lake. We are asking people to be aware of that. We have done our best to maintain access. As it goes down this winter, we will be faced with additional challenges."

Because of low water at Lake Powell, Defiance House and Three Roof Ruins are no longer accessible by water. The Castle Rock Cut is closed. And vehicle access is not possible at Dirty Devil, Farley, White Canyon, North and South Bullfrog Primitive Camping Area and Crosby Canyon. Stanton Creek may be the best primitive vehicle camping area still available.

On the upper end of the lake, Hite Marina is out of service. The launch ramp there is closed, though river runners floating down from Cataract Canyon on the Colorado River are using a temporary dirt facility. All water-based marina facilities have been relocated downstream.

These developments have not gone unnoticed by environmentalists who would like to drain Lake Powell and decommission its dam.

"This drought emphasizes the dubious nature of Lake Powell reservoir," said John Weisheit of Moab-based Living Rivers in a news release.

"By decommissioning Glen Canyon Dam, we could restore 500 miles of river to its natural habitat, which includes Grand Canyon National Park, while at the same time saving the water that is otherwise lost to evaporation."

Low water apparently has not affected boating safety, either on Lake Powell or other reservoirs across Utah.

"We have had no safety problems out of the ordinary," said Obergh. "We do caution people if they have not been here for a while that it is a different lake and they need to boat with caution."

Ted Woolley, boating coordinator for the Utah Division of Parks and Recreation, said added congestion among boaters has not contributed to safety problems.

"It seems that when you get more people in there, they pay more attention to what is going on," he said.

Visitation has been down at some water-based state parks because of perceptions -- some real, some not -- that the drought is affecting boating. But Woolley said there are plenty of good boating opportunities if you know where to look.

"We have some areas in good shape and some that are in real poor shape," he said.

He listed eastern Utah reservoirs such as Starvation, Red Fleet, Steinaker and Flaming Gorge as good boating alternatives that, in some cases, have been underused this summer.

Closer to the Wasatch Front, Rockport, Jordanelle, East Canyon and the Great Salt Lake are relatively safe for boating.

Perhaps the biggest problem area is Willard Bay, where the south marina has been closed and the north marina is available for personal watercraft and smaller boats. But, Woolley said, boaters should use Willard Bay at their own risk because rescue boats are not available.

Yuba Reservoir has been drained for dam repairs, and Lost Creek Reservoir's ramp is not available. The main ramp at Deer Creek Reservoir State Park is out of the water, but boaters are still launching on the dirt ramp at the Island area. Trailer parking, however, can be a problem there.

Utah Lake's boat ramp has major problems, though some boaters are launching smaller craft. Bear Lake's marina is still OK for motor boats, but some sailboaters are experiencing problems. Echo Reservoir is about 50 percent of capacity but is still in use. Pine View reservoir is also low, but there is adequate water for launching.

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River News 08/25/03

Sediment Clogs River Runner Access At Former Hite Marina

Submitted by Tom Robey on Mon, 08/25/2003 - 23:00 August 2003.
Sediment at Hite Marina, the most upstream facility at Powell Reservoir, has necessitated the removal of all reservoir conveniences such as the floating store, fuel docks, water and septic lines, boat rentals, and courtesy docks. The concessions operator, ARAMARK, has towed its floating facilities down-reservoir to keep the facilities from becoming trapped in mud. The land-based facilities at Hite, which includes a store, gasoline, drinking water and a sewer clean-out, remain open to service the needs of the residents and the traveling public.

A primitive "use at your own risk" boat takeout area opposite the former Hite boat ramp can still be used by river runners for inflatable and small, hard-hull boats. Since Powell Reservoir continues to drop rapidly, this site could be completely unusable by September, which will force river runners to go another 45 miles down-reservoir to exit at Bullfrog Marina. Glen Canyon National Recreation Area currently has no plans to accommodate river runners by constructing an alternate ramp, despite spending over $1 million earlier in the year to temporarily extend ramps for houseboats and power boats. A description of the takeout site is posted at Canyonlands National Park's Cataract Canyon website at http://www.nps.gov/cany/river/lakepowell.htm.

According to a sediment survey conducted by Mussetter Engineering of Denver in 2000, the Colorado River delta beginning at Dark Canyon and reaching to the mouth of the Dirty Devil River was advancing at a rate of about one mile per year. At present the delta is just beyond Hite Marina where the original river channel is 245 feet below the full reservoir elevation of 3700 feet. The survey predicted another 35 years of power boat access at Hite Marina provided the reservoir could be maintained at full pool. "Such a projection is incredibly optimistic," says John Weisheit, Conservation Director of Living Rivers. "Considering the downstream demand for water, the present drought situation, and how the river erodes into the exposed sediment and feeds the delta, the facilities at Hite may never again be usable."

By April of 2004, Powell Reservoir is predicted to be 106 feet below normal. At this elevation, Bullfrog and Antelope Point marinas will be affected by the sustained drought. The lack of incline and shallow depth at the Bullfrog Marina boat ramp will make it very difficult to load and unload boats--especially longer craft such as houseboats and the Bullfrog-to-Halls crossing ferryboat-the only method of transporting land vehicles across the 186-mile-long reservoir. Because Antelope Point is located on a cliff at the rim of the

original Colorado River canyon, the dropping reservoir level will perch this boat ramp high and dry. During the spring snowmelt, Powell Reservoir levels rose a mere 11 feet and the reservoir has now returned to the levels of the previous winter, about 90 feet down from full-pool. With no drought relief in sight, this continuing trend will eventually place power generation at risk. The minimum storage level to safely produce electricity is set at 6 million acre-feet. Currently the reservoir is at 50% of capacity storing 12.7 million acre-feet of water. Power generation at Glen Canyon Dam could effectively end in two or three years under present drought conditions. "This drought emphasizes the dubious nature of Lake Powell reservoir. By decommissioning Glen Canyon Dam we could restore five hundred miles of river to its natural habitat, which includes Grand Canyon National Park, while at the same time saving the water that is otherwise lost to evaporation" observes Weisheit.

LR in the News 08/28/03
Hite Marina closure leaves Cataract Canyon outfitters high and dry

Times Independent
Moab, Utah
by Lisa Taylor, contributing writer

The end of a Cataract Canyon river trip usually involves motoring or rowing for miles from where Lake Powell effectively absorbs the Colorado River's current to the small marina at Hite. This year, with the lake receding to record lows, some commercial trips are having to motor right on to Hall's Crossing or Bullfrog, 45 miles to the south.

Lake Powell is currently about 100 feet below "full", and is expected to drop another 12 feet by next spring. Dropping water levels and rising sediment have acted as pincers, squeezing away the usable access at the marina on Hite's eastern shore. In July, concessionaire ARAMARK got approval from the National Park Service to move its floating facilities down-lake, and in mid-August towed them completely clear of the area. The facilities include a floating store, fuel docks, water and septic lines, boat rentals, and courtesy docks. Hite's land-based store, gas, water and sewer services are still open.

Commercial and private boaters can use an "at your own risk" launch area, but as water levels continue to drop, the primitive ramp is barely usable, and at least one outfitter, Sheri Griffith River Expeditions, has opted to continue to Hall's Crossing, another 11 hours farther if the weather cooperates.
Tag-a-Long Expeditions president Bob Jones is frustrated that the Park Service didn't heed outfitter warnings about the marina going dry. "They should have been ready, because we met with them in March and outlined almost to the day when they'd have to find a solution. I'm discouraged they're not responding to the public."
Until the Park Service officially deals with the problem, Jones is improvising. "We've opened up another road [the NPS] allowed to the old marina site on the east side,

where the water is pretty close. We've simply taken down our Snow-cat, to take people and boats across that dry mud." The dry mud he's referring to is a 150-yard-wide band of compacted silt, webbed with cracks up to two inches across and two feet deep. Vehicles and pedestrians would have trouble with it on a dry day – if it rains, forget it.

Jones says the access he's using won't work for everyone, but argues that it wouldn't cost much to upgrade it, and with the Colorado River's original channel closest to the west side, "we're where the water will always be." Tag-a-Long has about 12 more trips this season, and Jones isn't interested in bypassing Hite. "The alternative – to go to Bullfrog – is 12 to 14 hours of motoring on a calm day, but if you get into wind and waves, rafts don't go like hard-hull boats, they go all over the place."

As to the environmental impact of restoring river access on the western shore, Jones points out, "We're talking about moving silt that's not supposed to be there anyway. Any environmental assessment will tell you to get rid of it."

An ARAMARK/Park Service sediment survey done in 2000 showed that the Colorado River delta, effectively the "top" of the lake, had crept four miles downstream in four years, and was about 11 miles north of Hite.

The survey allowed the marina 35 years of use provided the reservoir held steady at 3,700 feet, an "incredibly optimistic" projection according to John Weisheit, conservation director of environmental group Living Rivers. "Considering the downstream demand for water, the present drought situation, and how the river erodes into the exposed sediment and feeds the delta, the facilities at Hite are basically history."

Even Jones, with a vested interest in Hite's recovery, guesses it will take at least five years to restore the facilities, provided there's a break in the drought and the reservoir can recharge. In the meantime, a 2003 NPS/ARAMARK survey showed the delta had already crept past Hite, and new dock and pumping-station closures pop up on the official Glen Canyon National Recreation Area website every week. Lake Powell businesses are insistent that there are still unlimited activities on the water – the trouble for the foreseeable future is how to get out there.

LR Press Release 08/28/03
Drought could cause Lake Powell Reservoir to drop as low as 39% next year

For immediate release
August 27, 2003

Contact: John Weisheit (435) 259-1063

Drought could cause Lake Powell Reservoir to drop as low as 39% next year.

Recreation access to be cut substantially.

Federal forecasts for the operation of major dams in the Colorado River system indicate that if drought conditions continue as anticipated, Lake Powell could see another significant drop to as low as 39 percent over the next 12 months. System-wide storage could drop from 57 to 48 percent as water users in the basin continue to use water at pre-drought rates.

Using data from the past 30 years, the Bureau of Reclamation's (BuRec) "2004 Draft Annual Operating Plan" forecasts a range of inflow scenarios for Lake Powell reservoir from 3.8 to 15.6 million acre feet. This would equate to a range of reservoir levels from 39 to 83 percent.

The lower level would represent a near repeat of 2002, when flows into Lake Powell reservoir were 75 percent below normal. Normal flows as estimated by BuRec are approximately 12 million acre-feet. The upper level would represent flows not seen since 1997.

"As federal scientists continue to forecast that drought conditions will last several decades, water managers and the public should not count on any high flows," says John Weishiet, Conservation Director for Living Rivers. "During the drought of 1942 to 1977, flows were off by 19% percent. Taking into account increased diversions above Lake Powell reservoir since that time, which now are approximately 4.7 million acre-feet per year, it's easy to see why Lake Powell continues to drop."

Over the past four years, inflows into Lake Powell have averaged just 50 percent of normal: 62, 59, 25 and 54 percent respectively from 2000 to 2003. Even last year's forecasted El Niño conditions, which generally result in well above average precipitation, yielded a snowpack of just 84 percent of normal. Due to the significantly dry soil conditions from three straight years of well below average precipitation, Lake Powell received just 54 percent of its average inflow of 12 million acre-feet.

Simulating a significant drought event, as the region is now experiencing, the American Water Resources Association estimated that it could take just eight years of drought for Lake Powell reservoir to be emptied of its store of water. "They're right. It's been four years, and we're half way there," adds Weisheit.

Presently, Lake Powell reservoir is reported to be at 51 percent capacity, down from 59 percent last year and 95 percent at the beginning of 2000. The actual amount of available water is 50 percent, as BuRec is not compensating for 500,000 acre-feet of storage lost to sediment since its last sediment inventory was conducted in 1986.

When full, Lake Powell reservoir can store 24.3 million acre-feet. An acre-foot of water represents 326,000 gallons, or enough for two urban families per year.

If inflows into Lake Powell reservoir continue to average 50 percent of normal, or about six million acre-feet per year, this would result in the reservoir level dropping an additional eight percent next year, to 10.7 million acre-feet, or 44 percent of capacity.

This would bring the reservoir elevation down 140 feet from full. Only two of the reservoirs six marinas would be operational. Commercial and private Colorado River

rafting trips, which normally end at Lake Powell reservoir, would have no way to get off the reservoir, short of rowing or motoring their rafts more than fifty miles to the nearest functioning marina.

"This is a multi-million dollar industry that we are about to lose," adds Weisheit. "First they killed the rafting industry through Glen Canyon when they built Glen Canyon Dam, and now they're stopping us from running the rivers upstream too."

In addition to Lake Powell dropping eight percent, the systems other major reservoir, Lake Mead, will also drop. In water year 2003 (October 2002-September 2003) Lake Mead will have dropped from 66 to 60 percent. 2004 will see a repeat of this six percent reduction. Lake Mead's primary input comes from releases from Glen Canyon Dam which are only 8.2 million acre-feet per year. Hoover Dam is scheduled to discharge 9.4 million acre-feet for its users downstream, which combined with evaporation and reservoir withdrawals will draw the reservoir down to 54 percent of capacity next year.

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Additional information

Draft Annual Operating Plan

Severe and Sustained Drought for the Colorado River Watershed

Drought Conditions in Utah During 1999-2002

Precipitation History of the Colordo Plateau

Living Rivers's Drought Watch Campaign

River News 08/29/03
GLEN CANYON DAM UPDATE

Operations
Releases from Glen Canyon Dam will be lower in September than August. Releases in August averaged about 14,600 cubic feet per second (cfs) with a total of 900,000 acre-feet released. In September, releases will average 8,000 cfs with a total of 476,000 acre-feet scheduled to be released. On Mondays through Saturdays (except for Labor Day) in September, daily fluctuations due to load following will likely vary between a low of 5,000 cfs (during late evening and early morning off-peak hours) to a high of 10,000 cfs (during late afternoon and early evening on-peak hours). On Sundays (and on Labor Day), releases will be 5,000 cfs from 7 pm until 7 am, and 8,000 cfs from 7 am until 7 pm.

Releases from Glen Canyon Dam in October and November of 2003 are currently scheduled be 492,000 acre-feet and 476,000 acre-feet respectively, with the same load following pattern as September.

Because of the draw down condition of Lake Powell, releases from Lake Powell in water year 2003 are being scheduled to meet the minimum objective release of 8.23 million acre-feet. This is consistent with the requirements of the Criteria for Coordinated Long-Range Operation of Colorado River Reservoirs.

Basin Hydrology

Drought in the Colorado River basin continues. Inflow volumes have been substantially below average this year with water year 2003 being the 4th consecutive year with below average inflow to Lake Powell. April through July unregulated inflow to Lake Powell in 2003 was 3.91 million acre-feet, only 49 percent of the 30 year average. Total unregulated inflow for water year 2003 will likely be about 51 percent of average.

Snow accumulations in water year 2003 were again well below average levels. Additionally, what snowpack there was in the Upper Colorado River basin this year melted earlier than normal, with the runoff for the most part, being completed by late June. This has resulted in very low summer flows. Inflow to Lake Powell in July tallied up to only 350,000 acre-feet or 22 percent of average. Summer thunderstorms can help augment river flows in the summer, but thus far there has been only limited monsoonal precipitation in the Upper Colorado River basin. Unregulated inflow to Lake Powell in August will likely be only 24 percent of average. Inflow to Lake Powell on August 28, 2003 was 4,800 cfs, 50 percent of what is usually seen in late August.

Total unregulated inflow into Lake Powell in water years 2000 and 2001 was 62 and 59 percent of average, respectively, and only 25 percent of average in 2002. Inflow in 2002 was the lowest ever observed since the completion of Glen Canyon Dam in 1963. These low inflows have reduced water storage in Lake Powell. Lake Powell reached a low water surface elevation this spring at 3605 feet (95 feet from full pool) on May 1, 2003. The lake then rose in response to snowmelt-runoff, reaching a peak on June 23, 2003 at 3616.6 feet. The current elevation of Lake Powell is 3,604.8 feet (95.2 feet from full pool). Current storage is approximately 12.2 million acre-feet (50 percent of capacity). The water surface elevation at Lake Powell will likely continue to decrease for the remainder of the year. Under expected inflows, Lake Powell will likely be near elevation 3600 feet on January 1, 2004.

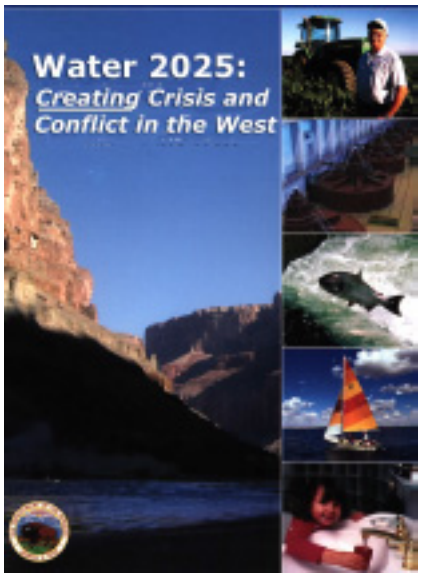
This release courtesy Tom Ryan.

Living Rivers Currents 09/01/03

Water 2025: A Crisis in the Making

Throughout the summer the Department of Interior, through the Bureau of Reclamation (BuRec), has been orchestrating another of its legendary public relations charades. At a time when most Western states are experiencing major problems with water allocation, BuRec is responding with a long-term managment plan which completely ignores the problem. It is dubbed "Water 2025: Preventing Crises and Conflict in the West," and is

little more than a repackaging of existing management strategies combined with a heightened push for desalinization technology. It contains no proposals for how to substantively address major water shortages, such as those already manifesting in the Colorado River watershed.
"Minor efficiency gains and conservation measures as Secretary Norton prescribes will bring about some savings, but these are merely drops in the bucket given that the Colorado River is providing barely half the water the Department of Interior is contracted to deliver," says Owen Lammers, executive director of Living Rivers.



Abundant historical evidence reveals that the present drought in the Colorado watershed is far from unprecedented, and warnings from the United States Geological Survey one year ago urged water managers to be prepared for several decades of below average precipitation. Lammers notes, "Water 2025 demonstrates that the Department of Interior is ignoring this responsibility."

* The Plan emphasizes Interior's long-standing tradition of acquiescing to the states for resolving disputes. However, as 80 years of conflict reveals, cooperation is rare, even in the best of times.

* The Plan's market-driven water banks and transfers from farmers to municipalities during times of shortages are laudable on a small scale, but there is no discussion of what will happen when the real shortages occur. Certainly, the 25 million people reliant on Colorado River water will not be deprived, but what will it cost? Farmers are becoming increasingly reluctant to make water transfers. Without strict federal guidelines and policies, municipalities like Los Angeles, Phoenix, Las Vegas and Salt Lake City will be forced into a cost environment not unlike what California energy utilities faced three years ago.

* Crop substitutions, which represent the greatest opportunities for water savings, are completely ignored by the Plan. Nearly half of Colorado River water is used to grow water-intensive alfalfa and other forms of cattle feed. Much of this water could be saved by growing crops for human consumption.

* The Plan advocates maintaining and enhancing existing infrastructure. However, much of this infrastructure is responsible for the loss of up to 20 percent of the Colorado River's flow due to evaporation and seepage amongst its reservoirs, but there are no capital improvements planned to reduce these losses.

Not until the 25-page report's last 100 words does the term "drought" receive much attention. This should be Interior's main focus at this time. Areas that Interior should be addressing include: outlining specific solutions for federal management to employ; how farmers will be enticed or forced to release their water to preserve municipal economies;

and how Interior will enforce necessary conservation strategies and efficiency standards.

"This report is all about carrots with no federal stick," adds Lammers. "Interior must begin developing water use standards and practices, as well as allocation strategies to be implemented as this drought situation worsens. Absent this, crises is inevitable, despite Secretary Norton's report and marketing strategy titled to prevent it."

Living Rivers Currents 09/01/03
Volume 3, Number 2, September 2003

The Articles

- Delta Deficit: Wasting Money and Habitat
- Water 2025: A Crisis in the Making
- Riverkeeper: On the Yampa, Green and Grand Canyon
- Glen Canyon Dam: LR Demands Supplemental EIS
- Powell Reservoir: Draining Recreation
- LR Drought Watch: No Relief In Sight

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Living Rivers Currents 09/01/03
Riverkeeper: On the Yampa, Green and Grand Canyon

From June 2-6, Living Rivers' Colorado Riverkeeper program, in conjunction with Holiday River Expeditions, honored the 50th Anniversary of the first Yampa/Green river trip organized to stop the inundation of Dinosaur National Monument from Echo Park Dam. It's purpose included drawing attention to the slow death of Dinosaur National Monument's river corridor due to the operations of Flaming Gorge Dam upstream. This month the Riverkeeper program will return to the Green River. It will spend nine days in Desolation Canyon, the most remote wilderness- quality river corridor in the continental United States. Like those in Dinosaur National Monument, native fish in this stretch suffer from the impacts of Flaming Gorge Dam. This critical habitat is being ignored by federal researchers developing re-operation plans for the dam.

In October the program will undertake a 12-day science trip down the Colorado River through Grand Canyon National Park. Participants will assist researchers from Northern Arizona University in collecting data to evaluate how the food base of Grand Canyon's

river ecosystem has changed due to the operation of Glen Canyon Dam. Federal scientists are considering ceasing financial support for such research, despite its vital role in understanding the steps needed to recover endangered fish species in the Grand Canyon National Park.

Living Rivers Currents 09/01/03
Powell Reservoir: Draining Recreation

The reservoir-draining drought is again revealing canyon walls not seen in 30 years. For example, the National Parks Service's marina facilities at Antelope Point near Glen Canyon Dam will be perched on a cliff's edge this Autumn.
The situation at Hite Marina at the top of Lake Powell reservoir is already disastrous, where a vanishing reservoir has exposed a sediment plug that backs up the Colorado River Arm for 30 miles. Because of the thick, gooey mud, the Hite concessions operator, ARAMARK, has literally pulled anchor and moved their floating docks 50 miles downstream to the marina at Hall's Crossing. Hite Marina is looking like a ghost town of thick mats of non-native weeds and obnoxious tamarisk trees.

Colorado River runners who previously finished their trips at Hite, now have no place to exit. Thoughts of pushing rafts through a choppy reservoir 50 miles further to Bullfrog or Hall's Crossing marinas are not welcomed. Bullfrog's boat ramp is about to become unusable itself, and Hall's Crossing is too small to accommodate all of the visitors now that these other facilities are closing. In desperation, river outfitting companies are attempting to forge a road across the sediment themselves at a location across the reservoir from Hite.

In a letter to the superintendent at Glen Canyon National Recreational Area, Living Rivers has reminded the National Park Service that the money targeted for capital improvements at Hite Marina must immediately be shifted toward mitigating the impacts from sediment on the river running public, who typically have to endure the National Recreation Area's bias to the powerboat industry. In 2003, power boaters have received $3 million dollars in boat ramp improvements, and river runners have received none.

Living Rivers Currents 09/01/03
LR Drought Watch: No Relief In Sight

Federal forecasts for the operation of major dams on the Colorado River indicate that if drought conditions continue, Lake Powell could see another significant drop to 39 percent in one year. Basin-wide storage could drop from 57 to 48 percent as water users continue to use water at pre-drought rates.
BuRec's "2004 Draft Annual Operating Plan" forecasts a range of inflow scenarios for Lake Powell reservoir from 3.8 to 15.6 million acre-feet. This would equate to a range of reservoir levels from 39 to 83 percent. The lower level would represent a near repeat of 2002, when flows into Powell reservoir were 75 percent below normal. Normal flows estimated by BuRec are approximately 12 million acre-feet, flows not seen since 1997.

"During the drought of 1942 to 1977, flows were off by 19 percent. Taking increased diversions above Lake Powell reservoir since that time, which are now approximately 4.7 million acre-feet per year, it's easy to see why Lake Powell continues to drop, " says John Weishiet, conservation director for Living Rivers.

Since year 2000, inflows into Lake Powell have averaged just 50 percent of normal: 62, 59, 25 and 54 percent respectively. Presently, Lake Powell reservoir is reported to be at 51 percent capacity, down last year from 59 percent. The actual amount of available water is 50 percent, as BuRec is not compensating for .5 million acre-feet of storage lost to sediment since its last inventory was conducted in 1986.

If inflows into Lake Powell reservoir continue to average 50 percent of normal, or about six million acre-feet per year, this would result in the reservoir level dropping an additional eight percent to 10.7 million acre-feet, or 44 percent of capacity. This would bring the reservoir elevation down 140 feet from full. Only two of the reservoirs six marinas would be operational. Commercial and private Colorado River rafting trips, which normally end at Lake Powell reservoir, would have no way to get off the reservoir, short of rowing or motoring their rafts to the nearest functioning marina.

"This is a multi-million dollar industry that we are about to lose," adds Weisheit. "First the Bureau of Reclamation killed the rafting industry through Glen Canyon when they built Glen Canyon Dam, and now they're stopping us from running the rivers upstream too."

Living Rivers Currents 09/01/03
Glen Canyon Dam: LR Demands Supplemental EIS

In a letter submitted this month to Michael Gabaldon, chair of the Adaptive Management Program (AMP) for Glen Canyon Dam, Living Rivers outlined the justification for the Department of Interior initiating a new Environmental Impact Statement (EIS) for Glen Canyon Dam. This would would compel the federal government to examine decommissioning Glen Canyon Dam as a means of recovering endangered species habitat lost in Grand Canyon National Park as a result of the dam's operations.

Completed in 1996, the existing EIS for Glen Canyon Dam prescribed a set of operational criteria for the dam in an effort to halt the Bureau of Reclamation's violation of the Endangered Species Act in Grand Canyon. So far, all these efforts have failed.

* The decline of the Humpback Chub population from 8,000 to 2,000 fish, and the inability to establish a second location in the river corridor for Humpback Chub to live.

* The inability to provide enough sediment for the preservation of beach habitat. The number and size of beaches in the Grand Canyon have experienced a significant decline since the AMP began. This negatively effected the Canyon's recreational experience, but has also impacted the river corridor's cultural resources, which are now prone to erosion.

* Unanticipated impacts resulting from reduced elevations of Glen Canyon Reservoir, such as increased temperatures and modified nutrient dynamics, could have significant effects on the downstream resources in the Grand Canyon. As the drought situation persists, these effects will become more pronounced.

The key to reinstating National Environmental Policy Act compliance, through a supplemental EIS, is if new data or impacts are recognized. Clearly in the case of Glen Canyon Dam, significant new data (biological and sediment) indicate that the system needs re-evaluation.

More Information:
Letter demanding Supplemental EIS

Living Rivers Currents 09/01/03

Delta Deficit: Wasting Money and Habitat

Congress is about to fund the start-up of a defunct desalting plant on the Colorado River near Yuma, Arizona, dooming critical habitat in the delta region. The Bureau of Reclamation (BuRec), which has recommended that Congress authorize the desalter's repair, is downplaying the results of its own analysis, which reveals far less costly and less environmentally damaging measures to meet US treaty obligations for water delivery to Mexico.
"This is reminiscent of BuRec of the past," says Lisa Force, Living Rivers program director. "At a time when federal deficits are the largest in U.S. history, it's unbelievable that Congress would consider throwing away taxpayers' dollars to prop up this boondoggle." "There are cheaper and less destructive ways to save Colorado River water than running the Yuma Desalting Plant," added Myra Wilensky, regional organizer at the National Wildlife Federation.

BuRec's objective is to produce about 108,000 acre-feet of water from the plant of sufficient quality to help meet its 1.5 million acre-feet annual obligation to Mexico. Taxpayers will be required to pay $26 million to replace obsolete technology-plus a minimum of $36 million in annual operating costs for the plant.

Completed in 1992 at a cost of $256 million (a five-fold increase in projected construction costs) to clean up brackish wastewater from farms in southern Arizona, the plant was shut down several months later due to extremely high operating costs.

Another option ignored by BuRec for the 108,000 acre-feet involves paying willing sellers to lease water they presently do not need, at just 15 percent the cost of starting the Yuma plant. "The Department of the Interior has already proposed an alternative that could save $30 million every year. Not only does Interior's alternative have great economic advantages, it will also save enough electricity to supply 25,000 people," says Jennifer Pitt of Environmental Defense.

International water expert and director of the Pacific Institute in Oakland, Dr. Peter Gleick, said "Despite the Department of Interior's much ballyhooed 'Water 2025 Plan' claiming a new era in western water management, the decision to reopen the expensive and environmentally damaging Yuma desalter shows that federal water policy is really business as usual - spending taxpayer money for unsustainable water projects."

The agricultural wastewater that the plant would process now flows into the Cienega de Santa Clara, a 40,000-acre open water ecosystem in the Colorado River delta region. The desalting plant would remove this flow from the Cienega and return only highly saline brine to the wetlands.

"This provision would destroy an extremely important wetland in Mexico that contains the largest remaining breeding population of Yuma Clapper Rail in the world," says Bill Snape, Chief Counsel for Defenders of Wildlife.

"It will be impossible to replace the value of the Cienega de Santa Clara to the Colorado River ecosystem."

The Cienega is the largest remaining wetland in the Southwest and is home to 56 threatened, endangered and declining species. Several scientific studies funded by the Department of Interior confirm that the wetland would be completely destroyed by desalter operations.

River News 09/12/03
MOTOR RIG STRANDED IN UNKAR RAPID

Grand Canyon National Park
A Wilderness River Expeditions 36 foot motorized tour boat ran aground in Unkar Rapid on the Colorado River in Grand Canyon Thursday afternoon. The boat was part of a two-boat trip of 41 people. National Park Service technical rescue personnel used a helicopter to short-haul 6 people off the stranded raft late yesterday afternoon. This type of rescue involves lifting two people at a time off the boat by a 100-foot line from the

helicopter. Rescue personnel acknowledge this is the most dangerous type of rescue the park performs. Darkness halted the rescue operation of the remaining boat occupants around 7:00PM. The remaining passengers spent last night on the boat. The short-haul operation resumed this morning.

The river trip was scheduled to exchange passengers at Phantom Ranch before noon today. Concessions passengers hiking into the canyon to join the river trip are being told they can expect the arrival of the boats late this afternoon.

Flows from Glen Canyon Dam have been between 5,000 and 8,000 cubic feet per second. This flow is considered very low for motorized tour boat travel through the park. During low water flows in 2000, the NPS conducted 3 short-haul operations for motorized tour boats stranded in the rivers rapids. Drought conditions in the Colorado River Basin continue, with Powell Reservoir above Glen Canyon Dam at 50% capacity.

It's been a busy period over the last 30 days for National Park Rescue teams responding to commercial river tip calls for evacuations. There have been two rescues of passengers with broken arms, a number of rescues of passengers with Norwalk Virus-like gastrointestinal distress, and one passenger sustained a de-gloving injury to his hand when he caught his wedding ring on boat rigging as he jumped off the boat into the river.

River News 09/17/03
RRFW Riverwire - USFS TO TRASH WILDERNESS ON MIDDLE FORK

The Salmon Challis National Forest has released a Finalized Environmental Impact Statement (FEIS) which proposes to reduce the number of days that parties can remain on the Middle Fork of the Salmon river. The idea is to reduce the impacts of boaters on the river corridor, while at the same time the analysis would allow for an increase in jetboat numbers on the wilderness mainstem Salmon River.
The boiled down synthesis goes something like this: Public parties of 21-24 members, and commercial parties of 21-30 customers, would be limited to a maximum of 6 days on the river. Parties (both commercial and public) of 11 -20 members would be limited to 7 days on the river. Only those groups of 10 or less would be allowed to remain on the river for the current use limit of 8 days.

Lloyd Knapp, with North West Rafters Association, notes that most commercial trips don't stay on the river for 8 days due to quick turnaround times. This new ruling will not affect commercial outfitters, but it will fall onto the backs of self-outfitted recreational boaters, who typically take longer trips through the area. While the intent of the plan is to reduce the wear and tear on the Frank Church River of No Return Wilderness, Lloyd notes that in doing quick-turnarounds, the commercial outfitters are pouring more people down the river than trips that moving at a slower pace. Knapp notes “I would say that the river is not over-used. It does get a lot of use, but the Summer float season is relatively short. It's not at all like the Gauley in West Virginia, or other rivers that are loved to death.”

Knapp also points out that the river also raises a substantial fortune in the contested Recreation Fee Demonstration program. “There is no evidence that the Forest Service has spent a dime of this money on the river. If there is over use in certain areas, then the Fee Demo money should be used for repairs and maintenance.”

Jo Johnson, co-director of River Runners For Wilderness, notes there are clear flaws in this management plan. “Increasing motorized use and speeding up river travel through the wilderness do nothing to promote wilderness character. This plan continues the now outdated concept of allocating river use between the public and a small oligopoly of middlemen. This model has outlived its usefulness, especially in light of a continued growth in public rafting and ongoing declines in demand for guided river running services.”

The FEIS has been issued, and the deadline for comments is October 27, 2003. A summary version of the FEIS is available at the website below. This is a Forest Service publication known as Frankly Speaking (a reference to Frank Church).

www.fs.fed.us/r4/sc/recreation/fcronr.htm

Your comments strongly opposing this plan are needed. Quite simply, there is very little justification for this type of wilderness river use. It's discriminatory against public river users, and doesn't do anything about the commercial interests, who carry very large groups of people quickly through while putting most of the use on the wilderness.

Comments can be submitted to:

Ken Wotring Supervisor's Office Salmon Challis National Forest 50 Highway 93 South Salmon, Idaho 83467

Comments can also be e-mailed to:

comments-intermtn-salmon-challis@fs.fed

RRFW encourages you to mail a hardcopy. It's a lot harder to lose a hardcopy than it is to press a delete button.

RRFW thanks Lloyd Knapp for information supplied in this Riverwire

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River News 09/18/03
PARK AIRLIFTS 17 PEOPLE OFF STUCK RAFT

By Brad Fuqua Editor, Grand Canyon News
A 37-foot motorized raft, operated by Wilderness River Adventures, became pinned on a rock at Unkar Rapid September 11, 2003. Unkar Rapid is at river mile 72.5. "At approximately 2 p.m., the motorized raft experienced engine failure upon entering the rapid," incident commander K.J. Glover said in a report. "It traveled to the left side and got lodged on rocks towards the base of the rapid." For the next three hours, the boatman and crews from two other Wilderness River Adventures' boats attempted to

free the raft. The NPS received a satellite call for assistance at 5 p.m., after the self-rescue attempts failed. But SAR [search and rescue] personnel had less than two hours of daylight left for the operation.

Two rangers were inserted onto the boat via short-haul, a technique of moving rescuers utilizing a 100-foot rope attached to the helicopter. Six passengers were evacuated before nightfall, but air operations had to be suspended at dusk due to safety protocols. "Rangers stayed on the boat with the remaining passengers throughout the night," Glover reported. "In the morning the passengers were short-hauled to safety." There were no reports of injuries. Some of the 17 were able to get onto other river trips and hike out from Phantom Ranch.

Following the helicopter operation, rescuers and boatmen remained on the raft to assist with efforts to free it from the rock. Attempts to free the boat Friday proved unsuccessful. However, the boat was moved with a "Z rig" from the initial point of entrapment to a location 10 feet downstream. The boat also rotated 180 degrees. On Saturday morning, park rangers returned to Unkar Rapid to assist with freeing the boat. The raft finally broke free utilizing engine power. The boat then continued down river without further incident.

A photo of the stranded boat is at http://www.grandcanyontourguide.com/ click on "Grand Canyon Newspaper".

River News 09/29/03
GRAND CANYON SLIDESHOW TOUR

Tom Martin, Co-Director of River Runners for Wilderness, will be presenting a slideshow on the Colorado River Management Plan and on his book Day Hikes from the River: A Guide to 100 Hikes from Camps on the Colorado River in Grand Canyon National Park. The CRMP-Hikes slideshow will be shown in Grand Junction, Boulder, Denver, Fort Collins and Colorado Springs, Colorado. See beautiful vistas illustrating Grand Canyon hikes you can do from the river and exciting river running shots. Tom will cover the latest news on the controversial Colorado River Management Plan now in progress for Grand Canyon National Park, and how this plan will affect your boating access. Tom will be signing books, the sale of which will benefit River Runners for Wilderness.
Round up your boating buddies, and catch one of these free shows:

Grand Junction Wednesday, October 8th, 7PM - 9PM White Water West 418 South 7th St Hosted by W.A.T.E.R.

Boulder Thursday, October 9th, 7PM - 9PM The Dairy Center 2590 Walnut St. Plenty of free parking in Dairy Center's Walnut St lot

Ft. Collins Tuesday, October 14th, 7PM - 9PM REI 4025 S. College Ave. Hosted by REI

Denver Downtown Wednesday, October 15th, 7PM - 9PM AAA Inflatables 3264 Larimer St. Hosted by High Country River Rafters

Colorado Springs Thursday, October 16th, 7PM - 9PM Sports Page 965 Summer Games Dr. Hosted by Pikes Peak River Rafters

All shows are free and open to the public. For more information or for scheduling a show in your area, contact Jo Johnson at jojohnson@rrfw.org or 303-443-1806.

River News 10/01/03
GLEN CANYON DAM UPDATE

Operations
Releases from Glen Canyon Dam will be nearly identical in October to what they were in September. In October, releases will average 8,000 cfs with a total of 492,000 acre-feet scheduled to be released. On Mondays through Saturdays in October, daily fluctuations due to load following will likely vary between a low of 5,000 cfs (during late evening and early morning off-peak hours) to a high of 10,000 cfs (during late afternoon and early evening on-peak hours). On Sundays, releases will be 5,000 cfs from 7 pm until 7 am, and 8,000 cfs from 7 am until 7 pm.

Releases from Glen Canyon Dam in November of 2003 are currently scheduled be 476,000 acre-feet (an average releases of 8,000 cfs), with the same load following pattern as October.

Because of the draw down condition of Lake Powell, releases from Lake Powell in water year 2003 were scheduled to meet the minimum objective release of 8.23 million acre-feet. This is consistent with the requirements of the Criteria for Coordinated Long-Range Operation of Colorado River Reservoirs.

Basin Hydrology

Drought in the Colorado River basin continues. Inflow volumes have been substantially below average this year with water year 2003 being the 4th consecutive year with below average inflow to Lake Powell. April through July unregulated inflow to Lake Powell in 2003 was 3.91 million acre-feet, only 49 percent of the 30 year average. Total unregulated inflow for water year 2003 will be 53 percent of average.

Inflow into Lake Powell picked up somewhat in September, 2003. Significant amounts of precipitation fell in the Colorado River Basin, particularly in the Four Corners region, in the first two weeks of September. Unfortunately, a drying trend followed. There has been almost no precipitation in the Colorado River Basin in the latter part of September. Total unregulated inflow in September will end up at about 453,000 acre-feet, or 95 percent of average. Inflow on September 29, 2003 was 5,600 cfs, about 60 percent of what is usually seen in late September.

Total unregulated inflow into Lake Powell in water years 2000 and 2001 was 62 and 59 percent of average, respectively, and only 25 percent of average in 2002. Inflow in 2002 was the lowest ever observed since the completion of Glen Canyon Dam in 1963. These low inflows have reduced water storage in Lake Powell. Lake Powell reached a

peak elevation in 2003 on June 23 at 3616.6 feet. The current elevation of Lake Powell is 3,603.8 feet (96.2 feet from full pool). Current storage is approximately 12.1 million acre-feet (50 percent of capacity). The water surface elevation at Lake Powell will likely continue to decrease for the remainder of the year. Under expected inflows, Lake Powell will likely be near elevation 3600 feet on January 1, 2004.

Experimental Flows

Daily high fluctuating releases from Glen Canyon Dam, as part of the Glen Canyon Dam experimental flows, were completed on March 31, 2003. From January through March 2003 releases ranged between a high of 20,000 cfs to a low of 5,000 cfs each day. These same high fluctuating releases are scheduled to be repeated in January through March of 2004.

The January through March high fluctuating releases were intended to benefit the endangered humpback chub. Scientists have recognized that the humpback chub population has been in general decline since highly fluctuating flows were curtailed in November of 1991. Those flows helped keep the non-native fish, especially the rainbow and brown trout, in check. The trout are thought to prey upon and compete with native fish such as the endangered humpback chub.

The experimental flows from Glen Canyon Dam received environmental clearances in December 2002. The flows were analyzed in an environmental assessment in accordance with the National Environmental Policy Act. The experimental flows are the result of ongoing studies by scientists from the United States Geological Survey and were recommended by the Glen Canyon Dam Adaptive Management Work Group, a Federal advisory committee. The experimental flows address the decline of two key resources in the Grand Canyon: sediment and population viability of endangered humpback chub. The Finding of No Significant Impact on the experimental flows can be found at http://www.uc.usbr.gov/amp/flow_fonsi.pdf.

This release courtesy Tom Ryan.

River News 10/06/03

COLORADO RIVER ECOSYSTEM SYMPOSIUM

The Glen Canyon Dam Adaptive Management Program and the Grand Canyon Monitoring and Research Center will be hosting a symposium on the Colorado River in Grand Canyon. The symposium will be held in Tucson Arizona, October 28-30, 2003, and is open to all interested persons (public and students welcome!). The symposium will address questions such as:
Was the Low Steady Summer Flow in 2000 good for the river? How can conditions for the endangered humpback chub be improved? Are the new flows and experimental removal of non-native fish working? What is the role of experimentation under the Record of Decision?

Registration is free, but please register your attendance online using the website link below so organizers have enough meeting materials and light refreshments available. The program will run from approximately 8:30 a.m. to 5 p.m. each day, with a special poster session the evening of October 28th.

The program and flyer are available at http://www.gcmrc.gov/symposium/2003/symposium.html The Symposium will be held at the Sheraton Tucson Hotel and Suites, 5151 E. Grant Road, Tucson, AZ 85712. For further information, contact Serena Mankiller, USGS/BRD, Southwest Biological Science Center, Grand Canyon Monitoring and Research Center, 2255 N. Gemini Dr., Flagstaff, AZ 86001, Ph: 928/556-7094, E-mail: smankiller@usgs.gov

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River News 10/06/03

BOULDER, GRAND JUNCTION SLIDESHOW REMINDER

Grand Canyon enthusiasts in Boulder and Grand Junction, Colorado: Don't forget the free upcoming Day Hikes from the River slideshow and CRMP update this week at the following locations.
Grand Junction Wednesday, October 8th, 7PM - 9PM White Water West 418 South 7th St Hosted by W.A.T.E.R.

Boulder Thursday, October 9th, 7PM - 9PM The Dairy Center for the Arts 2590 Walnut St.

If you can't make it to one of those, you have more opportunities in Fort Collins, Denver and Colorado Springs.

Fort Collins Tuesday, October 14th, 7PM - 9PM REI 4025 S. College Ave. Hosted by REI

Denver Downtown Wednesday, October 15th, 7PM - 9PM AAA Inflatables 3264 Larimer St. Hosted by High Country River Rafters

Colorado Springs Thursday, October 16th, 7PM - 9PM Sports Page 965 Summer Games Dr. Hosted by Pikes Peak River Rafters

Additional shows are tentatively scheduled in Colorado for Salida, December 2nd and Durango, December 4th, and in Salt Lake City. For more information on any of the shows, contact jojohnson@rrfw.org or at 303-443-1806.

River News 10/09/03

RIVER RUNNERS WANT LARGER SHARE OF CANYON

By Chris Barge, Boulder Daily Camera Staff Writer

So let's say you're a hard-core paddler who wants to lead your own trip down the Colorado River through the Grand Canyon. Now, pretend you want to do that some time in the next decade. Good luck. Under the current wait-list system, you'd have to buy a Day Planner for the year 2023 before finding a page to pencil in a trip. The wait list for recreational paddlers is about 20 years long. If you want to go this year, cash in those stocks: A spot is waiting for you on a commercial trip with one of the many outfitters that share 68 percent of the trip allocations. A woman from Boulder and a man who spends most of his time near the Grand Canyon are trying to rally the public behind a movement to change the status quo.

Jo Johnson of Boulder and guide book author Tom Martin co-founded River Runners for Wilderness one year ago. Martin will present a slide show tonight to promote their organization and his updated guidebook, "Day Hikes from the River: 100 Hikes from Camps on the Colorado River in Grand Canyon National Park." The book, an expanded version of his first guide, points out fun side hikes from the river for the 32 percent of river runners who are going it on their own. He says he hopes the book warms people to the idea of joining his and Johnson's cause.

Together, Johnson and Martin are trying to get the public engaged as the National Park Service develops a new Colorado River Management Plan. "There has been 30 years of stagnation down there to the benefit of an oligopoly of concessionaires," Martin said. "Fixed allocations don't work." The Park Service is scheduled to publish a draft environmental impact statement for the plan this fall. It will address the allocation system, as well as whether to continue allowing motorized boats on the river.

Commercial outfits in the canyon like using motor boats because they allow them to offer customers longer river trips over fewer days. Johnson says, in addition to being expensive, fast trips rob visitors of the true immersive psychological experience that the Grand Canyon can provide.

Hooey, says Mark Grisham, executive director of the Grand Canyon River Outfitters Association, which represents the concessionaires. Go to Minneapolis or Dallas and fill an auditorium with people who would seriously consider taking a river trip through the Grand Canyon, he said. Then, ask for a show of hands to these questions: Who wants to book an outfitter for a one- to two-week trip? Now, who wants to round up their own gear, own group and all the time off necessary to do the trip on their own? "We don't think that show of hands would be 50-50," Grisham said. "We think it would be more like 95-five."

Grisham said he and Martin disagree on how many commercial boats should run the river. It's the right mix, Grisham said. It's the antiquated wait-list system that needs to change. He suggests introducing a lottery. Both sides agree that the current method for private boaters to get on the water needs improvement. "That's why people are so pissed off," Grisham said. "They feel like the Park Service has let them down, so we become the for-profit bad guys."

The Grand Canyon River slide show and park plan update will be from 7 to 9 p.m. today at the Dairy Center, 2590 Walnut St., Boulder. For more information, call Johnson at

(303) 443-1806. Martin's book is available at www.vishnutemplepress.com. For more information on the Colorado River Management Plan, visit www.nps.gov/grca/crmp/. Contact Chris Barge at (303) 473-1389 or bargec@dailycamera.com. Copyright 2003, The Daily Camera. All Rights Reserved.

River News 10/13/03
RRFW Riverwire – RIVER OF NO RETURN MANAGEMENT PLAN UPDATE

The final environmental impact statement (FEIS) has been released for the Frank Church River of No Return Wilderness Management Plan by the Salmon Challis National Forest. This plan will guide management of the Main and Middle Fork of the Salmon River for years to come. The wild character of this area has degraded significantly in the past 20 years and that trend will actually increase under the new plan. Please take a few minutes to write a letter to the Forest Service asking them to protect the wilderness character of the Frank Church - River of No Return Wilderness. Comments must be submitted by October 27, 2003.
The final plan allows unlimited expansion of aircraft and motorboat use, continued degradation around campsites, lakes, streams and trails, serious impairment of the opportunity for a wilderness experience on the Middle Fork Salmon and Main Salmon rivers, and an unfair quota system that has commercialized much of the access to these rivers. While the draft EIS included 11 alternatives for consideration, the final EIS has been reduced to a final five (A to E). Though none of these alternatives are optimal to preserve Wilderness character and values, Alternative B comes closest. We endorse Alternative B, but only with the following changes:

(1) Managing use on the Middle Fork and Main Salmon rivers: Alternative B is the only alternative that caps use at a level that protects Wilderness character and opportunities for a wilderness experience. However, because this alternative continues an outdated and unfair allocation system (60 percent of use is for commercial trips), and allows for overly large party sizes (19 per group) it unnecessarily limits the number of public boaters who can float these rivers. The Forest Service should cap river use at the level set in Alternative B, but increase the number of trips available to the public by reducing group size limits to 12 per trip, and by allocating a much larger percentage of the launches to the public, rather than commercial users. The opportunity to experience Wilderness should not be based on one's willingness to pay a commercial outfitter.

(a) Jetboats: The plan allows virtually unlimited motorboat use on the Mail Salmon. Jetboat use has grown dramatically since 1978, much of it for "jetback" shuttles, which bring rafters upriver to their cars. Urge the Forest Service to prohibit jetbacks, and to cap motorboat use at 1978 levels.

(b) Painter Bar Road: The Painter Bar road is a primitive route that was used to access a private inholding within the Wilderness and Wild Salmon River corridor. The Forest Service has acquired the inholding. The FEIS proposes to leave this road open to ATVs and 4-wheel drive traffic. The Wilderness Act prohibits permanent roads and the Wild

Scenic Rivers Act prohibits roads along Wild Rivers. Urge the FS to close the Painter Road in the final plan.

(2) Aircraft Use: The Forest Service estimates that 5,500 aircraft land on airstrips in the Wilderness each year. Most of the use is not for wilderness dependent activities but part of a new fad where pilots "bag" airstrips to prove their competence, or engage in an airplane version of car camping. All of the alternatives the Forest Service developed allow aircraft use to increase without restriction. Urge the Forest Service to limit the number of aircraft landings to pre-Wilderness designation levels, and to implement a permit system that allows access for legitimate Wilderness dependent activities only.

In addition, and without agency approval, pilots have converted four Wilderness meadows into landing strips, referred to as the Dewey Moore, Mile-Hi, Simonds, and Vines "landing strips". The Forest Service preferred alternative proposes to maintain these strips for "emergency use," though landing at other times would not be prohibited. Urge the Forest Service to permanently close the Dewey Moore, Mile-Hi, Simonds, and Vines landing strips.

(3) Backcountry: Urge the Forest Service to implement specific management strategies to reduce crowding and on-site physical impacts by reducing group size limits from the current 20 people/20 head of stock, to 10 people/10 head of stock.

(4) Outfitter Camps: The plan would continue the practice of reserving over 80 camps for commercial land-based outfitters. The camps include permanent structures such as corrals, tent logs and fences. All Wilderness users should be required to meet the same rigorous leave-no-trace standards. Urge the Forest Service to require that outfitter camps be temporary and removed at the end of each season.

(5) Livestock grazing, fire control, fish stocking: These three important ecological issues are not addressed in the plan despite the fact that each has a significant effect on natural conditions in the Wilderness. Urge the Forest Service to adopt standards that promote naturally functioning ecosystems. Natural fires should be allowed to burn, stocking non-native species should cease, and strict controls should be incorporated into livestock allotment plans.

Send your comments to: Ken Wotring, FC-RONR Wilderness Coordinator, Forest Supervisor's Office, Salmon-Challis National Forest, 50 Highway 93 South, Salmon, ID 83467. Phone: (208) 756-5131, Fax: (208) 756 - 5151, email: comments-intermtn-salmon-challis@fs.fed.us

River Runners for Wilderness thanks Wilderness Watch www.wilderness.org for gathering the information contained in this release.

River News 10/21/03
RRFW Riverwire - Update on the CRMP Planning Process

To: All Interested Persons From: Planning Team Leader, Colorado River Management Plan

Subject: Update on the CRMP Planning Process Grand Canyon National Park is making considerable progress in developing a Draft Environmental Impact Statement for revising the park's Colorado River Management Plan (CRMP). We have developed a full range of reasonable draft alternatives (including the current situation which is the No Action alternative), which is now undergoing preliminary impacts analysis. The planning team has carefully considered and addressed input including the following:

* Extensive comments the park received during the public scoping period in 2002,
* Input from the stakeholder workshops and expert panels,
* Consultation with Native American Tribes,
* Interagency consultation,
* Provisions of the 2002 lawsuit settlement agreement,
* Extensive data and other information gathered by the planning team, and
* Laws, policies, and principles guiding plan development (on the CRMP website at www.nps.gov/grca/crmp).

The next steps in the CRMP planning process will include:

* Add mitigation measures to the alternatives, as necessary, to address any major impacts identified in the preliminary impacts analysis. The mitigated alternatives will then undergo additional impacts analysis. All of this is scheduled for completion in early November.
* Review the draft alternatives and draft impacts analysis, make any necessary changes, and select a preferred alternative. The preferred alternative will be the agency's proposal for a revised CRMP; it may be one of the draft alternatives, the No Action alternative, or a new alternative developed during the preferred alternative selection process.
* Publish a Draft CRMP/EIS for public review and comment (after any additional revisions and analysis).

We will not know the exact timing for publishing and public review of the Draft CRMP/EIS until the preferred alternative selection process has been completed. Once that process is completed, we will announce the schedule in a note to the CRMP email list, and on the CRMP website.

When the Draft CRMP/EIS is published, the park will issue a Notice of Availability in the Federal Register, a press release, and a note to everyone on the CRMP mailing list. We have begun planning for extensive public review opportunities, including public meetings, and we will keep you informed as we develop the details.

Please send any comments or questions concerning this note or the process to grca_crmp@nps.gov (please be sure to use an underscore to make grca_crmp). Thank you for your interest in Grand Canyon National Park and the Colorado River Management Plan. Rick Ernenwein CRMP Planning Team Leader.

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River News 10/21/03
NOROVIRUS UPDATE

River trip illnesses down from last year By Brad Fuqua, September 24, 2003 Grand Canyon News Editor
One year after a series of norovirus outbreaks on the Colorado River, things appeared to be pretty much back to normal this summer as river runners made their way through Grand Canyon. Last year, dozens of river trip passengers fell sick to the gastrointestinal illness, the same strain that ran rampant on cruise ships. This summer at Grand Canyon, only one trip reported three or more sick passengers. The infected trip launched from Lee's Ferry on Sept. 1 and a passenger became sick the following day. As a result, there is a theory that the person may have arrived for the trip already carrying the virus.

"The first person got sick on the 2nd, so our wildest guess is that it was brought in," said Michael McGinnis, Grand Canyon National Park river sub-district ranger. "The Coconino County Health Department actually has the toilets ... they took samples and are testing for norovirus. That's what they think it is, they don't know for sure." McGinnis said it appears 13 people got sick from the incident. Two people were flown out and taken to the hospital in an evacuation done above Crystal Rapid. Last year's problems with the illness were traced to discharges from Glen Canyon Dam's water-treatment plant. This year, McGinnis said "they did testing and did not find it," so that problem has seemingly been solved.

In addition, the National Park Service, commercial river runners and public boating groups met in a series of meetings to go over sanitation practices. Out of those meetings came a policy that private or commercial boating groups must report three or more illnesses immediately via satellite phone. That happened just the one time this year.

If fewer than three people become sick with contagious gastrointestinal illness on a river trip, the boaters are not required to report it until the end of the trip. That happened 12 times this summer, including one person who had to be flown out.

According to the Centers for Disease Control, symptoms of norovirus usually include nausea, vomiting, diarrhea and some stomach cramping. Sometimes people additionally have a low-grade fever, chills, headache, muscle aches and a general sense of tiredness. The illness begins suddenly is usually brief, with symptoms lasting only about one or two days, the CDC reports.

River News 10/23/03
UPDATE ON CRMP PLANNING

Released October 21, 2003 To: All Interested Persons From: Planning Team Leader, Colorado River Management Plan Subject: Update on the CRMP Planning Process Grand Canyon National Park is making considerable progress in developing a Draft Environmental Impact Statement for revising the park's Colorado River Management Plan (CRMP). We have developed a full range of reasonable draft alternatives (including the current situation which is the No Action alternative), which is now undergoing preliminary impacts analysis. The planning team has carefully considered and addressed input including the following:
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The mitigated alternatives will then undergo additional impacts analysis. All of this is scheduled for completion in early November.

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Thank you for your interest in Grand Canyon National Park and the Colorado River Management Plan. Rick Ernenwein CRMP Planning Team Leader

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River News 10/25/03
RIVER CONCESSION SALE POSSIBLE

Grand Canyon, AZ
A Grand Canyon river concessionaire has initiated the process of being purchased by another rafting concession, according to park officials. The river concession contract, owned by High Desert Adventures, has two years left on its present contract extension. The purchaser, if approved by the park, will be Arizona Raft Adventures. High Desert Adventures has 3,323 user days, while Arizona Raft Adventures has 10,368. There are currently 16 river concessions contracts today, with one company holding two contracts. If the sale is approved, there will be 16 contracts held by 14 companies. The contract period is now up to 10 years, with three-year extensions allowed beyond the 10-year period. All river concessions are presently operating under an extension that will expire December 31, 2005.

Grand Canyon National Park will be renewing the river concession contracts based on the Colorado River Management Plan (CRMP), now in the midst of an Environmental Impact Statement review. The final management plan will set the stage for river use for another 10 years.

Jo Johnson, River Runners For Wilderness Co-Director, is hoping for a change in the way the park distributes these permits. Johnson notes that 21 businesses become river concessionaires in the fall of 1971, with the initiation of 5-year contracts. At that time, all government agencies were to be following the National Environmental Policy Act, known as NEPA. Though federal law requires public review and scoping of such activities, these have never been conducted, and river concessions contracts have since been awarded based on requirements found in the CRMP. "Today, the split-allocation system has resulted in the do-it-yourself river running public waiting in a projected 20 year backlog of permits for river access while river concessionaires are slashing prices on river trips to assure their river trips fill." Johnson adds "We question the continued usefulness of a split allocation system."

According to Johnson, there are only two ways to shift user-days from the river concessions back to the public. The first is if the CRMP identifies a decreased need for commercial concessionaire services as they are presently offered. "The other way would be for the CRMP to adopt an allocation-free access system like the one at Boundary Waters or at Grand Canyon for backpackers. This completely eliminates the need for concessions to have a fixed allocation base." Johnson points out that de-regulating the concessions would move them from an oligopoly with fixed subsidies to an oligopoly "that could compete for market share. The park could terminate the concessionaire contracts and award any number of qualified Incidental Business Permits for guided river services."

"A number of businesses have been thriving for over a decade servicing the non-commercial river running public without any allocations whatsoever" Johnson noted. "These businesses provide a wide array of great services at low cost to the public. Allocation-free access plans hold the only hope for a contention free future for the river."

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LR in the News 10/29/03
Interior Dept. favors more Canyon flooding

By Mitch Tobin ARIZONA DAILY STAR
Tucson, Arizona - Despite initial resistance, the Bush administration favors continued experimental floods meant to restore the Grand Canyon's ecology, a senior official said in Tucson on Tuesday.

Assistant Secretary of the Interior Bennett Raley, the administration's point man on water issues, spoke to 60 scientists at the start of a three-day meeting on how Glen Canyon Dam affects the Colorado River.

Researchers explained how they're using lasers, underwater cameras, century-old photos and experimental flumes in Minneapolis to learn how sand grains and Volkswagen-sized boulders move through the Canyon's rapids and eddies.

Raley urged the scientists not to politicize their work and to remember that "science is not the only input factor for management of the Colorado River."

"If scientists are sloppy and mix advocacy with science, you will end up with the same public perception of integrity that lawyers have," said Raley, a lawyer by training.

Glen Canyon Dam, completed in 1963, dramatically altered the Colorado's flow. Before the dam, the warm, muddy river roared with spring snowmelt. Sediment was lifted onto beaches and sand bars, creating wildlife habitat and backwaters vital to native fish, such as the endangered humpback chub. The beaches are still important campsites for boaters.

After the river was plugged to stabilize the Southwest's water supply, it ran colder and clearer below the dam, which trapped 90 percent of the silt. But dam releases--which often fluctuate with the Sunbelt's electricity demands--have also caused the Colorado's baseline flow to double downstream. As a result, much of the silt and gravel deposited by the Grand Canyon's 740 tributaries gets whisked into Lake Mead downstream.

"It wasn't that we just lost the spring floods, which redeposited sand," U.S. Geological Survey researcher Ted Melis said, "we lost the low-flows the rest of the time, which were low enough to retain those inputs for use during the high-flows. We're getting hit on both ends."

The result is an ecosystem transformed by a dam that helps supply water and power to 25 million people.

Tucson is becoming increasingly dependent on the Colorado, whose water comes here via the Central Arizona Project's 336-mile canal.

After passage of the 1992 Grand Canyon Protection Act, the Clinton administration tried to replicate the river's natural flows. With much fanfare, Interior Secretary Bruce Babbitt opened the dam's floodgates in 1996; another flooding experiment was tried in 2000.

Despite initial claims of success, scientists now say the results were minimal. A lack of sediment in the river made it tough for sandy areas to expand, and many gains were quickly washed away.

Scientists want to create more floods and time them when the Paria River is dumping sediment into the Colorado.

But the drought has caused that tributary, 15 miles below the dam, to deposit less silt in the past three years than any time in recorded history.

Raley said at first he was "deeply, deeply skeptical about the experimental flow program." But, after talks with scientists on a river trip, Raley accepted it was "good science and it was worth taking the political risks to move forward."

"We know when we're being gamed. Had we sensed that, we probably would have slow-walked, ducked, evaded and done everything not to move forward," he said.

John Weisheit, an environmentalist with the group Living Rivers who would like to see Glen Canyon Dam removed, was encouraged by Raley's words. But he said the Interior Department still isn't spending enough money to restore the Grand Canyon.

In the past 30 years, researchers have flip-flopped on whether the Canyon was losing or gaining sediment, said Jack Schmidt of Utah State University. Some thought the lack of floods created a surplus of silt and there was enough sand in the river to form new beaches.

"What we've learned in the Grand Canyon is, the system may be in sediment deficit all the way to Lake Mead," he said.

* Contact Mitch Tobin at 573-4185 or mtobin@azstarnet.com.

River News 10/31/03
RRFW Riverwire - PUBLIC TO BE BYPASSED AGAIN

Grand Canyon National Park October 31, 2003
River Runners for Wilderness has learned that a Recommendation for Wilderness Proposal has been submitted to the park by Representative George Radanovich (R-CA, Chairman, Subcommittee on National Parks, Recreation and Public Lands).

Chairman Radanovich is proposing a wilderness recommendation which excludes the Colorado River. Grand Canyon National Park staff are responding to a request from the NPS Directorate to prepare the necessary documentation. Representative Radanovich and committee staff members intend to introduce this alternative through the congressional process as a wilderness bill.

"Here we go again." commented Tom Martin, Co-Director of River Runners for Wilderness "We are in the middle of a public process dealing with the river-wild, where the public, as it has for over 30 years, is clamoring for preservation of the wilderness character of the river, and in steps Congress to bypass the public. In fact," Martin notes, " we are possibly only two months away from seeing the release of the long awaited preferred alternative for the Colorado River Management Plan Environmental Impact Statement. Just like this spring, the summer of 2001, and in 1980, we're seeing an attempt to muzzle the public process. This recommendation not only shuts down the public process," he continues, " but it flies in the face of a court ordered settlement from two years ago to include a wilderness alternative."

Grand Canyon Superintendent Joe Alston and staff are in the process of producing a map that reflects the Chairman's intent, which excludes the river from Wilderness designation. The park is providing narrative explanation that delineates further exclusions besides the river, as defined in the 1993 Final Wilderness Recommendation. RRFW has also learned that the 1993 recommendation will also be included for reference purposes. These documents will be submitted to the NPS Office of Congressional Affairs for final drafting services. The information is being provided as a service to the Chairman and Subcommittee staff, who will then handle all further liaison activities with the Congressman's office relating to the proposed recommendation.

"The river rafting public has discovered that wilderness rivers are an incredibly unique and scarce resource. This recommendation eliminates 240 miles of the best wilderness river running in the world. There are no motorized boats on the river for three months of the year, and no jet-boats at all. The loss of wilderness protections will change all that." remarks Jo Johnson, also of River Runners for Wilderness. "Most importantly, allowing 80% of the public river access to be given to park rafting concessionaires, 75% of which use motorized tour boats to run through the canyon, while the do-it-yourself paddler waits in a 20 year backlog for access, is inconsistent with wilderness management. Thirty years of access wars over the character of the river have taught us that outdated fixed allocations are not what wilderness river running is supposed to be all about."

This recommendation will result in a reduction in wilderness acreage at Grand Canyon National Park. The 1993 Final Wilderness Recommendation proposes 1,139,077 acres. By excluding the river, the amount is reduced by 12,190 acres to 1,126,887 acres of wilderness. RRFW has learned that Grand Canyon National Park has taken no position on this recommendation at this time.

All river runners are encouraged to contact the following congressmen and ask to speak with the environmental staffer. Politely request that the Radanovich Grand Canyon Wilderness recommendation not be introduced while a public process to sort these issues out is ongoing. Even if the listed congressmen below are not in your district, you are all encouraged to contact them as this is a National Park, and therefore a national issue.

Rick Renzi 202-225-2315 Mark Udall 202-225-2161 Tom Udall 202-225-6190 Raul Grijalva 202-225-2435 George Radanovich 202-225-4540 John McCain 202-224-2235

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River News 11/02/03
RRFW Riverwire - GLEN CANYON DAM UPDATE

Updated October 31, 2003
Operations

Releases from Glen Canyon Dam in November will be nearly identical to what they were in October. In November, releases will average 8,000 cfs with a total of 476,000 acre-feet scheduled to be released. On Mondays through Saturdays in November, daily fluctuations due to load following will likely vary between a low of 5,000 cfs (during late evening and early morning off-peak hours) to a high of 10,000 cfs (during late afternoon and early evening on-peak hours). On Sundays, releases will be 5,000 cfs from 7 pm until 7 am, and 8,000 cfs from 7 am until 7 pm.

Releases from Glen Canyon Dam in December of 2003 will likely be higher than November. The volume releases in December is likely to be 600,000 acre-feet (an average release of about 10,000 cfs).

Because of the draw down condition of Lake Powell, releases from Lake Powell in water year 2004 are being scheduled to meet the minimum objective release of 8.23 million acre-feet. This is consistent with the requirements of the Criteria for Coordinated Long-Range Operation of Colorado River Reservoirs.

Basin Hydrology

Severe drought conditions in the Colorado River Basin continue. As we move into a new water year there are no signals of the drought easing. Water year 2004 began on October 1, 2003 and the first month of our new water year was much warmer and drier than average. Basinwide precipitation in October was only about 30 percent of average. Soil moisture levels throughout the basin are very low, and as we move into winter it appears likely that the snowpack will be building upon these very dry soils. The scenario is not favorable for next spring's runoff, as much of the melting snow will be absorbed by the dry soil. Reclamation is estimating that with average snowpack conditions this winter, runoff next spring would be about 75 percent of average.

The Colorado River Basin is now in its 5th year of drought. Inflow volumes have been below average for 4 consecutive years. Unregulated inflow in water year 2003 was only 53 percent of average. Unregulated inflow in 2000, 2001 and 2002 was 62, 59, and 25 percent of average, respectively. Inflow in 2002 was the lowest ever observed since the completion of Glen Canyon Dam in 1963.

The trend of low inflow continues. Unregulated inflow in October, 2003 will end up being only 55 percent of average. As of October 31, 2003 observed inflow to Lake Powell is about 6,000 cfs, about 58 percent of what is usually seen in late October.

Low inflows have reduced water storage in Lake Powell. The current elevation of Lake Powell is 3,602.0 feet (98.0 feet from full pool). Current storage is approximately 11.9 million acre-feet (49 percent of capacity). The good news is that even after 4 years of

severe drought, Lake Powell is still storing a large volume of water (nearly 12 million acre-feet).

Experimental Flows

Daily high fluctuating releases from Glen Canyon Dam, as part of the Glen Canyon Dam experimental flows, were completed on March 31, 2003. From January through March 2003 releases ranged between a high of 20,000 cfs to a low of 5,000 cfs each day. These same high fluctuating releases are scheduled to be repeated in January through March of 2004.

The January through March high fluctuating releases were intended to benefit the endangered humpback chub. Scientists have recognized that the humpback chub population has been in general decline since highly fluctuating flows were curtailed in November of 1991. Those flows helped keep the non-native fish, especially the rainbow and brown trout, in check. The trout are thought to prey upon and compete with native fish such as the endangered humpback chub.

The experimental flows from Glen Canyon Dam received environmental clearances in December 2002. The flows were analyzed in an environmental assessment in accordance with the National Environmental Policy Act. The experimental flows are the result of ongoing studies by scientists from the United States Geological Survey and were recommended by the Glen Canyon Dam Adaptive Management Work Group, a Federal advisory committee. The experimental flows address the decline of two key resources in the Grand Canyon: sediment and population viability of endangered humpback chub. The Finding of No Significant Impact on the experimental flows can be found at http://www.uc.usbr.gov/amp/flow_fonsi.pdf.

This release courtesy Tom Ryan.

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River News 11/03/03
Endangered Species: Interior mulls warming Colorado River to help humpback chub

April Reese, Land Letter Southwest correspondent
This story is the first of a series on management of natural resources in the Grand Canyon.

GRAND CANYON NATIONAL PARK, Ariz. -- Almost 40 years after Glen Canyon Dam plugged the Colorado River, one of the river's oldest inhabitants is struggling for

survival. But as the debate swirls over recovering the endangered humpback chub while meeting human water demands, the river's federal caretakers have devised a new solution: warm up the river.

The chub, which ranges in size from 5 to 20 inches and can live up to 30 years, evolved in the Colorado River basin 3 million to 5 million years ago. Once numbering in the millions throughout the watershed, the fish has been reduced to a couple thousand, although scientists disagree over just how many remain. While small groups of the fish persist in the upper Colorado River basin, the only surviving lower basin population is in the Little Colorado River, near its confluence with the mainstem in Grand Canyon National Park.

[The largest known population of humpback chub is in the Little Colorado River in the Grand Canyon, where there may be up to 10,000 fish. Photo courtesy of the Fish and Wildlife Service/John Rinne.]

Scientists attribute the species' decline primarily to Glen Canyon Dam, built in 1963 to provide water and power to the interior West. While many credit the dam and its reservoir, Lake Powell, with turning the arid region into a land of verdant farms and booming cities, the project also has drastically changed the ecosystem downstream. The Colorado River, which historically ran muddy and warm, turned clear and cool with the closing of the floodgates.

As incoming water pools behind the dam, its sediment load settles, and the water released through the dam's penstocks is drawn from the cool depths of the reservoir. Water temperatures that once fluctuated seasonally from about 80 degrees in summer to almost freezing in winter now average 46 degrees year-round, according to the Bureau of Reclamation. Biologists suspect the chub and other native fish that have disappeared from the river altogether have difficulty tolerating the cool, clear waters that now flow through the Grand Canyon.

[The picture on the left shows the clear-running Colorado River in the Grand Canyon above the confluence with the Little Colorado River; the other picture shows the murky Little Colorado. Photos by April Reese.]

On a recent data-gathering trip funded by the U.S. Geological Survey, Joe Shannon, a Northern Arizona University-based aquatic ecologist who has been monitoring the Grand Canyon ecosystem for 15 years, pointed out the contrast between the murky Little Colorado and the mainstem river. A recent storm had loaded the Little Colorado with sediment, and its milk-chocolate flow muddied the crystalline main stem where the two rivers meet in Grand Canyon National Park, about 75 miles downstream from the dam.

"That's how the Colorado should look," he said, pointing to the river, which has grown murky under the influence of its temporarily muddy tributary. "It's not supposed to be clear."

It was a rare glimpse of the river as the humpback chub saw it for millions of years, before the construction of the dam 40 years ago. But a quick splash of the hand in the cloudy waters is a reminder that this is still a "designer ecosystem," as Shannon calls it. The water is cool -- too cool for humpback chub to reproduce.

Warming the river

The Bureau of Reclamation, which owns and operates the dam, hopes to improve those conditions by using a "temperature control device" (TCD) to release warmer water into the river. Dennis Kubly of BuRec's Environmental Resources Division said the agency wants to send water from the reservoir's warm surface layer downstream instead of drawing from the deep, cold waters of the lake.

The impetus for the project was a biological opinion issued by the Fish and Wildlife Service in 1994. The agency recommended that BuRec investigate using temperature control technology, which up to that point had only been used to enhance conditions for game fish, to help recover the humpback chub.

In August, the proposal received an endorsement from the Glen Canyon Dam Adaptive Management Work Group, comprised of 25 stakeholders representing the park service, BuRec, FWS, power interests, environmental groups and others. This week, the group formally asked Interior Secretary Gale Norton to give BuRec the green light to go forward with the project. Norton is expected to make a decision on the proposal within the next few weeks.

But several biologists question whether the water drawn from the top of the reservoir will be warm enough to significantly benefit the chub. While BuRec's proposal to increase water temperatures in the river is partly in response to FWS' recommendations, some biologists are concerned that warming the river could benefit non-native fish that prey on the chub as well. For instance, channel catfish -- one of several species, including striped bass and carp, introduced to the Colorado River by fishery managers -- respond to increases in water temperature by speeding up their metabolism, which causes them to eat more food, including chub, Shannon said.

"Right now, those fish may be suppressed by cold water temperatures," said Sam Spiller, Lower Colorado River coordinator for the Fish and Wildlife Service. "There might be more damage if we warm the water." Even so, the increase in temperature could help control cold water species like trout, he added.

Even if the TCD succeeds in boosting chub numbers, it's likely to fall short of federal recovery goals for the species, said David Haskell, a former director of Grand Canyon National Park's Science Center. "The recovery plan calls for [establishing] another major, viable population," he said. "The TCD would not do that."

Shannon was more optimistic. "I think the TCD can work, but only if there's a total reworking of dam operations," so that water releases would more closely mimic historic fluctuations in flows, Shannon said. "Recovery efforts have to be on a big scale, because the dam and its impacts are so big."

If the project goes forward, Kubly said it will probably be implemented in small steps so federal managers can monitor the effects on both native and non-native fish and adjust the plan accordingly.

"In a sense, it's a one-arm-behind-your-back approach," he said. "Not everyone trusts one another, so this makes sure we don't move too far too fast."

It also costs less to go slow, Kubly noted. The initial two-penstock plan will cost about $25 million; to alter all eight, the cost would be about $100 million, he said.

The agency has used temperature control devices with some success on other dams, including Shasta on California's Sacramento River, Hungry Horse on Montana's Flathead River and Flaming Gorge on Utah's Green River, Kubly added.

"There aren't any known disasters out there," he said. "By and large, the system responses have either been positive or neutral."

Recovering the chub

But Haskell, who was also a ranger at Glen Canyon National Recreation Area in the 1970s, said the only way to restore native fish -- and the rest of the ecosystem -- is to decommission the dam. He compared the TCD project to "tinkering while Rome is burning."

"If there wasn't a dam, the trout would be dead real quick, because they can't take a lot of this," said Haskell, gesturing toward the murky water.

According to the Fish and Wildlife Service, the chub will be considered for removal from the endangered species list "when five viable, self-sustaining populations have been restored ... and when the fish's habitat has been protected."

With one of the river system's biggest dams just upstream from the largest population of the chub, that's a tall order, say Haskell and other decommissioning advocates.

In addition to the TCD proposal, federal managers have launched a program aimed at killing non-native fish. But that effort, too, is fraught with uncertainty. Some biologists are worried that reducing the numbers will only give the remaining non-native fish more room -- and more resources -- to thrive. The question, Shannon said, is, "How do you kill all the bad fish and grow the good fish?"

Complicating recovery efforts are conflicting management objectives in the same ecosystem, Shannon added. "The park is killing non-native fish, but [state managers] are still stocking them upstream," he said.

Debbie Felker, a spokeswoman for FWS' Upper Colorado River endangered fish recovery program, said the agency is working with state game and fish officials to scale back stocking programs that conflict with endangered species recovery.

The challenge of recovering the humpback chub is part of a larger debate over how to protect the park's resources while meeting water delivery mandates.

Lake Powell is one of several reservoirs that are part of the Colorado River Storage Project, which provides water for seven states: Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming. About 85 percent of the water is used for irrigation; the rest is allocated for residential, commercial and industrial use. Balancing those demands with the protection of an extensively altered river ecosystem is a daunting task, observers say.

Meanwhile, the stakes are becoming increasingly higher for the chub in the Grand Canyon, Shannon said. "If we lose the base flow of the Little Colorado River because of drought, it's all over," he said. "We're talking at most another 20 years."

River News 11/06/03
RRFW Riverwire CONDOR CHICK FLIES!

Grand Canyon National Park
Biologists from Grand Canyon National Park and The Peregrine Fund have confirmed the fledging of the first California Condor nestling in Arizona in perhaps over a century. The flight was observed at 1:30 p.m. on Wednesday, November 5. The chick jumped out looking like it wanted to land but there was nothing there. It ungracefully circled and landed 500 - 600 feet below its cave in a remote canyon. The California Condor was included on the first Federal Endangered Species List in 1967.

"It was spectacular!" announced an excited Sophie Osborn, Field Manager of The Peregrine Fund. "It was not the graceful flight we had envisioned, more like a controlled fall and our hearts were in our throats as it dropped 500 to 600 feet below the nest cave. Minutes after the chick landed it started to explore its environment, tugging on a yucca plant and hopping from boulder to boulder. We waited and hoped so long for this to happen that being part of it was indescribable!" she added.

"Our biggest worry after the chick left the cave was how long it would take for the parents to find it," remarked Chad Olson, Raptor Technician for the National Park Service. "Both parents were away from the area when the chick fledged. To our great relief, female 127 flew to the nest about two hours after the chick fledged, realized the chick was not in the nest cave, immediately found it, and dropped down to feed it. Since fledging is such a dangerous time for the chick it is tremendous to be past this and on to another exciting phase." Olson said.

The chick is healthy and alert to its surroundings. Biologists are planning to attach telemetry equipment and assess overall health issues. The bird will be closely monitored.

"A fledgling condor chick spreads its wings and flies into the wild, and not just the parents share in the pride. The partners who have worked for decades to rescue this species from the brink of extinction see it as a great cause for hope," observed Interior Secretary Gale Norton.

"I have watched adult condors soaring above the spectacular beauty of the Grand Canyon. The birth and flight of this young condor creates optimism that condors will flourish in the Canyon for many generations to come," Norton added.

Biologists first suspected that Condors 123 and 127 were incubating an egg in March 2003. Daily observations were made, with assistance from a group of "Nestwatch" volunteers. The parents became very attentive to the nest in early May. The existence of the chick was confirmed on August 18 after biologists made an arduous 24-mile hike in 100 degree heat down to below the nesting cave. Daily monitoring continued.

"We are very pleased about this new step in the recovery of the California Condor species," stated Joseph Alston, Superintendent of Grand Canyon National Park. "We are proud to be a part of this highly anticipated and monumental event for both the park and the Colorado Plateau. We look forward to working with our partners in order to ensure the well-being of this new arrival to the condor population and to ensure continued success in the program."

Three pairs of California Condors produced eggs in Arizona in 2003 (one in BLM's Vermilion Cliffs National Monument and two in Grand Canyon National Park). Two of the eggs did not hatch, which is not uncommon for California Condors during their early breeding years. In fact, this was the second egg laid by Condor 127 and the third laid by Condor 119. In California this year, one egg was laid and hatched in early May, but, unfortunately, the chick did not survive.

As Roger Taylor, Arizona Strip Field Manager for the Bureau of Land Management (BLM) states, "We have been anxiously awaiting this bird's first flight. With the good condor viewing opportunities that are typically available along the Vermilion Cliffs, perhaps the public will have an opportunity to view the young condor this winter."

"The significance of the first wild-hatched condor in Arizona is tremendous. While captive-bred condors have exceeded our expectations, it is this chick and others like it in the future that ensure condor recovery in Arizona," says Arizona Game and Fish Director Duane Shroufe.

"The partners have watched this chick prepare to fledge with as much anticipation as any natural parent might," said H. Dale Hall, Southwest Regional Director of the U.S. Fish and Wildlife Service. "We all wish the best for this fledgling and look forward to further successes."

The historic Arizona reintroduction is a joint project among the U.S. Fish and Wildlife Service, the National Park Service, The Peregrine Fund, the Arizona Game and Fish Department, the Bureau of Land Management, Southern Utah's Coalition of Resources and Economics, and others. Funding for the project is being provided by The Peregrine Fund, U.S. Fish and Wildlife Service, Arizona Game and Fish Department, Peter Pfendler, National Fish and Wildlife Foundation, Nina Mason Pulliam Charitable Trust, Disney Wildlife Conservation Fund Awards, Steve Martin/Natural Encounters, Grand Canyon National Park Foundation, Bureau of Land Management, Grand Canyon National Park, Kearney Alliance, Grand Canyon Trust, Patagonia, Turner Foundation,

Globe Foundation, Earth Friends, Arizona Public Service, Wallace Research Foundation, Mattie Wattis Harris Foundation, Arizona Community Foundation, and Oracle Corporation Grand Canyon Conservation Fund, and others.

Images and other information may be obtained from the following websites:

The Peregrine Fund: www.peregrinefund.org/press/condor_chick_fledges_2003.html
The Grand Canyon National Park Foundation: www.gcnpf.org, Grand Canyon National Park: www.nps.gov/grca

The California Condors are being released as a "non-essential/experimental population" under section 10(j) of the Endangered Species Act. Section 10(j) provides that the species can be released in an area without impacting current or future land use planning. However, in Grand Canyon National Park condors are provided full protection as federally protected threatened species. This authority has been spelled out further in an innovative agreement between the U.S. Fish and Wildlife Service and local governments. This "Implementation Agreement" spells out a positive working relationship between the Federal government and the various local governments.

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River News 11/07/03
Study: Global warming to 'substantially affect' California in 20 years

Associated Press
Sacramento, Calif.
Global warming will substantially affect California in about 20 years, experts say, warning that the state is more vulnerable because of its coastline, its climate and its dependence on Sierra Nevada snowpack for water and hydroelectricity.

"It's going to affect all of us," said Robert Wilkinson of the University of California, Santa Barbara, School of Environmental Science and Management, who wrote a 432-page treatise on the impact on California.

It means a shorter ski season in the Sierra, and poorer habitat for endangered salmon in lower streams. It may mean more wildfires and more floods. Extreme heat waves, easier spread of diseases and increased air pollution all could imperil health.

Oceans that rose 4 inches to 8 inches over the last century could rise up to 3 feet this century, swamping San Francisco Bay estuaries and endangering pumps sending freshwater from the Sacramento-San Joaquin River Delta to the Bay Area, San Joaquin Valley and Southern California.

It will mean more fights over water throughout the West.

"Climate change is upon us. In 20 to 25 years, we really will be working with a different climate," said Michael Dettinger, a U.S. Geological Survey research biologist and researcher with the Climate Research Division at Scripps Institution of Oceanography.

Every scientific model predicts warmer temperatures, with the bulk projecting an increase in the range of 3 degrees to 6 degrees by 2100. But the computer models split on whether California will become wetter or drier.

Either way, warmer temperatures mean a shift in California's water cycle.

The Sierra snowpack that functions as the state's largest reservoir could shrink by a third by 2060 and to half its historic size by 2090. Runoff that fills reservoirs will start in midwinter, not spring. And rain falling on snow will trigger more flooding, scientists said Thursday at a seminar hosted by the Water Education Foundation.

Models projecting a drier California predict a sharp increase in critically dry periods, said Alan Hamlet, a water resources engineer with the University of Washington.

"We're going to have exacerbated conflicts over water, both in California and the Colorado Basin" that also supplies six upstream states, he said. Fortunately for California, it is rare -- but not unheard of -- for the Sierra and the Rockies to have a simultaneous drought, so usually there is substantial water for Southern California from one or the other.

The trends are already in play.

Spring temperatures have increased 2 degrees to 3 degrees since 1950, peak spring snowmelt comes two to three weeks sooner, and vegetation blooms one to three weeks earlier and stays green longer, scientists earlier told a state Assembly committee on water and climate change.

While more dams and reservoirs could capture vital runoff and control flooding, there are substantial questions where or if to build them given the uncertain long-range weather pattern forecasts. Experts predicted the state will have to rely more on conserving and reusing water, desalinization, groundwater storage, and water trades and transfers between regions.

As with the ebb and flow of the Ice Age, warmer temperatures mean grass and oak woodlands and chaparral will grow higher into the mountains over the next 100 years, while conifer forests can grow above the current tree line, said Susan Ustin, an environmental and resource science professor at the University of California, Davis.

But 100 years is a blink in geologic time, and the relatively quick change will disrupt ecosystems that need millennia to adapt, she said. Invasive species that already threaten native plants and animals may be quick to fill that void.

Earlier snowmelt means less spring runoff for salmon, and water could get too warm for them to spawn. Already, runoff into the Sacramento River has dropped 11 percent over the last century.

But warmer weather means longer growing seasons, which could help agriculture -- as long as there's enough water for irrigation, said Rick Snyder, a biometeorologist at UC Davis. While many of California's crops could benefit, its famed wine grapes need a precise combination of temperatures and could suffer, said Snyder and Wilkinson.

The effect could come down to "if you're talking white wine or red wine," said Wilkinson. "Is that a great research project, or what?"

LR in the News 11/07/03
Dry state will fight to restart desalter

Shaun McKinnon
The Arizona Republic
Nov. 7, 2003 12:01 AM
YUMA - Down along the final, gasping miles of the Colorado River, on the edge of a desert too dry to notice the drought, an unusual skirmish has erupted over a plan to squeeze more water from the West's already over-tapped supply.

The battleground is a water desalination plant on this city's west side, a $280 million white elephant that operated for all of nine months a decade ago, before floods and design flaws forced it into hibernation. The plant was designed to recycle agricultural runoff water that was otherwise too polluted and salty.

Now Arizona wants to restart the desalination plant as a hedge against the drought and has asked the federal government to spend $30 million to bring it back on line and an additional $24 million to $30 million a year to keep it running. Without the plant, Arizona officials say, Phoenix and Tucson could someday face crippling water shortages.

Critics question that claim and say the desalter is a failure best left idle. Even other Colorado River states, sympathetic to Arizona's effort to reclaim the lost water, shy away from the plant's enormous cost and the relatively meager return, about 25 billion gallons of desalted water a year, or roughly 0.6 percent of the Colorado River's total flow. But the fiercest opposition comes from environmentalists, who say that operating the desalter would destroy a thriving Mexican wetland and spoil the first real success story in the struggle to restore the Colorado River Delta. That argument frames a larger one, not about who should use the water or how, but whether it should be used at all.

'Very perplexing'

"There are tough issues," admits Herb Guenther, director of the Arizona Department of Water Resources. "It could be quite a tug of war down there. But if we don't operate the plant, there is a potential for water shortages and Arizona is the one to feel the impact. . . . This is a very perplexing problem."

Perplexing barely begins to describe what's happening here. This is, after all, a story about a desalination plant in the middle of the desert. And it asks a sort of chicken-and-egg question of whether the government should take water from a wetland that was the unintentional creation of that plant in the first place. Racing through it all is a gnarly tangle of issues: the environment, border politics, public money and, gnarliest of all in the West, water and how it should be managed.

"There is a taxpayer issue and an environmental-impact issue," said Lisa Force, Arizona program director for the advocacy group Living Rivers. "But the bigger issue is about the Bureau of Reclamation continuing to operate in an old-fashioned way. Re-operating the desalination plant is more of the same old pork-barrel politics, continuing to throw away taxpayer dollars on unsustainable water projects. "There are so many other options to create new water."

30 years of history

As odd as it sounds here at the end of the mighty Colorado, creating new water - or at least wringing every last drop from the water that already exists - is where this story started three decades ago when Mexico complained that the water flowing out of Arizona was too salty.

Mexico is entitled to 1.5 million acre-feet per year from the Colorado, about 489 billion gallons. Because Mexico is last on the river, it sometimes has had to settle for the dregs, often irrigation runoff from farms around Yuma and across the border in California.

Mexico finally complained that the water it was receiving was too salty, unfit to irrigate crops. Although the Colorado River originates half a continent from an ocean, it's one of the saltiest freshwater rivers in the country. It picks up minerals along its rugged 1,400-mile route, along with runoff from thousands of acres of irrigated farmland. In all, the river carries 9 million tons of salt a year, the equivalent of nearly 250 full railroad cars a day. To reduce the salinity of the river as it crossed the border, the United States decided to build a desalination plant at Yuma. The plant would take heavily polluted water from farms in the Wellton and Mohawk valleys to the northeast - water that had been running back into the Colorado and down to Mexico - treat it and return it to the river, in effect using it twice by recycling it.

"The plant is just a tool for salinity on the Colorado river," said Jim Cherry, who oversees the desalination plant as Yuma-area director for the Bureau of Reclamation. "It's just one of the tools. It won't change the salinity of the river significantly - it's almost like running a hose into the swimming pool - but it's a good amount of water we save (by recycling)."

The bureau fired up the plant in late 1992 at one-third capacity. It operated for about nine months, then shut down after a flood on the Gila River washed out one of the delivery canals. A chain of frustrating design flaws kept the plant inactive and a series of wet years in effect rendered the plant unnecessary. Enough water was flowing down the Colorado to fill Mexico's orders.

That changed this year. The drought sucked up all the surplus water and forced the Bureau of Reclamation to draw about 35 billion gallons of water from Lake Mead.

Although the reservoirs are nowhere near running out of water, many scientists predict that drought conditions will persist for years. Both Utah and Colorado are considering plans to use more of their river allocations. If the river can't deliver enough water, Arizona - specifically the Central Arizona Project, which supplies Phoenix and Tucson - is the first to have its flow halted.

Water shortage risks

"The desalter is important to Arizona because it reduces our long-term risk for shortages," said Tom Carr, who oversees Colorado River issues for the state Water Resources Department. "Reducing the water in storage on the river is a significant issue." So is time, Carr said. Fixing the remaining design flaws and preparing the desalination plant for full-scale operation would take four to five years. An environmental-impact study could stretch that timetable. Congress will have to appropriate up to $30 million just to fix the design flaws and prepare the plant to operate.

State officials worry that the price tag could hold up their request. The annual operating budget would likely top $29 million, about $311 per acre-foot delivered to Mexico, or about 30 times what Yuma farmers pay. But they say a long-term water shortage in Arizona could run up damages of more than $300 million in lost crops and money spent to find alternate sources.

Shifting money to the desalter would probably mean taking it from other uses, said Bob Johnson, regional director for the Bureau of Reclamation in Boulder City, Nev. Although the agency is moving ahead with an environmental-impact study and repairs to the desalination plant, officials also are exploring other ideas.

Most often mentioned is leasing water from farmers along the river or paying them to leave croplands unplanted. "My guess is if you packed something correctly, you could probably get some water out of there at a lesser cost and with less of an environmental impact than operating the plant," Johnson said. Other states along the Colorado have expressed limited support for Arizona, but they also suggest there may be better alternatives.

"It's been in storage a long time and the technology has changed tremendously. We need to know if it is cost-effective to upgrade it," said Kay Brothers, deputy general manager of the Southern Nevada Water Authority in Las Vegas.

Arizona officials say the other options are even more expensive. Leasing water or paying farmers to fallow land could cost nearly $54 million a year, the state estimates. A plan to bank surplus water underground to allow more water to flow down the river could cost nearly $40 million.

Water leases or purchases are equally troublesome, said Carr of the Water Resources Department. If an irrigation district, for example, agrees to give up some of its water, other users on the river, such as California or the CAP, could claim the water first, leaving the state and the bureau no better off than before.

"Arizona pays the price no matter what," said Larry Dozier, deputy general manager of the Central Arizona Project. "It's pretty apparent if there is land fallowed, it would be in Arizona. And if they use system water, well, we're on the short end of the stick, so if you give up system water, you give up CAP water."

Dozier said if the bureau would upgrade the desalter's technology, it could increase output and feed more water into the system.

Far more troublesome for Arizona and the bureau are the claims raised by environmental groups that the desalter would destroy the Cienaga de Santa Clara, a wetland about 50 miles south of Yuma in Mexico that supports hundreds of species of birds, fish and other wildlife.

The wetland is, in a way, a byproduct of the desalter. While the plant was under construction, the agricultural runoff it would someday treat was diverted south toward what was then a mostly dry corner of the Colorado River Delta.

Because the plant only operated for nine months, the water continued to flow into Mexico. Over the years, it formed the wetland, in effect restoring a sliver of the delta. It is home to dozens of endangered species.

"The delta is coming back by itself," said Michael Cohen, a senior associate for the Pacific Institute, a water research and advocacy group. "They added water and it came back. Vegetation springs up in response to water. It's pretty clear-cut. There are studies that show when they took the water out in the '90s, it dried up. Here's a benefit that has occurred just because people added water."

Three strikes?

If the government restarts the desalting plant, that water will be taken away again. Using existing technology, the desalter can recover as much as 75 percent of what it treats. The remaining 25 percent would be returned to the diversion canal and sent south to the wetland, but it would be up to six times saltier than before.

"They reduce the amount of water, that's strike one," said Steve Cornelius, a Colorado delta specialist for the Tucson-based Sonoran Institute. "The water that does get there will be higher in salinity. That's strike two. The cattails there are pretty resilient, but they're not going to be able to survive that change."

Arizona officials concede that the wetland could suffer some damage if the desalination plant is restarted and the flow of runoff water is altered. But they say the plant's construction was responsible for the wetland's almost accidental creation, an accident that was never meant to happen.

"The original environmental study acknowledged there would be a temporary wetland down there," said the CAP's Dozier. "It would evolve into something different once the plant was started." The fact that the marsh grew over the years is unfortunate, Dozier said, but doesn't alter the original assessment.

Contentious times

That argument peeves conservation advocates: "They did create the wetland area by mistake, but in order to do that they had to destroy it first," said Force, with Living Rivers. "That was a much more biodiverse area before. It did have wetlands, and it also had riparian corridors, estuaries and much more complex ecosystem that died when they filled the reservoirs."

Instead of trying to drain the river dry with a recycling plant, water managers should confront the issue of whether cities and farms should claim every drop of water in the river, Cornelius said. "The river itself needs water," he said, enough to restore flow all the way to the Gulf of California. Returning the freshwater mix to the gulf would not only benefit wildlife habitat, but fisheries along the coast that have been devastated by the loss of the delta.

"It was fortuitous that the cienaga became what it was today," he said. "We ought to be looking at this as a positive thing instead of a mistake."

Both the state and the environmental groups are preparing for a contentious study period. Carr plans to meet with a conservation advocates in the coming weeks and pledged to listen to their concerns and their ideas. He'll get an earfu

"When you take on anybody on water in the West, it's tough," Force said. "Everybody's very protective of the old way of doing things. But we have a diverse group this time, taxpayer groups, environmental groups, even farmers who want to lease water. It's going to be a tough battle, but it's going to be worth it."

River News 11/09/03
RRFW Riverwire - WILDERNESS UPDATE AND THANK YOU!

Thanks to all the folks who called into your elected officials about Representative Radanovich's (R-CA) river-less "wilderness" proposal. The wilderness documents, with the Colorado River omitted, were requested from Grand Canyon National Park by the representative's office. RRFW has learned that these documents are being forwarded to his staff, but the representative has not yet submitted a bill based on this material. Your congressional leaders heard you loud and clear, and it helped! It turns out many congressional members do not take kindly to this sort of back door approach to wilderness management, especially at a place like Grand Canyon National Park. Indications are that a member of congress will submit a counter bill with the river

included. This will be done in the event a bad river-less wilderness bill is introduced, to stop the bad bill so that the public process is allowed to continue.

The Radanovich spurn-the-river proposal would circumvent the public management plan that has already generated over 50,000 comments. The clear signal from congress is that the on-going Colorado River Management Plan should be allowed to run its course without pressure from the park's own river concessionaires to bypass the public process. "There is no doubt we will need to keep up the pressure with more phone calls in the future" notes Jo Johnson, River Runners for Wilderness co-director. "We are grateful to Grand Canyon lovers who have been responsive to this issue. Circumventing the process allows the nightmare of fixed allocations to continue while trashing park wilderness values."

RRFW will continue to keep you informed of developments as they happen.

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LR in the News 11/09/03
Eco Fighting for Rivers: Living Rivers keeps David Brower's legend alive

Paddler Magazine
By Matt Hansen
November/December 2003
It's a warm June morning on the Yampa River and 66-year-old river guide Dee Holladay stands in the shade of Mantle Cove, a magnificent alcove of sandstone in Dinosaur National Monument that harbors ruins from the ancient Fremont civilization. While his guests quietly peruse the alcove, Holladay watches swifts dart back and forth among the high cliffs. The birds are making a ruckus but only a few others notice them. "Look," he says, using his stained coffee mug as a pointer, "they're fighting."

The same could be said about many of Holladay's floatmates this week--although they're not fighting each other, they're fighting for rivers. The nonprofit Living Rivers--an environmental group primarily focused on draining Lake Powell--has gathered river and wilderness advocates to float the canyons of the Yampa and Green with Holladay's Holiday River Expeditions. The trip's purpose is to celebrate the life of David Brower, who first floated through Dinosaur in 1953 as the head of the Sierra Club. Afterward he singlehandedly defeated two dams that had been proposed for the monument. In doing so, he launched the modern conservation era but forsook Glen Canyon, which now sits below the motor-heavy waters of Lake Powell. It was a decision that haunted Brower the rest of his life. A cunning fighter for wilderness, he died in 2000 at the age of 88, but his fight presses on through Living Rivers, which he helped found just before his death.

Those floating with Holladay in June included Roderick Nash, whose 1967 book Wilderness and the American Mind has been noted as one of the most definitive pieces ever written on wilderness; Jeffrey Ingram, an activist characterized in Marc Reisner's book Cadillac Desert as Brower's "most valuable" asset in successfully fighting off dams proposed for the Grand Canyon in the 1960s; Kim Crumbo, former Grand Canyon river guide and activist with the Arizona Wilderness Coalition; and former river guide John Weisheit, who serves as Living Rivers' conservation director. They're all fighting for more responsible water usage, specifically fewer dams and eliminating motorized vessels on the Colorado in the Grand Canyon. "This is not a happy river," says Ingram of the Colorado. "Outfitters spend hundreds of thousands of dollars to defend themselves against outside interests. Private floaters are angry because of the grievances they go through to get on the river and because they're discriminated against. And people like me have been angry for 30 years because we think it should be wilderness."

Among those present, the 49-year-old Weisheit is these days the one most often tangling with the Bureau of Reclamation and Western politicians. The Los Angeles native first met Brower in the early 1990s, when he told Brower that he hated him for not fighting Glen Canyon Dam. Brower responded by asking for forgiveness, and for help. So that's what Weisheit did. And it's Glen Canyon Dam that he has in the crosshairs, although there are others on his agenda (see sidebar). "We can't manage our rivers this way," he says. "We have sacrificed our natural heritage for short-term gain."

But for these activists, going after Glen Canyon Dam is akin to a mosquito trying to suck a bison dry. The Glen Canyon National Recreation Area and Lake Powell are visited by more than 2 million people annually--making it one of the National Park Service's most popular sites. The Bureau of Reclamation says the reservoir ensures water for millions of Southwest residents. Perhaps more important, however, the Bureau sees Glen Canyon Dam as a symbol of its ability to fundamentally change the desert landscape. Giving up Lake Powell would require the Bureau to turn its back on nearly a century of dogmatic belief that the Colorado River must be harnessed in order to make it valuable. Indeed, this summer Bureau Commissioner John Keys was quoted by The Associated Press as saying the decommissioning of Glen Canyon Dam "is something that's never going to happen. I won't spend a dollar studying it."

Barry Wirth, public affairs officer for the Bureau's Upper Colorado Office in Salt Lake City, says furthermore that if Glen Canyon were drained, there would have to be someplace else for that water to be stored. That reservoir, he says, is simply too important to the well-being of the seven states that depend on the Colorado River. "The current drought has clearly driven home the importance of Glen Canyon Dam," he says, adding that the Bureau's focus is how to balance the needs of agricultural and industrial interests, the public and conservation groups.

Given such statements, Ingram, 66, says being an activist is like "banging your head against a 710-foot concrete wall," which, incidentally, is the height of Glen Canyon Dam. But Weisheit, like Brower before him, doesn't belch anger despite his fanatical belief that Glen Canyon Dam wastes water and is killing the Grand Canyon. He speaks softly

and fluidly, smiling often. He sees children as his inspiration, hoping to give them the chance to visit the former Glen Canyon with their own children.

Despite the enormous task, Weisheit believes he will see Glen Canyon drained. "Congress built these dams and said we'd worry about the problems later" he says. "Well, later is now, and the public needs to know there are alternatives." One of Lake Powell's primary problems is the loss of water due to sediment buildup, seepage and evaporation. According to Scott Miller's 2000 report titled "Undamming Glen Canyon," published in the Stanford Environmental Law Joumal, some 65 million tons of sediment fills Lake Powell each year, reducing storage capacity. Evaporation accounts for the second highest consumptive use of Lake Powell's waters, behind only irrigation. Bank seepage accounts for 350,000 acre-feet of water being lost each year. The hydropower produced by the dam provides electricity for only 3 percent of the region, according to Miller. And the cold, clear water being sent through the Grand Canyon harms endemic fish that have evolved over millennia in warm, silty water. "These systems are going to fail before our mortgages are paid," says Weisheit. "And I don't want to pass our poor planning on to future generations. It's unacceptable and it's embarrassing."

Weisheit also points out that this year Lake Powell was only half full due to the drought. He says if the current drought persists, the reservoir will be empty in two years, rendering the dam useless for water storage and power generation. Of removing the dam, he says, "people are beginning to believe that it's not impossible."

On the day that Holladay and his group float into Echo Park, the confluence of the Yampa and Green and approximate site of one of the two proposed dams Brower defeated, he asks everyone to stay silent, allowing their senses to take in the canyon's immensity and the power of two rivers becoming one. Overhead a turkey vulture rides a thermal, floating gently among the 500 foot high canyon walls. Cliff swallows dart back and forth looking for insects. On the bank a lone deer grazes quietly. The sun is warm and the Yampa's muddy waters sparkle beneath an unspeakably blue sky. Other than the sound of the oars plying the river, it is silent. As Roderick Nash floats his dory through these spared canyon walls, he reflects on the significance of Brower's fight. "The only reason why we're not on a lakeshore right now," he says, "is because somebody cared."

Sidebar

Glen Canyon Dam isn’t the only bull’s-eye being targeted by Living Rivers. The several-hundred-member-strong group promotes large-scale river restoration, habitat preservation and responsible water use. Among the many issues on its agenda, the group has asked the Bureau of Reclamation to decommision Flaming Gorge Dam in northeast Utah. Flowing cold and gin clear from the dam, the Green River here is the best tailwater trout fishery in the country, but Living Rivers contends that the cold water coming from the reservoir is killing the warm-water-loving and endangered humpback chubs as well as the riparian habitat downriver in Dinosaur National Monument. Living Rivers is also trying to preserve a permanent water flow into the Colorado River Delta in Mexico’s Gulf of California. In addition, the group opposes the Big Straw, a proposal to

siphon water from the Colorado River near the Utah-Colorado border and pump it back to the Front Range of the Rockies to fuel urban growth. "As these depletions continue, we'll find fewer rivers to run because we can't seem to lose our addiction for irresponsible water use," says Living Rivers' John Weisheit.

River News 11/14/03
RRFW Riverwire - Interior Dept. Favors More Canyon Flooding

By Mitch Tobin, ARIZONA DAILY STAR
Despite initial resistance, the Bush administration favors continued experimental floods meant to restore the Grand Canyon's ecology, a senior official said in Tucson on Tuesday.

Assistant secretary of the Interior Bennett Raley, the administration's point man on water issues, spoke to 60 scientists at the start of a three-day meeting on how Glen Canyon Dam affects the Colorado River.

Researchers explained how they're using lasers, underwater cameras, century-old photos and experimental flumes in Minneapolis to learn how sand grains and Volkswagen-sized boulders move through the Canyon's rapids and eddies.

Raley urged the scientists not to politicize their work and to remember that "science is not the only input factor for management of the Colorado River."

"If scientists are sloppy and mix advocacy with science, you will end up with the same public perception of integrity that lawyers have," said Raley, a lawyer by training.

Glen Canyon Dam, completed in 1963, dramatically altered the Colorado's flow. Before the dam, the warm, muddy river roared with spring snowmelt. Sediment was lifted onto beaches and sand bars, creating wildlife habitat and backwaters vital to native fish, such as the endangered humpback chub. The beaches are still important campsites for boaters.

After the river was plugged to stabilize the Southwest's water supply, it ran colder and clearer below the dam, which trapped 90 percent of the silt. But dam releases - which often fluctuate with the Sunbelt's electricity demands - have also caused the Colorado's baseline flow to double downstream. As a result, much of the silt and gravel deposited by the Grand Canyon's 740 tributaries gets whisked into Lake Mead downstream.

"It wasn't that we just lost the spring floods, which redeposited sand," U.S. Geological Survey researcher Ted Melis said, "we lost the low-flows the rest of the time, which were low enough to retain those inputs for use during the high-flows. We're getting hit on both ends."

The result is an ecosystem transformed by a dam that helps supply water and power to 25 million people. Tucson is becoming increasingly dependent on the Colorado, whose water comes here via the Central Arizona Project's 336-mile canal.

After passage of the 1992 Grand Canyon Protection Act, the Clinton administration tried to replicate the river's natural flows. With much fanfare, Interior Secretary Bruce Babbitt opened the dam's floodgates in 1996; another flooding experiment was tried in 2000. Despite initial claims of success, scientists now say the results were minimal. A lack of sediment in the river made it tough for sandy areas to expand, and many gains were quickly washed away.

Scientists want to create more floods and time them when the Paria River is dumping sediment into the Colorado. But the drought has caused that tributary, 15 miles below the dam, to deposit less silt in the past three years than any time in recorded history.

Raley said at first he was "deeply, deeply skeptical about the experimental flow program." But, after talks with scientists on a river trip, Raley accepted it was "good science and it was worth taking the political risks to move forward."

"We know when we're being gamed. Had we sensed that, we probably would have slow-walked, ducked, evaded and done everything not to move forward," he said.

John Weisheit, an environmentalist with the group Living Rivers who would like to see Glen Canyon Dam removed, was encouraged by Raley's words. But he said the Interior Department still isn't spending enough money to restore the Grand Canyon.

In the past 30 years, researchers have flip-flopped on whether the Canyon was losing or gaining sediment, said Jack Schmidt of Utah State University. Some thought the lack of floods created a surplus of silt and there was enough sand in the river to form new beaches.

"What we've learned in the Grand Canyon is, the system may be in sediment deficit all the way to Lake Mead," he said.

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River News 11/15/03
RRFW Riverwire - Free Grand Canyon Slideshow Comes To Durango

Author Tom Martin will be in Durango at the Abbey Theater at 6:30 p.m., Nov. 30, to update local boaters on the controversial Colorado River Management Plan (CRMP) now in progress for Grand Canyon National Park, and how this plan will affect the boating public. Tom will illustrate his talk with a slide show on the Grand Canyon based

on his book, Day Hikes From The River: A Guide to 100 Hikes from Camps on the Colorado River in Grand Canyon National Park.
The highly controversial CRMP, which was stopped by the Park in 2000, was restarted as part of a settlement agreement in a lawsuit filed by river running groups and individuals. The public comment period during the past summer gathered over 50,000 comments. "The wait for do-it-yourself river runners is so long, those at the bottom of the list will wait an incredible 20 years to get permission to run the river" said Martin, who notes that "you can book a commercial trip tomorrow for next summer, if you can afford it. This process is of vital interest to all Colorado boaters, as more Coloradoans are waiting for a permit to boat the Colorado River in Grand Canyon than river runners from any other state."

The free slide show will be open to the public and features beautiful vistas illustrating Grand Canyon hikes you can do from the river and exciting river running shots. Tom will be signing books, the sale of which will benefit River Runners for Wilderness, a non-profit group which is sponsoring the event. RRFW represents the interests of the boating public. Taxpayers for the Animas River and the Weminuche Group of the Sierra Club are co-sponsoring the event locally.

Following the slide show, there will be an 8:30 p.m. screening of the movie, "The Same River Twice." This award winning independent film is about a group of friends who re-ran Grand Canyon 25 years after their first trip. There will be an admission charge for the movie.

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LR in the News 11/20/03
Feds gear up for new round of test flows to aid Grand Canyon

April Reese, Land Letter Southwest correspondent
GRAND CANYON NATIONAL PARK, Ariz. -- Seven years after releasing a torrent of water from behind Glen Canyon Dam to provide a much-needed ecological boost to the Grand Canyon, federal water managers are preparing to try it again. But while the dam's gatekeepers hope this experimental flood will bring back some of the river's wild characteristics, some scientists and river advocates say those good intentions may not be enough.

The Colorado River once raged and whimpered through the Grand Canyon in accordance with the seasons, swelling during the monsoons and laying low during dry periods. Those changeable flows alternately carried huge amounts of sediment into the canyon and deposited it in the river channel and on the banks, creating sandbars and

beaches. The muddy river also provided prime habitat for several species of native fish (Land Letter, Oct. 30).

Glen Canyon Dam, completed in 1963, drastically altered the historic flow regime and reduced the amount of water -- and sediment -- transported downstream. According to federal estimates, about 90 percent of the sand and silt carried by the upper Colorado River now settles in Lake Powell, the reservoir created by the dam.

The result has been a sediment-starved canyon with fewer and smaller sandbars and beaches, less backwater habitat for native fish and a clearer river that is alien to native fish accustomed to murky water.

Now, the Bureau of Reclamation is poised to open the floodgates in an attempt to deliver some of the sediment that is so crucial to the ecosystem -- and to boaters who camp on the canyon's beaches.

BuRec spokesman Barry Wirth said the agency, which operates the dam, plans to release water from the dam at a rate of about 45,000 cubic feet per second for two days. The volume of water will be about the same as it was in the 1996 flood, but the tap will be shut off six days earlier this time. Scientists and managers monitoring the earlier flood found that continuing the high flows after two days brought no additional benefit, said Bob Hart, a hydrologist with the U.S. Geological Survey in Flagstaff, Ariz.

"Within the first couple of days, the goal was reached," Hart said.

Building the beaches

But the biggest change this time around will be in the timing, Wirth said. The surge of water will be released after the Paria River, a tributary of the Colorado just downstream of the dam and above the park, is running high and thick with sediment. The hope is that timing the rush of water from the dam to coincide with high sediment loads in the Paria will bring more sand and silt into the canyon, where it will build sandbars and beaches and muddy up the river for the endangered humpback chub.

With the dam trapping most of the Colorado's sediment, the Paria River is crucial for delivering what little sediment the canyon receives, said Utah State University professor Jack Schmidt. "The Paria River is the only major source of sediment for the first 60 miles of the Grand Canyon," Schmidt said. "So it's the only significant natural source that the canyon has. It's everything."

A USGS study found that an August 1992 flood of the Paria River delivered 544,000 tons of sediment -- primarily sand -- into the Colorado in less than 24 hours. Typically, flows of that size occur on the Paria about every two years, according to USGS. In all, the Paria dumps about 1 million tons of sediment downstream during the monsoon season in late summer and early fall.

But this year is not a typical precipitation year. BuRec, the National Park Service and USGS have signed off on the necessary environmental studies for the project, and it has the blessing of the Bush administration. The only thing missing is rain.

"We're just not getting the floods during the monsoon season that we need," Wirth said. "The big key is having enough sediment flowing out of the Paria River to justify having the experiment." Without a roiling Paria, there cannot be experimental flows, he said.

A sense of urgency

Nikolai Ramsey of the Grand Canyon Trust said he is supportive of the test flows, but cautioned the canyon may not be able to wait for the drought to recede. "If the weather helps us, we're in good shape for an experiment. If it doesn't, we're still stuck with a sediment-starved system," Ramsey said.

A more timely idea, Ramsey said, is to move the sediment that is building up behind the dam -- at a rate of 6 centimeters annually, by some estimates -- downstream. While that solution may come with its own set of issues--including the potential for carrying heavy metals into the canyon and a price tag of up to $500 million--it would guarantee a dependable supply of sediment to the canyon, he said. That, in turn, would head off difficult questions about whether to decommission the dam, Ramsey added.

"The ecosystem in the Grand Canyon would recover, and power and water supplies would be secure," Ramsey said.

Wirth said that option is not on the table. "It's never been studied from a scientific viewpoint," he said. "Maybe some day. Right now we're focused on that which is probably more realistic."

The experimental flows come at a crucial time because there simply is not much sediment left to manipulate, Schmidt said. "We're losing the beaches in the Grand Canyon and continue to do so. Either this will work, or we'll know it's impossible."

If it does not work, federal managers could be left with some tough choices, he added. "Basically, we'll either have to come up with a radical new solution, or announce to the public that we've raised the bar too high--that the price paid for the construction and operation of Glen Canyon Dam is the progressive deterioration of the ecosystem of Grand Canyon Nationa Park," Schmidt said.

John Weisheit, conservation director for the advocacy group Living Rivers, supports decommissioning the dam as the only long-term solution. "These experiments are going to show that the dam does need to come down because the sediment the canyon needs is above Glen Canyon Dam," Weisheit said.

"They're going to have a sediment deficit as long as the dam is there."

But decommissioning is highly controversial and would involve major changes in how water tagged for downstream states is stored and distributed. Lake Powll is one of several reservoirs in the Colorado River Storage Project, which provides water for Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming. About 85 percent of the water is used for irrigation; the rest is allocated for residential, commercial and industrial use. Removing the dam would also eliminate a power source for Southwest cities, critics add.

For now, federal water managers are waiting to open the floodgates and see what happens when the sediment-rich water pulses through the Grand Canyon.

"We're ready to do it," Wirth said. "I think we're going to show, over time, some positive results."

River News 11/26/03
RRFW Riverwire - THE NEXT GENERATION GRAND CANYON RIVER GUIDEBOOK

River Runners For Wilderness is pleased to announce the imminent release of a "next generation" Grand Canyon guidebook written by boaters for boaters! Preview copies have gotten rave reviews for the wealth of information presented in a easy-to-use format. It's been called the definitive Grand Canyon river guide.
Tom Martin, author of Day Hikes from the River, & Duwain Whitis, publisher of RiverMaps map books, have teamed up to write a new guidebook titled Guide To The Colorado River In The Grand Canyon - Lees Ferry to South Cove. This is the only guidebook to the canyon with USGS topographic map backgrounds, printed at their original scale, with additional map detail added in an easy-to-read format. In addition, it is the only guide with maps extending to South Cove in Lake Mead. Each map shows campsite locations, rapids, scout points, river miles and other points of interest. The accompanying mile-by-mile text describes all campsites on the park inventory (and some not on the inventory), with campsite pull-in information, geological, botanical and historical points of interest. All of the significant hikes, rapids and scouting points are also described, with color photographs on almost every text page. The Guide is 8.5" X 14" spiral-bound to lay flat. The 108 pages are printed on tough water proof and tear resistant synthetic paper. Published by Vishnu Temple Press.

RRFW is pleased to be able to take advance orders for titled Guide To The Colorado River In The Grand Canyon - Lees Ferry to South Cove. The cost of this river guide is $29.00 ($25.00 each, plus $4.00 shipping and handling per Guide), with a tentative shipping date of February 27, 2003. Checks or money orders only please. Advance guidebook sales will benefit River Runners For Wilderness, a not-for-profit organization seeking equitable access to a wilderness river running experience in Grand Canyon. Please send your order to:

River Runners For Wilderness PO Box 17301 Boulder, CO, 80308-0301

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Living Rivers Currents 12/01/03
WAPA Blues: Hydro Not Missed

The ongoing drought is seriously effecting hydroelectric power production on the Colorado River. Colorado River Storage Project (CRSP) dams are experiencing an overall reduction of 25% from normal. The Western Area Power Administration (WAPA), the agency which distributes federal hydropower, must now purchase electricity from private sources to meet their long-term obligations to their customers.
The Bureau of Reclamation has emphatically stated that the region could not survive without power from Glen Canyon Dam. The drought has demonstrated this to be untrue, with surplus power from non-federal projects easily making up the shortfall. Should the pattern of drought continue for another two years, Lake Powell reservoir will lower to the point where Glen Canyon Dam's powerplant will become inoperational.

This situation will effect US taxpayers. Congress mandated that hydropower revenues must repay the loans used to build CRSP projects. Lower reservoir levels mean less power and less revenue to meet these loan obligations. Additionally, power purchased by WAPA to replace the difference comes at premium price, further effecting loan payments which are scheduled for full payment in about fifty years.

According to WAPA spokesperson LaVerne Kriss, this is not yet a problem. "When we have cash flow problems, we use a pool called the Colorado River Basin Fund to float us through times of shortage, and we make up the difference when the reservoirs recharge and surplus water becomes available again."

"Not true," says Living Rivers' conservation director John Weisheit. "That fund has been near zero for some time, and with persistent drought it's not going to be replenished anytime soon."

This will also cause further strains for WAPA-supported recovery programs, which are designed to mitigate the negative impacts from CRSP operations on the critical habitat of endangered species. The failure of these recovery programs will only drive the budget up further and will undermine WAPA's payback schedule over time. "WAPA will never break even. In fifty more years they will be forced to mitigate other impacts such as sediment removal from the reservoirs. When this occurs the taxpayers will have to contribute to unprecedented subsidies to keep theses projects operational, " concludes Weisheit.

Living Rivers Currents 12/01/03
Volume 3, Number 3, December 2003

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Living Rivers Currents 12/01/03
Science Performs: Management Ignores

Scientists meeting in Tucson this past October were criticized by the Department of the Interior for expressing little confidence in federal efforts to mitigate the downstream impacts of Glen Canyon Dam operations on the Colorado River ecosystem in Grand Canyon National Park.
“Advocacy positions belong to lawyers,” said assistant Secretary of the Interior, Bennett Raley, to the assembled scientists, many who have expressed frustration that their research is being ignored.

Dr. Jack Schmidt, a geologist who’s worked in Grand Canyon for 15 years, stressed that scientists have done their jobs well in reporting accurately to Interior’s Adaptive Management Working Group (AMWG) and then asked, “When is AMWG going to act upon this knowledge?”

Raley stated that Interior could “drag it’s feet” if it did not like what was being recommended. Raley, a water attorney by profession, who has asked Congress to repeal the Endangered Species Act, openly advocated to the scientists the concerns of water and power suppliers, and that these interests maintain superior political and legal positions as compared to environmental interests. He argued that the Grand Canyon Protection Act should be subservient to prior Colorado River laws, and river

management policy should therefore follow such a doctrine. Nonetheless, scientists should “continue to support” the adaptive management process.

Dr. Richard Valdez, a senior researcher of endangered fish, gave strong recommendations to AMWG concerning the endangered Humpback Chub by saying, “If you are not going to address the threats to their critical habitat, then you will continue to have endangered species in Grand Canyon.” Humpback Chub populations have declined 75% to just 2,000 adult fish over the past eight years.

Although this gathering was organized specifically for AMWG, very few of its members actually attended. The program is presently facing increased criticism as it was established to recover endangered species in Grand Canyon, but native species diversity has actually declined under their management.

Hydrologist William Vernieu reported on the impacts of drought on Lake Powell reservoir and the downstream implications for Grand Canyon’s water chemistry, which has so far been ignored by AMWG. The reservoir is currently experiencing a decrease in available oxygen along with increases in phosphorus, nitrates and salt. Such changes in water quality will exacerbate the decline in the river’s native food base for endangered fish.

The meeting illustrated that the political situation regarding Grand Canyon’s management is deteriorating as rapidly as its ecology. Several scientists admitted privately that absent some form of litigation, there will be little chance of recovering the natural and cultural heritage of Grand Canyon before these resources are lost forever as a result of operations at Glen Canyon Dam.

Living Rivers Currents 12/01/03

Grand Canyon Management: Stepping Backwards

In 1986 the Department of the Interior requested that the National Academy of Sciences review their science program for the Glen Canyon [Dam] Environmental Studies (GCES). While many of the Academy’s recommendations were applied by science managers in the Grand Canyon, and continued by subsequent program managers, politics and budget considerations are once again compromising the integrity of science. The National Research Council of the Academy encouraged the GCES to “solicit scientific talent for the work based on a research plan [through a peer-reviewed request for proposals],” and to “use merit competition to select researchers, including a peer-review system outside the agency or agencies conducting the study.”

David Wegner, former director of science for the Bureau of Reclamation, informed Living Rivers that, “The advice the Academy gave GCES was very helpful to the science community. We are very proud of the programs that later developed, which continued on through the EIS process of the early 1990s.” Even after the Environmental Impact Statement this attitude prevailed during the research and monitoring phase under the

auspices of the Grand Canyon Research and Monitoring Center (GCMRC), which is administered by the US Geological Survey in Flagstaff, Arizona.

Living Rivers has recently cautioned members of the Adaptive Management Program (AMP) that research programs are reverting back to old ways. This turn of events is gaining the attention of scientists who are fearful that heavy administrative costs will hinder their results. Additionally, a lack of competitive bidding and sufficient peer review will also detract from the quality and quantity of the monitoring undertaken.

For example, GCMRC recently decided to use in-house staff to undertake mechanical removal of trout in Grand Canyon. Bruce Taubert of Arizona Game and Fish Department (AGFD) pointed out to AMP members that “GCMRC may do this at a cost of $500,000, while AGFD could hire a consultant to do the same work for $365,000. There would be a savings of $135,000 that would return money back to the science programs in Grand Canyon.”

Living Rivers Currents 12/01/03

Drought Forecast: Situation Unchanged

A barrage of reports and media advisories continue to come forth from scientists about the persistent drought in the Colorado River basin. The public has been reminded that the region experienced droughts of similar intensity before, notably 1901-1904 and 1953-1956. However, the year of 2002 was singled out as the driest year ever in recent history.
While common forecasting techniques allow for predictions of 3 to 6 months, scientists are beginning to observe two patterns of sea surface temperatures that provide a degree of confidence in predicting long-term droughts, notably the warming of the North Atlantic ocean with the cooling of the tropical Pacific ocean.

By obtaining tree ring data, scientists have reconstructed the climate of past centuries with tested credibility. The analyses of both instrumental and tree ring precipitation records should allow scientists to project drought conditions beyond a mere seasonal forecast. By comparing the data sets, the analyses demonstrate that a drought can persist for one or two decades and, in a few cases, even longer. Additionally, the data can be linked with the aforementioned ocean temperatures and thus provide the indicators necessary to forecast a persistent drought.

In 1998 observers were prompted to anticipate the current drought situation and the conditions remain unchanged and will likely persist into the coming decade. “In the context of shifting ocean climate, the current drought should give water and other resource managers in the Rockies and Southwest little cause for optimism about the drought ending any time soon,” said Julio Betancourt of the US Geological Survey.

In a recent report Betancourt and others stated the implications, “It is always prudent to be conservative about water and other resources vulnerable to drought; it is particularly prudent now. ...Societal demands on surface water are on the increase. ...Clearly, the context for long-term drought is different now than it has been in the past.”

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Stephen T. Gray .et .al
Patterns and sources of multidecadal oscillations in drought-sensitive tree-ring records from the central and southern Rocky Mountains

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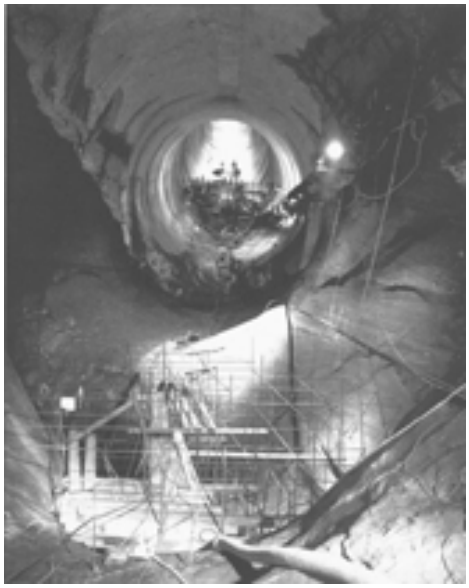
Living Rivers Currents 12/01/03
Colorado Riverkeeper: All Hands on Grand Canyon

In October, Living Rivers’ Colorado Riverkeeper undertook a 12-day science trip through Grand Canyon National Park. Our assignment was to aid in documenting the status of the river’s food supply for endangered native fish. Ten volunteers witnessed first hand how the river ecosystem is affected due to climate change.
“Because Lake Powell’s reservoir capacity has been reduced by 52%, the chemical and temperature output from the dam is further altering the food web in ways that we have never observed before,” said the Colorado Riverkeeper, John Weisheit. Given this recent turn of events in Grand Canyon, Living Rivers and the Colorado Riverkeeper are now devoting the majority of their resources toward mobilizing national support to save what’s left of the canyon’s native ecosystem. “If the public can’t support protection of this world heritage site, there’s probably little hope for the rest of the river,” concludes Weisheit.

The first obvious observation was a warmer than usual Colorado River. The volunteers knew from experience that the discharge from Glen Canyon Dam normally originates from the chilly depths of the reservoir. While sampling, the volunteers were amazed with the abundant zooplankton found. This indicates that the water used to generate power is coming from the warmer water zone near the reservoir surface, an area containing many exotic life forms, including pathogens and parasites. “It’s only a matter of time before these exotic species from Lake Powell become competitors for the available food that endangered native fish must have to survive. This new condition will become a serious issue for the stakeholders of Grand Canyon,” said volunteer David Haskell, retired science director of Grand Canyon National Park.



Tatiana Lawson, a river guide from Moab, was intrigued with the organisms now existing in the river. “A flatworm is something I expect to see in my biology class at school,” said Lawson, “ not in the Colorado River system. But these newly introduced New Zealand Mud Snails are especially worrisome for me. Tiny as they are, by the millions they are effectively over-grazing the river bottom and depleting the food supply.”

Joe Shannon, a Northern Arizona University aquatic ecologist who has studied the river’s food base for 14 years, supervised the volunteers and staff. “The ecosystem here has changed since I first arrived,” remarked Shannon. “This river was loaded with algae called Cladophora and an invertebrate called Gammarus. Now there is another suite of algal types and Gammarus numbers have declined. The flows from Glen Canyon Dam are not managed consistently and consequently the food web is in constant flux.” Shannon laments how managers continue to be unresponsive to the sound recommendations of his fellow scientists who support flows that mimic the natural flows of the Colorado River. “They continue to manage the dam for hydropower revenues first, with the management mandates of our National Park coming last,” adds Shannon.

“It’s unbelievable how bad things are down here in the Grand Canyon,” remarked Michelle Harrington, coordinator for the Center for Biological Diversity. “The river ecosystem here has completely changed from its unique and natural condition because of Glen Canyon Dam. If the public was fully aware of this condition , I think they would respond in the same way as they have for protecting the Arctic National Wildlife Refuge, and would demand river management alternatives that include the decommissioning of Glen Canyon Dam.”

Living Rivers Currents 12/01/03

Access Denied: No Release of Inundation Maps

The public has no right to know who might be in the flood path should Glen Canyon or Hoover Dam fail. Using national security risks as their trump card, the Bureau of Reclamation was able to convince Judge Tena Campbell to deny Living Rivers’ appeal for their inundation maps, effectively ending the 18 month effort to obtain this information.

If Glen Canyon Dam fails an estimated 500-foot wall of water would race through the narrow parts of the Grand Canyon toward Hoover Dam. Even if Hoover Dam withstood the initial impact of the flood, a waterfall over the top would last 11 days and would destroy the water delivery infrastructure and communities downstream.

"The funny thing about all this, is that some of this information is already in circulation, we had just hoped to obtain it through official channels," says Living Rivers' executive director, Owen Lammers.

Until the trial the Bureau's arguments for withholding the information had nothing to do with national security. They now claim this information is exempt from disclosure based on things like arrest procedures, or the design of the President's limousine; something that aids criminals in completing a crime. This is certainly not the case with inundation maps.

Since the 9/11 political scene, the government is using national security as a means to keep information from environmental groups. Living Rivers has been told that this case is being used to equip federal attorneys in fighting Freedom of Information requests. In this political climate Living Rivers does not feel it likely that an appeal would overturn the verdict and is not pursuing the matter further.

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District Court's Opinion

More Information:
LR Press Release and Dam Failure Study

LR in the News 12/01/03
'Securing' the Public With Secrets

The News Media and the Law
Published by the Reporters Committee for Freedom of the Press

By Rebecca Daugherty

Judicial deference to the government' s widespread claims of national security is keeping unclassified records from public view

Wanting to know what would happen if the Glen Canyon Dam in Arizona burst, a small environmental group filed a freedom of Information Act request in September 2001 for the federal government's projections as to where the renegade waters would go. If the dam should falter, its downstream flow would not only jeopardize the nearby Hoover Dam but waterworks beyond, flooding or destroying communities along the way.

But the Bureau of Reclamation, which creates the "inundation maps" projecting what might happen, denied the request. And in March, the federal district court in Salt Lake City upheld the denial.

Judge Tena Campbell ruled that the government could withhold the unclassified maps under an exemption to the FOI Act for "law enforcement" records because terrorists might make use of the information. One arm of the law enforcement exemption protects

against release of information that might help anyone circumvent the law, which Campbell said applied here.

That decision is one of three since the events of Sept. 11, 2001, that defer to the government's pleadings that "national security" interests excuse agencies from giving out records--even when they cannot use the exemption to the FOI Act that is specifically designed to protect national security, or the other far-reaching protection for national security information, a law that protects intelligence sources and methods.

The first FOI Act exemption only covers records that are properly classified in the interest of national security or foreign policy. To classify records, the exemption requires agencies to follow a set of formal procedures laid out in an executive order.

Yet in these three cases the government has used a "national security" excuse to invoke the law enforcement exemption to the FOI Act, denying information that would have likely been released if the government had not played the "terrorist" card to justify use of the exemptions.

Together they demonstrate the breadth of denials in which national security trumps government transparency due to the tenor of the times. With no end in sight to the war on terrorism, the judiciary's deference to administrative secrecy could conceivably trouble FOI requesters for some time to come.

Photo caption: Unclassified information about what would happen if the Glen Canyon Dam in Arizona burst can be withheld from the public based on the government's claims of national security interests, a federal court in Salt Lake City ruled in March.

Examining the U.S. Customs Service

In 1998, Coastal Delivery Corp. successfully sued a warehouse for breaking a contract that made the trucking company the exclusive carrier of its cargo which had to be delivered to a U.S. Customs Service examination station at the Los Angeles/Long Beach port. But in order to recover damages, Coastal Delivery needed to know how often the agency's contraband enforcement team examined containers.

The company asked for the records in October 2001 for use in its complaint, but never got them. Coastal Delivery brought suit against the Customs Service, and again walked away empty-handed.

Coastal Delivery could not have the information, U.S. District Court Judge Matthew Byrne in Los Angeles wrote in March, because "terrorists and others could use the information to discover the rate of inspection and then direct their containers to vulnerable ports." Knowing where the government is lax in its examinations, Byrne reasoned, might tell terrorists how vulnerable some seaports are.

The parties in Coastal Delivery Corp. v. U.S. Customs Service agreed that the purpose of the request made no difference in determining whether information would be available. A reporter hoping to evaluate how thoroughly the Customs Service checked

containers would also not be able to see the records under this decision, which was not appealed.

Secretly Detained

Twenty-one public interest and human rights groups have petitioned the U.S. Supreme Court to hear arguments that the government should be required to release the names of hundreds of detainees jailed after Sept. 11, 2001.

The Center for National Security Studies, an advocacy and research group in Washington, D.C., has taken the legal lead on behalf of the organizations, including The Reporters Committee for Freedom of the Press, that are suing the government for the records.

In its request for review, the groups wrote the purpose was "to make clear that a national security crisis is no justification for courts allowing the Government to evade so easily its responsibilities under FOIA--and that courts cannot ignore the vital countervailing interests at stake such as the individual rights petitioners here seek to enforce."

For the divided appeals panel in Center for National Security Studies v. Department of Justice, decided in June 2003,Judge David Sentelle wrote that the judiciary would defer to the government's expertise in a "national security" probe. The Justice Department is in a better position than the court to know what should be withheld in a terrorism investigation, the judge wrote, in reversing a lower court. His opinion triggered a lengthy and pointed dissent by judge David Tatel.

The majority's approach "drastically diminishes, if not eliminates" the judiciary's role in FOI cases involving national security, Tatel said.

Fighting an Upstream Battle

"If we had gone forward on this prior to 9/11 it would have been a slam dunk," said Owen Lammers, executive director of the environmental group Living Rivers in Utah and Arizona.

What public interest groups throughout the nation are quickly learning, however, is that policies resulting from the never-ending war on terrorism have done significant damage to the idea of public accountability.

Lammers says his organization wanted copies of the Bureau of Reclamation's inundation maps because it hoped to show the value of decommissioning certain dams in Arizona. The structures are inherently unsafe, he said, and they are far more expensive to maintain than to decommission.

To highlight his point, Lammers says the Glen Canyon dam nearly failed in 1983, as rainfall almost caused the reservoirs to top off and spillways were damaged. Because there are a number of dams along the Colorado River, catastrophic failure of one can

affect others. Water from a breached Glen Canyon Dam could flow downstream, flood Lake Mead and possibly breach the Hoover Dam, which holds back the lake.

"It would be quite a scene," Lammers said.

But the government had little interest in allowing Living Rivers to make the projections public. In Living Rivers v. the Bureau of Reclamation, the court deferred to the government's claim of national security interests in not releasing the unclassified material. Living Rivers did not appeal, but that does not mean the organization agreed with the rationale.

Photo caption: Environmental groups say the Glen Canyon Dam should be decommissioned, but it's difficult to make a compelling case when public records about the dam are withheld.

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"We are trying to point out that a couple of these facilities could fail on their own," he said. "Most states require that inundation maps be public. But the federal government says that it doesn't have to give these out."

Furthermore, says Living Rivers attorney Joro Walker, if people knew the risks, they could better equip themselves against future danger. Instead, notes Walker, the government is saying, "You don't have to worry about it, we have a plan."

Sidebar: Petitioning for Supreme Court Review

The petition to the U.S. Supreme Court by the Center for National Security Studies and others asks the high court not only to find that the government has misused the exemptions to the FOI Act to deny information about the hundreds of people detained since Sept. 11, 2001, but that the First Amendment requires the government to make the information available.

The First Amendment prohibits secret arrests and detentions except in the most compelling circumstances, the groups wrote. In Richmond Newspapers, Inc. v. Virginia, the high court first examined what was to become a test for a First Amendment right of access: If the information was traditionally open, and openness served a purpose in democracy, then the First Amendment requires public access to the information.

That test should apply here, the petition says. Public scrutiny is vital, as it is the public's only restraint on the government's awesome power to arrest and detain people in these situations.

Sidebar photo caption: Kate Martin, director of the Center for National Security Studies, argued the FOI Act case before the appeals panel.

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More Information:
LR Press Release and Dam Failure Study

LR in the News 12/01/03
'Securing' the Public With Secrets

The News Media and the Law
Published by the Reporters Committee for Freedom of the Press

By Rebecca Daugherty

Judicial deference to the government' s widespread claims of national security is keeping unclassified records from public view

Wanting to know what would happen if the Glen Canyon Dam in Arizona burst, a small environmental group filed a freedom of Information Act request in September 2001 for the federal government's projections as to where the renegade waters would go. If the dam should falter, its downstream flow would not only jeopardize the nearby Hoover Dam but waterworks beyond, flooding or destroying communities along the way.

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More Information:
LR Press Release and Dam Failure Study

River News 12/02/03
RRFW Riverwire - HOW DID WE GET IN THIS MESS?

River Runners For Wilderness is pleased to announce the imminent release of Hijacking A River, The Political History of the Colorado River in the Grand Canyon, by Jeff Ingram. Hijacking A River tells the whole story of "How did we get in this mess?": A pummeled government agency, intransigent businessmen and their political allies, apathetic environmentalists, and disorganized river runners; these are the characters who have made a mess of Colorado River management in Grand Canyon National Park. From the first steps to usher in a wilderness river to the Goldwater-Garn-Hatch Rider of 1980, Ingram unfolds the activities of such players as Fred Burke, Steve Carothers, Kim

Crumbo, Fred Eiseman, Marvin Jensen, John McComb, Joe Munroe, Bo Shelby, Gaylord Staveley, Sam Steiger, Merle Stitt, Morris Udall, and many others. Surprisingly, a number of the players in the 1970s are still active in today's Colorado River Management Plan revision.

The book follows the changes in Grand Canyon river running from the 1960s onward, while answering all those persistent questions river runners have been asking for over a decade. With humor and wit, Jeff Ingram answers questions like "Why is it the public now waits 13 years for a self-guided permit to raft the Colorado River in Grand Canyon?" The book also clearly spells out why there is no congressional Wilderness designation for Grand Canyon National Park to this day. Step by step, year by year, Ingram tells the "how and why" behind Grand Canyon river concessionaire's seeming lock on river travel in the Canyon.

Colorado River crusader and historian Jeff Ingram has, since 1964, been fighting for the Canyon and the public. David Brower hired Ingram as the first Southwest Representative for the Sierra Club, and together they successfully fought the proposed dams in Grand Canyon in the 1960s. Ingram worked with then-writer/environmentalist Martin Litton for a Grand Canyon National Park Wilderness bill, until Litton turned...but you'll have to read about it in the book! Ingram documented events, meetings, legislative and legal moves and tells us about the on-going battle of protecting the Grand Canyon for the people of the world, with personal interviews and painstaking research from a number of archives.

If you want to truly understand the supercharged issue of Grand Canyon's wilderness designation (the lack thereof), the denial of public boaters access rights to the river in the park, and the politics behind Grand Canyon National Park management, Hijacking a River is a must-read.

RRFW is pleased to be able to take advance orders for Hijacking A River, 496 pages, including maps, readers guide, and index. The cost of this book is $20 ($17.95 each, plus $2.05 shipping and handling per book), with a tentative shipping date of January 15, 2003. Checks or money orders only please. Advance book sales will benefit River Runners For Wilderness, a not-for-profit organization seeking equitable access to a wilderness river running experience in Grand Canyon. Please send your order to

River Runners For Wilderness PO Box 17301 Boulder, CO, 80308-0301

If you'd like to place an order for that special Christmas someone, just let us know with your order and we'll send an announcement card before Christmas, letting them know they will be receiving a gift from you soon.

For additional book information and dealer inquiries, contact: Vishnu Temple Press, PO Box 30821, Flagstaff, AZ 86003-0821 Info@vishnutemplepress.com ### RIVERWIRE is a free service to the boating community from River Runners for Wilderness. Membership is FREE! Send your e-mail address to riverwire@rrfw.org and we'll add you to the RRFW RIVERWIRE e-mail list. To join, visit our website at www.rrfw.org and click on the "membership" link. RRFW is a project of Living Rivers.

River News 12/05/03
RRFW Riverwire - CRMP STAKEHOLDER WORKSHOP VIDEOS AVAILABLE

Grand Canyon National Park is making available to the public the audiotapes from the general session of the stakeholder workshop in June 2003, and the videotapes from the stakeholder workshop in January 2003. The costs for these products covers the duplicating and shipping cost. It will be $28 for the videotapes. Audiotape prices are not yet available. The order form for the videotapes is below. If you are interested, contact Julie Graham at BJ Communications, (602) 277-9530, ext 229, or julie@bjc.com
If you would like to purchase a copy of the expert panel series and/or the stakeholder workshop for the Colorado River Management Plan revision, please fill-out the form below and send it along with a check or money order for the appropriate amount to:

BJ Communications Attention: Julie Graham 340 East Palm Lane, Suite 280 Phoenix, AZ 85004 If you have any questions, don't hesitate to contact Julie at 602-277-9530 ext. 229 or julie@bjc.com

Name: Organization: Address (where tapes should be mailed): City, State, Zip: Phone: Email: Please check the box to indicate the event/s you would like to purchase.

******Expert Panel: Carrying Capacity, Group Size and Seasonality Wednesday, January 29, 2003 [ ] VHS Cost: $28.00 includes tax and shipping

******Expert Panel: Allocation of Recreational Use Among User Groups Friday, January 31,2003 [ ] VHS Cost: $28.00 includes tax and shipping

******Stakeholder Workshop Thursday, January 30, 2003 [ ] VHS Cost: $28.00 includes tax and shipping TOTAL COST: $_____

Thank you for your interest in the Colorado River Management Plan revision process. RRFW thanks Mary Orton, mary@maryorton.com for the above information. ### RIVERWIRE is a free service to the boating community from River Runners for Wilderness. Membership is FREE! Send your e-mail address to riverwire@rrfw.org and we'll add you to the RRFW RIVERWIRE e-mail list. To join, visit our website at www.rrfw.org and click on the "membership" link. RRFW is a project of Living Rivers

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River News 12/09/03
RRFW Riverwire - PARK FREEZES ADDITIONS TO WAITING LIST!

Grand Canyon National Park News Release
For Immediate Release December 9, 2003 Dawn O'Sickey

Hold Placed on Adding Names to Noncommercial River Permit Waitlist

Grand Canyon, AZ - Grand Canyon National Park is placing a hold on adding new members to the noncommercial river permit waitlist. As part of the current Colorado

River Management Plan (CRMP) planning effort, park staff and planners are carefully examining and considering alternatives to the current waitlist permit system. An overwhelming majority of public comments stated the opinion that the permit system should be overhauled. With this in mind, park management does not want to perpetuate the current system while other alternatives are being considered. There are now over 8,000 people on the waitlist, and more than 1,000 are typically added each year. In the event that the current system is selected as part of the final CRMP decision, to be completed by December 31, 2004, the system for allowing additions to the waitlist would simply be reinstated.

Until a record of decision is made for the CRMP, current waitlist members will be served in the same manner as they have been in the past. They will soon receive the familiar annual letter regarding waitlist procedures, the schedule of release dates, and other topics. The River Permits Office may be contacted at 1-800-959-9164 or 928-638-7843.

Please go to www.nps.gov/grca for more information regarding Grand Canyon National Park. Information about the Colorado River Management Plan may be found at www.nps.gov/grca/crmp.

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River News 12/14/03
RRFW Riverwire - LAKE MEAD UPDATE

Lake Mead elevation is currently at 1140 feet, having dropped 14 feet since March, 2003. The lake is forecast to drop to 1129 feet by June, 2004, subject to the winters snowfall and outflow requirements to California, Arizona and Nevada. Lake Mead full pool elevation is 1220 feet.
Colorado River current continues to flow past Boundary Point, as the sediment cone and river channel pushes out into Iceberg Canyon. End of current is now at North Howland Cove, roughly half way through Iceberg Canyon. The channel runs down the west side of Iceberg Canyons western cliffs. The Lake is still 90 feet deep at Devils Cove, just above Sandy Point. The river may be fairly clear at Separation Canyon (River Mile 240), but becomes more turbid by Burnt Spring, so much so that by Columbine Falls the river is brown with moving silt. There are lots of beach areas to camp on below South American Point, downstream of Pearce Ferry. Hydraulics at Lava Point continue but no rapid has formed there yet.

The upper rapid by Pearce Ferry has cut into the right river bank sediments. The run here is to the right, with exposed rock on the left. The lower riffle still has a strong eddy on the right and a strong wave train. A new sandbar has formed on river left below the lower riffle, and river runners will need to go to the right of this sandbar. Pearce Ferry will remain closed to all boating into the foreseeable future due to low reservoir levels.

Sandbar Alley, an area of shallow water with many sandbars, is now extending from just below the Bat Caves upriver to Mile 253, but there are several sandbars above that up to Surprise Canyon. Dry Canyon corner has a large bar on river right that extends all the way down to the Bat Caves. The current is on the left. There are lots of sandbars in the channel near the Oriental Tours boat landing. Just upstream of there, at Burnt Canyon, there is a big bar on the left, and just above that there is a large bar on the right. There is good access to the Burnt Canyon campsite, with a big sandbar ½ mile above that on the right.

South Cove is not going to be impacted by the draw down this year and remains open. All river runners taking out at South Cove are supposed to use the gravel area on the south side of the concrete ramp. River runners are asked to be patient in the de-rig area as Hualapai, concessions and public rafters are all taking out in the same area. River runners are encouraged to maintain as small a take-out footprint as possible, and try to de-rig as quickly as possible. Early take-outs are recommended in the high use seasons of late spring, summer and early fall, to avoid late afternoon river traffic. Maintenance work on the South Cove asphalt ramp has been completed. Dumpsters at South Cove are not for downriver use at this time per trip permit regulations.

National Park Service Rangers note that no camping is allowed on the South Cove ramp and take-out area, or the public swimming area just north of the concrete ramp. Camping is allowed outside the harbor area, and is available one-quarter mile downstream (south) of the concrete ramp below the rock jetty just downstream of the take out. The Mead View Scat machine is closed for the winter, and will tentatively re-open in March.

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River News 12/15/03
RRFW Riverwire - Commercial Bookings Continue as NPS Freezes Public Access

On December 9, 2003, Grand Canyon National Park announced it will no longer allow the public to seek boating permits for the Colorado River. River Runners For Wilderness Co-Director Jo Johnson called the move "shocking and premature. Now people wishing to reserve a future trip are forced to use expensive commercial services as they can no longer add their names to the permit list. The Park Service cites the failure of the current system without offering any remedies for public relief except the option of purchasing access from a park river concessionaire."
Grand Canyon officials noted that an overwhelming majority of public comments requested an overhaul of the present permitting system, and offered this as their reasoning for disallowing new applicants to the non-commercial permit system to float

the canyon. "Granted, Grand Canyon National Park has a serious problem with the non-commercial permit system." says Johnson. "Our own review of the public comments has shown that an overwhelming majority of the public would like to see the access methods and allocation between the public and the river concessions changed. There is a backlog of 130,000 people already waiting years to raft the canyon without paying the high concessions fees. So why add fuel to that fire?" says Johnson, who is quick to point out that "We want the Park to be thinking about changing the access and allocation method to one that reflects real public demand and shows no favoritism."

Johnson brings up another point: "Freezing the waiting list removes an indicator of public demand for river trips, the only indicator NPS has. Now the park has no way of measuring demand at all. Vigorous advertising by commercial operators to fill trips and lack of demand for those same trips-many of which have gone unfilled the last few years-indicates an oversupply in their allocation. This is in stark contrast to the multi-year wait those 130,000 paddlers face.

One solution for the park that would be responsive to public demand is to introduce a Universal Permitting system. The trip leader gets a permit, then uses whatever commercial services they desire once they have a permit. "We look forward to the park's soon-to-be released draft alternatives for the Colorado River Management Plan" says Johnson, who points out that "If the park does not put forward the idea of an allocation free concept along with other possibilities, then this freeze is a signal that the future of access to our National Parks is in serious jeopardy."

"The Park has given no indication of what will replace the waiting list for public access" notes Jeff Ingram. Ingram's new book on the politics of access to the Colorado River in Grand Canyon, titled Hijacking A River, details how the current problem developed. " The Park started with a First-Come, First-Served system after 92% of the river access was assigned to the commercial operators. The public didn't like that, so the Park used a lottery from 1976 to 1980. This also failed. The Park then started the waiting list. It doesn't work, either, but the 20-year stagnated "status quo" of river management has not changed. Given the Park's attempts at various access systems, we are hoping the park releases a robust spectrum of alternatives, including a Universal Permit system, to get a serious public discussion as a basis for a sound access method."

"Trip opportunities are only open to anyone with the thousands of dollars needed to buy seats on commercial trips, but forbidden to anyone wishing to do it on their own." said Tom Martin, also with River Runners for Wilderness. "This commercialization of our parks is a chilling trend we have seen in this administration, with similar moves at Yellowstone National Park toward privatization of access."

Martin notes that allocations, if they exist at all, need valid indicators of demand so that allocations can shift yearly as needed. "We have heard that the river concessions had 18 trips worth of unused allocation this season. While we are glad to hear that the park will be transferring these unused commercial trips to public boaters for use this winter and next spring, we are amazed that the park does not immediately shift some allocation from the 14 river concessions back to the public. Given the public's huge

backlog, if this isn't a clear indicator that the current management system is a failure, and not reflecting real demand, I don't know what is."

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River News 12/17/03

RRFW Riverwire - Park Turns 18 Unused Concessions Launches Over To The Public

Officials at Grand Canyon National Park confirmed today the release of 18 additional launches to perspective permittees on the Park's non-commercial waiting list. These permits have been made available as a result of the 2002 lawsuit agreement between Grand Canyon Private Boaters Association with others, and Grand Canyon National Park. The settlement stipulates that unused summer commercial allocation will be turned over to non-commercial launches for the following off-peak season. The dates are limited to the spring of 2004 season: March 1, 3, 4, 7, 10, 11, 13, 15, 18, 20, 23, 26, 29, 31 and April 3, 6, 7, 8.

According to the Continuing Interest Newsletter mailed December 16, 2003 to those on the non-commercial waiting list, during the week of January 5, 2004 to January 9, 2004, the River Permits Office will be releasing 18 launch dates through the cancellation line. Those with a waiting list number assignment of 03#00001 to 03#01499 may call in on Monday, January 5, those with numbers from 03#00001 to 03#02999 may call in on Tuesday, January 6, those from 03#00001 to 03#04499 can call on Wednesday, January 7, those with a number of 03#00001 to 03#05999 on Thursday, January 8, and those holding any number may call on Friday, January 9. Call the River Office cancellation line between 8:00 a.m. to 12 noon and 1 p.m. to 5:00 p.m. at (928) 638-7883. Launch dates will be given out on a first call, first served basis to eligible callers.

The letter goes on to note that many winter launch dates released in past years were not claimed until the very last call-in day. Provided this trend continues, callers who are eligible to call in the first few days should have a good choice of available dates.

The newsletter assures current waiters on the list that their position on the list is not affected by the recently announced hold on new additions to the non-commercial permit waiting list.

Park officials also noted that self guided trip scheduling during the normal year has included a 12% overbooking of non-commercial river trips. This overbooking has all but

eliminated the need to release additional launches to the cancellation line, while assuring self guided river trips used all the available user days each season.

Our thanks to Steve Sullivan, Grand Canyon National Park, for this information.

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River News 01/04/03

RRFW Riverwire - EXPERT PANEL AND STAKEHOLDER WORKSHOP DATES SET

The dates, times and locations for the next step in the Colorado River Management Plan have been announced. This step will involve stakeholder workshops and expert panels. The stakeholder workshops will cover the noncommercial trip permit system, and the spectrum of services to be provided to the public. Certain designated attributes (e.g. flexibility, simplicity, fairness, etc.) of a permit system and types of services will be rated against each other to understand what different segments of stakeholders consider to be important considerations. The Park and its CRMP contractor, SWCA, will use this expanded information in addition to scoping comments already received to craft the new CRMP.

The original concept included 10 designated stakeholder groups. Each group was to be comprised of 4 stakeholder representatives. These representatives would then participate in each of the interactive workshops. Some of the 10 stakeholder groups identified for inclusion were: non-commercial boaters, river outfitters, commercial clients, outfitting guides, wilderness groups, scientists, Native American Tribes, and ecological groups.

River Runners for Wilderness (RRFW), the Grand Canyon Wilderness Alliance, business interests and other stakeholders have voiced concerns about a lack in depth of the representation of the non commercial segment at the stakeholder workshops. While commercial boating stakeholder groups include river concessioners, commercial passengers, and river guides for a total of 12 stakeholder seats, non commercial boaters who include permit holders, passengers, non-commercial river running advocate groups and non-commercial support services all vied for a total of 4 stakeholder seats. Mary Orton, the contractor arranging these meetings, has acknowledged the noncommercial community may be underrepresented and is exploring options to address this concern raised by RRFW.

The expert panels' topics will cover allocation of user days among user groups--sure to be a lively topic--as one, and physical, social and ecological carrying capacity, group size and seasonality of recreational use of the river for the other discussion.

All expert panels and stakeholder workshops will be held at the Arizona State Capitol building in the Governor's Protocol Room, 1700 West Washington, in downtown Phoenix, and video-conferenced to a room--as yet unspecified--at Northern Arizona University in Flagstaff.

Expert Panel #1 will be held on Wednesday, January 29, 2003 from 2:00pm to 5:00pm and 6:00pm to 9:00pm. The two Stakeholder Workshops will be held Thursday, January 30, 2003 at times to be announced. The second Expert panel will held on Friday, January 31, 2003, and be from 8:00am to 11:00am and 1:00pm to 4:00pm. In addition, the sessions will be videotaped and made available to interested persons not able to attend the Arizona meetings.

All events will be open to the public, and the Expert Panels will allow for questions by the audience. More information will be coming your way as it is made available.

RIVERWIRE is a free service to the boating community from River Runners for Wilderness. Membership is FREE! Send your e-mail address to riverwire@rrfw.org and we'll add you to the RRFW RIVERWIRE e-mail list.

To join, visit our website at www.rrfw.org

Take Action 01/22/03

Join Living Rivers to Save Grand Canyon Fish, January 28-29

The Glen Canyon Dam Adaptive Management Program (AMP) will be holding its next meeting Tuesday, January, 28 and Wednesday, January 29 in downtown Phoenix. For the past year, Living Rivers has been encouraging the AMP to be more aggressive in its efforts to being about the recovery of endangered native fish in Grand Canyon National Park. Unfortunately, the AMP continues to drag its heels, so the plight of native fish in the Canyon continues to worsen. Humpback Chub populations have declined 80 percent to just 2,000 adult fish. Razorback Suckers have now joined the Bonytail, Roundtail Cub and Colorado Pikeminnows on the extinction list. Take some time to lend your voice to call for more urgent action!

Glen Canyon Dam Adaptive Management Program
Bureau of Indian Affairs Offices
Two Arizona Center
400 N. 5th Street, 12th Floor
Conference Rooms A&B
Phoenix AZ
9:30 a.m. - 5:00 p.m., Tuesday, January 28
9:30 a.m. - 11:30 a.m, Wednesday, January 29

Agenda [65k PDF File]

Additional Information

Information on Living Rivers efforts to restore Grand Canyon, part of our:
Canyon's of the Colorado Campaign.

Living Rivers comments on proposed AMP experiments at Glen Canyon Dam.

Letter from Living Rivers to U.S. Bureau of Reclamation, October 30, 2002
Living Rivers Coalition demands action by the Glen Canyon Dam Adaptive Management Working Group to follow the law and restore Grand Canyon.

Living Rivers letter to Michael Gabaldon, Deputy Director of Operations U.S. Bureau of Reclamation, January 18, 2002
Minority opinion of Glen Canyon Dam Adaptive Management Working Group on censorship of Living Rivers coalition's comments of January 18, 2002.

Letter from Southwest Rivers et.al. to Michael Gabaldon, Deputy Director of Operations U.S. Bureau of Reclamation, January 28, 2002
Groups Call for Action to Save Colorado River in Grand Canyon National Park

Living Rivers Press Release, July 18, 2002
Canyon Changes are Crucial

Arizona Republic: January 16, 2002
Grand Canyon: Living Rivers Calls for Immediate Action

Living Rivers Currents, January 2002
Electroshock in the Grand Canyon

Living Rivers Currents, January 2002
Native Fish: Recovery or Rhetoric?

Living Rivers Currents, January 2002
Grand Canyon Native Fish: Going, Going, Gone?

Living Rivers Currents, December 2001
Grand Canyon Fish at Risk of Extinction

Living Rivers Press Release, December 10, 2001
Living Rivers Comment Letter on Endangered Colorado River Fish to US Fish and Wildlife Service, December 10, 2001

Environmental groups criticize plan to rescue endangered fish
Associated Press, December 11, 2001

Download PDF of January 18, 2002 Save the Grand Canyon" Rally Flyer
Flap over Endangered Fish

Rocky Mountain News, December 11, 2001
Resolution of the Desert Fishes Council on Colorado River Endangered Fish Recovery, November 18, 2001

Decline of the aquatic food base in the Grand Canyon Northern Arizona Aquatic Ecology Research Laboratory

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River News 01/27/03

RRFW Riverwire – GRAND CANYON RELEASES AIRCRAFT NOISE STUDY

The National Park Service at Grand Canyon has released a report titled, Aircraft Noise Model Validation Study, dated January 2003. The report completes a study to determine which of four computer models best calculates tour aircraft audibility in the Grand Canyon. The results of the study are important because computer models are the only practical means to assess progress in meeting the requirements of Public Law 100-91 to substantially restore natural quiet at Grand Canyon National Park. Audibility is the measurement used to define substantial restoration of natural quiet. The report was prepared by Harris Miller Miller & Hanson Inc., a leading acoustics consulting firm, for the National Park Service.
In the report, which can be found on the park's website at www.nps.gov/grca, and its attached appendices, the reader will find a detailed step-by-step description of all methods, data, and results of the study. This is a highly technical scientific report prepared by experts primarily for experts. Readers are strongly encouraged to start with the Executive Summary and Study Summary at the beginning of the report.

As detailed in the report, the study methodology was developed by consultant firms with comments, advice, and review by staff from federal agencies and a team of recognized experts in acoustics, statistics and scientific methods. In the Acknowledgements section, however, the authors carefully point out that the final interpretations and words in the report are those of the authors, Harris Miller Miller & Hanson Inc., and not those of any of the other study participants.

For additional information regarding this report, please contact Dr. Kenneth Weber, Grand Canyon Science Center, at (928) 638-7753 or Maureen Oltrogge, Public Affairs Officer, at (928) 638-7779.

Maureen Oltrogge Public Affairs Officer Grand Canyon National Park (928) 638-7779

LR in the News 01/27/03

Canyon's Recovery Must Rest on Science

The Arizona Republic OpEd

The Republic's January 19 editorial "Fish fight: saving chub must be more than just killing trout" is a good introduction to the plight of our state's most valuable natural wonder, the Grand Canyon. However, continuing to allow the Glen Canyon Dam Adaptive Management Program (AMP) to control the Grand Canyon's fate, as the Republic recommends, will only speed the current death spiral of the canyon's native ecosystems.

From its inception, the AMP has opposed implementing U.S. Fish and Wildlife Service recommendations to mimic the Colorado River's natural flow regime, thereby propping up the Grand Canyon ecosystem. Ninety-five percent of the vital sediment and nutrients that would be deposited by a free-flowing river system are now trapped behind Glen Canyon Dam. Without sediment deposition, species go extinct and beaches for mammals, native vegetation and human recreation erode away. Four native fish species have already disappeared, along with river otters, muskrats and every single native insect species that formed the base of the food chain. Yet the AMP has proposed no viable plan for moving the necessary amounts of this sediment into the Grand Canyon.

Instead, AMP has undertaken a handful of experiments to try to build beaches by moving around the meager sediment that deposits downstream of the dam. The result of AMPs efforts to date is a precipitous eighty percent decline in the humpback chub population--the principle endangered fish species AMP is supposed to be recovering.

Because of these declines the AMP is now considering stocking the Grand Canyon with hatchery fish. This is not recovery. This is a zoo. Recovery implies self-reproducing native populations, not manufactured fish which cannot reproduce and which must be constantly restocked as they die off in their unnatural and inhospitable habitat.

Had the AMP been dominated by science as was presumably intended, it might have been a worthy process, capable even of achieving its objective. The AMP boasts stellar scientists producing good ideas for restoring the Canyon. Scientists, however, have taken a backseat to AMP politics, restricting recommendations to those that are politically acceptable, else risk having AMP's funding cut.

Dominated as it has become by state water engineers, industrial irrigators, and hydroelectric merchants, the AMP has been unwilling to support the changes in Glen Canyon Dam operations necessary to reverse Grand Canyon's ecological decline. The AMP players that are truly concerned with environmental restoration are simply politically outmuscled by those who wish to retain the status quo of abusing the Colorado River system for water and energy profits.

While society has an array of technologies to meet water and energy needs, we have only one Grand Canyon. If this natural wonder is going to be protected, the AMP must be replaced with a purely scientifically-based advisory panel. Its first task must be to produce an Environmental Impact Statement considering a full range of alternatives for Glen Canyon Dam operations, including those which will be truly effective in recovering Grand Canyon's native habitats. Only through such unbiased research and recovery programs driven by scientists rather than politicians will Grand Canyon's ecosystem have any hope of salvation.

The AMP participants convene here in Phoenix this week. At the January 2002 AMP meeting, the environmental group Living Rivers exercised their right to become involved in this taxpayer-funded process by presenting a document requesting some specific definitive actions on behalf of the collapsing Grand Canyon ecosystems. A full year later AMP leaders have still not replied. Arizonans, this is our Canyon, our tax dollars and our opportunity to demand results. Attend the AMP meeting this year and insist on real protection for the Grand Canyon.

Lisa Force, Program Director, Living Rivers For more information on the AMP meeting: www.livingrivers2.org

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River News 01/28/03

RRFW Riverwire – COMMENT ON PWC USE IN GLEN CANYON NRA

This is a second comment opportunity on proposed PWC use in Powell Reservoir. The Bush Administration has proposed a rule which allows personal watercraft (PWC) operation on nearly all of Glen Canyon NRA. The ruling was published on January 17th. The administration made this decision despite the fact that the NPS' recent environmental review of PWC use at Glen Canyon found that the thrillcraft damage park resources and wildlife.

Also, there is a disproportionate acreage of the NRA open to PWC use, which is simply unfair to the majority of visitors who come to the recreation area to enjoy more contemplative forms of recreation like swimming, hiking, fishing, canoeing, kayaking, and wildlife viewing. The ruling comes despite continued overwhelming comments against personal watercraft (Jetski®) use at the National Seashore and various Parks, including Glen Canyon National Recreation Area.

PWC recreation causes significant damage to air and water quality, visitor enjoyment, public health and safety, natural soundscapes, and wildlife. At Cape Hatteras, PWC operation was the number one source of visitor complaints before the machines were finally banned there. In some instances, PWC activity and its proven threat to personal safety pushes other forms of recreation such as swimming or bird watching off a waterbody.

This is discriminatory. If you feel a full ban on PWCs in Glen Canyon NRA is the only appropriate action, please send your comments to Kitty Roberts, Superintendent of Glen Canyon National Recreation Area, and tell her that you support protecting the irreplaceable resources and wildlife of Glen Canyon from personal watercraft.

Letters should be sent to glca_pwc@nps.gov or to the address below. Superintendent Kitty Roberts Glen Canyon NRA PWC Rule-Making Box 1507 Page, Arizona 86040 RE: RIN 1024-AC90, Comments on Draft PWC Special Regulations Had a close call or negative experience with PWCs after an otherwise idyllic Cataract Canyon trip? Include that in your letter to Supt. Roberts, along with other personal observations.

River News 02/04/03
RRFW Riverwire - LAKE POWELL DRAINED 50%

LAKE POWELL DRAINED 50%--FOUR YEARS TO GO! MARINAS LEFT HIGH AND DRY, CONCESSIONAIRES CONTEMPLATE PULLING OUT
Lake Powell reservoir is down 86 feet from normal, equating to a reservoir that is half full. The National Park Service, which manages marina facilities at Lake Powell, is busy trying to make adjustments with the hope that they can still accommodate visitors at some locations. Meanwhile, the recently approved $70 million Antelope Point Marina project is in jeopardy of never being used.

Now in the fourth year of an anticipated sustained drought, Lake Powell reservoir will soon be empty. Forecasters have informed the Park Service that the reservoir levels will only be getting lower. The reservoir is dropping faster than it can be replenished. Even when the snow begins to melt this spring, the reservoir is not expected to rise any higher than where it is right now. By July, the reservoir will again start dropping.

The United States Geological Survey 2002 report on Southwest climate change predicted that the Colorado Plateau would be heading into a 30-year period of below average river flows. Previous estimates by forecasters, on the impacts of such a sustained drought, calculated that Lake Powell would be drained within eight years. It's right on schedule. In July 1999, Lake Powell was at 90 percent. As of February 1, 2003, it was at 50 percent.

If the present drought does not relent, Lake Powell will eventually drain to the level of the penstock tubes that spin the generators at Glen Canyon Dam. According to a model that was published in October of 1995 in the Water Resources Bulletin, if a severe and sustained drought similar to the drought of the late 16th century appears, Lake Powell could stay drained for eight years.

"We're witnessing the end of Lake Powell right now," says Living Rivers' Conservation Director John Weisheit. "This was predicted, and nothing the National Park Service or the marina operators can do will change this."

o At present three of the concrete boat ramps have been closed: Antelope Point, Stateline and Hite Marina. For Stateline, the concrete ends where the wet sand and mud begins; it was officially closed on February 3. For Hite Marina, river sediment closed the concrete ramp and an alternative ramp on gravel began in the autumn of 2002. This alternative ramp too is now closed due to sediment fill from the Colorado River. Antelope Point's ramp was the first ramp to close last year, just three years after construction in 1999.

o A $3 million emergency appropriation was made in January to extend boat ramps at Bullfrog, Hall's Crossing and Wahweap marinas. It is unclear, however, how far these ramps will be extended, or if additional funding will be sought to extend them all the way to the bottom as levels continue to drop.

LR Press Release 02/04/03

Living Rivers Welcomes New Outreach Coordinator

High-Profile Environmental Group Hires Outreach Coordinator To Target Colorado River Delta Issues as Drought Situation Worsens

As declining reservoir levels and water scarcity concerns multiply across the state and into Mexico, Living Rivers is pleased to announce the arrival of Michelle Pulich Stewart to the Arizona office, based in Scottsdale.

Before joining Living Rivers, Ms. Pulich served in a variety of non-profit, academic and government roles pertaining to resource management and habitat restoration, including: Lady Bird Johnson Wildflower Center, Texas Parks and Wildlife Dept, Maricopa Community Colleges, Sierra Club, Center for Biological Diversity and Sierra Madre Alliance.

“I’m pleased to be bringing both my research and on-the-ground organizing experience to the mounting ecological crises and restoration needs of the Colorado River here in Arizona and across the border into Mexico," says Ms. Pulich. “Even should drought conditions persist, there is more than enough water to meet the state’s human and ecological needs, but the public has not been exposed to the river management options available to achieve such a balance. I look forward to helping make that happen," adds Ms. Pulich.

Her formal education includes both a B.A. from Rice University and a Master’s degree in Environmental Resource Management from Southwest Texas State University, although she has found, streambeds, canyons, prairies, and prescribed burns to be striking repositories of knowledge.

“We are certainly excited about adding Michelle to our team," says Lisa Force, Living Rivers’ Program Director. “Her teaching experience and activism history will be valuable

assets to our efforts to bring about sustainable Colorado River management here in Arizona as well as delta restoration.”

Ms. Pulich also enjoys backpacking, yoga, gardening, and of course, floating down rivers. Ms. Pulich will be married to Alex Stewart in late May of this year.

Living Rivers works to mobilize people to protect and restore the integrity of rivers and watersheds.

LR Press Release 02/04/03

Lake Powell drained 50%--four years to go!

Marinas Left High and Dry, Concessionaires Contemplate Pulling Out
Contact:
John Weisheit (435-259-1063 or 435-259-8077)

Lake Powell reservoir is down 86 feet from normal, equating to a reservoir that is half full. The National Park Service, which manages marina facilities at Lake Powell, is busy trying to make adjustments with the hope that they can still accommodate visitors at some locations. Meanwhile, the recently approved $70 million Antelope Point Marina project is in jeopardy of never being used.

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- Potable water is becoming a problem at Hite Marina. The site draws its drinking water directly from the reservoir, treats it and then stores it in tanks for consumption. But the intake buoy is about to go aground and needs to be extended into deeper water. Besides being expensive to modify the intake, there is no assurance that deep water can be maintained as Lake Powell's delta continues to advance beyond the bay at Hite.

- The planned marina at Antelope Point will find a 500-foot cliff being exposed where the second launch ramp is proposed. Calls to Antelope Point Holdings and their engineers, revealed no comment to the feasibility of the project. According to the National Park Service, construction was supposed to begin in March, but it has now been delayed to at least May.

- The problems at Hite Marina are causing the concessionaire, Aramark, to question whether they should shut their Hite operation down altogether. To preserve the marina may require moving it, a cost Aramark may not wish to incur. No decision has yet been taken. With visitation through Glen Canyon National Recreation Area dropping by 10 percent per year, Aramark may be looking to pull out of the other marinas as well.

- The fate of the white-water rafting industry, which concludes trips at the top of Lake Powell, is also a major question. With sediment and mud clogging the marina and boat ramp at Hite, rafters will have a very difficult time getting off the water.

"As the drought persists, it is going to be very difficult, if not impossible, to conduct business as normal with the river and reservoir users. This includes the Grand Canyon river runners who will lose the large Glen Canyon Dam releases they need to run their large motorized boats through the canyon only to arrive at the sediment-choked Lake Mead," adds Weisheit.

Lake Powell is not the only problem. The entire Colorado River storage system has droped from 92 to 60 percent over the past 40 months. "Lack of access to flat water recreation is the least of our worries," concludes Weisheit. "The Southwest plumbing

system is headed for complete catastrophe, and the Bureau of Reclamation and the seven states that use Colorado River water have no disaster preparedness."

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Web pages on Southwest climate change:

Severe and Sustained Drought for the Colorado River Watershed

Precipitation History of the Colordo Plateau

River News 02/07/03

RRFW Riverwire – NO WILDERNESS BILL WITHOUT THE RIVER

WILDERNESS COALITION DISCOURAGES LEGISLATION By Brad Fuqua Grand Canyon News Editor Sunday, February 02, 2003
As the next phase of the Colorado River Management Plan process gets ready to begin today in Phoenix, the Arizona Wilderness Coalition believes there could be something happening behind the scenes in Washington. Kim Crumbo, Grand Canyon regional coordinator for the Arizona Wilderness Coalition and former National Park Service river guide, said the federal agency's congressional liaison office in Washington has wilderness designation legislation on its docket, although "not signed off."

"The only way a wilderness bill would pass this Congress is to eliminate the river from wilderness consideration or grandfather in motorize use," Crumbo said Thursday. "All this should take place in the planning process ... why the Park Service is considering wilderness legislation at this time makes us suspicious. We're asking them to just pull it; let's wait until the appropriate time."

Grand Canyon National Park sources, including CRMP planning leader Rick Ernenwein, said they were not aware of any legislative activity in Washington. Therefore, they could not comment on AWC's information.

In a press release dated Jan. 22, the AWC claims the potential legislation "could blindside the American people with a 1.1-million-acre wilderness proposal that removes the Colorado River from wilderness protection, thereby ensuring continued ecological damage from large crowds and pollution from motors." "We just want all that to stop until the public involvement process is completed," Crumbo said. "It's inappropriate to be pursuing this before the public process runs its course."

The AWC supports recommendations to not decrease use on the river, but spread it out over a longer time period while eliminating motors. At the same time, Crumbo said commercial allocations could remain the same while the cost of a river trip could become more affordable and available to more people.

River outfitters have a different set of recommendations on the issue to support their beliefs and Crumbo said they "have the best arguments." "We'll see what transpires," Crumbo said. "It should go on for another full year." In the meantime, the AWC planned to encourage people to attend this week's expert panels and workshops in Phoenix and Flagstaff.

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River News 02/14/03

RRFW Riverwire – LAWSUIT FILED TO START DESCHUTES COMMON POOL

A group of Deschutes River users filed suit Thursday, February 13th against Oregon's Department of Parks and Recreation (OPRD) and director Mike Carrier. The suit contends that the OPRD has violated Oregon law with its current role and stance in delaying implementation of a "common pool" permit system, that provides equal access to all, as called for in the Lower Deschutes River Management Plan (LDRMP).
The motion was filed by the Northwest Rafters Association (NWRA), and Mark Shuholm representing the general public. This action is also being supported by National Organization for Rivers (NORS), River Runners for Wilderness, and the American Canoe Association (ACA).

The Plaintiff's position is that full implementation of the LDRMP will insure the greatest level of access to the Deschutes River by the general public for generations to come. A failure to immediately implement the LDRMP, as currently written and required by Oregon Law, jeopardizes future access by the general public to this public resource.

Under the guidelines of Oregon State Statue ORS 390.934, the LDRMP and its supplement were developed over several years with input from the OPRD, BLM, The Confederate Tribes of the Warm Springs Reservation, other government agencies – as well as the general public. The Lower Deschutes River Management Plan was finished in 1993 and the supplement in 1997. Both the LDRMP and the supplement were adopted by the OPRD under administrative rule OAR 736-040-0070. The LDRMP and its supplement call for implementation of a limited access "common pool" permit system once certain trigger levels of use have been reached for various segments of the river. A "common pool" system offers equal access to all parties – without preference given for any specific group or interest. If and once these trigger levels of use are reached for any year, then a "common pool" permit system is to be implemented the following year. Levels of use that would trigger implementation of the "common pool" permit system were reached in 1997, 1998, 1999, 2000, 2001, and 2002. Although the LDRMP has therefore called for implementation in each of the years 1998, 1999, 2000, 2001, 2002, and 2003, the OPRD has not taken the legally required action relating to implementation of the system.

Further, the OPRD is currently promoting an agenda counter to that outlined by the LDRMP. At a November 14th meeting of managers from the various agencies, the OPRD proposed a 3 year further delay in implementation of the “common pool” permit system - as well as re-introducing the topic of a “split allocation” permit system - a system that would guarantee access to commercial interests by limiting access to the general public.

The Suit asks that the OPRD be found to have unlawfully refused to act and unreasonably delayed taking action in implementation of the LDRMP - and that the OPRD be compelled to implement the “common pool” permit system for the 2003 season.

LR in the News 02/16/03

From panic to denial on water: Reactions to crisis disparate in Four Corners states' plans

By Michael Booth
Denver Post Staff Writer
Sunday, February 16, 2003 - The multiyear drought in the Four Corners states has brought sacrifice to some cities and recreation areas, and a mere shrug of the shoulders from others.

From Salt Lake City to Aurora, and Albuquerque to Phoenix, water managers and their constituencies react to the absence of snow with the full range from panic to denial. Some scramble to prop up reservoir levels at all costs; others argue the definition of "reservoir" is a bank of water that gets drawn to zero in dry times.

Phoenix will exhaust its local reserves this summer.

Yet Rocky Mountain snowmelt coming down the Colorado River means the largest city in the Southwest has no lawn-watering curbs. Well-soaked residents even plant a winter variety of seed over their dormant summer bluegrass to ensure green color all year.

At half-full Lake Powell, the water playground for millions of Westerners, boaters this summer might want a taxi to get from the marina to the fast-receding Colorado River water. But the lucrative tourist season looms, and National Park Service officials contemplate blowing up a rock formation uncovered by the drought at the Arizona end so this summer's demanding boat traffic can avoid a 7-mile detour.

The Southwestern approach to drought is "definitely head-in-the-sand," said Owen Lammers of Utah-based environmental group Living Rivers, which is sharply critical of how federal dams and what it calls greedy cities rearrange Western water flows. "We're

characterizing this as the Enron of water management. The government keeps saying lake levels will get better, and the reality is that things are going down, down, down."

The wide variance in public water restrictions can deflate conservation efforts by prompting complaints of unfair treatment and downstream waste, water experts said. And even if downstream draws from the Colorado River are legal, they may injure streams or lakes in a way that everybody has to pay for in the future.

"The river that many of these states depend on is being overtaxed, so despite what your rights are, there are reasons here to be concerned," said Bart Miller, water projects director for Land and Water Fund of the Rockies. "It strikes the average citizen as unfair or strange when others are using much, much more water."

Cities with looser water policies defend the lack of rules as a benefit of well-secured supplies.

"All these decades of planning for water resources and storage have paid off," said Ken Kroski, spokesman for the Phoenix water supply, where the main reservoir for the perpetual boom city is down to 14 percent of capacity. As Aurora tells people they can't plant a single flower this spring, and Denver ponders a year-round shut-off of lawn sprinkling, Phoenix is still in Stage 1 of its drought plan, asking for voluntary 5 percent cutbacks in home water use with no rules for what days to water.

Knowing there will be no water available from Arizona snowmelt or rain this summer, Phoenix is confident its share of Colorado River water coming down the cement channels of the Central Arizona Project will be more than enough for city lawns in 2003.

Checking in with other cities shows just how disjointed Western water policy can be - while Denver, Phoenix and Salt Lake City watch their reservoirs drain, Albuquerque will switch from more predictable well water to a new reservoir system over the next three years.

Santa Fe drivers can't drive through a car wash more than once a month. Tourists to the high- desert jewel won't get their hotel sheets changed until their fourth day.

Currently in Albuquerque, "when it's dry, we just pump more from the aquifer," Mayor Marty Chavez said. "But we're depleting the aquifer. We can get away with it for a summer or two, but not in the long term."

Realizing the underground supply may be used far faster than it is recharged by runoff, Albuquerque sought voluntary water savings last summer - of only 3 percent to 5 percent, a far cry from Denver's goal of cutting use from a normal year by 30 percent.

Around the Four Corners, these cities and recreation areas hope for snow with varying degrees of fervency:

Phoenix: Open taps in the desert

Phoenix has some of the lowest water rates in the West, and the only mandatory cut in effect right now is a 5 percent slice from government use.

"A lot of people automatically and incorrectly associate the desert with no water," Kroski said.

But the free-flow philosophy permeating Arizona does frustrate some water officials, including Phoenix's conservation coordinator, Tom Babcock.

"There really hasn't been a debate on more restrictions," he said. "It's ludicrous when you consider we're in the Sonoran Desert."

Phoenix did try a stair-stepped system for water rates, raising the fee per 1,000 gallons every time homeowners reached certain benchmarks. (Denver operates under that system, with drought surcharges added on top.) It didn't work for Phoenix, Babcock said, putting a disproportionate burden of the rates on lower-income residents with large families "and the crummiest plumbing."

The city is now back to a seasonal rate, charging more in summer for water than the winter base rate.

Even without water dribbling down from Arizona sources, Phoenix claims it has plenty of supply in the next few years because it draws a major allocation from Colorado River dams under federal interstate compacts. Siphoned off from Lake Havasu at the Central Arizona aqueduct project, most of the water for Phoenix this year will be Colorado snowmelt.

Salt Lake City: Bracing for the worst

Salt Lake City ends up with some water from the Colorado River basin, pumped across the Wasatch mountain range, but relies most heavily on snowfall in its famous ski areas to melt and flow down Deer Creek. Until late last year, Salt Lake had avoided the more severe droughts seen in neighboring states.

Now the city is preparing for the worst, water spokeswoman Stephanie Doerr said. Last year, it made up for shortfalls in its own basin through water purchases from the Central Utah Project, which brings Colorado River basin water under the Wasatch mountains. "That water just isn't available this year, because no one else has water, either," Doerr said.

Preparing for a hot summer, Salt Lake expanded the months for its higher summer water rates, recognizing what Denver saw last year in people watering heavily from May through October. The city also wants a stepped rate structure this summer, charging more for higher use, and will also start water meters "from the first gallon" rather than allowing a free minimum on each bill.

"We're nowhere near cracking this drought," Doerr said. "There is no winter. It's just not happening."

Lake Powell: Scrambling to stay afloat

Lake Powell has fallen to levels the massive Utah and Arizona reservoir hasn't seen since it was still filling up in May 1973. Last year, for the first time, Lake Powell did not rise at all in the spring: Because the reservoir had to keep releasing water downstream to satisfy calls in California and Arizona, snowmelt running in added nothing to the pool. The same is likely to happen this spring, meaning the recreation pool starts low and will get lower.

Lake Powell is shutting some boat launch ramps and extending others with gravel, while considering what to do with entire marinas left too high and dry. At the southern end, the Castle Rock cut allowing boaters from the Wahweep marina to save 7 miles of travel now juts up above water, and the Park Service is debating whether earthmovers or explosives should be used to reopen the channel.

Environmentalists heckle the idea of going hard-rock mining to find more water, calling it typical of the way governments have deformed Western waterways in catering to jet skis and lawn sprinklers.

"In the name of emergencies, they'll do that kind of thing and ask questions later," said Lammers of Living Rivers. "Given the climatic conditions, we're going to be looking at a major crisis very soon."

Other cities need to think twice, though, before pointing fingers at Phoenix or Lake Powell management, said Barry Worth of the U.S. Bureau of Reclamation's Glen Canyon Dam office. If it weren't for water-banking systems such as Powell and Mead, upper Colorado River states such as Colorado and Utah would have to let far more river water go by their land this summer to satisfy compacts guaranteeing flows to California, Arizona and Mexico.

"Sometimes people will say, why does somebody in Colorado or Wyoming care about Lake Powell, because it's long gone from our state," Worth said. "It just happens to be where their insurance account resides."

Santa Fe: Cracking down on users

Santa Fe got serious about drought response before many Southwestern cities knew they had a problem, implementing its current severe stage of curbs on April 10.

Restrictions there include no new plantings of perennials and flowers, delaying hotel sheet changes, no washing of cars at home and only once a month at a commercial wash, one-day-a-week lawn watering and heavy surcharges. While Denver charges $1.90 on each 1,000 gallons of water over 20,000, Santa Fe charges $25.

Also in Santa Fe, water caught fleeing the scene of a crime - a leaky or misdirected lawn sprinkler - is officially dubbed "fugitive water" and can cost the homeowner a hefty ticket.

City reservoirs are 29 percent full, compared with 65 percent in the comparable season of an average year, spokesman Juan Rios said.

A major portion of Santa Fe water comes from wells mining the aquifers connected to the Rio Grande, but depleting those is a major concern, Rios said. Two more months of drought will force the City Council to consider a complete watering ban or even a building moratorium, he said.

"We started out the winter very well. But it seems El Nino dried us up and left us hanging," Rios said.

Albuquerque: Switching philosophies

Albuquerque is overhauling both its physical and cultural approaches to water.

Over the next three years, the city will switch from well water to surface water, captured in reservoirs near the New Mexico-Colorado border and brought down the Chama-Rio Grande river systems. That means Albuquerque residents will be praying just as hard for Colorado snowfall as the residents of Denver do, Mayor Chavez said.

Environmental groups, however, question the new draws from the Rio Grande because they may further endanger the silvery minnow and other river life.

The cultural overhaul will take longer, Chavez added. "For years our building codes required X minimum amount of grass. We've changed that, but the cultural shift has been a little slow. It's hard to tell businesses to plant grass, then two years later say, take out your grass. Getting there takes time," Chavez said.

Las Vegas: Light on the restrictions

Las Vegas doesn't fall under the Four Corners moniker, but draws 88 percent of its water from the all-important Colorado River system through Lake Mead.

But one river doesn't make one uniform policy - under current drought restrictions, Las Vegas homeowners can water lawns every other day this coming summer, even though natural rainfall at 4 inches a year is less than one-third of Denver's.

The Las Vegas conservation program focuses on stopping water waste although a citizens advisory committee is considering small drought surcharges for this summer's water rates, said spokeswoman Tracy Bower.

Denver Post staff writer Michael Booth can be reached at mbooth@denverpost.com or 303-820-1686.

LR Event 02/23/03
Hear the Echo...

50th Anniversary Yampa & Green River Trip, June 2-6, 2003

In June, 1953 Living Rivers' co-founder, the late David R. Brower, launched the modern-day river advocacy movement with a trip down the Yampa and Green Rivers in Dinosaur

National Monument. His objective, which was achieved, was to raise awareness to defeat the proposed Echo Park Dam and to save the Monument from inundation.

Join Living Rivers and the Colorado Riverkeeper, in association with Holiday River Expeditions and other leading Colorado watershed advocates, as we relive this historic trip and launch a new initiative to save Dinosaur from the much slower death caused by Flaming Gorge Dam upstream. The trip is limited to 25 people, so act quickly. The cost is $1,000.

Participants in this river trip will include activists and naturalists who will openly share their river knowledge with you and your friends. We will discuss the river campaigns of the past and the present, and keep our river ecosystems healthy and our national parks protected. These respected members of the river community include:

Dr. Roderick Nash, who wrote the conservation classic *"Wilderness and the American Mind,"* will row his beautiful wood dory through the towering sandstone cliffs of the Yampa River. The most remarkable cliff face is called Tiger Wall, where tapestries of desert varnish color the surface like the fur of a Bengal tiger.

Jeff Ingram was hired by David Brower when he was the executive director of the Sierra Club, and specifically to help him with the campaign to keep dams out of the Grand Canyon. Mr. Ingram is currently writing a book about this successful campaign and will share this knowledge around the evening campfires after a satisfying dinner.

Dee and Sue Holladay founded Holiday River Expeditions in 1965 and have completed hundreds of river trips in Dinosaur NM. They will share their intimate knowledge of the human and natural history of Dinosaur National Monument as we hike to places of interest.

Kim Crumbo is a famous Colorado River boatman and professional river guide. He is also a passionate advocate of wilderness protection for the river corridors of the Colorado River basin. He is also a respected historian and naturalist, and the author of an excellent river guide that focuses on the human history of the Grand Canyon.

John Weisheit is the trip leader of this expedition and another long-time river guide of the Colorado, and a strong advocate for a free-flowing Green River. He has co-authored

a book about the Colorado River in Canyonlands National Park, which will be issued soon by the University of California at Berkeley. The Waterkeeper Alliance recently designated John as the Colorado Riverkeeper for his dedication to protect this endangered watershed.

For more information contact John Weisheit at (435)259-1063.

Holiday River Expedition's home page

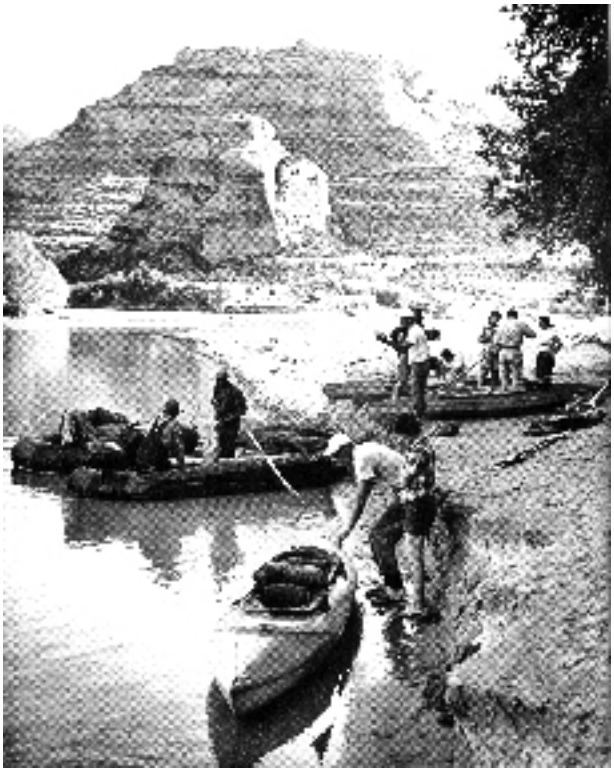
Holiday River Expedition's Yampa River trip

Maps of Dinosaur National Monument

Living Rivers' scoping comments on the Flaming Gorge Dam EIS

PDF of Hear the Echo flyer [592 PDF File]

The History of the Echo Park Dam Controversy and the Birth of the River Protection Movement



The Bureau of Reclamation (the Bureau) became a very bold bureaucracy after the completion of Hoover Dam on the lower Colorado River. With the construction of that high dam, the Bureau was transformed into a government-owned business that provided electricity for the consumer market, which was a deviance from its original mission to provide irrigation water for farmers. This set a precedent for the United States government, because it could now compete with private industries and with its infrastructure subsidized by the US taxpayer.

In later years that boldness took another step, just like an expanding corporation, in the form of a search for new dam sites and with the assistance of western, pork barrel politicians. The Bureau tested the waters, so to speak, by proposing that a dam be built in Glacier National Park, which, as all national parks are, protected by the Organic Act of 1916. That cornerstone Act mandates that park values be forever left "unimpaired by man." That plan rightfully met stiff opposition and the Bureau immediately acquiesced, but did not relent. They decided to try their luck with Dinosaur National Monument, which is protected under the Antiquities Act of 1906.

A certain professor at Harvard University, who had received the Pulitzer Prize for a history novel, steamed under his collar when he heard about the Bureau's continued aggression on our national treasures. His name was Bernard DeVoto, born and bred in Ogden, Utah, and he wrote a scathing article in 1950 for the *Saturday Evening Post* and sparked a movement to save river ecosystems that continues to this day.

In 1952 the Sierra Club hired its first executive director, David Brower, from Berkeley, California. Brower went to work immediately to further build the grassroots campaign that DeVoto started. He formed a coalition of conservation groups that included the Wilderness Society and the Issac Walton League. He involved another professor and Pulitzer Prize winning author from Stanford University, Wallace Stegner, to edit a book called *This is Dinosaur*, that would eventually end up in the hands of every member in Congress. Brower also organized week-long river trips to show Sierra Club members and supporters what was to be destroyed should the Bureau's dam be built. The campaign was successful by using all these organizing components and, by 1956, a vexed Congress killed the authorization to build Echo Park Dam.

Undaunted, the Bureau continued in their relentless campaign to build dams and power plants at the sacrifice of river ecosystems and taxpayers. In 1959 Floyd Dominy, from Wyoming, was appointed as the Bureau's commissioner and would match the organizing skills of David Brower, but in a contrary, top-down fashion. Audaciously, he envisioned building dams in the Grand Canyon, the most sublime canyon on the planet. Since dams could not be built in lands protected by the National Park Service, Floyd would build them above and below these protected lands. At that time Grand Canyon was a smaller national park, centered at Grand Canyon Village near the south rim.

Brower didn't waste any time and countered Dominy at every turn to successfully stop these two dams from being built and by using the same grassroots organizing skills as before. But a new twist was added to the campaign, which included a full-page ad in the *New York Times* and the *San Francisco Chronicle*. The ad's headline said, "Should we also flood the Sistine Chapel so tourists can get closer to the ceiling?" In 1975, Grand Canyon Park was enlarged and brought under the protection of the Organic Act.

Unfortunately, Brower was not successful in stopping the construction of Glen Canyon Dam. Before he died, in November of 2000, he launched yet another grassroots campaign to decommission this dam before its scheduled 100-year life span is completed; when sediment reaches the intakes of the emergency bypass tubes. On March 14, 2000, on the third "International Day of Action Against Dams, and for Rivers, Water and Life" held at Glen Canyon Dam, Brower, participants and 60 other environmental groups signed the "Glen Canyon Declaration." This document promises to restore the Colorado River in Glen and Grand Canyons to their full natural heritage by means of a grassroots campaign, that includes doing river trips.

Please consider your attendance on our Yampa River expedition, June 2 – 6, 2003, to commemorate a fantastic and exciting future for river restoration.

John Weisheit
Colorado Riverkeeper

Take Action 02/26/03

Living Rivers Director Runs for Sierra Club Board

Living Rivers and the Sierra Club have long shared some common goals, primary among them the restoration of Glen Canyon and the preservation of the currently threatened Grand Canyon ecosystems. So when the Sierra Club's nominating committee asked our own Lisa Force to run for a seat on the Club's national board of directors, it seemed a natural fit.
Ms. Force accepted the honor and is on the ballot for the 2003 Sierra Club Board of Directors. She is running with four other candidates on a slate which promotes an aggressive conservation agenda. The five candidates on Ms. Force's slate will be running against eleven other candidates for the five open board seats.

The other candidates on the slate are: Connie Hanson Gordon LaBedz Nancy Rauch Don Young

Please watch for your ballot statement from the Sierra Club, via mail or email, in the first week of March, and vote to save the planet!

Ms. Force's ballot statement is below. To access the statements of the other four candidates, please see www.johnmuirlives.org.

Sierra Club Ballot Statement:

LISA B. FORCE
Residence: Scottsdale, Arizona
Occupation: Program Director, Living Rivers
Contact: 480-990-7839; LForce@LivingRivers.org
Current Member since: 1998

Background:
Originally from Colorado, I've lived in Arizona for 15 years where I've worked for two leading environmental organizations, fighting for protection of endangered species and restoration of the Grand Canyon, Glen Canyon and the Southwest's wild rivers.

- Previously, owned a successful management consulting business for 8 years
- Longtime Sierra Club activist on sprawl, wilderness, energy and water issues
- Led grassroots activists in anti-logging campaigns
- Defeated state anti-wildlife referendums
- Successfully negotiated with government agencies for river and wildlands restoration
- Launched a Western Grazing Reform program
- Featured in National Geographic and BBC documentaries highlighting US/ Mexico environmental issues

- Education: MBA; Bachelor of Science.

Endorsements include current Board members Marcia Hanscom, and Ed Dobson – who says: "Lisa Force is the fastest rising star in the Sierra Club's firmament. She has the skills, passion, and tact to excel at the most demanding of Club positions. We are blessed that she is ready and willing to serve."

Statement: My success in grassroots activism, plus strong business experience, will be assets to the Board. I need and appreciate your vote! Key committees in the new Congress are now chaired by stalwart allies of polluting industries, taking deadly aim at our forests, the Arctic, Yellowstone and more of our last wild places. We must unite now to stop Bush's attack on the environment. We must recruit more Sierra Club members, strengthen our legal tactics and promote aggressive on-the-ground activism. I'll champion Club efforts to defend hard-earned achievements, while creating and taking advantage of new advocacy opportunities at Chapter and National levels.

I'll help the Club achieve a groundswell of action to awaken and motivate the American people to:

- Aggressively protect our parks and wilderness areas;
- Uphold and strengthen environmental legislation;
- Protect public lands from development;
- Promote sustainable agriculture; and
- Create livable, sprawl-free communities.

I'll use my environmental advocacy skills, extensive fundraising background and experience as a successful businesswoman to promote a national agenda that will make the Sierra Club an even more powerful force by:

- Making sure Chapters and Groups get the resources they need. We must use every dollar more efficiently.
- Mobilizing all environmentally concerned citizens to support Club efforts, through expanded grassroots activism and media campaigns.
- Maintaining our strong Outings Program.
- Listening and responding to our members.

I want to hear from you how I can help make the Club work for you. Please contact me!

LR in the News 02/27/03
The Lake Effect

by Christopher Smart
The Salt Lake Tribune
BULLFROG -- Tourism promoters as well as environmentalists who despise Utah's largest reservoir agree on one thing: This is the year to visit Lake Powell.

Thanks to record-low lake levels, new beaches and eye-popping sandstone formations hidden underwater for years have surfaced.

The Lake Powell recreational experience, tourism promoters boast, is as breathtaking as ever. And this year promises to be the best bass-fishing year since 1996 along the reservoir's 2,000 miles of shoreline, say state fisheries biologists.

Meanwhile, environmentalists who favor decommissioning Glen Canyon Dam and draining the Colorado River water it impounds say chances to visit Powell are dwindling. If the drought continues for four more years, they contend, there will not be a Lake Powell. So those wishing to visit the lake should not wait any longer.

Boat ramps at Bullfrog in Utah and at Wahweap in Arizona have been lengthened to reach the receding waters. Now at a record low of 3,612 feet above sea level (equivalent to the low mark set 10 years ago), Lake Powell still provides excellent boating and fishing and superlatives still cannot describe its natural wonders.

However, the lake does not snake up its many narrow canyons as far as it did last summer, according to Morris Christensen, Bullfrog boat-rental manager. In the past, boaters navigating Forgotten Canyon could dock just below the Anasazi ruin known as Defiance House. This year visitors must hike a half-mile up the canyon to reach the ruin.

"It's so weird to come to a place where you were swimming last summer and now there's no water," Christensen says.

In the creek bed below Defiance House, green grass stands in bright contrast to the red rock walls and the 86-foot-high whitish bathtub ring that defines the drought and the diminished waters.

At Hite, where the Colorado River enters the reservoir, acres of mucky silt have sprouted weeds. The boat ramp has been moved several times, but the National Park Service and Lake Powell marina operator ARAMARK are just about out of moves until the water rises. In addition, pumps that supply the Hite community with culinary water from the lake must be moved before the silt clogs them. Boat ramps at Stateline and Antelope Point are closed.

But Dan Resmondo, the director of operations for ARAMARK's North Lake Powell marinas, says it is business as usual. "It's normal operation for us to follow the lake up and down," he says. "We're seeing the same levels we saw in February 1993."

"From a recreation standpoint, it gives a different perspective," Resmondo says. "The canyons look different. If you haven't been here for a while, it will look quite different and provide a new experience." Certainly Bullfrog does not look like it did four years ago, when the lake was at a record high of 3,698 feet. What once was a narrow waterway between Bullfrog and Halls Creek now appears as a hill. Four years ago, the dock was not far from the marina store. Now, it's a quarter-mile away and looks to be sitting in an empty redrock basin surrounded by dusty buoys.

The Lake Is Open: The National Park Service will spend about $2 million refurbishing and lengthening boat ramps at Bullfrog, Wahweap and Halls Crossing, says spokeswoman Char Obergh.

"We want people to know the lake is open," she says. "There may be some delays in launching, but we're doing everything we can to make it a good experience."

Lake Powell consistently ranks as the second- or third-most-popular Utah tourist attraction. Last year visitation dipped to 2.1 million from 2.3 million in 2001, says Jon Kemp, Utah Travel Council research analyst. He blamed the downturn on the aftermath of 9-11, as well as a perception that the lower water level hinders boating and the scenic experience.

However, the 200,000-visitor drop did little damage to the state's $4 billion tourist economy, Kemp explained. "It's almost impossible to quantify any economic impact" from the 9 percent drop in Powell visitors.

All that could change, argues John Weisheit of Living Rivers, an environmental organization that favors draining Lake Powell. If the severe drought persists for four more years, he notes, the reservoir will effectively be drained -- dam or no dam.

"It's going to continue to drop. And it's going to drop dramatically. The boat ramps are going to run out of topography," he says.

That may sound like a wild claim, but it is not out of the question, concedes Andrew Gilmore, hydraulic engineer for the U.S. Bureau of Reclamation. "It's conceivable that we could run out of water at Lake Powell. If we had another four years [of drought], we'd be awfully close," he says.

According to bureau calculations, the lake level will fall until the spring snow runoff, when the water will begin to rise, Gilmore says. "Our current inflow forecast has Lake Powell dropping another seven feet until April, when it will begin to fill up."

But unlike 10 years ago -- when the lake level jumped by 60 feet during a spring with substantial snowpack across the Colorado River drainage system -- this year's melt will be modest. "The snowpack is fairly meager across the whole basin," Gilmore says. "Our forecast is for 58 percent [of normal] runoff."

Periods of low precipitation are the reason Glen Canyon Dam was built, Gilmore says. "We look at it like it's performing its job. In a drought, Lake Powell is doing its job," he says of its water-storage capabilities.

At 53 percent full, Lake Powell now holds about 13 million acre-feet of water, Gilmore says. The forecast calls for the reservoir to gain about 4 million acre-feet in runoff. But under the Colorado River Compact signed by the seven states in the Colorado River drainage, Lake Powell must deliver annually 8.23 million acre-feet of water downstream, where it is impounded at Lake Mead.

"In these drought years, more goes out than comes in," Gilmore says.

No one is sure whether the drought will continue. But a study in the Feb. 11 edition of Geophysical Research Letters tracking ocean temperatures and tree rings anticipates the drought will linger, according to one of its authors, Julio Betancourt.

A research scientist for the U.S. Geological Survey and an adjunct professor at the University of Arizona, Betancourt explains that the last time the South Pacific was as cold as it is now and the North Atlantic was as warm, the Colorado River drainage experienced the drought of the 1950s, which lasted 25 to 30 years in some places. "We are now in a megadrought," Betancourt says, "in that it stretches from Montana to New Mexico and involves several seasons."

Good for the Fish: Analysis of tree rings during a 750-year period in the region revealed that dry and wet patterns do not occur at regular intervals. "You can't predict drought by time. The tree rings show that droughts don't occur cyclically," he says.

Whether Lake Powell eventually turns into a mud puddle remains the stuff of conjecture. But in the short term, the drought is good for the warm-water fishery, according to Wayne Gustaveson, a biologist with the state Division of Wildlife Resources.

"We need these low periods to re-establish habitat and nutrients,"

LR Press Release 03/03/03
Living Rivers to Target Mill Creek Revival on March 14

We've seen it every summer: a dried-up creek along our beautiful Mill Creek Parkway, the most blatant example of the growing ecological crisis occurring along this much appreciated drainage. Water may be pouring off the La Sals, but by the time it makes its way into Moab, every drop has been diverted. As drought and water demands persist, it's unlikely this situation is going to change without community support to bring our beloved Mill Creek back to life. Living Rivers will be kicking-off a new campaign to aid in the Creek's defense on Friday, March 14, the Sixth Annual International Day of Action Against Dams, and for Rivers, Water and Life.
The festivities begin with a noon rally and picnic on the lawn at the County Courthouse. Longtime environmental musician Peter Neils will help set a festive mood while a host of concerned citizens present information on how and why we need Mill Creek's flow. A set of recommendations for the County Council consideration will also be presented, along with ways in which the community can become involved in promoting them.

That evening, beginning about 9:00 P.M., Living Rivers will be hosting the "Mill Creek Revival & Colorado River Fiesta" at the MARC (100 North and 100 East). This free party will emphasize a revival spirit with dancing, costumes and games. There is no admission charge and refreshments are free. Also at the MARC that evening, beginning at 7:00 P.M., is a free film "U.S. Foreign Policy: The War Against the Third World" sponsored by Moab Citizen's for Peace and Global Justice.

Mill Creek's ecology is being devastated. Native fish, such as the flannelmouth and bluehead suckers, depend on a flowing Mill Creek. Other critters, like beavers and muskrats, need Mill Creek too. The most critical habitat of Mill Creek is near the mouth, which provides a refuge and food source for the endangered and threatened fish species of the Colorado River.

"What's happenning here in Grand County is emblematic of the larger problem affecting the entire Colorado River watershed," says John Weisheit, Living Rivers conservation director. "Despite nature's warnings that we are using far too much water, we continue to focus on getting more and not on conservation."

Last month the Grand County Water Conservancy District asked the Bureau of Land Management for permission to reduce by half the amount of water it leaves in Mill Creek below the diversion for Ken's Lake. This request will likely be denied. But the search for water continues as an expensive proposal to pump Colorado River water into Ken's Lake moves forward.

Evaporation and seepage losses to Ken's Lake alone amount to 30 to 70 percent of the water diverted from Mill Creek. Increasing this storage efficiency could go a long way towards helping to get water back into the creek.

Additionally, many of those irrigating with Mill Creek water are given no incentive to conserve. Their water rights are often based on what is known as a "use it or lose it" principle. If irrigators do not use the amount of water the state of Utah believes is necessary for them to grow their particular crops, they can lose their right to this water. Some farmers have stated that they would be glad to leave some water in the creek, if a system could be put in place to allow this to occur. For example, The Nature Conservancy has received approval to transfer water rights to the Utah Division of Wildlife Resources for increasing stream flow.

Most of the water diverted from Mill Creek is used for alfalfa, which, if not irrigated efficiently, can be a very water intensive crop. However, no help is available for those 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. Implemented properly, such programs could not only aid in improving Mill Creek, but also increase the economic output of the community. It has also been documented that home values increase when they are associated with a functioning and attractive riparian ecosystem.

LR Letter 03/07/03
YDP Comments to the Bureau

March 6, 2003
Mr. Robert Johnson Regional Director Lower Colorado River Region U.S. Bureau of Reclamation PO Box 61470 Boulder City, Nevada 89006-1470

By fax: (702) 293-8614

Dear Mr. Johnson:

Thank you for presenting the Bureau's most recent draft of Modifications to Projects of Title I of the Colorado River Basin Salinity Control Act (CRBSCA) (Public Law 93-320) on February 25, 2003. We write in response to that presentation and to reiterate our opposition to the Bureau's plan to request appropriations to upgrade and prepare the Yuma Desalting Plant (Desalter) for operations. We further emphasize our concern with the Bureau's failure to respond to Congress' request in the draft report presented this week.

The current version of the report to Congress includes a number of fallacies, inconsistencies and highly unlikely assumptions that overstate the economic feasibility of operating the Desalter and understate the feasibility of alternative measures for replacing the bypass flow. We again remind the Bureau that this report subjects the Secretary of Interior to a reprimand from Congress, which has legislated that:

The Secretary is authorized to provide for modifications of the projects … to the extent he determines appropriate for purposes of meeting the international settlement objective of this subchapter at the lowest overall cost to the United States. 43 U.S.C. § 1574 (emphasis added).

Further, the Bureau has failed to produce the information requested by Congress concerning alternatives to operating the Desalter. Congress specifically requested a "report on alternatives to meeting Treaty requirements without the YDP, and actions the Bureau of Reclamation can take to reduce the high annual operation and maintenance costs." S. Rep No. 58, 106th Cong. 1st Sess. 80 (1999) (emphasis added).

We appreciate your correction of the estimated low-end cost of acquiring short-term leases of water, referred to in this draft as forbearance agreements, as well as the inclusion of the cost comparison table. However, to reiterate the other questions raised in our November 22 letter would be to virtually rewrite the entire letter. Therefore we refer you to our previous letter and again request answers to the questions and concerns therein.

In addition to the concerns already expressed, we request corrections to the current report and answers to additional questions as outlined in this letter.

Environmental Review

A complete environmental review of the impacts of re-operation of the Desalter or other alternatives must be completed prior to any implementation of actions to further the recommendations included in the report, including seeking congressional appropriations. We are concerned that the Bureau has already begun to channel funds towards preparation for reoperation without the benefit of environmental review, and without the benefit of analysis of fully developed alternatives.

The Bureau has also not yet secured a discharge permit for product water from the Arizona Department of Environmental Quality. Proceeding with appropriations requests and funding of Desalter readying activities without the appropriate environmental reviews would be pre-decisional.

Furthermore, we wish to point out that the language included in the current report and the cover letter from the Secretary which talks about assuring the operation of the YDP is pre-decisional in that it precludes a No Action alternative . Such language must be eliminated from the report and cover letter before transmittal to Congress.

Discussion of the Cienega de Santa Clara is incomplete, serves only to mask the importance of the wetlands to wildlife and humans, and retreats from the enhanced description in the previous draft. The Cienega de Santa Clara (not once referred to in full) provides habitat not only for migratory waterfowl and shorebirds, but also for threatened and endangered species. What is more, these species -- including the desert pupfish, Yuma clapper rail, and black rail -- have been listed pursuant to the U.S.'s and Mexico's endangered species statutes. Deletion of endangered species sustained by the Cienega does not eliminate the Bureau's obligations to endangered species, and what is more, the Bureau has glossed over a significant piece of information that we are sure Congress would appreciate having when weighing the costs and benefits of operating the Desalter.

Likewise, the reduced volume of water coupled with increased salinity of water reaching the salinity will degrade the ecosystem. This ecosystem is part of a Biosphere Reserve as designated by Mexico, is a major link in the Pacific Flyway and supports the vast majority of the Yuma clapper rail population. To claim that these effects "may" happen (p. 4) is deceptive and underestimates the impact to the environment that will most certainly occur as a result of operating the Desalter. Again, costs in the form of adverse impacts to the environment have been missed.

We also suggest you refrain from qualifying the Cienega as an "isolated" wetland. It is not, and this is a blatant attempt to minimize the size and importance of this wetland complex.

Economic Analysis

There are several fallacies and assumptions included in the economic analysis of operating the Desalter and implementing the alternatives. Many of the assumptions do not withstand the test of simple mathematical principles. Others are so optimistic as to be deceptive. In modeling projections, assumptions are necessary and in providing a cost estimate range, optimistic assumptions can be utilized in predicting the low-end cost. If such assumptions are employed, however, equally pessimistic assumptions must be used in predicting the upper-end of cost ranges. This is not at all the case in the Bureau's analysis.

Without performing a full analysis of our own as yet, we cannot divine every fallacy in the Bureau's analysis. However, some of the more obvious are as follows:

· Including the Desalter ready-reserve maintenance expenditures in the cost of obtaining forbearance agreements is misleading and completely unacceptable. Including it in this analysis is an insult to Congress and to the public. Desalter maintenance and pursuit of forbearance agreements are completely unrelated processes; either can quite obviously exist without the other. Linking them for the purposes of economic analysis in this report falsely inflates the costs of alternatives to operating the Desalter.

· Including $2.4 million in research in the $5.1 million annual cost of keeping the Desalter in ready-reserve mode is erroneous. The Desalter could be kept in ready-reserve without doing extraneous research. This is at best poor math and at worst a blatant effort to delude Congress. It needs to be backed out of the equation.

· While the analysis includes extraneous unrelated costs to estimate forbearance costs, it fails to include estimates of environmental mitigation costs for Desalter operations. The Bureau fails to note that operation of the Desalter would degrade the Cienega de Santa Clara but references studies with these conclusions (p.16); it is therefore appropriate to include the potential costs of avoiding, minimizing, and mitigating such impacts within the total projected cost of Desalter operation.

· Even using the Bureau's unrealistic assumptions, the analysis does not provide the accurate cost of operating the Desalter in its five-year and ten-year scenarios. By the Bureau's estimates, the Desalter would have to operate at one-third to two-third capacity for four years. Yet the analysis calculates cost of product water using the admittedly impossible assumption of full capacity. Operations at one-third and two-thirds capacity produce water not at the stated cost of $305/acre foot, but at an estimated cost of $689/acre foot and $325/acre foot respectively. The Bureau should revise the report to accurately reflect the increased costs associated with necessary maintenance and system downtime. Assuming two years of operations at one-third capacity and two years at two-thirds capacity, as suggested in the Bureau's Gantt Chart (per HJA Consulting) product water in the five-year scenario averages $466/acre foot.

· The low-end estimate of $32/MWh for power costs to operate the plant is unrealistic. The best price available for a strip of power (four quarters averaged) on the bulk power market today on the southwest grid is approximately $44/MWh, even assuming the plant will be operating during less expensive shoulder hours. While the bulk power market is arguably volatile, this is not a liquid market. The Forward Curve for the market does not predict excesses of supply over demand, and with build-out time for power plants of five to ten years, the Curve tends to be accurate. The low-end estimate used in this analysis is unlikely to be available for a long-term contract in the massive quantity needed for full capacity Desalter operations.

· The report fails to analyze a one-time cost of decommissioning the Desalter as an action the Bureau of Reclamation can take to reduce the high annual operation and maintenance costs of the Desalter. This alternative should be compared against keeping the Desalter in ready-reserve mode and/or operation of the Desalter at various partial or full capacity levels.

Operations Decision Criteria

The Bureau stated in its presentation that decisions on the percentage of capacity at which the Desalter would be operated would be made annually. Yet the Bureau was unable to adequately answer our question concerning what the decision criteria will be. Please answer the following questions regarding operating capacity and decision criteria: · What are all the elements of the decision criteria? · What will be the timing of determining percentage of capacity for operations? · Who beside the Bureau will participate in developing and applying the criteria? · Will the development of these criteria be subject to public review? We have similar concerns and questions regarding the replacement criteria (p.20).

Scientific Debate The report states that "Operation of the YDP would decrease the volume and increase the salinity of bypass water reaching the Cienega and may degrade its ecological value. Operation of YDP would be met with substantial controversy, and additional scientific debate." (page 5) The phrase “additional scientific debate” has not appeared in previous drafts: why was it included in this draft? The disruption of bypass flows to the Cienega in 1993, due to flood damage and subsequent repairs of the bypass canal, significantly degraded the Cienega. These impacts are clearly documented in the scientific literature. If, as we suspect, the Bureau is unable to document any “debate” about the expected degradation of the Cienega due to Desalter operation, then all references to “scientific debate” should be expunged from the report.

Federal Obligation Previously, we disputed the Bureau’s apparent claim that the “interim period,” in which the United States received credit for the Coachella Canal Lining Program, had ended. Given the Secretary’s decision to reduce California water orders to 4.4 million acre-feet for calendar year 2003, we believe that this “interim period” has ended. Given that the Secretary authorized the delivery of some 200,000 acre-feet of additional Colorado River water to California’s agricultural contractors last November – despite the existence of extraordinary drought throughout the basin – it is quite clear that the interim period was in effect through 2002. Further given that the Coachella Canal Lining Program salvages some 132,000 acre-feet per year, 24,000 acre-feet per year more than flows to Mexico via the Bypass Drain, and that there has not been a flood release from Hoover Dam since 1999, it is reasonable to assume that the United States has accumulated 72,000 acre-feet of bypass-flow credits, that can be applied to the current year’s obligation. This federal credit should be noted in the report.

Water Supplies and Needs While we understand the concerns surrounding tightening water supplies, particularly those of Arizona contract holders, we do not trust in the rationale that operation of the Desalter seeks to address those concerns (p.14). Were the Bureau truly interested in alleviating the pressures on Lake Mead storage and lower priority water users, this interest would be reflected in other Bureau proposals and policies – unfortunately, it is not. For example, in the FEIS for the Inadvertent Overrun and Payback Policy, the Bureau would allow any and all debt to be forgiven in the event of a flood control release. If the Bureau were aiming to maximize water storage, the agency would require full payback of all debt.

Thank you for the opportunity to comment. We hope these concerns will be accommodated in a new draft report. However, should you continue to include the elements that we find objectionable, we insist that you adjust the language of the report under “Consultation with Affected and Interested Parties” to remove any implication that we concur with the report as written. This could be effected by changing the last sentence at the end of that section to read, “This report of the Secretary of the Interior reflects the views and proposals of the Department after consideration of the comments and suggestions received in that review process. It does not reflect a consensus of the parties with which the Bureau of Reclamation consulted, nor does it represent a compromise between the different views expressed.” Should this report go forward with elements that we find objectionable and an implication that we concur with those elements, we certainly would not hesitate to contact members of Congress on our own to expose the deception being waged by the Department.

Please don’t hesitate to contact us if you have questions. Thank you.

Sincerely,

Kara Gillon
Wildlife Counsel
Defenders of Wildlife

Jennifer Pitt
Senior Resource Analyst
Environmental Defense

Lisa Force
Program Director
Living Rivers

Michael Cohen
Senior Associate
Pacific Institute

Steve Glazer
Chair, Colorado River Task Force
Sierra Club

Pamela Hyde
Executive Director
Southwest Rivers

cc: Commissioner Carlos Ramirez, IBWC
Commissioner Arturo Herrera, CILA

LR in the News 03/07/03

Writers on the Range: Lake Powell--Going, going, gone?

by John Weisheit

Who would have believed it? Water levels at Lake Powell have dropped to 50 percent for the first time since it filled in 1980. This draining is likely to continue to the point where the reservoir could vanish in the next three-to-four years.

With snowpacks below 25 percent of normal, and continued warnings from the U.S. Geological Survey, EPA and others that a severe and sustained drought should be anticipated, Lake Powell's days may be numbered. A 1995 study published by the American Water Resources Association predicted that a severe drought would lead to Lake Powell's draining within eight years. Things are right on schedule.

Now that Lake Powell is down by some 87 feet, three boat ramps have been closed: Antelope Point, Stateline and Hite. The National Park Service is working with a $3 million emergency appropriation to extend other ramps as the reservoir continues to decline. But construction of the recently approved $70 million Antelope Point marina complex is in limbo, because boats can't be launched from what has been revealed by drought to be a cliff.

Once Lake Powell drops an additional 28 percent, it will no longer generate hydroelectricity because Glen Canyon Dam's penstocks will be exposed, and water will no longer be able to turn the generators. There's also a problem with sediment, since fluctuating river flows that occur during low reservoir levels will speed the movement of sediment toward Glen Canyon Dam.

The U.S. Geological Survey says that major droughts of the past, such as the years from1942 to 1977, went largely unnoticed. We notice this drought because the West has four times the population and we've been mining our groundwater.

Federal scientists have also informed us that the previous century was 20 percent wetter than normal. That means our ability to put water to work was helped by luck as much as it was by massive engineering projects. Even at those inflated levels, Colorado River water allocations are 20 percent above what the river delivered.

We've managed to avoid crises in the past because not all the Colorado River Basin states used their full allocations. Even so, the river reached the sea only twice in the past two decades. Add to all this a drought cycle that is predicted to last 25 years, and Lake Powell, along with every other reservoir in the upper Colorado River storage system, won't have water to store.

Vanishing bodies of water in the Western United States shouldn't surprise us: It's part of our legacy. In 1890, the Geological Survey's first professional paper discussed the principles of global climate change. The publication analyzed how a body of water that was once 800 feet deep -- Lake Bonneville -- had reduced itself into the briny and shallow Great Salt Lake.

In the 19th century, the physical geography of the planet provided undeniable evidence that humans can become victims of climate change. In the 20th century, we gained new tools, such as tree-ring data, that allowed us to reconstruct the climate of the last 400 years. This reaffirmed that the Earth's climate varies dramatically. Whether these changes result from the effects of greenhouse gases or from natural cycles, the results are the same.

Scientists have given us ample warning, but our water-management experts don't listen. At a recent gathering in Moab, Utah, John Keys, Commissioner of the Bureau of Reclamation, worked to calm the fears of those concerned that the Colorado River may soon be unable to provide for the 25 million people plumbed into his system.

"They (the reservoirs) are doing exactly what they were designed to do," he said. But when it was pointed out that these reservoirs are declining over 10 percent per year, and thus could empty in another five to six years, he had no plan for how the federal government would handle the shortages.

Certainly many of us will be pleased to see the uncovering of Glen Canyon. It will be nature's way of reminding us that we are not in control.

It would be truly unfortunate, however, if the warnings these declining levels represent are not heeded, and all those presently reliant on the overuse of Colorado River water get plunged into a crisis with no plan of action.

John Weisheit is a contributor to Writers on the Range, a service of High Country News in Paonia, Colorado (hcn.org). He is conservation director of the nonprofit group, Living Rivers, in Moab, Utah.

Take Action 03/07/03

Cienega de Santa Clara Needs Your Support!

Please read and respond to our summary of the Bureau of Reclamation's Draft 28 Modifications to Projects of Title I of the Colorado River Basin Salinity Control Act. If the proposal put forth in the BuRec document were to be accepted, the already imperiled Cienega de Santa Clara in the Colorado River Delta could be decimated.
Background: Under the Colorado River Basin Salinity Control Act of 1974 (PL 93-320) (CRBSCA), the United States has had to bypass the highly saline agricultural drainage from the Wellton-Mohawk district through the MODE canal, in order to meet the salinity requirements of the Act. The discharge inadvertently revived the Cienega de Santa Clara, a rich 14,000-acre wetlands, home to several endangered species and an important stop for migrating birds on the Pacific flyway. The Cienega and 90% of the delta region in which it exists was destroyed when water diversions from the Colorado River by the United States and Mexico left nothing but unscheduled reservoir "spills" to water the formerly two million acre biologically diverse region.

The CRBSCA authorized building the Yuma Desalting Plant (YDP) to desalinize the agricultural drainage. But the plant was never operated at more than one-third capacity and for more than a few months because it was not economically viable. Water produced by the YDP would come at an estimated cost of $400 - $900 per acre foot. By comparison, farmers in the Yuma area pay an average of $12 per acre foot.

Summary:

The draft report, Modifications to Projects of Title I of the Colorado River Basin Salinity Control Act, sets out the Bureau of Reclamation's (BuRec) case for operating the YDP , thereby reducing bypass flow to the Cienega de Santa Clara. At full operating capacity, the Cienega would receive only the intensely saline brine from the YDP process, which would completely destroy the wetlands.

The BuRec views the bypass flow to the Cienega as lost water because it does not count as part of the U.S.obligation of water delivery to Mexico. The amount of bypass flow is ~108,000 acre-feet per year and this bypass water has an average salinity on the order of 2800 ppm.. The YDP operations would treat Wellton-Mohawk agricultural drainage water and return it to the Colorado basin where it could be included as part of treaty obligation to Mexico at the Northern International Boundary.

The draft report exists as the basis from which BuRec can make funding requests to support forbearance agreements and request funds to ready YDP to operate at full capacity.The draft report states that the Cienega de Santa Clara has been created, but does not detail the Cienega's history of having been a component of the pre-dam wetland complex along the Colorado delta. As well, it offers no plan for supporting existence of the Cienega. The report states that the bypass drainage to the Cienega has been at the discretion of the U.S.

The next step for the BuRec after submitting this proposal to Congress is to "move forward with the expenditure of funds to implement" their proposed measures. In truth, BuRec has already increased it's funding for the YDP in 2003, and is working to correct six areas of plant deficiencies by the end of the year. Further appropriations appear to have been requested and included in the 2004 appropriations draft.

The proposal finds its justification in this reasoning: "Because the drainage water in the bypass is not desalted and returned to the River, the [current] method of operation results in the release from Lake Mead of comparable quantities of water, which otherwise would not be needed if the bypassed water was delivered to Mexico as part of the U.S. Treaty delivery obligation." The Bureau argues that this aggravated water shortages in the Colorado reservoirs. The report notes that "tightening water supplies and increased demands has raised important concerns" especially from Central Arizonan Water Conservation District, which operates the Central Arizona Project (CAP).

The 108,000 acre-feet bypass flow to Cienega represents less than one percent of the average annual flow of the Colorado River's 12 million to 15 million acre feet. The Cienega is an incredible wetland with a diverse vegetation structure that supports an

equally diverse population of birds and animals including the federally listed endangered Yuma clapper rail and the desert pupfish. The result of operating the YDP would be to cutoff flows to the Cienega so that 108,000 acre feet more of the U.S. excess water reserves could stay in its impoundments, much of it to evaporate.

The draft report explains that a “thorough environmental review of the original EIS (which dates from 1975)” would be undertaken. However, the environmental review with regard to the effects on the Cienega is largely irrelevant since the Cienega is located in Mexico. In response to a lawsuit brought by Environmental Defense against the BuRec concerning Colorado River delta species, the agency claims it is not responsible for the impact its operations have on endangered species that exist across the international border. In addition to an environmental review, the draft report states that under Section 402 of the Clean Water Act, a discharge permit must be obtained to transfer desalted product water to the Colorado River.

The report includes a section on Environmental considerations relative to the bypass flow and discusses the Cienega and its Biosphere Reserve status (p.14). The document states that “reduction of current bypass flows will be met with substantial controversy.” However the document says an environmental review will be conducted but makes no proposal for sustaining the Cienega. The reader is forced to assume that if this proposal is allowed to go forth, the Cienega’s outstanding ecological value will be severely compromised. Biodiversity will receive a crippling blow.

In the report section subtitled "Potential Sources of Replacement Water to meet Title I objectives" (p.17) in it stated thatreplacement supply for bypass flow to the Cienega must come from inside the Colorado River Basin. “The primary source of replacement water for flows in the Bypass Drain is expected to be from the Lower Basin agricultural water users, and recovery and return of Colorado River water that would otherwise be lost to Mexico as groundwater. About 4.9 million acre-feet per year of Colorado River water is used in the Lower Basin for agricultural purposes…(p.17)” The report states that this fact should yield “opportunity for the program and water agencies to acquire additional water.”

The alternative most fully explored is forbearance, essentially short-term leases of water from area agricultural interests. The cost of forbearance agreements is estimated to be $60 to $309 per acre foot. Living Rivers research has shown the least valuable production of crops in the area to be worth $53 per acre foot of water. The BuRec estimate of $60 per acre foot is realistic. However, in order to make the YDP operations appear economically feasible compared to the environmentally responsible alternative of leasing water, the agency had to include a highly exaggerated higher cost estimate. In order to reach the $309 per acre foot estimate, the agency included the cost of keeping the YDP in "ready reserve."

Since 1992, the YDP has been maintained on standby - or ready-reserve - at an annual cost of ~$5.1 million. This cost includes $2.4 million of general research concerning desalting plants. Keeping the plant in ready-reserve mode obviously has nothing to do with seeking water leases. Including the cost in alternatives to operating the YDP is a blatant lie.

The report mentions the alternatives of "extraordinary conservation" such as upgraded irrigation systems for farmers in the lower basin. It does not however develop these alternatives nor does it state even an estimated cost for these alternatives.

The draft report explains that the YDP operation would cost $26-34 million yearly. The other effect the report mentions is that water flowing to the Cienega would be decreased to reject brine. According to report predictions, the flows would be reduced to 30,000 acre feet yearly with an average salinity of ~9000ppm . The annual amount of water the YDP is predicted to process is 60,700 acre-feet to 75,400 acre-feet. Then the BuRec would blend that product water with 10,000 acre-feet per year of untreated agricultural drainage water (p.15) yielding a complete return to the Colorado (when YDP is operating at full capacity) of 70,700 to 85,400 acre-feet.

The BuRec predicts that desalted product water from the YDP at full capacity operation will cost between $305 and $480 per acre-foot. The estimates are based on completely unrealistic assumptions including insanely low power costs, and do not take into account that the plant cannot operate at full capacity for at least four years. At one third capacity, even the BuRec's unreasonably optimistic estimates show a cost of $689 per acre foot of product water.

The report concludes that BuRec intends to follow a two-pronged strategy of pursuing forbearance agreements and readying the YDP for operations.

Living Rivers and a network of other environmental groups in the US and Mexico do not intend to allow a thriving wetland to die. Nor should the phenomenal cost of operating the YDP be imposed upon taxpayers particularly in a time of national economic distress. We will be preparing comments to the BuRec report as well as our own report to Congress about the real economics of operating the YDP versus pursuing lower-cost and environmentally responsible options.

Please send the BuRec a message that their report to Congress is irresponsible and unacceptable in the fallacies it includes as well as in its erroneous conclusion. Send comments by March 31, 2003 to:

Mr. Robert Johnson
Regional Director
Lower Colorado River Region
U.S. Bureau of Reclamation
PO Box 61470
Boulder City, Nevada 89006-1470

By fax: (702) 293-8614

To access the Bureau's full draft report to Congress, click here [148k PDF File]

LR Event 03/13/03

Full Page Ad for Mill Creek Revival on Day of Action

On March 13, Living Rivers ran this full-page advertisement in the Moab *Times Independent* demanding action by the Grand County Council to aid in restoring flows to Moab's Mill Creek.
Download a copy here [284k PDF File]

Letter to LR 03/14/03
To Gale Norton Demanding Immediate Action on Colorado River Drought

Honorable Gale Norton
Secretary, United States Department of Interior
1849 C Street, NW
Washington DC, 20240
Dear Secretary Norton,

We are writing to seek your cooperation in averting the emerging social, economic and ecological crises related to Colorado River water availability. Although snow packs in the basin are improving, river flows are again predicted to be below normal for the fifth straight year. According to the National Oceanographic and Atmospheric Administration, the current El Niño event has, "reached its mature stage and is expected to weaken." Basin-wide storage is at an all-time low. With federal water allocations continuing to exceed natural deliveries, the region is quickly nearing the halfway point to catastrophe. It is vital that federal, state, Indian tribes and private groups begin developing a framework for revisiting Colorado River water allocations and the laws which govern them.

We fully appreciate the political, economic and legal complexities associated with re-opening discussions pertaining to the Colorado River Compact and the Law of the River. However, the warning signs of system collapse are apparent. Storage in reservoirs is less than 60 percent of capacity and declining at a rate of more than ten percent per year. The Geological Survey cautioned last year that Western water managers should be prepared for below average precipitation over the next several decades. They caution that "a repeat of the 1942 to 1977 drought could be catastrophic" given the Colorado Basin's increased population growth.

If precautionary mechanisms are not put in place shortly, a crisis of unquantifiable proportions could easily unfold. Ten percent of the nation's population relies on Colorado River water, including the metropolitan areas of Los Angeles, Phoenix, Las Vegas, Salt Lake City, Albuquerque, San Diego and Denver. A $1.5 billion agricultural industry and 4200 megawatts of the Southwest's energy supply could be severely impacted. Yet, Bureau of Reclamation Commissioner John Keys stated on February 13 that his agency has no plan for how to allocate water once major shortages occur.

Such complacency will not only burden the Southwest's economy, but the federal treasury and judiciary as well. Emergency funds will be sought to compensate irrigators who shift their water to municipal users. Major lawsuits will materialize as Western states and water users battle the federal government over control of water rights. Further compromises regarding in-stream flows will burden federal courts with additional environmental complaints. Unless timely, pro-active measures are taken, an extensive amount of federal, state and local resources will unnecessarily be poured into crisis management.

Such an atmosphere will exacerbate tensions amongst competing interests and further complicate efforts to establish realistic long-term Colorado River management strategies. Given the present allocation system, it is not a matter of if, but rather of when, the Colorado River storage system will be unable to meet demand. Scientists have determined that the actual average flow of the Colorado River at Lee's Ferry is 20 percent below the original Compact allocations. The data also reflects that the Colorado River flow during the current drought cycle has been 15 percent lower than during the first four years of the 1942-1977 drought. Additional reservoirs will not solve the problem; new strategies for water allocation and use must be developed as soon as possible. We seek your commitment toward helping to establish a dialogue amongst the basin states, water users and environmental groups in order to begin tackling this critical problem.

The federal government has primacy over Colorado River management; you are the basin's legally designated Water Master. The Colorado River is held in trust for the benefit of the public, and it has become obvious that its management can no longer be relegated solely to the basin states. Uniform leadership, authority and policy development must come from the Department of the Interior. Your action at the end of last year to limit California and Nevada's deliveries to their prescribed allocations was a positive first step. We now encourage you to begin a thorough overhaul of the Colorado River Compact--one that realistically reflects present use patterns and anticipated river flows. At a minimum, water allocations need to be reduced to reflect actual historical river flows.

Bringing the basin's water use into balance with natural flows will be much easier, far more efficient and certainly less costly than the monumental engineering works of the past have been. In fact, as was calculated by the late Walter B. Langbein, the Colorado River Basin's reservoirs' evaporation and seepage losses far exceed the benefits of the additional water storage they provide.

In order for the Department of the Interior to realize a reduction in water allocation, a top priority should be the establishment of 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 not destined for Mexico; programs should be established to aid irrigators in replacing water-intensive feed crops, such as alfalfa, with produce crops that use significantly less water per acre. Such measures could reduce irrigation consumption in the Colorado River Basin by half, thereby freeing up more

water than is presently being used by all the municipalities currently plumbed into the Colorado River system.

The historical theory underlying Colorado River law and management is that in years of below-average river flow the sixty million acre-feet of storage built into the system will act as an insurance policy against the effects of cyclical drought. But we are becoming increasingly aware that such insurance is not limitless. Increasing water use within the basin and changing climatic conditions are driving the system to the breaking point. This need not occur. A vast amount of additional water management understanding and experience has been accumulated since the Colorado River Compact was first crafted. The Colorado River can accommodate the future needs of the Basin states, Indian tribes and Mexico as well as the natural environment. This important goal will most effectively be accomplished when the Department of the Interior takes the lead in the evolution of management policies which recognize the Colorado River's inevitable constraints.

Thank you for your attention to the matter, and we look forward to your reply (transcribed below).

Sincerely,

Owen T. Lammers
Executive Director

cc: John Keys, Commissioner, Bureau of Reclamation

Commissioner Keys responds to LR letter United States Department of the Interior

Bureau of Reclamation
Washington, D. C. 20240
In Reply Refer To:
W-6333 June 17, 2003
ADM-13.00

Mr. Owen T. Lammers
Executive Director, Living Waters [Rivers]
P.O. Box 466
Moab, Utah 84532

Dear Mr. Lammers:

Thank you for your letter to Secretary of the Interior Gale A. Norton dated March 14, 2003, regarding Colorado River issues. The Secretary has asked that I respond to you on her behalf. Similar to other Western rivers, the Colorado River Basin has experienced four dry years, some of which having been among the driest on record. With such a significant part of the nation dependent on water supplies from the Colorado River, it is truly fortunate that we continue to enjoy the benefits of our existing

water supply facilities that help to mitigate to make up for these tough years of insufficient moisture.

As you point out in your letter, these issues are complex and sometimes contentious, and it gives me a perfect opportunity to mention the Secretary's n ew initiative, entitled Water 2025: Preventing Crises and Conflict in the West. Water 2025 recognizes the realities we face in dealing with water issues, such as explosive population growth, increasing needs for water for environmental and recreational uses, and the national importance of food and fiber production from Western. irrigated agriculture. Water 2025 sets forth a strategic plan to facilitate a vigorous and educated public discussion in key Western communities, including those that rely on the Colorado River, where the likelihood for conflict and crises over water exists or can be predicted to occur by the year 2025. I invite you to attend and participate in any of the eight regional consulting sessions hosted by the Bureau of Reclamation. The information on these sessions is located on our website, www.doi.gov/water2025.

Again, thank you for your comments and concerns about Colorado River issues. The Colorado River has been and will continue to be a top priority for our agency, and I look forward to working with you and your organization in the constructive and positive manner set forth in Water 2025.

Sincerely,

John W. Keys, III
Commissioner

LR Press Release 03/14/03

Drought Watch campaign launched: demands immediate federal action to avoid catastrophe

Contact:
Owen Lammers (435) 259-1063
John Weisheit (435) 259-1063 or (435) 259-8077

El Niño provides no Drought Relief
Colorado River Storage at lowest levels in history
"Drought Watch" Campaign demands Federal Action to Avoid Catastrophe

The National Oceanographic and Atmospheric Administration reported on March 3, 2003 that the current El Niño event has, "reached its mature stage and is expected to weaken." What was hoped to provide a break from several years of below average precipitation, has only brought snow packs to 80 percent of normal. The result: water

use in the Colorado watershed will again outpace river deliveries, causing reservoir levels to decline for the fifth year in row.

As of today, levels in the Colorado watershed's primary reservoirs are at an all time low of 59 percent, declining at a rate of ten percent per year. Abundant historical evidence reveals that the present drought is far from unprecedented, and warnings from the United States Geological Survey one year ago urged water managers to be prepared for several decades of below average precipitation. They cautioned that "a repeat of the 1942 to 1977 drought could be catastrophic," given the Colorado Basin's increased population growth and water use. River flow during the current drought cycle has been 15 percent lower than those at the beginning of the 1942-1977 drought.

However, on February 14 Commissioner John Keys of the Bureau of Reclamation stated that his agency had "no plan" for how the federal government would handle water shortage once reservoirs began running dry. The Bureau of Reclamation has merely continuously revised its over-optimistic hydrologic forecasts for river flows. The most recent, on March 3, was a 25 percent downward revision for flows into Lake Powell, the principle figure for determining water availability for California, Arizona and Nevada. In October, 2002 BuRec predicted flows would be 10.14 million acre-feet in the water year of 2003. Now they are predicting only 7.44 million acre-feet, 62 percent of normal.

"This is nothing more than the beginning of an Enron event for the 25 million people reliant on the Colorado River water," said Owen Lammers, executive director of Living Rivers, the Colorado River's principal advocacy organization. "The Bureau of Reclamation puts out inflated projections to give the public a false sense of security, meanwhile the Basin's bank accounts are going down, down, down."

In a letter sent today to Secretary of Interior Gale Norton, 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.

- Bringing 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 deliver in years of average flow.

- 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.

"The Colorado River can accommodate the future needs of the Basin states and Mexico as well as the natural environment. This important goal will most effectively be

accomplished when the Department of the Interior takes the lead in the evolution of management policies which recognize the Colorado River's inevitable constraints," the letter from Living Rivers states.

Living Rivers has established "Drought Watch" as an urgent campaign focus to provide the public with accurate information about the decline in water availability in the Colorado River watershed, and opportunities for the region's water users to alter their consumption patterns without jeopardizing the meeting of human needs, the economy or the environment.

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On the Web:
Living Rivers Drought Watch Campaign

United States Geological Survey, Precipitation Survey of the Colorado Plateau Region

National Oceanographic and Atmospheric Administration Forecast

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LR in the News 03/16/03

Conservationists Bemoan Diversion of Water From Moab's Mill Creek

SALT LAKE TRIBUNE
BY LISA CHURCH

MOAB -- Grand County's water policies are destroying a sensitive riparian area and threaten to further damage the Colorado River watershed, water conservation activists say.

About 80 rallied Friday in Moab to protest those policies, an event that coincided with the sixth annual International Day of Action Against Dams and for Rivers, Water & Life.

Speakers at the rally, sponsored by Living Rivers, a Moab-based nonprofit group, accused the county of "putting greed before the welfare of the community." The activists

contend the Grand County Water Conservancy District diverts too much water from Mill Creek, a stream that originates with runoff from the La Sal Mountains and flows more than 25 miles through Moab, emptying into the Colorado River. The water winds up in Ken's Lake reservoir, the main source of irrigation water for about 125 farmers and ranchers in the county's southern reaches.

"Water may be pouring off the La Sals, but by the time it makes its way into Moab, every drop has been diverted," said John Weisheit, conservation director for Living Rivers. "Mill Creek's ecology is being destroyed."

Last month, the district petitioned the federal Bureau of Land Management for permission to reduce by half the amount of water it leaves in the stream below Ken's Lake, a move Weisheit said would devastate Mill Creek's native plants and fish. The BLM denied the request. Meantime, the Grand Water and Sewer Service Agency, of which the district is a part, has approved a feasibility study on the cost of diverting Colorado River water to Ken's Lake. The agency owns rights to 10 cubic feet per second of water but has never exercised them because it had no way to get the water to the reservoir.

Increasing Mill Creek's flow is essential to maintaining a healthy riparian area, said Lee Goodman, of Moab.

"Mill Creek is everything people create in their myths as an idyllic place. When you've got something as gorgeous and as important to the human spirit, one shouldn't have to argue over how much water it can have," Goodman said.

Agency manager Dale Pierson said Friday that Grand County water districts encourage conservation. In recent years, he said, district users have reduced water consumption by 25 percent, the state water conservation standard, and last year water use was down by 28 percent from 2001.

"We're doing pretty well, but we can do better," Pierson said. "We want all our customers to be conscious of water use, and to conserve as much as possible."

He said the proposed $20 million Colorado River plan would add additional water to Ken's Lake that the district would use to establish a separate valley-wide irrigation system. That way, customers who now use water from the culinary system to water lawns and gardens could save money and help the agency cut back on the amount drawn from its aquifer.

However, he said, "We won't build it if it isn't feasible for water customers."

Living Rivers Currents 03/19/03
Volume 3, Number 1, March 2003

The Articles

- Living Rivers Drought Watch: Demands Action to Avoid Crisis

- Lake Powell: Running Out of Reservoir
- Troubled Delta: Help Save What's Left
- Mill Creek: Microcosm of the Colorado River
- Flaming Gorge: EIS to be Released

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LRC V3, N1, March 2003

Living Rivers Currents 03/19/03

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 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.

Living Rivers Currents 03/19/03

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.

Living Rivers Currents 03/19/03

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 snowmelt, 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.

Living Rivers Currents 03/19/03
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.

Scoping Comments on EIS for Flaming Gorge Scoping Comments on EIS for Flaming Gorge Scoping Comments on EIS for Flaming Gorge Dam
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.

Living Rivers Currents 03/19/03

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 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.

LR in the News 03/20/03

Mill Creek Rally organizers say Grand County water agency puts greed before welfare of land

Times-Independent by Lisa Church
Moab, UT - Grand County's water policies are destroying a sensitive riparian area and threaten to further damage the Colorado River watershed, water conservation activists said at a protest rally Friday.

The Moab event coincided with the 5th Annual International Day of Action Against Dams and for Rivers, Water & Life, and also commemorated the founding of Living Rivers, a Moab-based non-profit group that promotes water conservation and restoration of Western rivers, officials said.

Speakers at the rally also accused the water agency of "putting greed before the welfare of the community."

Representatives from Living Rivers and other conservation groups say the Grand County Water Conservancy District annually diverts too much water from Mill Creek into

the Ken's Lake Reservoir. Mill Creek originates with runoff from the La Sal Mountains and flows more than 25 miles through Moab, emptying into the Colorado River. It is the main source of irrigation water for about 125 farmers and ranchers in the county's southernmost reaches.

"Water may be pouring off the La Sals, but by the time it makes its way into Moab, every drop has been diverted," said John Weisheit, conservation director for Living Rivers. "Mill Creek's ecology is being destroyed."

Last month, the district petitioned the U.S. Bureau of Land Management for permission to reduce by half the amount of water it leaves in the stream below Ken's Lake, a move Weisheit said would devastate Mill Creek's native plants and fish. The BLM recently denied the request, but activists point to it as an example of the agency's greed.

About 80 people gathered on the Grand County courthouse lawn to protest that request and a feasibility study approved by the Grand Water and Sewer Service Agency - the district's umbrella agency - to examine the cost of diverting Colorado River water to Ken's Lake. The agency owns rights to 10 cubic feet per second of water but has never exercised the right because it had no way to get the water to its reservoir.

Increasing Mill Creek's flow - the stream drops 8,000 feet through the mountains before reaching the Moab Valley - is essential to maintaining a healthy riparian area that is important to the community, said Moab resident Lee Goodman.

"Mill Creek is everything people create in their myths as an idyllic place. When you've got something as gorgeous and as important to the human spirit, one shouldn't have to argue over how much water it can have," Good man said. "If you see your child being tortured right in front of you, it's important to stand up, to complain."

Agency manager Dale Pierson said Friday that Grand County water districts encourage conservation, and have been successful in promoting lower water use. In recent years, district users have reduced water consumption by 25 percent - the state water conservation standard - and last year, water use was down by 28 percent from 2001, he said.

"I think we're doing pretty well, but we can do better," Pierson said. "We want all our customers to be conscious of water use, and to conserve as much as possible."

He said diverting water from the Colorado River represents another step in reducing the amount of culinary water used by residents. The $20 million plus project would add additional water to Ken's Lake that the district would use to establish a separate valley-wide irrigation system.

"If this pipeline were built, customers who currently must use water from the culinary system to water lawns and gardens, could save money and help us cut back on the amount water drawn from our underground aquifer," Pierson said. "We won't build it if it isn't feasible for water customers."

Activists hope the public protest will promote dialogue between Grand County residents and water officials.

"We want to work within the community to create responsible water use and conservation with a goal of maintaining our rivers, streams, and ecosystems. But we must also look regionally to restore the balance because we share this area with Native Americans and their values, which are older than ours and more important actually," Weisheit said. "If we continue this way like other hydro-societies, we will lose it all."

LR Letter 03/20/03

Fossil Creek Restoration Threatened

March 20, 2003
Phil Smithers
Senior Designer
APS / Generation Engineering
P.O. Box 53933, m/s 3190
Phoenix, Arizona 85210

Dear Mr. Smithers:

RE: Concerns regarding the restoration of Fossil Creek as agreed upon in the Childs Irving Hydroelectric Project Settlement Agreement and Removal and Restoration Plan between Arizona Public Service and the Intervenors, dated September 11, 2000.

Thank you for submitting the "Childs-Irving Hydroelectric Decommissioning Update" dated February 03, 2003. We commend you for your work to support the decommissioning of the plants as agreed upon in the Offer of Settlement, Childs/Irving Hydroelectric Project, Project No. 2069 between the intervenors and Arizona Public Service, submitted September 15, 2000 and the Settlement Agreement (Agreement), dated September 11, 2000.

Your February 3, 2003 Update includes an item under "Ongoing issues related to decommissioning" which is of concern. It reads" Historical – The R & R plan for this project describes removal of the surge tank at the top of the Childs penstock and the removal of contents from the Childs powerhouse. SHPO has raised issues with both. We support leaving the majority of contents in the Childs powerhouse for historical purposes and never intended to gut the building. These are the only issues SHPO has at this time."

First, this is not an ongoing issue as the Agreement includes a Removal and Restoration Plan (Exhibit M) which was negotiated at length between the intervenors and APS, and for which input was received from the US Forest Service, SHPO and

other agencies with a stake in the Proceedings. The Removal and Restoration Plan clearly states:

"The standpipe (30x30') shall be removed" (page 30); and "The Childs powerhouse shall remain as historical feature. All equipment, electrical, mechanical and maintenance will be removed" (page 31).

We will address the surge tank issue first. Leaving the surge tank in place is unacceptable.

Removal of the tank has already been negotiated and agreed upon as is stated in the Offer of Settlement (Offer) between APS and the Intervenors. SHPO and the USFS were both included in those discussions, as stated in the Offer (page 3), with the conclusion that the participants agreed to the Removal and Restoration Plan:

"These negotiations were designed to address the concerns of all interested parties, whether Intervenors in the relicensing proceeding or not. In fact, the settlement negotiations involved several additional parties that did not intervene in the relicensing proceeding, including …the USFS,…State Historic Preservation Office…

"As a result of the collaboration discussed above, APS, the Intervenors and the Non-Intervenors have reached agreement for the surrender of the Project license and removal of the Project works, as described in the Childs/Irving Hydroelectric Plants Removal and Restoration Plan…"

The Agreement, Section 1.1 reads "The Participants have entered into this Agreement for the purpose of …(b) approving the Removal and Restoration Plan…" (section 1.1) "The Participants agree that Project removal, under the terms and conditions of this Agreement, constitutes a reasonable resolution to the dispute between them…" (section 2.1)

Because the Agreement is in place and has been for more than two years, no further discussion of these items should be necessary. However, we will reiterate briefly, for the record why leaving the surge tank in place is unacceptable

The value of preserving the tank for historical interpretation is questionable The surge tank is a simple symmetrical 30-foot by 30-foot pipe made of concrete. It includes no innovative design, no natural native materials and is of little visual interest or appeal. While a surge tank was important to the production of hydropower at this facility, the need to preserve the tank itself is highly questionable. The tank is physically located well away from the Childs plant where the bulk of historical information will likely be sought. The tank's design and purpose are easily depicted in photos, drawings or verbiage. Removing the tank will have no impact on historical depictions.

SHPO's record for preserving Native American sites is dismal, and it continues to ignore the requests of Native American stakeholders in this proceeding. The Yavapai-Apache, stewards and residents of Fossil Creek long before the appearance of Euro-American settlers, have asked that the surge tank be removed. Yet SHPO continues to ignore them.

As stated by Vincent Randall, Tribal Chairman for the Yavapai-Apache Nation during the proceedings to FERC, September 21, 1999:

“Five-hundred years of stewardship on the land should serve as good cause for us to be acknowledged as real life stakeholders at the table. …. We believe the Nations voice should have official status along with the other participants when decisions are being made about such a traditionally significant place.”

In a letter of June 5, 2000, Vincent Randall stated:

“As we stated in the letter Chris presented on our behalf in May the Yavapai-Apache Nation was initially drawn to the process by the concept of full restoration for Fossil Creek….

“We believe the idea of full restoration is a noble one. Is the surge tank really intrinsic to the Euro-American experience in the west? … The Yavapai-Apache Nation is pro preservation, but we see it as a matter of strict triage. Can the APS story be told without the actual surge tank? Yes, we believe it can. Will the touring public be diminished if the surge tank is removed? No, we believe it will not. Is the concept of returning the landscape to as close to the pre APS condition as possible a noble one? Yes, indeed it is. Is the skylined surge tank part of that condition? No it is not.”

Over and over, in the state of Arizona, ancient Native American sites have been photographed, at best, and then bulldozed with SHPO's blessing in the name of development. Now, the Yavapai-Apache are requesting one small concession from SHPO in this historical opportunity to restore a site that holds cultural and spiritual significance for their Nation.

We find SHPO's insistence on preserving the concrete tank, against the express wishes of the Yavapai-Apache Nation, shameful and appalling. We would hope that no admonition to the USFS concerning respect for the Nation in this matter is necessary.

The goal of the restoration plan is to return the area to its natural state as much as possible The Introduction of the Removal and Restoration Plan reads, "The following plan is based on limiting damage to the surrounding environment while returning the environment as close as practicable to its native state." The native state did not include a three-story concrete tank. Moreover, the tank is a visual scar on the landscape and interferes with the enjoyment of a "natural" area.

The surge tank will be an obvious target for graffiti and will increase maintenance costs With restoration, Fossil Creek will become a more desirable recreation destination, drawing larger crowds, and with potential historical signage regarding the surge tank, drawing them specifically to the tank. The USFS and SHPO should consider whether it has the funds to continuously remove graffiti and trash from the tank. Should the tank be left in place, we will seek designation regarding who will patrol the tank area and how often the maintenance work will be performed.

The tank represents a liability The USFS and SHPO , as well as APS, should consider the safety and legal issues they may encounter given that the tank represents an

"attractive nuisance". Again leaving the tank in place and perhaps including signage drawing people to the tank is irresponsible. Putting a fence around the tank will only add to the nuisance factor and certainly does not constitute "removal and restoration."

The next issue at hand is APS' request to leave the electrical, mechanical and other equipment in place in the Child powerhouse. We recognize that APS has and will continue to incur substantial costs in complying with the terms of the Agreement and with the Federal Energy Regulatory Commission's requests for information to support APS' Surrender application. We also appreciate the contention that the contents of the powerhouse may be helpful as a means of interpreting the historical production of hydroelectric power at the plants. As such, we do not intend at this time to object to leaving the majority of the contents in the Childs powerhouse.

Sincerely,

Lisa Force
Program Director

Cc: Mr. Jim Garrison
Arizona State Historic Preservation Officer
1300 W. Washington
Phoenix, AZ 85007

Ken Anderson
District Ranger
US Forest Service
P.O. Box 300
Sedona, AZ 86339

LR in the News 03/27/03

Water and Sewer Board irked by questions raised in letters and rally

Times-Independent by Lisa Church

Moab, UT - Recent protests and letters to The Times-Independent questioning the business practices and the fairness of the Grand Water and Sewer Service Agency (GWSSA) board structure prompted one board member to ask agency employees to develop charts and literature explaining how the agency is organized and operates.

Rex Tanner, a member of the agency operating committee, took issue with statements and statistics disseminated by Living Rivers - a Moab-based non-profit group that promotes water conservation and restoration of Western rivers - in news releases and at a rally two weeks ago protesting the agency's water management practices. Tanner characterized as "outrageous" statements made by the group, and said a letter to the

editor in the March 20 issue of The Times. The letter writer called the agency to task for holding "secret meetings" in reference to legally-allowed executive session discussions held by the board, clearly show that area residents do not understand the workings of the agency and the laws governing public boards.

"There's just so much misinformation floating around out there. The newspaper should not be telling people in this county what this agency is doing. The agency should be doing that," Tanner said.

But James L. Walker, a member of the Grand County Water Conservancy District Board, disagreed. Walker said groups like Living Rivers, and others in the community will choose to misinterpret the agency's actions in order to push their own agendas.

"Every time you give them more information they still interpret it however they want," Walker said. "All you do by giving them more information is to give them more ammunition to use against us."

Agency board president Gary Wilson questioned whether developing informational literature for the public is the best use of staff time. State and federal law require all public agencies to provide certain documents and information upon request by citizens, and Wilson said the agency always complies even though doing so often constitutes a drain on staff.

"It takes a tremendous amount of the staff's time to provide this information," Wilson said. "But we do it because we have to."

River News 03/27/03

RRFW Riverwire PEARCE FERRY RAPID UPDATE

The normally tranquil waters of the Colorado River are beginning to become turbulent at two points near Pearce Ferry, Arizona just past the western boundary of Grand Canyon National Park. This reach of the Colorado River is controlled by the water level of Lake Mead. When the lake is near full pool, a large lake with no current greets river runners departing the end of Grand Canyon. But with the 4th year of drought continuing, the unusually low level of Lake Mead has caused the Colorado River to entrench into the sediment deposited in the upper reaches of the lake. The river is flowing with strong current at the Ferry. The river no longer follows its historic channel and is now flowing over low gravel hills approximately one mile north of Pearce Ferry. Two new riffles have formed in this area.

The upper riffle, at approximately river mile 280, is a series of small standing waves stretching almost all the way across the river, which is about 150 feet wide at this point.

A fast channel has developed on the river right side of the riffle. The lower riffle is forming where the river is cutting through a saddle between two small hills.

At this time, these riffles pose no difficulty to river travelers, but have the potential to upset articles laid out on watercraft decks. Night floating through this area is not recommended. This area has the potential to form serious rapids as Lake Mead is projected to drop 12 to 15 feet in the next 4 months.

Photographs of these two riffles are at www.vishnutemplepress.com/pearceferry.html

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LR in the News 03/30/03

West's water at risk as Utah lake shrinks

By Stuart Leavenworth Sacramento Bee Staff Writer Monday, March 31, 2003
LAKE POWELL, Utah -- When John Wesley Powell embarked on his historic trip down the Colorado River in 1869, he described a raging, foaming torrent of water, rapids "that reel and roll and boil ... making a wild music."

It is doubtful Powell would recognize the Colorado River now. As it enters the lake that bears his name, the river looks more like a creek than a cataclysm. Starved by four years of drought, the nation's second-largest man-made lake has dropped to its lowest point in three decades. It is the Amazing Shrinking Reservoir, and its rapid downsizing is sending ripples across the West, even up to Northern California.

Unsure about supplies from the Colorado, Southern California is buying water from Sacramento Valley rice farmers. Las Vegas also is scrounging for supplies. Environmentalists are saying "we told you so," and Lake Powell's major industry -- houseboating -- isn't floating like it once was.

On a recent weekend, boat owners Rob and Darcy Yates drove to the upper tip of Lake Powell and stood stunned by the miles of sunbaked mud flats before them.

"The environmentalists have wanted to drain Lake Powell for years," said Darcy Yates, a flight attendant from Lehi, Utah. "It looks like they will finally get their wish."

Normally holding 7.8 trillion gallons of water and stretching 180 miles into two states, Lake Powell is dropping a foot a week, slowly exposing the sinuous canyons that federal engineers flooded when they built Glen Canyon Dam in the early 1960s.

If the dry spell continues, officials of the U.S. Bureau of Reclamation will have to prepare for the unthinkable. Eventually, they say, the lake could drop so low it will stop feeding the hydroelectric penstocks that generate $70 million in power yearly for 1.7 million people throughout the Southwest. At that point, the water supply of 25 million people in California, Nevada and Arizona would also be in jeopardy.

"We could witness the draining of Lake Powell in our generation," said John Weisheit, conservation director of Living Rivers, an environmental group based in Moab, Utah. "When a big drought comes on the Colorado, no amount of reservoirs will help."

Even federal officials, who rarely acknowledge their projects are vulnerable to nature's whims, say the next few years could be crucial.

"It is never too early to start getting a little concerned," said Rusty Gattis, deputy manager of Glen Canyon Dam. "You never know what the next day may bring."

Seen from the air, Lake Powell looks like a giant blue Rorschach blotch splattered across the red-rock moonscape of southeastern Utah. When full, the reservoir holds enough water to cover Pennsylvania a foot deep. Now, it has dropped to half its volume, leaving behind a white ring of calcified rock on its vast, 1,960-mile shoreline.

Scientists disagree on what is happening to Lake Powell and other depleted reservoirs of the Colorado basin.

Some say the watershed is experiencing a normal boom-and-bust cycle -- illustrated by the huge snowstorm that walloped the Rockies two weeks ago. Others say the region is undergoing a climatic shift that could lead to multiyear droughts unseen during this century.

Nowhere are the stakes higher than in Page, Ariz., a town of 9,000 near the Utah border that is entirely dependent on Lake Powell. Some 2.5 million people visit Page and the Glen Canyon National Recreation Area each year, spending an estimated $400 million on houseboat and Jet Ski rentals, motel rooms, fishing gear, boat tours and countless gallons of sunblock.

Business leaders say despite the low water, Lake Powell is still the floating party it once was.

"The press keeps putting out the message that the lake is gone, or half-empty," said Joan Nevills Stavely, director of the Page-Lake Powell Chamber of Commerce. "We like to say that the lake is half-full."

Even so, the drought has created some challenges, as Stavely readily acknowledges. Already, three boat ramps are unusable because of the low water. The National Park Service is spending $2.5 million to extend the boat ramps before the tourist season starts in May.

The drought also has complicated the task of reaching popular destinations, such as Rainbow Bridge, the world's largest natural rock arch.

Four years ago, tourists could boat within eyesight of Rainbow Bridge. Now, they must dock a half-mile away and walk along a floating gangplank and trail to the sweeping, 290-foot-high arch.

Velma Stoss, an Arizona native who now lives in Seattle, returned to Rainbow Bridge two weeks ago and was taken aback as she hiked up the trail.

"When you think about the amount of water that has been lost, it is staggering," said Stoss, gazing at the dried-up side canyon beneath Rainbow Bridge. "I guess it is going to California."

Stoss is partly right. Although Lake Powell provides recreation and hydropower, its main function is to convey water from the upper Colorado basin to states downstream. Under the 1922 Colorado River Compact, the four states of the upper basin -- Utah, Colorado, Wyoming and New Mexico -- must release 8.2 million acre-feet (or 2.6 trillion gallons) from Powell each year, no matter how much flows into the lake.

About half of that goes to Southern California.

In effect, Lake Powell serves as a massive security blanket for the upper basin states, which might otherwise have to tap their own reservoirs to send water downstream. But it hasn't come without a cost.

As Lake Powell filled Glen Canyon, it drowned miles of fern-lined canyons, Anasazi Indian ruins, petroglyphs and mysterious rock arches and chambers like the Music Temple and Cathedral of the Desert. The casual loss of this natural heritage angered artists and environmentalists, some of whom cling to a hope that Glen Canyon Dam will one day be decommissioned and the canyon eventually restored.

One of these is Rich Ingebretsen, a Salt Lake City emergency room doctor and an unlikely activist. A descendent of Brigham Young, Ingebretsen spent his youth rafting down the upper Colorado River. When Lake Powell started to submerge some of his favorite rapids, Ingebretsen saw his calling in life and founded the Glen Canyon Institute, one of several groups committed to draining the lake.

Wearing a cap that reads "Damn Dam," Ingebretsen recently rented a motorboat and went in search of some of Glen Canyon's lost wonders.

Heading south from Hall's Crossing marina, Ingebretsen rounded one sheer cliff after another, then turned right into the Escalante arm of Lake Powell, then left at a side canyon. Soon the boat was entering an increasingly narrow, curved chamber, wide at the bottom with a slender parabola of sunlight descending from above.

"This is the entrance to one of the most famous places in Glen Canyon," pronounced Ingebretsen as he entered a cavern called the Cathedral in the Desert. "We are going to see something people haven't seen in years."

A favorite haunt of early canyon explorers, the Cathedral has been called a masterwork of natural architecture. During its heyday, a slim waterfall fell from the lower part of the cavern; now the cascade is submerged. The bottom walls are discolored from years of high water, but still the Cathedral is an ethereal place, a water-carved amphitheater of streaked sandstone, shifting light and reverberating echoes.

For seven years, Ingebretsen has been trying to rally people around the idea of bringing back these jewels by draining Lake Powell. Some say his quest is quixotic. Others call him crazy.

Not surprisingly, Ingebretsen isn't a popular figure in Page, a town whose founders helped build Glen Canyon dam. The town stopped welcoming environmentalists in 1981, when a group of Earth First! activists climbed onto the dam and unfurled a banner that depicted a giant crack down the side.

Water managers in California and Arizona also scoff at the idea of draining Powell.

Dennis Underwood, a former Bureau of Reclamation commissioner, says the drought would be far more serious if the reservoir wasn't there. Without Lake Powell, he said, lower basin states would be close to exhausting the Colorado's downstream reservoirs, such as Lake Mead, backed up by Hoover Dam. "You'd have trouble meeting the needs of the lower basin," said Underwood, who now works for the Metropolitan Water District of Southern California.

Even with Lake Powell, the region's water prospects are hardly secure.

According to the U.S. Census Bureau, the combined cities of Phoenix, Las Vegas and Los Angeles are adding about 350,000 people every year. Las Vegas in particular is a major water consumer, using 307 gallons per person daily -- about twice as much as residents in Los Angeles.

In recent months, Las Vegas officials have started restricting the water pumped to golf courses, raising the ire of resort owners. The city is mulling other conservation measures, although critics such as Weisheit, of the environmental group Living Rivers, say the measures are mostly window dressing.

For several years, various California agencies have been haggling over a proposed water sale between the Imperial Valley and San Diego, aimed at securing Southern California's access to surplus water from the Colorado River.

Now, however, federal officials are unsure if there will be much surplus water in coming years. As a result, the Metropolitan Water District has been lining up backup supplies, such as the water it is purchasing from Sacramento Valley rice farmers.

Even the recent storm in the Rocky Mountains -- which dumped several feet of snow -- didn't help prospects much.

As it melts, much of that snow is expected to soak into the parched soil of the region, leaving little for reservoirs, said Barry Wirth, a spokesman for the Bureau of Reclamation. Lake Powell as a whole is expected to drop for a few more weeks, level off with spring runoff, rise a few feet and then starting dropping again this fall.

Ultimately, many water analysts say, the western United States will have to confront some root causes of the water crunch in the Colorado basin. When they divided up water supplies in 1922, the basin states overestimated the average yield of the river and went on to develop cities, farms and reservoirs based on an unrealistic estimate of nature's bounty.

Now, say Reclamation officials, the upper basin is struggling to send water downstream as a historic drought collides with a historic population boom.

"Everything is really tight," said Wirth, who works out of Salt Lake City. "As every year goes by, and another moving van moves into Grand Junction and Salt Lake, it gets a little harder."

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LR in the News 03/31/03

Colorado blizzard not helping drought

Kansas City Star
JUDITH KOHLER
Associated Press
DENVER - Colorado's worst blizzard in nearly a century fell on the wrong side of the Continental Divide for much of the drought-parched West.

The mountain snowpack that feeds river basins serving eastern Colorado rose to more than 100 percent of average levels after the storm. But the snowpack feeding the Colorado River basin, which provides water to seven Western states, rose only slightly.

Most states plan to keep in place voluntary or mandatory water restrictions and conservation measures, saying it is too early to tell what the summer will bring.

"There's not any meaningful change," said Wayne Cook, executive director of the Upper Colorado River Commission, based in Salt Lake City. "Maybe next time you could send (the snow) over in a truck or something, dump it over the top, let it run down this side of the hill."

A 1922 agreement allocates Colorado River water among the states. Colorado, Wyoming, Utah and New Mexico get water from the upper part of the basin and California, Nevada and Arizona get water from the lower basin.

Water agencies from Las Vegas to Santa Fe, N.M, closely track storms in the Colorado mountains, where snowpack is even more critical in drought years.

"What impacts us is snow in the Colorado Rockies," said Vince Alberta, spokesman for the Southern Nevada Water Authority, which serves Las Vegas.

The blizzard dumped up to 8 feet of snow in a 500-mile swath in Colorado and southeastern Wyoming the week of March 17, primarily falling on the east side of the Continental Divide.

In river basins serving eastern Colorado, the storm increased projected snowpack runoff from 61 percent of the historical average to 65 percent this year. That is up from the 14 percent recorded at the end of the spring melt last year.

The blizzard barely registered in the Colorado River's lower basin, where the projected runoff remained at about 62 percent, said Colleen Dwyer, spokeswoman for the U.S. Bureau of Reclamation in Boulder City, Nev.

The snowpack percentage is measured against a 30-year average. Melting snow contributes about 80 percent of the water in rivers, streams, lakes and reservoirs, which comprise much of Colorado's water supply.

The blizzard was encouraging but one good season won't wipe out four years of below-average snowpack, Alberta said. His water authority will maintain limits on outdoor watering and types of lawns and water recycling.

In Wyoming, the snow will help parched grasslands in the southeastern region where ranchers have struggled to keep their cattle fed. The rest of the state will benefit little, state climatologist Jan Curtis said.

"Having been in a drought for three to four years now, we are probably so far behind so far as moisture deficit that it would probably take seven of these types of storms to get back to normal," she said.

In the Denver area, paralyzed for days by hip-deep snow, initial glee about the storm's impact on the drought has turned into measured enthusiasm.

"How wonderful! This is really going to help us out," Peter Binney, utilities chief in the Denver suburb of Aurora, said when heavy snow started March 18. Reservoirs that feed Aurora are so low that there's a ban on new lawns and planting vegetables and new flowers.

A week later, Binney was still optimistic, but cautious. "I'd like to see a couple more of these in the next couple weeks," he said.

More snow and rain were predicted for the mountains and foothills, where spring can be the wettest time of the year. El Nino is credited with breaking the region's dry cycle this year.

Vivienne Fink still plans to tear out her Kentucky bluegrass lawn and replace it with ornamental grasses, boulders and native plants.

"I just really don't want to have to pay for watering a lawn that probably shouldn't be there in the first place," she said.

The moisture will allow farmers to delay irrigating for a couple weeks, but "it certainly doesn't end the drought crisis," said Bob Sakata, one of Colorado's largest vegetable producers.

Colorado's blizzard won't do much to relieve the drought in the West, said John Weisheit of the environmental group Living Rivers in Moab, Utah.

He said he is concerned that a wet spring will lead people to ease up on conservation. The Colorado River can't meet the area's growing demand even in good years because the water is overallocated, he said.

Wetter-than-normal seasons in the 1980s and 1990s helped mask that fact, Weisheit said.

"We've been lucky, is what we've been," he said. "Now our luck's run out.

River News 04/02/03

RRFW Riverwire RIVER PLAN DRAFT NOW SET FOR OCTOBER RELEASE

Grand Canyon National Park planners have pushed back the release of the release of the Draft Management Plan for the Colorado River Management Plan to the fall of this year. RRFW has learned that the NPS is now looking for release of the Draft River Management Plan for no later than October 31, 2003.
RRFW has also learned that the reason for the delay is to allow Grand Canyon National Park planners to include advice from a National Park Advisory Board subcommittee made up of concessioners, nonprofit groups and others. RRFW has not yet discovered how this group will be formed, however we do know that among those pushing for the formation of this Advisory Board subgroup are Grand Canyon River Outfitters Association Executive Director Mark Grisham and GCROA consultant Destry Jarvis.

Besides releasing a Preferred Alternative, Grand Canyon National Park planners expect to have 5 to 6 other alternatives in the draft. One of the alternatives will be a motor-free alternative. Park planners are still looking to have a Final CRMP by December 31, 2004, so that river concessions contracts can be renewed in 2005. All 16 of the river concession contracts will terminate if not renewed on December 31, 2005.

River News 04/07/03

RRFW RIVERWIRE - CONCESSIONAIRES HIRE DC LOBBYIST

T. Destry Jarvis has recently been hired to lobby for the Grand Canyon River Outfitters Association, a trade association established to protect the economic interests of 16 Grand Canyon river concessionaires. Mr. Jarvis will be influencing the CRMP to benefit his employers, especially in Washington D.C., where he lives. Mr. Jarvis recently noted that powerboats on the Colorado River in Grand Canyon are “necessary for the future good condition of the park and the provision of high quality visitor river experience

there." He also stated in a recent article for the Boatman's Quarterly Review (Spring, 2003), that "…all concerned should come to realize that the river experience is enhanced, and the park's resources are better conserved, with motors, while both the experience and the resource are diminished without."
Jarvis' position is that the exceptions to the Wilderness Act that have allowed motors shape the real application of it more than the Act's actual language. This is relevant since his various interpretations of the Wilderness Act appear to hinge on where his paycheck comes from. While employed as Federal Policy Director at National Parks Conservation Association, Jarvis wrote a letter defending the 1980 CRMP's proposed phase-out of motors in Grand Canyon National Park to NPS Director Russell E. Dickenson.

"…the decisions to ban motors in the Grand Canyon…were not made lightly, but only after years of discussion, study and consideration." he admonishes the Director. Mr. Jarvis went on to say, "The Service can not afford to allow additional years of contentious debate on these issues, if progress is to be made in any other of the many problem areas deserving your attention. NPCA urges you to stand firm on these important principles."

"What changed his mind? There have been no amendments to the Wilderness Act, no changes in the underlying spirit, values and principles of Wilderness. The intent of Zahniser and wilderness advocates and contemporaries Olaus Murie, Aldo Leopold, Supreme Court Justice William O. Douglas and Bob Marshall is clear. Time and again they wrote that motorized transportation is antithetical to Wilderness." notes Jo Johnson, co-director of River Runners for Wilderness.

Johnson went on to observe "If Jarvis is so sure powerboats are fine in Wilderness, why is it necessary for him to lobby legislators for a Grand Canyon Wilderness Bill that leaves its heart--the Colorado River--out? Why not just allow Congress to designate the entire Grand Canyon, with the River, Wilderness? Is it possible he isn't convinced and therefore must hedge his, or rather, GCROA's, bets?"

"Now more than ever, we need the peace and solace of motor free Wildernesses in Grand Canyon and elsewhere. The meaning of Wilderness was clear in 1964, it was clear at the time of Mr. Jarvis' 1980 impassioned plea to get rid of motors, and it remains clear now. If there is any place on Earth that deserves to be free of motors, it has to be Grand Canyon." Johnson remarked.

Regional News 04/10/03
Trying to make sense of current water controversy (part one)

Times-Independent
Moab, UT
by Lisa Church
contributing writer

Ask a dozen people in Grand County to explain how the Grand Water and Sewer Service Agency works, and you're likely to get a dozen different answers. Factor in the three individual water districts that have pooled their resources under the GWSSA umbrella and the confusion deepens to bewilderment.

In the West, where control of water wields considerable power, it is not surprising, then, that this complex organizational structure devised to manage and distribute culinary and irrigation water in Spanish Valley and throughout Grand County has become a lightning rod for critics who contend that too much water in the valley is now controlled by governing bodies representing the interests of too few county residents. Conversely, staunch defenders of the system maintain that the agency serves the interests of the public by protecting and preserving the valley's valuable water resources.

This great divide in public thinking is deeply rooted in the history of modern water development in Grand County and the chain of events that led to the creation of GWSSA in 1998.

First there was a dam: Creation of the Grand County Water Conservancy District

In the early 1970s, most water rights in Grand County were still privately owned, or were vested in the Moab Irrigation Company, a private corporation made up of individuals who elected to convert their water rights into shares of stock in the larger company. Because growth in any modern community is intrinsically tied to that community's ability to provide its residents with adequate water and sewer services, Grand County officials during this time recognized the need to begin developing a stable water system within the valley.

Their solution: form a water conservancy district that could acquire water rights, build infrastructure including a dam, storage and delivery system, and offer water services to farmers, ranchers and residents in Spanish Valley.

Under state law, water conservancy districts are formed by district courts, and are considered state, not county, agencies. The governor appoints the district's five board members, although the county may recommend names for appointment. However, state law requires a petition, signed by at least 20 percent of landholders within the district, be presented to the court requesting the court to create the conservancy district.

Like all state water conservancy districts, the Grand County Water Conservancy District, created by the 7th District Court in 1971, has the right to hold water rights, and to provide irrigation and culinary water service to customers within the service district. GCWCD's district includes all of Grand County, and 370 adjacent acres in the San Juan County portion of Spanish Valley.

When GCWCD was formed, the district immediately began work to develop the Mill Creek Project – a water storage system that includes constructing a dam to divert water from Mill Creek into a reservoir at Ken's Lake, and the lake's delivery system that now provides irrigation water to shareholders within the district.

To accomplish this massive project, the district needed financing. The State of Utah's Division of Water Resources agreed to provide a low-interest loan to pay for the project, but in order to receive financing, the GCWCD first had to acquire water rights, which they purchased from the Moab Irrigation Company, to be held by the state as partial collateral for the loan.

The district's initial 1979 agreement with the state estimated the cost of the Mill Creek Project at about $3.7 million, but construction delays, and the county's economic downturn in the early 1980s –largely a result of the demise of the uranium business – forced the district to seek an additional $900,000 in funding over a period of several years.

To recoup part of the cost, the district elected to sell irrigation shares to valley farmers and ranchers. Today, about 125 individuals and corporations purchase irrigation water shares in Ken's Lake water, and the annual proceeds from the sale of those shares helps cover the annual loan payment to the state.

The district initially believed it could also generated revenue through the sale of industrial water to mining and other business entities. But as the mining industry went bust, those hopes dried up, said James Walker, president of the Moab Irrigation Company, and a current member of the GCWCD board.

Unfortunately, the water shares owned by GCWCD were strictly irrigation water, so in 1979, the district entered into an exchange agreement with local farmer George White that provided the district with a minimum of 625 acre feet of culinary quality water from White's numerous wells, in exchange for an equal amount of irrigation water from Ken's Lake. The district set about constructing a storage system and pipes to transport the water from White's wells to a storage tank that would eventually provide culinary water to Spanish Valley residents.

Delivering Culinary Water and Sewer Services: The creation of Spanish Valley Water and Sewer Improvement District

Because state law prohibits water conservancy districts from operating a sanitary sewer system, the county commission, in 1974, created the Spanish Valley Water and Sewer Improvement District. The district's boundaries were tightly drawn to encompass only Spanish Valley, and then, only that portion of the valley located within Grand County.

SVWSID is charged with the responsibility of building and operating a culinary water distribution system, storm drainage, and a sewer collection system to service Spanish Valley residents.

The district's five-member board, appointed by the Grand County Council, consists of individuals residing within the district's boundaries.

Since its formation, SVWSID has systematically built infrastructure to deliver culinary water, and sanitary sewer services to Spanish Valley, including the recent $5.4 million

expansion project that extended those services to outlying areas of the valley and created additional culinary water storage tanks that will hold water generated from new wells recently approved for partial development by the state.

Under the original agreement, SVWSID purchased culinary water at wholesale prices from GCWCD, then provided the water at retail cost to customers. Rather than incur the expense of building and maintaining a sewer treatment plant, SVWSID contracts with the city of Moab for sewer treatment, and recoups the cost through user fees.

Currently, SVWSID revenues pay a portion of three separate bonds incurred to cover costs of water delivery systems and development of culinary water and sewer services.

Financing: Creating the Grand County Special Service Water District

Developing water services and storage facilities is an expensive business. In Grand County, financing the host of projects dating to the original Mill Creek Project was a challenge that, like many other Utah counties, commissioners resolved by proposing creation of a special service water district. The Grand County Special Service Water District, approved by Grand County voters in 1977, possesses specific powers to raise funds through taxes and bonds – powers not bestowed upon GCWCD and SVWSID. The GCSSWD may also raise funds through various federal and state granting agencies.

The creation of GCSSWD enabled Grand County to acquire additional funding – through taxes and bonds – needed for the construction of the Mill Creek Project, as well as monies required for building a culinary water and sewer delivery system in Spanish Valley. The agency is an independent district but is governed by Grand County, which appoints the district's five board members.

Primarily a financing agency, GWSSA works in tandem with the Grand County Water Conservancy District, and with Spanish Valley Water and Sewer Improvement District, to secure funding and make payment on outstanding loans and bonds for Grand County water and sewer projects, said Grand County water planning administrator, Lance Christie.

Combining Resources: Creation of the Grand Water and Sewer Service Agency

As all three water-related agencies worked to develop their joint and individual projects, the issue of managing Grand County's water systems surfaced as a significant problem. From the beginning, the boards of GCWCD and GCSSWD met jointly and shared the same chairman and vice-chairman. The two districts were bound by an agreement, signed in 1979, that gave GCSSWD authority to act as the conservancy district's agent for construction of the Mill Creek Project, and making payments on the project loans.

In 1980, SVWSID and GCWCD agreed to share staff and office space. The conservancy district hired staff, and SVWSID paid a percentage of staff salaries and benefits through reimbursements to GCWCD. These districts were also bound through an agreement by which GCWCD leased culinary water and storage to SVWSID, which then distributed the water to Spanish Valley customers.

These confusing arrangements were, perhaps, not ideal, but as Christie points out, they were likely necessary.

"This complicated mess of agencies was required because of the limitations and powers in the Utah State Code which are extended to Water Conservancy Districts, Special Service Districts, and Water and Sewer Improvement Districts," Christie has said. "It may be a mess, but it's the best mess we could come up with."

In an effort to simplify matters, the three districts agreed in 1998 to create one management agency that would oversee the daily operations and ongoing financial management of Grand County's water projects.

The Grand Water and Sewer Service Agency has, perhaps, become the most contentious part of the county water puzzle. Many find the agency's organization difficult to understand, and some question whether it gives each individual district equal representation at the table.

But the agency's structure is fairly simple. The GWSSA board consists of all members of each of the individual district boards, and board members have equal voting power. However, the agency also has a seven-member operating committee, charged with overseeing the agency's day-to-day business. That committee, consisting of three members each from the boards of the GCWCD and SVWSID, and one member from the GCSSWD board, has no power to set budgets, and may not conduct elections, but the committee is empowered to approve agency expenditures up to $10,000. The operating committee appears to hold no clear power over the agency's full board because any member of the agency's full board may vote on issues brought before the operating committee.

GWSSA manager Dale Pierson is empowered through the interlocal agreement signed by all three districts, to "perform and carry out the functions, activities, and responsibilities of improvement districts," and to act as the financial agent, disbursing debt payments and collecting annual revenues for the individual districts. Under the agreement, the individual districts retain ownership of all property, and resources, and they also remain responsible for any outstanding district debts.

Is GWSSA Here to Stay?

Those who support the GWSSA structure say it saves all the districts money by streamlining staff and operations, and has improved communications between districts that sometimes in the past appeared to be working at cross purposes.

But critics charge that GWSSA staff, originally hired by GCWCD, rarely has the interests of SVWSID users at heart. To illustrate, SVWSID board member Barb Morra points to the fact that the titles to culinary water rights purchased through the agency are always held by the conservancy district. Spanish Valley Improvement District, she said, has never been offered the chance to own water rights even though it has the largest and only culinary water customer base.

Resolving these issues may be the greatest challenge confronting GWSSA staff, and the boards of Grand County's individual water districts. In the next several weeks, the Times-Independent will examine in-depth the inner-workings of GWSSA, and water issues facing Grand County's water districts.

Editor's Note: This is the first detailed installment of a series, a heavily researched series on how things operate in Spanish Valley's complex water and sewer agencies. The situation is critical to the future of Grand County, and needs to be understood. Though controversial, we believe it is essential.

Regional News 04/17/03

Umbrella agency may be causing confusion, conflict (part two)

Times-Independent
Moab, UT
by Lisa Church
contributing writer

When Grand County's three water districts agreed in 1998 to create an umbrella agency to oversee operations and management of culinary and irrigation water systems the plan was touted as a cost-saving measure for all water users in Spanish Valley.

Today, some Spanish Valley water users believe the arrangement has created an unwieldy financial structure that forces culinary water users to unfairly subsidize about 125 irrigation water users.

The plan to combine the districts seemed logical at the time, past board members have said. The three districts – Spanish Valley Water and Sewer Improvement District (SVWSID), Grand County Water Conservancy District (GCWCD), and Grand County Special Service Water District (GCSSWD) – already shared staff and office space, and the culinary and irrigation systems were dependent on one another because the Conservancy District, which built the Mill Creek Project and Ken's Lake Reservoir, owned the culinary water rights, storage tank and tank delivery systems and sold culinary water to the Improvement District, which provided drinking water to Spanish Valley customers but did not own substantial culinary water rights or storage facilities. The Conservancy District paid staff, then billed the Improvement District for the time staff logged working on Improvement District projects.

By creating the agency, many argued, districts had little to lose and everything to gain. Districts would still own all their property and resources, but revenues, except those from property taxes, would be billed by and paid directly to the Grand Water and Sewer Service Agency (GWSSA), and the agency, in turn, would issue payments for outstanding revenue bonds and other ongoing agency expenses. GWSSA staff would continue to oversee the daily operations of the culinary water and sewer system, and

the Ken's Lake irrigation system, but could focus all their attention on work rather than spending valuable time tracking daily hours by project so the Improvement District could be billed separately.

"Some days I felt like I was spending more time writing down what I was doing that I actually spent doing the work," GWSSA manager Dale Pierson said. "Now, we can focus completely on our jobs."

Improvement District board member Barb Morra is not convinced.

"We don't know how their time is spent now. The Improvement District contributes four times the revenue of the Conservancy District, but are we getting four times the work? I don't know. And [agency staff] has no documentation," Morra said.

Pierson said the staff "probably spends that much more time" doing work for the Improvement District because maintaining culinary water and sanitary sewer systems is far more costly, both in time and money, than maintaining the Conservancy's irrigation system. In addition, he said, the Improvement District has grown, and the agency employs a staff member whose time is largely spent handling monthly billing for water and sewer service customers.

"The Improvement District is our primary focus," Pierson said. "There's health and human welfare involved there. If we have two jobs to do, and one is irrigation and the other is drinking water or sewer, the drinking water or sewer job takes top priority. It's that simple."

For critics, on-site staff accountability is but one of several problems with the agency arrangement. Morra says. In 2002, the Improvement District contributed more than $1 million in revenues to the agency, compared to $362,000 contributed by the Conservancy District. The agency budget shows that Improvement District Costs totaled $910,000 – a gross profit of about $100,000 – while the Conservancy District had $360,000 in expenses.

"The whole thing about the agency is every time you try to figure out something fiscal, it's like trying to hit a moving target," Morra said. "We're contributing 90 percent to the agency while the other districts are contributing 10 percent. Where is our money going? I'd like to know specifically."

Spanish Valley resident Bill Love believes he knows. The agency, he charges, is using Improvement District revenues to "subsidize" the 125 irrigators who annually purchase Ken's Lake water.

In a detailed written statement to the Times-Independent, Love argues that the agency regularly uses Improvement District revenues to pay for work and maintenance of the irrigation water system and Ken's Lake Reservoir.

Love rightly points out that state-backed loans for the Mill Creek Project which created Ken's Lake are annually paid through property taxes charged to all Grand County taxpayers. That bond was approved by taxpayers in 1980, and will be completely paid in

2018. Love argues that through those property taxes, all Grand County residents are "subsidizing" the irrigation water users of Ken's Lake.

And it is true that the lake would likely not exist without the tax revenues. But Pierson points out that voters approved the bond, in part, because Ken's Lake is also a recreation area that is open to the public.

"A lot of people use Ken's Lake every year. A lot of people here see it as an amenity," Pierson said. "The lake isn't just for irrigators."

Love also believes recent water fees from Spanish Valley customers are being used by the agency to pay Conservancy District expenses.

"The fees from the culinary users and irrigation users are co-mingled to pay expenses of $490,477 for the operations and maintenance of the irrigation system, the culinary water system, and debts. GWSSA claims that they are unable to identify which fee is used to pay which bill without extensive analysis," Love wrote.

And he charges that the water rate structure of Spanish Valley – a conservation-oriented structure that charges increased fees for higher water consumption – are unfair, compared to the rate structure for irrigation customers whose fees per acre-foot of water decrease with higher consumption. Irrigators pay between $21 and about $35 per acre foot, depending on use, Pierson said.

"The culinary water users are now completely unprotected from GWSSA using their fees to subsidize the 125 irrigation Ken Lake and the golf course," Love said.

Pierson said the rate structure for irrigation users is "typical" for Utah.

"There are a very few number of irrigation customers who actually try to make a living from farming," Pierson said. "We don't want the water to be so expensive we put them out of business."

Lance Christie, the water planning administrator for Grand County, said it is not uncommon in the West for drinking water customers to subsidize irrigators. But in many parts of the state, he said, the culinary water users pay much higher fees.

"It's a common practice. But from my research, the people in Spanish Valley are subsidizing at a much lower rate than in most other places," Christie said.

A 2001 report by the state's Division of Drinking Water backs up Christie's claim. According to that report, culinary water agencies in Utah charge, on average, $1.39 per 1,000 gallons of water. In Spanish Valley, customers pay between $.50 and $1.25 per 1,000 gallons depending on how much water they use. The state report shows that the average Utah home customer pays $33.89 per month for drinking water. Bills in Spanish Valley average about $24 per month, GWSSA staff said. Sewer charges are billed separately.

For critics of GWSSA, the monthly cost of water is less important than whether the agency is properly managing the financial resources of the Spanish Valley Improvement

District. Agency staff now view revenues from all districts – except tax revenues, which are kept in separate accounts – as agency revenues, not separate revenues from individual districts. And supporters of the agency say the arrangement works to the advantage of all districts because all three are interconnected through the complex network of culinary and irrigation water supply lines and storage facilities.

"It may not be perfect, but things work a lot better now," said Conservancy District board member James L. Walker. "The idea here is for all the districts to work together. We all have the best interests of Grand County at heart."

Pierson puts it another way. "One district wouldn't exist without the other," he said. "It's that simple." Morra believes otherwise.

"I think the Improvement District would be better off as a separate district," Morra said. "The agency isn't doing us any favors."

Next week, this Times-Independent series will examine arguments for and against an agency plan to purchase wells and property that they currently lease, and which district should own the water rights if the purchase is completed.

Regional News 04/27/03

Exposed Upper Colorado River Deltals Rapidly Eroding Into Lake Powell

The investigations of Professor John Dohrenwend

Click here to read this story by Lori Stiles of *University of Arizona News*

Regional News 04/28/03

How district got culinary water rights (part three)

Moab Times Independent by Lisa Church contributing writer

From their inception in the 1970s, Grand County's two main water districts have struggled with a serious dilemma – both had authority to provide culinary water to Spanish Valley, but neither district owned any culinary water rights.

Because the state had placed a moratorium on further water exploration in the valley more than a decade before, the county could only secure culinary water by purchasing or leasing existing water rights. In 1979, the Grand Water Conservancy District solved this massive problem by striking a deal with local rancher George White. In exchange

for a maximum of 625 acre feet of irrigation water from Ken's Lake, White agreed to provide the district with an equal amount of culinary water from his wells.

That 50-year agreement between White and the Conservancy District enabled the district to provide wholesale culinary water to the Spanish Valley Water and Sewer Improvement District, which delivered the water at retail prices to customers in Spanish Valley. For some, the pact also marks the beginning of a water monopoly in the valley.

In recent years, district and county officials have mulled, with increasing concern, the county's prospects for securing culinary water rights beyond 2029 when the exchange agreement with White is set to expire. So when a pair of those wells came up for sale, board members of the Grand Water and Sewer Service Agency – an umbrella agency created by the districts in 1998 to oversee daily management of Grand County water projects – jumped at the chance to own them outright.

With the board's near unanimous blessing – two members opposed the purchase – GWSSA in February began efforts to secure a purchase agreement with White, and the financing needed to seal the deal. The sales price will remain undisclosed until final negotiations are completed, but Dale Pierson, GWSSA manager, has said the agency hopes to recoup much of the cost by selling land – about 130 acres – that is also included in the deal.

The plan approved by board members gives the agency staff authority to pursue the purchase, and places ownership of the White water rights and land in the hands of the Grand Water Conservancy District. That decision, some charge, gives the Conservancy District a monopoly on valley water, and forces Spanish Valley water users to remain forever dependent on the Conservancy District for its culinary water supply.

"There's no reason the [Spanish Valley Improvement] district should not own that water," said SVWSID board member Barb Morra. "If we purchase the water, we can become independent of the Conservancy District. But they don't want that to happen. Basically, we're allowing the Ken's Lake water users to control the agency, and that means they control where the water is going and how much Spanish Valley users pay."

For Spanish Valley resident Bill Love, the plan represents a "boondoggle" that gives the Conservancy District total control over Spanish Valley water users. Love said the agency should hold a public hearing before making a final decision about the purchase.

"This water is for the use of the culinary rate payers in Spanish Valley. The negotiations are controlled by the irrigators' board members," Love said in a letter to the Times-Independent. "The irrigators, per a June 6, 1979 agreement, can charge the culinary rate payers any fee they "fixed from time to time" for the culinary water. If the new culinary water is given to the irrigators, they will have the ability to charge the culinary users any fee they decide is sufficient to pay all their expenses."

Morra points to the fact that agency board chairman, Gary Wilson, is "one of the largest users of irrigation water in the district," as evidence that the members of the Conservancy District control the GWSSA board.

Wilson and other board members take issue with Morra's characterization.

"To me, the whole purpose of this agency is for us all to work together," Rex Tanner said at a recent meeting. Tanner, a Grand County Council member and a GCWCD board member, dismissed Morra's allegations as "paranoia."

"It's not us against them here. It's one pool that we're working from," Tanner said. "We started down this road to purchase this water because of the long-term goal to better serve the community. This seems like a good business deal to me, and I hope we go through with it."

During several board meetings, Morra and Love have also repeatedly questioned why the Improvement District has not been given the option to purchase the White wells. Pierson said the decision is purely financial – banks view the Conservancy District as a "better risk" than the Improvement District because GCWCD has fewer outstanding debts.

Currently, SVWSID makes annual payments on eight outstanding revenue bonds totaling almost $5 million– most associated with a recent system expansion – and one general obligation bond, paid through property taxes collected from Spanish Valley residents, totaling $126,000 that will be paid off in 2006. The revenue bonds have payoff dates ranging from 2006 to 2040, depending on the specific bond, Pierson said.

The Conservancy District has one outstanding bond, Pierson said. That bond, a $1.5 million general obligation bond paid through annual property taxes assessed all county property owners, will be paid off in 2018, he said.

"Either district could purchase the White property and wells. But from what our attorneys and the bank tell me, the Conservancy District is in a better position to borrow the funds," Pierson said. "Banks want to be at or near the top as lien holders. In the case of the Improvement District, that just isn't possible because they already have several outstanding revenue bonds."

But Morra said that simply is not true.

"I've had conversations with the bank, and they've said we can buy the property," she said. "I just don't see what the problem is here."

Pierson said bank representatives "prefer" making the loan to the Conservancy District for reasons stated earlier.

"The Improvement District may be able to secure financing, but it would be much more difficult, if it's even possible," Pierson said.

Some agency board members fear that the ongoing debate will derail the White purchase, leaving Grand County vulnerable in future years should the Whites sell the wells to someone else.

"Barb has some good points to make, but I think we need to move on this," said James Walker, Conservancy District board member. "No one has ulterior motives with this

purchase. But proven wells like this don't come along often. We need to buy them while we can."

The agency has yet to finalize a contract for the White well purchase, but Pierson said an agreement is "close." So far, the board has not responded to Love's call for a public hearing on the issue.

Next week, in the final installment of this series, the Times-Independent will explore the effectiveness of the GWSSA agreement, and examine arguments for and against dissolving the agency.

Letter to LR 05/02/03

Response from BuRec: Glen Canyon Dam's Adaptive Management

United States Department of the Interior
Bureau of Reclamation
Washington, D.C. 20240
In Reply Refer To: ADM - 2.00

Ms. Lisa Force
Program Director
Living Rivers
P.O. Box 1589
Scottsdale, AZ 85252

Letter to Gabaldon (January, 2002)

http://www.livingrivers2.org/archives/article.cfm?NewsID=234

Dear Ms. Force:

Thank you for your participation as a member of the public in meetings of the Glen Canyon Dam Adaptive Management Work Group (AMWG). The AMWG was formed as a Federal Advisory Committee to make recommendations to the Secretary of the Interior on the operation of Glen Canyon Dam and the use of other management authorities to achieve the resource protection objectives of the Grand Canyon Protection Act and the Glen Canyon Dam Environmental Impact Statement (GCDEIS) Record of Decision (ROD). You have raised concern for many of the important resources downstream of Glen Canyon Dam, and have encouraged the AMWG to take action to protect these resources. We have integrated your specific comments into the areas of endangered species protection, sediment conservation, administrative activities, and public outreach.

Endangered Species

Protection of endangered species is one of the paramount mandates of all Federal agencies, and the AMWG strategic plan is framed from that perspective. Many recent discussions within the Adaptive Management Program (AMP) have addressed the apparent decline in juvenile recruitment and adult population estimates of the humpback chub. The cause of this decline is unknown, but may be related to non-native competition and predation, parasitic infestation, habitat conditions, or adverse effects from handling and sampling. It is the current opinion of the Grand Canyon Monitoring and Research Center (GCMRC) that negative effects from non-native fish predation and competition overshadow other factors.

Collecting and addressing this type of new information and hypotheses is one of the strengths of adaptive management. At its January 2002 meeting, the AMWG passed the following motion calling for the control of non-native fish:

"In support of goal 2 (of the Strategic Plan), the AMWG recommends the following actions subject to environmental compliance to include assessing recreational use, Endangered Species Act (ESA), in consultation with the tribes and other affected state agencies.

1 . evaluate methods to remove non-native fish, except rainbow trout, from Bright Angel Creek in 2002,

2. evaluate methods to remove non-native fish from the LCR in 2002,

3. gather public input and conduct public education and environmental compliance on long-ten-n removals in #1 and 2 above,

4. establish a Technical Work Group (TWG) ad hoc committee to develop a 2002 - 2006 research monitoring and management work plan for meeting MO 2.5 and 2.6 of the August 17, 2001, Draft of the AMP Strategic Plan. The TWG will report back to the AMWG at the next meeting,

5. using data from #1 - 4 above to make recommendations on future removal."

Through a combination of National Park Service and Bureau of Reclamation funding, appropriate environmental compliance, and approval by the Secretary of the Interior, these nonnative fish control efforts began this year. The authority and responsibility for these non-native control actions rest with appropriate Federal and State agencies, the National Park Service for the Glen Canyon National Recreation Area and Grand Canyon National Park and the Arizona Game and Fish Department for the State of Arizona. Results from initial evaluations will guide future decisions about management actions and dam operations.

Testing experimental dam releases to benefit the humpback chub is also an important part of the Biological Opinion (BO) on the Operation of the GCDEIS. The BO discusses implementing these test releases in low release years of approximately 8.23 million acre-feet (maf). Reclamation has agreed to implement such experiments through the AMP. Several years ago, GCMRC coordinated the preparation of a program of experimental flows to address this requirement. The resultant work product called for

the establishment of baseline conditions, followed by a steady release with moderately high spring flows and low flows the remainder of the year. In fiscal year 2000, we tested these steady spring and summer flows, even though the annual water year release was greater than 8.23 maf, In water years 2001 and 2002, the dam made releases according to the GCDEIS ROD, and baseline data was collected. This baseline data will be compared with data from future experiments, the nature of which is still evolving among native fish experts through the AMP.

As described in more detail below, GCMRC followed this initial experimental design with a 2003-2004 experiment designed to benefit humpback chub and conserve sediment inputs. In all these adaptive management actions, the U.S. Fish and Wildlife Service (Service) has actively participated, and Reclamation has continually discussed with the Service the resulting effects to ensure that sufficient progress is being made toward removing jeopardy from the humpback chub and achieving the recently published U.S. Fish and Wildlife Service Recovery Goals for the humpback chub.

Sediment Conservation

The 1996 Beach Habitat Building Flow (BHBF) was highly successful in depositing sand above the normal maximum discharge stage. Subsequent wind and water erosion of these deposits was expected, as was the need for periodic redeposition of sediment. Since that time, additional research has indicated that the previous assumption of interannual sediment conservation of tributary sediment inputs is likely incorrect, indicating a relatively short residence time for the finer fractions of tributary inputs. As a result, the AMWG passed the following motion at the January meeting relating to further testing of BHBFs:

"In concert with Reasonable Prudent Alternative flows for native fish, during 2002-2003 request that the GCMRC, in consultation with the TWG, design an experimental flow sequence that tests hypotheses for conservation of sediment. Report to AMWG in April 2002 on the proposed flow sequence."

In response to this motion, GCMRC proposed an integrated experiment in February 2002, addressing specific assumptions and hypotheses for the humpback chub and sediment conservation. To counter the short residence time of fall tributary sediment inputs, this experiment tests two strategies to preserve these inputs until high flow tests can be conducted the following January. The fall flows of these tests are hypothesized to benefit the humpback chub and would complement the results of the 2000 Low Steady Summer Flow experiment. Nonnative fish control efforts during 2003-2004 are also expected to reduce the deaths of humpback chub from predation and competition. This experiment is now underway. In addition, GCMRC and the AMWG are now working to develop an overall program of experimentation that addresses the ecosystem as a whole, including all the resources considered by the AMP.

Administrative Actions

During the past 2 years, the AMP has succeeded in developing a strategic plan, the completion of which has represented a significant increase in the ability of stakeholders

to work together on common goals. We recognize that some reject the concepts of collaboration and consensus, but we believe that these approaches will produce more effective resource protection results than litigation and conflict. In addition to completing the strategic plan, the AMP has sequenced the strategic plan research information needs, which will guide future sclientific work.

Reclamation and the GCMRC have restructured their websites to facilitate public access of AMP documents such as the GCMRC State of the Natural and Cultural Resources in the Colorado River Ecosystem report and the annual report to Congress required by the Grand Canyon Protection Act. These reports include results from the monitoring and research activities conducted as part of the AMP. The AMWG meeting minutes also contain scientific presentations at technical and management meetings on the status of resources.

Public Outreach

Public involvement is a key part of the AMP. Stakeholder membership on the AMWG was carefully selected to provide representation of public interests. It is important to note that any AMWG recommendation to the Secretary of the Interior is implemented only after completing appropriate National Environmental Policy Act (NEPA) compliance with applicable federal law (e.g., NEPA), a step that ensures additional public participation. In addition to inviting the public to AMP meetings, we have attempted to keep all information about the program visible and accessible. We recognize that to date, few outside public comments have been given at our meetings, and that the AMWG's response to your comments has been less than you desired. In future meetings, we will encourage AMWG members to continue their discussion after public comments are received to ensure understanding, prior to voting on recommendations. It would also likely be more effective for public comments to be received prior to any meeting to allow AMWG members time to consider comments. Since most of the issues addressed during the AMWG meetings are first discussed by technical and ad hoc groups, we would encourage you to become involved in the technical presentations and discussions which form the basis for AMWG recommendations.

In conclusion, we believe the AMP is a successful example of a collaborative, multi-stakeholder process. Moreover, we believe that this critical program is fulfilling the role envisioned by the Grand Canyon Protection Act, the 1996 Glen Canyon Dam EIS, and the Federal Advisory Committee Act. The Department of the Interior is taking action to address resource concerns revealed by scientific monitoring and have enlisted prominent scientific advisors and other forms of peer review to enhance the quality of analysis in this process. We appreciate your comments and welcome your continued involvement in all our meetings.

Sincerely,

Michael R. Gabaldon
Director, Policy Management
And Technical Services

cc: See attached list

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LR Letter 05/17/03

Lake Powell's 'new marina' another Park Service fumble

May 17, 2003 12:00 AM
Arizona Republic
Letter to the Editor
The May 5 article "New marina at Lake Powell 30 years in making" omitted two significant facts:

• Low reservoir levels make the marina unusable.

• The Diné will receive only low-level jobs, while profits go to non-Diné developers.

The Diné Medicinemens Association, along with Living Rivers and others, asked for a proper environmental impact statement. The concerns were disavowed by the National Park Service, which determined that this $75 million project on virgin Diné land would have "no significant impact" on the human or natural environment.

The Diné leaders asked the Park Service to consider dedicating this spiritually significant site as a place for their people to be educated in the traditional ways of their cultural heritage. This alternative deserves a respectful response by the National Park Service.

The Park Service wants to provide economic opportunities for the Diné, yet it refused to study Living Rivers' proposal to allow the Diné to become the concessionaire at Wahweap Marina. Living Rivers also stressed that building another marina when visitation has been declining does indeed impact humans and the environment.

Antelope Point is perched on top of a canyon wall. To operate this facility the reservoir must be nearly full. Currently the reservoir is down 95 feet and the public boat ramp ends at the cliff's edge. Current high demands for an already over-allocated Colorado River, compounded by a present and future drought cycles, makes Antelope Point a boondoggle.

How can a facility that must face the hardships of natural topography and drought during a period of decreased visitation be considered without a study? The Park Service should be delighted to provide taxpayers with a thoughtful process, especially if it will demonstrate true benefit to the Diné.

John Weisheit Moab, Utah

The writer is conservation director of Living Rivers, an Arizona-based non-profit environmental organization.

LR Press Release 06/05/03

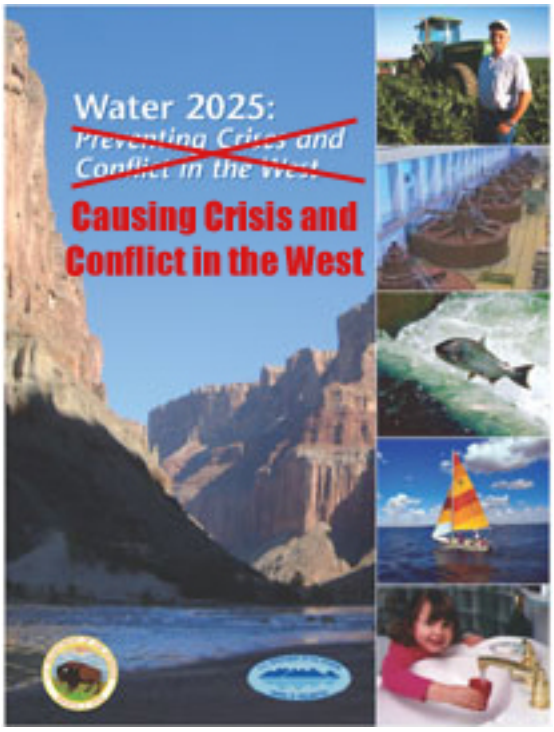
Secretary Gale Norton's 2025 Water Plan--propaganda to mask reality

Colorado River water users should prepare for the worst

Contact:
Owen Lammers (435) 259-1063

On Friday, June 6, Denver will play host to Interior Secretary Gale Norton and one of the greatest public relations charades in the history of western river management. At a time when many Western states are experiencing major problems with water allocation, the Department of Interior is selling the public "band-aids for gun-shot wounds," says the Colorado River advocacy group Living Rivers.

Secretary Norton's initiative "Water 2025 Plan: Preventing Crisis and Conflict in the West," is little more than a repackaging of management strategies Interior is already implementing combined with a heightened push for desalinization technology. It contains no proposals for how to substantively address major water shortages, such as those looming in the Colorado River watershed.



"Minor efficiency gains and conservation measures as Secretary Norton prescribes will bring about some savings, but these are merely drops in the bucket given that the Colorado River is providing barely half the water the Department of Interior is contracted to deliver," says Owen Lammers, Executive Director of Living Rivers.

Abundant historical evidence reveals that the present drought in the Colorado watershed is far from unprecedented, and warnings from the United States Geological Survey one year ago urged water managers to be prepared for several decades of below average precipitation. Lammers notes, "Water 2025 demonstrates that the Department of Interior is ignoring this responsibility."

- The Plan emphasizes Interior's long-standing tradition of acquiescing to the states for resolving disputes. However, as eighty years of conflict reveals, cooperation is rare, even in the best of times. Moreover, as California recently demonstrated, reaching agreement amongst Colorado River water users within

states is problematic. This internal dispute forced federal action in January to reduce Colorado River flows into California.

- The Plan's market-driven water banks and transfers from farmers to municipalities during times of shortages are laudable on a small scale, but there is no discussion of what will happen when the real crisis hits. Certainly, the 25 million people reliant on Colorado River water will not be deprived, but what will it cost? Farmers are becoming increasingly reluctant to make water transfers, as San Diego has recently experienced. Without strict federal guidelines and policies, municipalities like Los Angeles, Phoenix, Los Vegas and Salt Lake City will be forced into a cost environment not unlike what California energy utilities faced three years ago.

- Crop substitutions, which represent the greatest opportunities for water savings are completely ignored by the Plan. Nearly half of Colorado River water is used to grow water-intensive alfalfa and other forms of cattle feed. Much of this water could be saved by growing crops for human consumption.

- The Plan relegates environmental stewardship as merely aspects of conflict, not as an integral part of what society now demands of its river managers. Despite the fact that all the water referred to in the Plan comes from rivers integral to this continent's natural heritage, the Plan does not even mention or use the word river, other than when using place names. In describing its "Five Realities" the Plan completely ignores the reality that the riverine ecology throughout the watershed, such as in Grand Canyon National Park, Dinosaur National Monument and the Colorado River delta, has been dramatically altered, while the public is becoming increasingly vocal about reversing the damage.

- The Plan advocates maintaining and enhancing existing infrastructure. However, much of this infrastructure is responsible for the loss of up to 20 percent of the Colorado River's flow due to evaporation and seepage amongst its reservoirs. The draining of Lake Powell reservoir, for example, will eliminate enough water loss to service the municipal water needs of the state of Arizona.

- Not until the 25-page report's last 100 words does the term "drought" receive much attention. This should be Interior's main focus at this time. Questions Interior needs to be asking include: outlining specific federal management tactics it may employ; how farmers will be enticed or forced to release their water to preserve municipal economies, and will Interior enforce strict conservation strategies and efficiency standards?

"This report is all about carrots with no federal stick," adds Lammers. "Interior must begin developing water use standards and practices, as well as allocation strategies to be implemented as this drought situation worsens. Absent this, crisis is inevitable, despite Secretary Norton's report and marketing strategy titled to prevent it."

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For more information:
Living Rivers

Water 2025 Plan: Preventing Crisis and Conflict in the West

United States Geological Survey, Precipitation Survey of the Colorado Plateau Region

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LR in the News 06/16/03
A River, Saved: Wild Yampa and Green nearly went the way of Glen Canyon

A River, Saved: Wild Yampa and Green nearly went the way of Glen Canyon
By Judy Fahys The Salt Lake Tribune
THE YAMPA RIVER, Colo. -- This wild place might have been entirely different were it not for a fateful boat trip a half-century ago. Fifty years ago this month, David Brower fell in love with the Yampa, and the Green and the Colorado rivers downstream. In the years that followed, a time before the word "environmentalist" existed, the activist rallied the nation against two dams planned for canyons just below the Yampa, dams that would have forever changed the landscape into vast lakes. This history was unknown to Salt Lake City resident Bob Hausser when he signed up for a white-water rafting adventure this month. In fact, the retired Kennecott engineer wore his "Lake Powell" T-shirt as Brower's one-time aides talked about the significance of Brower's fight for wild rivers and urged listeners to follow the example of his spirit.

Hausser's trip leader was John Weisheit, who sipped all day from a plastic coffee mug that proclaims, "Just Drain It!" referring, of course, to the same Lake Powell beloved by Hausser. Weisheit is director of the Moab-based environmental group Living Rivers, which through its Colorado Riverkeeper project organized the 50-year anniversary raft trip.

"We have things to do," Weisheit said at the outset. "We're going to get going again."

"Going," in this case, means reviving the broad-based conservation ethic that made it possible for activists such as Brower to help shape the modern West.

Brower, who died in 2000, took his trip in the U.S. Bureau of Reclamation's heyday, when it had more than 140 dams on its project list. And, after he drifted through Dinosaur National Monument's scenic redrock canyons, he made a career of harnessing American outrage over the destruction of national treasures for water and electricity intended to profit the bureau alone.

Two of the proposed dams would have braced against canyon walls visited on this month's Riverkeeper trip.

The bureau proposed one for below Echo Park, at the confluence of the Yampa and the Green. The other would have been more than 20 miles below at Split Mountain on the Green. If they had been built, the dams would have inundated 140 miles of canyon, up to Flaming Gorge on the Green and to Deerlodge Park on the Yampa.

"What happened here 50 years ago changed the world," said Rod Nash, the noted wilderness historian who joined the Brower commemorative trip in his dory, Canyon Dancer.

Brower fought dams with statistics that showed they would not conserve as much water, nor provide as much power, as the Bureau of Reclamation projected. When the bureau had finished building its Colorado River Basin dams, the two Dinosaur dams were not among them. "We have a living river here -- the Yampa is undammed," Nash told the 20 commemorative trip clients in one after-dinner talk. "It's a miracle in the American West." The guide: What might have been lost can be seen by anyone floating the rivers with Dee Holiday. He has been guiding for about 42 years, much of it with his wife, Sue, co-owner of their Holiday Expeditions, which hosted the commemorative trip.

Tall and wiry, Holiday probably knows the Yampa as well as a human can after spending roughly 2,000 days of his life on it.

He is the naturalist who can point out a chokecherry forest on the trail and tell about a woman named Josie whose chokecherry wine was the county's best. He is the oarsman who can pull a fast-moving raft away from the dangerous waves and dips of a rapid.

He is the historian who knows the story behind Pat Lynch, the hermit whose initials are chipped into canyon and cave walls. He can point out an unusual wild, desert orchid, rare spawning grounds for endangered fish and secret sea fossils captured in canyon stone.

Holiday is also the hiking guide who asks visitors to be respectful inside a cavern that holds ancient American Indian ruins.

"It's a real special place to me," he says, nearly whispering. "But it's sacred to the Native Americans."

The song and feel of rivers has always gripped Holiday, and its hold has only tightened with time.

"When you are younger, you do rivers for the experience," he said. "The longer you do it -- that's when I started to love the river." Slack water: To the activists, loving Western rivers means, in many cases, trying to undo the damage wrought by mankind. Where dam advocates point to the electricity Colorado Basin dams provide to 9 million people and the water they deliver to 30 million people, the activists see environmental havoc.

Wherever dams have been constructed, the surrounding ecology has fundamentally changed, usually harming the plants and animals around it. A good example is Glen Canyon, which was filled with water behind a dam built just outside the boundaries of Grand Canyon National Park, a dam Brower didn't fight but always wished he had.

Its riverbed spawning grounds for endangered fish species have been ruined by the dam flow's unnatural currents. And the trophy trout planted in the cold water below the dam are blamed for making meals of the federally protected humpback chub, flannelmouth sucker and the bluehead sucker.

More recently, the Bureau of Reclamation's renewed efforts to desalt the lower Colorado River have environmentalists worried about the fate of species-rich wetlands near the river's end, in Mexico and California.

Meanwhile, a near-war continues between the Grand Canyon's commercial rafting outfitters, who insist on using motorized boats to speed clients downriver, and wilderness advocates who say the Colorado, by law, should be motor-free in the park.

Weisheit's group has spearheaded the 4-year-old campaign to remove Glen Canyon Dam, which forms Lake Powell. Living Rivers charges that, besides imperiling or wiping out seven fish species, weak canyon walls and pressure from silt buildup will someday make the dam fail.

While dam supporters have laughed at the idea, Weisheit remains confident the dam will be removed and Lake Powell will be drained. "We can do it, and we can do it soon."

Kim Crumbo, a retired Grand Canyon river ranger and wilderness advocate, takes a starker, more ominous view.

"The victories are ephemeral," he says. "The defeats are forever." To dam or not to dam: Heady as the debates and history lessons might have been for the 20 paying customers on this trip, it was the wild Yampa that swayed their hearts.

Ranging in age from 7 to 70-something, they came from Portland, Ore., and Scottsdale, Ariz., and the nation's capital to run the Yampa and sections of the Green.

They saw how, because there is no dam, the Yampa's water is brown with silt and carries a forest of tree-size snags on its boisterous current. They observed migrating pelicans and browsing deer. They might have seen small rabbits, snakes or the fossil remains of prehistoric life.

Still, they didn't always agree with the activist-leaders.

For instance, Denise Dion, a Maryland-based regulatory consultant and rafting enthusiast, agrees that motors should be restricted in the Grand Canyon, but not banned, because motorized rafts make the place much more accessible to the public.

"I want to go to pristine areas," she said. "But my aunt, she wants to see them, too. She's 70," and cannot get around easily without the help of paved paths and motorized conveyances.

Dion called the push for a motor ban "elitist."

"You have to think about how you can serve many masters," she said.

A retired political science professor on the trip commented: "For most people, wilderness is not having a flush toilet and a motel."

Hausser, meanwhile, has not lost any affection for his Lake Powell houseboat, although he did gain a new appreciation for conserving water and efforts to block future dams. He says activists are "unrealistic" about decommissioning Glen Canyon Dam.

"I love the idealism of the people on the trip," he said, "but they are not going to be able to take back what is done." "Don't give up": Some activists are optimistic that this, the latest effort to engage the public in the debate in the fight for the West's rivers, will succeed. Others have doubts.

Lisa Force, a project director for Living Rivers, predicts that the movement will not gain broad public support until society has a crisis, perhaps a fit of guilt over its wasteful use of the Colorado River and the ecological damage that is being left for future generations.

"The hope is we'll recognize humans are part of the Earth community," said Force, who serves on the Sierra Club's board of national directors.

Jeff Ingram, another speaker on the trip, reminded the group that Americans deeply value the places they have set aside in parks, wilderness and preserves such as the wild Yampa. Ingram is a mathematician and Grand Canyon advocate who has been described by Cadillac Desert author Marc Riesner as Brower's secret weapon in the fight against dams proposed for the Grand Canyon.

Recalling Brower's seemingly futile efforts to protect wild, Western rivers, he pressed listeners to hold fast to their ideals, think independently and pursue those ideals even in the face of what seems like hopeless odds.

Parks, wilderness and wild places are something that all Americans cherish, he said.

"You may get defeated, but don't give up."

fahys@sltrib.com

LR in the News 06/17/03

Water: BuRec to alter flows at Utah's Flaming Gorge Dam to protect endangered fish

April Reese
Land Letter Colorado correspondent
The Bureau of Reclamation is putting the finishing touches on a proposal to change the way it operates Flaming Gorge Dam on the Green River in Utah to help recover endangered fish downstream, agency officials say. While federal biologists say the new flow regime will go a long way to meet recovery goals, some environmentalists contend that decommissioning the dam is the only way to help the fish over the long run.

The forthcoming draft environmental impact statement, over three years in the making, will likely call for releasing more water from the dam in the spring, said Beverly Heffernan, environmental protection specialist in the BuRec's Provo, Utah office. Providing peak spring flows will bring sediment downstream, where it forms sandbars and replenishes beaches -- important nursery habitat for endangered fish.

"The proposed action is to change the way we operate the dam so it more closely resembles a natural river flow," Heffernan said.

The draft EIS, initially scheduled to be released this spring, is now expected to be issued in October. The delay is necessary to give the agency a chance to incorporate new water temperature data into the document, Heffernan said.

The dam, authorized by Congress as part of the Colorado River Storage project in 1956 and completed in 1964, was primarily built to create a 91-mile-long reservoir that would store water promised to users in the Upper Colorado River Basin as part of the Colorado River Compact. The dam -- the largest on the Green River, a major tributary of the Colorado -- also provides hydropower: The Flaming Gorge power plant's net generation in 2002 was about 217 million kilowatt hours (kWh).

But in the 1980s, federal wildlife biologists began to suspect that the dam was harming native fish downstream in Dinosaur National Monument. In 1992, FWS issued a biological opinion that found the dam was contributing to the decline of four species of endangered fish in the Green River: the razorback sucker, Colorado pikeminnow, humpback chub and bonytail.

That prompted BuRec, which operates the dam, to study how changing the operation of the dam might help the fish. The resulting flow recommendations, completed in 2000, provided the basis for the new proposal, Heffernan said.

Under the new plan, BuRec would allow as much as 11,900 cubic feet per second (cfs) of water to flow over the dam in the spring. Currently, flows below the dam fluctuate between 830 cfs and 4,000 cfs, peaking in summer and winter, when electricity demand

is greatest. But operating the dam to simulate natural flows will not have a significant effect on power generation, Heffernan said.

Larry Crist, a fisheries biologist with FWS who helped develop the 2000 flow recommendations in his previous position with BuRec, said that while altering the operation of the dam is "a big step forward," it's only part of the solution. "It's an important element, but it's not the only element in recovering these fish," he said. "You'll have to do that in conjunction with dealing with non-native species and reintroducing native fish in places where they're no longer found."

The Moab, Utah-based environmental group Living Rivers says altering flows is not enough to recover the fish. It has urged BuRec to consider decommissioning the dam, and hoped the agency would include dismantling as an alternative in the draft EIS. But Heffernan said taking out the dam is not an option. "We can protect fish while maintaining other functions of the dam," she said.

John Weisheit, conservation director for the group Living Rivers, is skeptical.

"It's not going to work, in my opinion," he said. "They're applying band-aids to stay out of court, to show they're trying to keep the fish alive. But as long as that dam is there, affecting temperature and sediment, recovery of those fish is not going to happen."

Crist acknowledged that a natural system would be "the most ideal situation," but he said the new flow regime is "a good compromise" considering the realities of demands for power, irrigation and recreation.

"When you deal with the Endangered Species Act and you deal with recovery, it doesn't mean returning all the way to natural conditions," he said. "I think endangered fish can tolerate a certain amount of development."

And with snowmelt still below average in some watersheds, Lake Flaming Gorge provides an important source of water for a growing population, Heffernan said.

"The current drought we're in shows the value of these reservoirs, for both water storage and endangered species. It provides a source of water for everybody in a period where there wouldn't be water otherwise," she said.

"Unless we can get everybody to not move to the state of Utah, (the dam) will continue to figure in our water needs substantially."

Complicating recovery efforts is the presence of an economically important blue-ribbon trout fishery below the dam. While the endangered razorback sucker, Colorado pikeminnow, humpback chub and bonytail require warm water, trout need cool water.

Crist said the new flow regime will create temperatures agreeable to both endangered fish and trout. But Weisheit sees that scenario as overly optimistic. "You can't manage for both endangered native fish and exotic fish in the same system," he said.

Letter to LR 06/17/03
Commissioner Keys responds to LR letter

United States Department of the Interior
Bureau of Reclamation
Washington, D. C. 20240
In Reply Refer To:
W-6333 June 17, 2003
ADM-13.00

Mr. Owen T. Lammers
Executive Director, Living Waters [Rivers]
P.O. Box 466
Moab, Utah 84532

Dear Mr. Lammers:

Thank you for your letter to Secretary of the Interior Gale A. Norton dated March 14, 2003, regarding Colorado River issues. The Secretary has asked that I respond to you on her behalf. Similar to other Western rivers, the Colorado River Basin has experienced four dry years, some of which having been among the driest on record. With such a significant part of the nation dependent on water supplies from the Colorado River, it is truly fortunate that we continue to enjoy the benefits of our existing water supply facilities that help to mitigate to make up for these tough years of insufficient moisture.

As you point out in your letter, these issues are complex and sometimes contentious, and it gives me a perfect opportunity to mention the Secretary's n ew initiative, entitled Water 2025: Preventing Crises and Conflict in the West. Water 2025 recognizes the realities we face in dealing with water issues, such as explosive population growth, increasing needs for water for environmental and recreational uses, and the national importance of food and fiber production from Western. irrigated agriculture. Water 2025 sets forth a strategic plan to facilitate a vigorous and educated public discussion in key Western communities, including those that rely on the Colorado River, where the likelihood for conflict and crises over water exists or can be predicted to occur by the year 2025. I invite you to attend and participate in any of the eight regional consulting sessions hosted by the Bureau of Reclamation. The information on these sessions is located on our website, www.doi.gov/water2025.

Again, thank you for your comments and concerns about Colorado River issues. The Colorado River has been and will continue to be a top priority for our agency, and I look forward to working with you and your organization in the constructive and positive manner set forth in Water 2025.

Sincerely,

John W. Keys, III
Commissioner

LR in the News 06/30/03

Colorado River basin unprepared for shrinking reservoir capacity

April Reese, Land Letter Colorado correspondent

PAONIA, Colo. -- The intricate plumbing system that has turned the arid Colorado River basin into a patchwork of irrigated fields and fast-growing cities is at risk of running dry if water managers do not focus more effort on keeping sediment from building up behind the river's dams, some water experts and river advocates warn.

The Colorado River stretches 1,450 miles from the Rocky Mountains to the Gulf of California and the Sea of Cortez, draining a 244,000-square mile basin. More than 30 million people in seven states depend on water stored in the basin's reservoirs to provide a steady and reliable supply for irrigation, hydropower and municipal water use. But while the dams allow large volumes of water to be stored and distributed, they also intercept sediment that would otherwise be carried downstream in the silt-heavy river. Sediment is slowing accumulating in the system's reservoirs, and eventually will render their usefulness for water storage obsolete, water experts say.

"If we allow those reservoirs to fill up with sediment, we'll have severe water shortages, and we will not be able to meet our water needs," said Ron Christensen, an independent water engineer based in Salt Lake City.

Scientists say siltation is affecting areas downstream as well: Reservoirs are collecting sediment that in a natural river system would flow downstream and replenish sandbars and riverbanks, resulting in erosion and a deepening of the river channel.

Barry Wirth, who handles communications for the Bureau of Reclamation's Upper Colorado River Basin office, said sedimentation "will present some challenges," but not until "many years down the road."

Wirth said it will take centuries for silt to have a major impact on water storage capacity in the basin's reservoirs. As an example, he cited Lake Powell, the reservoir created by Glen Canyon Dam in Arizona and one of the Colorado's largest. It will not silt up for another 500 to 700 years, he said, adding that that estimate is based "somewhat on conjecture."

But some water experts say that is an overly optimistic scenario that fails to take into account the vagaries of weather, climate change, water demand and other variables.

Christensen said capacity can shrink dramatically long before silt reaches the top of a dam.

For instance, "Lake Powell has gone from full to half empty," because of the current drought, he said. "If the reservoir was half full with sediment [when the drought hit], you'd be done today, basically. All the water you'd have is what's coming down the river

- there would be nothing in storage." Glen Canyon Dam and Lake Powell. Photo courtesy of BuRec.

John Weisheit, conservation director for the Moab, Utah-based group Living Rivers, said that BuRec's wait-and-see approach could backfire.

"It puts the entire system in jeopardy, and it's going to be embarrassing for them," he said. "They're in denial. They knew this was going to happen when the dams were built."

All of the dams -- including the massive Hoover Dam, built in the 1930s -- were constructed with extra storage capacity to account for sedimentation buildup, said Bob Walsh, Wirth's counterpart in BuRec's Lower Colorado River Basin office. Dam engineers estimated how much sediment was likely to build up behind the dam and expanded the reservoir's depth accordingly, Walsh said. For example, of Lake Mead's 32 million acre-feet capacity, 2.5 million acre-feet were set aside for sediment. (One acre-foot is the amount of water needed to cover an acre of land in one foot of water.)

"Some of the organizations that would like to see the dams removed would like to tell people the dams are going to silt up and be useless. But we've never seen anything that provides hard evidence of that," Walsh said. "The engineers that planned and built these dams knew the Colorado was a silty river and they took special precautions for that. These dams were built to handle sedimentation."

It's too soon to come up with solutions to a problem that isn't likely to surface for centuries, Walsh said. And when that day comes, "there will be ways to remove the sediment, if that's necessary," he said.

Wirth added that with the water supply for 30 million people -- and counting -- hanging in the balance, BuRec would not hesitate to address the sediment problem if the agency felt it was a pressing concern.

"It's to our advantage to do as thorough a job as we can, because it's in our best interest," he said. "We want to ensure the water is there to be allocated."

In the meantime, BuRec faces more immediate challenges, such as meeting the water needs of the current generation, Wirth said. "I just don't think in the year 2003, we can make an allocation decision for the people who will be here in 500 years. But we can do that for people who will be here in 2030," Wirth said. "Those dams were built according to what society wanted in those years. Now that we have 30 million people in the basin, how do we best utilize those resources?"

But as far back as the early 20th Century, before the dams were built, federal officials were expressing concern about sedimentation. In 1910, F. H. Newell of the Geological Survey, who later became the first Director of the Reclamation Service (now BuRec) wrote: "The upper ends of all reservoirs are rapidly filled with silt and it becomes an important question to the projectors of storage works as to how many years will elapse before the value of the reservoir is practically destroyed and whether its use can be restored in part by subsequent removal of some of this material."

Wirth said that as far as he knows, none of the reservoirs in the basin have plans for handling sediment buildup.

"I think that there are ways to wash the sediment out or stop it before it gets into the reservoirs. But no one's doing anything about it," Christensen said. "I think they ought to do it sooner rather than later because we need the water storage that we're losing to sediment," Christensen said. "We ought to be maintaining our storage capacity rather than letting it fill up."

As Colorado River-dependent cities like Tuscon, Salt Lake City and San Diego continue to grow, and demands on limited water supplies increase, maintaining full storage capacity in the system's reservoirs is becoming more crucial.

"Everybody's worried about how to get more water. Not nearly as many are worried about their reservoirs filling up with sediment," Christensen added. "And they're not going to worry about it until it becomes a problem."

Although BuRec and environmental groups have completed a handful of sedimentation studies of reservoirs in the basin, many are outdated or flawed, and "very little research is being done," Christensen said.

Water experts say the little research that has been done suggests that sediment is expensive to remove or control and difficult to dispose of.

But Weisheit said taking on the problem now, while it's still in the early stages, is preferable to waiting until diversion pipes are clogged with silt.

"A sediment survey for the whole Colorado River basin is an appropriate thing to ask for and accomplish," he said. "The longer they wait, the greater the amount of sediment they will have to deal with and the more it will cost to mitigate."

LR in the News 07/06/03
Water: Growing demand, dwindling supply

Shaun McKinnon The Arizona Republic Jul. 6, 2003
Lesson No. 1 about water in the West: There's never enough to go around, and no one's making any more.

Competition for what there is has intensified as growth and drought tighten the supply. The struggle threatens everything from economic development and tourism to agriculture and municipal water supplies.

Courts are deciding who can use the water and who can't. Cities are preparing to buy or lease from farmers or Indian tribes for 10 times the current cost.

If you go Phoenix will host the first of eight regional meetings to discuss issues raised by "Water 2025," Interior Secretary Gale Norton's blueprint for reventing water crises and conflict.

The half-day conference will be held from 1 to 5 p.m. Tuesday at the downtown Hyatt Regency Hotel.

Two sessions are scheduled, one to talk about specific Arizona issues and the other focusing on resolving conflicts. Participants include Herb Guenther, director of the state Department of Water Resources; Sid Wilson, general manager of the Central Arizona Project; Douglas Nelson of the Arizona Rural Water Association; and representatives from Indian tribes, environmental groups and local governments.

Additional sessions are scheduled throughout the summer in Las Vegas; Sacramento; Salt Lake City; Boise, Idaho; Billings, Mont.; Albuquerque and Austin.

Input from the sessions could help shape Water 2025 as well as other Interior Department water policies.

The Phoenix sessions are open to the public, but advance registration is required. Information is available by logging on to www.doi.gov/water2025/az/main.cfm.

And on the eve of a series of meetings aimed at quelling some of the unrest, the federal government lobbed its own bomb, ruling on Thursday that farmers in California's Imperial Valley are wasting water and will receive less beginning next year. Furious farmers are already preparing a legal challenge that will likely drag on for months and could eventually draw in Arizona and other states.

The escalating battles pushed Interior Secretary Gale Norton to step in and try to negotiate a truce. She introduced "Water 2025" in May as blueprint for preventing crisis and conflict and planned to begin discussing it with regional water leaders beginning Tuesday in Phoenix.

"When water crises and conflict pit neighbor against neighbor, species against species and business against recreation, when they threaten your way of life, we cannot afford to stand on the sideline," Norton said last month from Denver. "The consequences . . . are just too severe."

Critics have already dismissed Norton's plan as, among other things, "Band-Aids for gunshot wounds," as the environmental group Living Rivers called it. State and local water managers bemoan its puny budget, fearing more unfunded federal mandates. But some water experts believe it's a reasonable approach to a nearly unreasonable situation.

"The water supply is finite, and the demands are growing," said University of Arizona law Professor Robert Glennon, an authority on Western water issues. "There will be no new Central Arizona Project, no second era of dam building. That's just not going to happen. What the West is looking at is the fastest-growing section of the country, a population boom that's going on unabated. The question is, What's going to give?"

Among the issues that fuel the fiercest fights:

*Growth. More than 25 million people rely on the Colorado River, which is now controlled by dams and reservoirs for much of its 1,400-mile length. Nevada has exhausted its legal allocation of the river and is now searching for alternatives. Colorado lawmakers recently approved a plan to build a new pipeline that will carry more of that state's share of the river to its most populous cities east of the Rockies.

Related links
* Saving Southwestern willow flycatcher
* Special report: A long, dry streak

The story is similar on other rivers, which strain to serve growing populations. "Almost every major river in the West is overappropriated," said John Keyes, commissioner of the Bureau of Reclamation, the agency that operates most of the region's water delivery systems. In Arizona, the groundwater supply is at greater risk of depletion, especially in rural areas.

*Environment. Courts are increasingly siding with environmental groups who want water set aside for wildlife and natural habitat. Salt River Project must spend $20 million to create and maintain a habitat for the Southwestern willow flycatcher, an endangered bird that moved into the drought-stricken edges of Roosevelt Lake. Another court ordered the Army to reduce its pumping near Sierra Vista, ruling that growth there was endangering the San Pedro River.

Just last month, a New Mexico court ruled that Albuquerque must take less water from the Rio Grande to accommodate the endangered silvery minnow. That decision is "huge," said Lisa Force, Arizona program director for Living Rivers. "It has the potential of impacting Western water law."

* Politics. Few issues have fueled the kind of political battles that water has in the West. And it has rarely been more evident than the past year in California, where the powerful Imperial Irrigation District has dug in to protect its huge water supply from San Diego, Los Angeles and the U.S. government.

Federal officials said Thursday that the district is wasting some of its allocation and will lose up to 9 percent of its water next year. Imperial holds the rights to more water than any single user on the river, more than the entire states of Nevada, Wyoming and New Mexico.

In Arizona, tribal water claims are crawling through Congress, the Legislature and the courts. The Navajo Nation earlier this year filed suit to force action on its claim to the Colorado and Little Colorado rivers, a move that could set off new skirmishes over who must give up water to satisfy any settlement.

If the tribes decide to lease water back to urban providers, they could demand premium costs. Valley cities that now pay roughly $30 to $100 per acre-foot could find bills topping $1,000 per acre-foot, according to water experts. (An acre-foot equals 325,851 gallons.)

* Agriculture. Despite the urban growth explosion, farmers still use more water than anyone else in the West. The Imperial Irrigation District in southern California holds the largest single allocation on the Colorado River, larger even than all of Arizona's. That gives farmers power, but in many cases, it also gives cities a source of water for new growth. The battles will focus on how farmers will reduce their consumption and how much cities will have to pay them to do so.

* Drought and climate. The one pressure point out of anyone's direct control, drought has reshaped many of the arguments in recent years simply by reducing the amount of water available. Both the Colorado River and the Salt and Gila rivers in Arizona produced record-low runoff last year, forcing cities to draw heavily on reservoirs. Lake Powell is now at half-capacity, and Lake Mead dropped low enough to trigger limits on some states.

Drought cycle

University of Arizona hydrologist Julio Betancourt predicts the Southwest is headed into a long-term drought cycle that would choke the water supply for years or even decades. But that may be just the beginning, according to Tim Barnett, a researcher at Scripps Institution of Oceanography who is studying abrupt climate change.

Warming seasonal temperatures will shorten the snow-melting season in the West's high country and will reduce runoff by 17 percent to one-third on the Colorado River and other systems, leaving them unable to meet demands for the foreseeable future, Barnett asserts.

Those pressure points form much of the foundation for Norton's Water 2025 initiative, which begins with what she calls "the five realities:" growth, existing water shortages, conflicts caused by those shortages, aging water delivery and treatment systems, and ineffective crisis management.

From there, she proposes four tools to help stave off future crisis and conflict: improving water management through conservation, efficiency and water markets, such as Arizona's water bank; collaboration among cities, farmers, environmental groups and others who have a stake in the West's water; boosting supplies with technology such as desalinization of water that otherwise would be wasted; and adjusting policy and even law to more efficiently use existing supplies.

The proposal included an $11 million appropriation for the first year, an amount reclamation chief Keyes acknowledges would barely address issues in Phoenix but still "money to get things started." The Interior Department will encourage state and local leaders to develop ideas and plans suitable for their specific situations.

Water experts say the plan falls short of addressing some of the most critical conflicts still looming. One potentially blockbuster showdown is brewing just over the border in Mexico, where environmental groups in that country and this one are trying to force their governments to restore the Colorado River Delta. That once lush riparian area most years now receives no water from the overtaxed river.

Restoring it would cost tens of millions of dollars and billions of gallons of water, which someone would have to give up at such a significant cost that few U.S. leaders will even consider it. Some delta advocates have tried instead to focus on minor successes that could lead to a long-term approach.

One such example is a tiny edge of the delta just south of Yuma, where runoff from farms has created a new riparian habitat that supports birds and other wildlife.

"The big lesson is that it is possible on very small water budgets to finally incorporate wildlife and the river itself into the way we manage the river," said Charles Bergman, whose book Red Delta chronicles the transformation.

The one hitch: The water that runs into the marshes is the same water that some officials want to treat and desalt, making more efficient use of it.

The only way around such conflicts is to settle feuds, set aside differences and cooperate, said Patricia Mulroy, general manager of the Southern Nevada Water Authority.

'This is all political'

"The consequences of not cooperating are very real and very immediate," Mulroy said. "If this drought continues, there is no way, given the current separatist approach of the lower basin states, that we can all make it through. This is all political. The hydrology of the river has made those politics more acute."

She said Arizona's willingness to bank water for Nevada is one sign that politics aren't forever. Norton actually cited the water bank in her initiative as an example of what should happen throughout the West.

"Long-lasting solutions will come from the people who must live with or learn to live without the water they need," Norton said.

"Doing nothing is an option, but only if we are willing to accept the drastic consequences that follow."

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LR in the News 07/12/03
Thirsty Colorado Is Proposing to Stick a 'Big Straw' Into Its Namesake River

July 12, 2003 LA Times Headlines
By Bettina Boxall, Times Staff Writer
GRAND JUNCTION, Colo. - It's an audacious - some say absurd - scheme: Take Colorado River water just before it slips over the Utah border, pump it east more than 200 miles, lift it 5,000 feet over the Rocky Mountains and deliver it to the state's burgeoning Front Range communities.

Nicknamed the "Big Straw," it is a big, old-fashioned kind of idea, reminiscent of the mega-water projects that greened the West in the 20th century. Estimates of its cost start at $2.5 billion and climb. Opponents call it a giant boondoggle in the making that would suck water from some of Utah's most popular rafting spots and deplete flows needed by endangered fish.

The Big Straw's grand scope underscores Colorado's keen desire to protect its full share of the 1,400-mile-long river that cleaves the Southwest like a rusty saw. Downstream in California, the plan is seen as a harbinger of the future, when the rising demands of other states along the Colorado will inevitably staunch the bounteous surplus on which the Golden State has long depended.

The water hog of the Colorado, California has no choice but to stand by while other states move to tap their full entitlements meted out by Congress and a multi-state compact in the 1920s and '40s. "They have a right to develop their apportionment," said Dennis Underwood, vice president of the giant Metropolitan Water District of Southern California.

California's prodigious thirst looms large in Western water policy and is helping drive the Big Straw proposal. Politicians see it as a way to keep Colorado water in Colorado - and out of the swimming pools and sprinkler systems of Southern California.

"While Coloradans are carefully considering which day they are allowed to turn their home sprinklers on, California lawns are lush and green, thanks to Colorado's water," Gov. Bill Owens lamented during a water policy discussion this spring.

The Big Straw proposal is still in the earliest stages of review. A $500,000 study, due out in the fall, will determine only if the project is worth pursuing, not whether it will be built.

Nobody can say at this point how much electrical power it would take to transport the water, how much the project would cost, who would pay for it, what the route of the pipeline would be, or how much treatment the water would require. Nor can anyone say precisely who would use the water, which is coveted more for the Front Range's future growth than current consumption.

But Grand Junction water attorney and Big Straw backer Gregory Hoskin believes there is a ready market, even if the water proves expensive.

"This is the desert. People can't stand the desert. They need trees. They need green," insisted Hoskin, a member of the Colorado Water Conservation Board. "I don't know what people will pay for water. But I know people with money will pay anything to water their lawn."

Were it not for a mismatch of geography, Coloradans would probably already be using their full share of the river. But the Colorado, like most of the state's water, is on the western side of the Rockies, while most of its people - and growth - are on the eastern side in a stretch of development that runs from Colorado Springs to Denver and beyond.

Starting in the 1930s, the state and the federal Bureau of Reclamation developed a complex system of reservoirs, aqueducts and mountain tunnels to ship water to the eastern side of the Continental Divide. The Big Straw would reach farther, pulling water through a 10-foot-wide pipe all the way from Colorado's westernmost border. The pipeline would climb 4,000 to 5,600 feet over the Rockies, higher than California's most grandiose projects. Although the State Water Project in California sends water a greater distance - 600 miles south to Los Angeles from the Sacramento-San Joaquin Delta - its rise across the Tehachapi Mountains is no more than 2,000 feet.

By waiting to tap the river after western Colorado has used what it wants, the Big Straw would avoid many messy in-state water brawls. But removing at least several hundred thousand acre-feet of water annually - an acre-foot would supply two Southern California households for a year - could change the nature of the river in the downstream states.

There would be much less flow for the river's four endangered fish species, for the huge reservoirs that store water for the Lower Basin, and for the rafting outfitters who play a significant role in Utah's recreation economy.

"We think it's horrible. It could put the river-running industry at risk," warned John Weisheit, conservation director of Living Rivers in Moab, Utah, and a member of several river outfitter boards. "It is going to be a huge burden to the taxpayer, when the more reasonable alternative is conservation."

The proposal has its critics in Colorado as well. "I don't think average, everyday Coloradans want to pay through the nose for a project like this," said state Sen. Terry Phillips, a Democrat from the Denver suburb of Louisville who scoffed at the Big Straw as an extravagant fantasy when the Legislature appropriated funding for the preliminary study. "It's ridiculous."

At the Colorado Canyons National Conservation Area, manager Greg Gnesios fears the pipeline's massive infrastructure could blight the scenic red rock canyons of the 123,000-acre tract bordering the river at the state's western edge.

"It's almost like putting it through the national park," Gnesios said. "That could create some problems for the Big Straw folks."

Dan Luecke, a hydrologist who works for several Colorado environmental groups, doubts that the scheme will survive close scrutiny.

"I think an evenhanded study will drive a stake in its heart," he said. "It's a bad idea. It will be enormously expensive. It will require an enormous amount of energy to pump that water. It will have incredible water quality problems."

Born amid the 13,000-foot peaks of Rocky Mountain National Park, the Colorado is far from pristine when it hits the Utah border. Often it resembles a giant, murky irrigation ditch.

On its course down the western slope of the Rockies, the river picks up salts and selenium from the riverbed and farm runoff, as well as urban effluent. The river's salinity levels at the Utah border are 10 times greater than they are at its headwaters. Selenium levels at times exceed state standards. If pumped untreated to high-country reservoirs on its way to the Front Range, the border water would be warmer and dirtier than the supplies into which it is piped, lowering overall water quality.

"From our standpoint, that is the biggest concern," David Nickum, executive director of the Colorado Council of Trout Unlimited, said as he stood near a mountain reservoir that flows into a trout-fishing river. "If you envision taking a large amount of water out of the Colorado and bringing it up here, it's hard to imagine the magnitude of the change [in quality] or the magnitude of treatment."

Using more water in the Colorado's Upper Basin also means that less water would reach the Lower Basin, where California has been sucking more than its share from the river for nearly half a century.

It could do so because the other six Western states that draw from the Colorado didn't need their full allocations. But as the West grows, that is changing. Arizona and Nevada have both begun to use their full river entitlements in the last three years.

"Now the reason there are surpluses is because the Upper Basin states have not developed their allocations," observed Jerry Zimmerman, executive director of the Colorado River Board of California. "In the future, there will not be surpluses nearly as frequently."

Nor is there as much water in the Colorado as everybody thought when the river's flow was divvied up between the Upper and Lower basins in a 1922 interstate compact.

Hydrologists had figured that 18 million acre-feet of water a year spilled down the river's rock-walled canyons to the Gulf of Mexico. But that estimate, based on a wet period, turned out to be too high by about 3 million acre-feet a year. The average river flow is in fact less than the total legally allotted to the seven basin states and Mexico.

"If you have a river overcommitted, then the chances of getting shortages are there. That's why you need to look at more effective ways of doing things," said the MWD's Underwood.

Ironically, the Big Straw idea grew out of love of another river. Ralph Clark III, a private environmental planner, first proposed it in the late 1980s as a way of protecting the headwaters of the Gunnison River in western Colorado. Better, he thought, to take water from the Colorado at the state border than divert the upper reaches of his beloved Gunnison to the east side of the Rockies.

But even Clark is not yet prepared to endorse its construction. He thinks of the Big Straw, which he more mundanely calls the Colorado Aqueduct Return Project, as a last resort. * Times staff writer Doug Smith contributed to this report.

LR in the News 07/17/03
Reclamation chief won't drain Powell

Arizona Daily Sun
By PAUL FOY
Associated Press Writer
SALT LAKE CITY -- Advocates of draining Lake Powell and allowing the Colorado River to flow freely through southern Utah again pitched their idea Wednesday to the head of the Bureau of Reclamation, but he dismissed it out of hand, declaring: "That's never going to happen."

Reclamation Commissioner John Keys convened the fourth of eight regional conferences on Western water problems Wednesday in Salt Lake City.

Speaking to about 350 government and water district officials, Keys advocated conservation, collaboration and planning. He told officials they shouldn't look to the federal government for money as a solution.

"I didn't come here with a bag of money to solve everyone's water problems," Keys said.

Advocates of draining Lake Powell argued that four years of drought have left the huge reservoir on the Utah-Arizona border only about half full.

John Weisheit, director of the Moab group Living Rivers, said Lake Powell could be sucked dry in eight years if the drought continues. Keys disputed that, saying Lake Powell never would run dry. And he said it would be irresponsible to drain Lake Powell or Lake Mead, the two largest Colorado River reservoirs.

Weisheit said the reservoirs squander huge quantities of water to evaporation and seepage -- a loss Keys dismissed as the "cost of doing business."

Without Lake Powell or Lake Mead, Keys said, the 23 million people who depend on the lower Colorado River basin would have had only 40 percent of their normal water supplies last year.

"It's something that's never going to happen," he said in an interview of the idea of tearing out Glen Canyon Dam. "I won't spend a dollar studying it.

LR Press Release 07/22/03
House votes to destroy Colorado River Delta wetlands

Taxpayer money to be wasted on mothballed desalting plant; Senate yet to act
Contacts:
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Lisa Force, Living Rivers, POB 1589 * Scottsdale, AZ 85252 * 303-237-2269/fax

480-990-2662
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The U.S. House of Representatives voted last Friday to retool a defunct desalting plant near Yuma, Arizona. The Bureau of Reclamation (Bureau) estimates the cost of repairing the now obsolete plant technology at $26 million. The decision was made despite the reality that operating the plant will destroy the majority of wetland habitat in the Colorado River delta region, and that far less costly measures are available to meet US treaty obligations for water delivery to Mexico.

"At a time when federal deficits are skyrocketing, it's unbelievable that Congress would consider throwing away taxpayers dollars to retool this plant, " says Lisa Force, program director for Living Rivers. "This is pork barrel politics at its worst."

The inclusion of the provision in the House report on the 2004 Energy and Water Appropriations bill allows for re-operating the Yuma Desalting Plant, a measure which the Bureau estimates will cost a minimum of $36 million annually. Completed in 1992 at a cost of $256 million to clean up brackish wastewater from farms in southern Arizona, the plant was shut down several months later due to extremely high operating costs. The Bureau of Reclamation has downplayed an alternative solution costing 33% to 85 % less--just $6 million to $26 million annually--involving paying willing sellers to lease water they presently do not need.

The agricultural wastewater that the plant would process is now funneled into the Cienega de Santa Clara, a 40,000-acre open water ecosystem in the Colorado River delta region. The desalting plant would remove the entire flow from the cienega and return only highly saline brine to the wetlands.

“This provision would destroy an extremely important wetland in Mexico that contains the largest remaining population of Yuma Clapper Rail in the world,” says Bill Snape, Defenders of Wildlife Vice President for Law and Litigation. "It will be impossible to replace the value of the Cienega de Santa Clara to the Colorado River ecosystem.”

The cienega is the largest remaining wetland in the southwest Americas and is home to fifty-six threatened, endangered and declining species. Several scientific studies funded by the Depatment of Interior confirm that the wetland would be completely destroyed by desalter operations.

"This is reminiscent of the days of old, when the Bureau wasted tax payer money left and right, leaving renowned habitat laid to waste," says John Weisheit, conservation director of Living Rivers and the designated Colorado Riverkeeper.

"We are disappointed that some members of Congress wish to move forward with such an expensive and destructive proposal. Congress mandated public involvement in Colorado River management but we fear the public is not being heard,” says Steve Glazer, Chair of the Sierra Club Colorado River Task Force.

"We're fighting hard to ensure the Senate does not duplicate the folly of the House," adds Lisa Force. The U.S. Senate is expected to vote on the water and energy appropriations bill as early as this week.

LR Press Release 08/11/03
Sediment forces closure of Hite Marina

For immediate release
August 11, 2003

Contact: John Weisheit (435) 259-1063

Sediment makes access to Hite Marina impossible

Glen Canyon Dam hydropower at risk

As predicted two years ago by the environmental group Living Rivers in Moab, Utah, Colorado River sediment at Hite Marina has necessitated the removal of all reservoir conveniences such as the floating store, fuel docks, water and septic lines, boat rentals, and courtesy docks. With the blessing of the National Park Service the concessions operator, ARAMARK, has literally lifted anchor and towed their floating facilities down-reservoir to keep their investment from becoming engulfed in mud.

A "use at your own risk" boat launch currently remains open for the convenience of river runners and small, hard-hull boaters. Because Lake Powell reservoir is dropping fast, this primitive boat ramp will be completely unusable by the first of September, and will force river runners to go another 45 miles down-reservoir to exit instead at Bullfrog Marina.

The land-based facilities at Hite, which includes a store, gasoline, drinking water and a sewer clean-out, will remain open to service the needs of the residents and the traveling public.

In 1986 the Bureau of Reclamation determined that the delta for the Colorado River arm was located at Dark Canyon, which is 15 miles above Hite. The National Park Service and ARAMARK jointly authorized a sediment survey to be conducted by Mussetter Engineering of Denver in 2000. The engineers had determined that the delta advanced from Dark Canyon to the mouth of the Dirty Devil River at a rate of about one-mile per year. At present the delta is just beyond Hite Marina where the original river channel is 245 feet below the full reservoir elevation of 3700 feet.

According to the 2000 survey, reservoir managers were given another 35 years of service at Hite Marina provided the reservoir could be maintained at full pool. "Such a projection is incredibly optimistic," says John Weisheit, conservation director of Living Rivers. "Considering the downstream demand for water, the present drought situation, and how the river erodes into the exposed sediment and feeds the delta, the facilities at Hite are basically history."

By April of 2004, Lake Powell reservoir is predicted to be 106 feet below normal. At this elevation, Bullfrog and Antelope Point marinas will also feel the effects of sustained drought. The boat ramp at Bullfrog is beginning to flatten out and the lack of incline will make it very difficult to load and unload boats--especially longer craft such as a houseboat and the highway department's ferryboat. Because Antelope Point is located on the rim of the original Colorado River canyon, the lowering reservoir level will perch this boat ramp high and dry. Already boat traffic is creating congestion problems at the narrows before Antelope Point and a no-wake designation is now being enforced to minimize hazards to navigation.

During the spring snowmelt, Lake Powell reservoir levels rose a mere 11 feet. Already the reservoir has returned to the levels of the previous winter. With no drought relief in sight, this continuing trend will eventually place power generation at risk too. The minimum storage level to safely produce electricity is set at 6 million acre-feet. Right now the reservoir is storing 12.7 million acre-feet of water at 50% of capacity. Power generation at Glen Canyon Dam could effectively end in two or three years under present drought conditions.

"This drought emphasizes the dubious nature of Lake Powell reservoir. By decommissioning Glen Canyon Dam we could restore five hundred miles of river to its natural habitat, which includes Grand Canyon National Park, while at the same time saving the water that is otherwise lost to evaporation, " concludes Weisheit, who is also the designated Colorado Riverkeeper.

LR Letter 08/11/03
Proposed Modification to Mechanical Removal of Non-native Fish from the Colorado River in Grand Canyon Arizona, dated July 25, 2003

August 11, 2003
Mr. Dennis Kubly
Bureau of Reclamation
125 South State Street
Suite 6107
Salt Lake City, UT 84138-1107

Re: Proposed Modification to Mechanical Removal of Non-native Fish from the Colorado River in Grand Canyon Arizona, dated July 25, 2003

Via Fax and E-mail

Dear Mr. Kubly ,

Thank you for the opportunity to submit comments on Proposed Modification to Mechanical Removal of Non-native Fish from the Colorado River in Grand Canyon Arizona, dated July 25, 2003.

Living Rivers finds this proposed action constitutes improper science, thus an inappropriate deviation from the original objective. Living Rivers is also disappointed that this proposed action represents yet another example of how the Adaptive Management Program (AMP) is failing to address the long-term recovery needs for endangered fish, and merely perpetuating a reactive strategy with no demonstrated results.

1) No justification for altering the experiment

As noted in materials for the 13-14 August AMP meeting, it is clear that in-migration is occurring in the existing mechanical fish removal zone. The supplemental EA stated the contrary. (The EA should be re-written to reflect this new information, and released again for public comment.) Since there is no confirmation that the experiment is indeed permanently reducing non-native population to desired levels, there is no reason to contemplate any change in the experiment.

Second, while the experiment is certainly demonstrating that fish are being killed, there is no data to support the experiment is leading to improved Humpback Chub recruitment. It is improper to change the parameters of the experiment until such time as there is a demonstrated rational to do so. Such is not the case at present, especially, as noted above, with migration now well underway.

Third, there has been no independent review of this proposal, a consistent recommendation by the National Research Council and the National Academy of Sciences of such GCMRC activities.

2) Demonstrated lack of focus on the long term objectives.

The investment of AMP resources in contemplating and studying the alteration of an incomplete, and so far, inconclusive experiment is yet another unfortunate example of poor leadership within GCMRC and the AMP. There is an extensive amount of work that needs to be undertaken to help recover Grand Canyon's native fish, the principle charge of the AMP. After nearly two decades, seven under the direction the AMP, the results have been abysmal. This is in no small part due to wasted resources, such as plans to alter an experiment with insufficient justification to do so.

A more appropriate investment in resources would be to begin studying and implementing mechanisms to address the need to reduce non-native fish with natural, as opposed to mechanical approaches. An objective of the AMP is to reintroduce presently extirpated species, such as the Colorado Pikeminnow or Otter. Both such species would gladly feed on the non-native fish, likely at a much higher rate than the remaining natives.

With movement now by the AMP to address the need to warm the water, habitat conditions may be sufficient to support Pikeminnows. But the AMP need not wait until the temperature issue has been resolved to implement such a reintroduction, as it may petition to so for experimental purposes, despite the fact that it is unlikely that the Pikeminnow can reproduce in the present system. However, if it appears that they are

helping to significantly reduce the non-native population, with minimal impact to the native fish, and thus aiding in Humpback Chub recruitment, this would be cause to accelerate efforts to realize this species recovery as well.

While the Park Service has so far been resistant to Otter reintroduction due to inconclusive evidence regarding which sub-species dominated Grand Canyon habitat, it is clear that the increased interest and assumed need to increase predation on non-native fish, amplifies the call for implementation of a reintroduction plan.

Such nature-based proposals to mimic and rebuild the natural system should be the focus of the AMP, not short-term efforts to modify inconclusive experiments.

Thank you for your attention to these concerns.

Sincerely,

John Weisheit Conservation Director

LR Letter 08/13/03
Concerns regarding Glen Canyon Dam Adaptive Management Program

August 13, 2003
Mr. Michael Gabaldon Deputy Director of Operations U.S. Bureau of Reclamation Department of Interior 1849 'C' Street, NW Washington, DC 20240

Re:Concerns regarding Glen Canyon Dam Adaptive Management Program

Dear Mr. Gabaldon,

The consistent message emanating from the Glen Canyon Dam Adaptive Management Program (AMP) is that it is failing in achieve its principal objective, the protection and recovery of endangered Humpback Chub (HBC). While the AMP and independent scientists debate how low HBC numbers are, all agree that they have declined considerably since the process began seven years ago. Living Rivers recognizes that AMP efforts are underway in an attempt to remedy this situation, but is very concerned that such efforts are not sufficiently comprehensive, nor do they justify hasty and inappropriate management practices.

Furthermore, Living Rivers believes that more than sufficient "new information" now exists to warrant the immediate undertaking of an entirely new, or supplemental, Environmental Impact Statement (EIS). Additionally, such new information also warrants an EIS be prepared for the planned Temperature Control Device (TCD) or the potential installation of generations on the dam's bypass tubes.

1. Emphasis on HBC numbers insufficient to address recovery needs

The AMP and Grand Canyon Monitoring and Research Center (GCMRC) focuses undue emphasis on yet conclusive approaches of counting of fish, and little to no

resources on understanding their physical condition, nor the biological parameters necessary for their recovery. After nearly seven years of operation, all GCMRC has learned is that HBC populations are declining, but cannot determine by how much. The present estimate has an one hundred percent level of variability of 2,000 to 4,000 fish. Why has GCMRC yet to develop a mechanism to provided reliable fish counts, nor can the scientists within the AMP agree on whether the present counts constitute a crisis as far as the near extirpation of HBC in Grand Canyon?

The AMP's priority should not just be numbers of fish, but knowing their physical condition and what biological parameters must exist for preservation, and, as necessary, recovery. In 2000, Meretsky, et. al., published findings that indicated a possible decline in HBC condition since 1978. If true, such a trend would indicate that factors other than predation are effecting the HBC, and that undue emphasis on predation, as is presently occurring, won't address this problem. So far all reports and analysis by the AMP have focused on HBC numbers, and not their relative condition or health. While some of this data has been collected, there has not yet been any ongoing analysis of HBC condition factors as was recommended by Meretsky. Why?

Additionally, GCMRC has not developed sufficient information on HBC biological parameters. Such understanding is critical for making effective management decisions for the HBC future in Grand Canyon. At minimum, GCMRC should be investigating feeding habits, water quality, and recruitment and migration patterns for all periods of the HBC's lifespan. As the Little Colorado River presently represents the sole refuge for HBC in Grand Canyon, immediate emphasis should be placed on understanding the biological parameters to be persevered in this tributary to ensure this critical habitat is not disrupted.

Lastly, GCMRC must determine the population level, and changes in biological parameters, that would trigger a cessation of handling HBCs so as to avoid placing undue stress on the remaining population.

2. Inappropriate emphasis and approach to alien fish suppression

Scientist’s are in agreement that predation by alien fish on HBC is limiting their recruitment, and thus suppression of these predators is warranted. While Living Rivers concurs, we find GCMRC's management choices are over-emphasizing this aspect of the problem, potentially to the detriment of the HBC recovery effort, and the scientific integrity of the AMP process.

First, the non-native fish suppression flows from Glen Canyon Dam represent a significant departure from the spirit of the EIS and the Record of Decision (ROD). While the flow levels themselves are within the ROD, they are being used in an attempt to affect non-native fish, not to directly affect native fish as was contemplated in the EIS. Any departure from the river's natural hydrograph is bound to have negative effects ecosystem-wide, not just the HBC. However, because the AMP has not sufficiently addressed the biological parameters for the HBC, it is not yet qualified to determine if, and to what extent, these alien fish suppression flows are impacting HBC recovery. It is also unclear if these flows have demonstrated any formidable change in trout

populations. Plans to repeat these flows in 2004 are not prudent. Also, how could these increases in daily flows compliment a Beach/Habitat Building Flow planned for January if triggers are met? They seem at odds with each other.

Living Rivers is also concerned with the lack of independent review, and competitive bidding associated with contracts being let for monitoring the results of these experimental flows. When the AMP began seven years ago, it took pride in the independence afforded in the competitive bidding process for its science programs. Now, the vast majority of this work is being moved in house to GCMRC staff. When consultants are being used, as in the case of monitoring for these experimental flows, they are awarded without any competitive bid. This appears particularly suspicious in this case, since a contract was awarded to ECO PLAN Associates, which has been under contract with the Western Area Power Administration (WAPA). As these experimental flows would benefit WAPA and its customers by affording greater flexibility in power generation ramping, and that a variety of other consultants with greater experience in this area were not considered by GCMRC, AMP's appointment of ECO PLAN Associates has the strong appearance of industry bias.

Problems with the lack of independent oversight also appear to be surfacing with the mechanical fish removal program. The recent proposal to alter this program has been prematurely developed and submitted to the AMP without sound justification. The experiment has yet to demonstrate any impact on HBC recruitment, nor that in-migration is indeed not occurring in the target zone. Independent review of such proposals as recommended by the National Research Council should be standard procedure for such modifications to AMP activities to avoid such potential missteps in future.

A more appropriate and economically sustainable plan for non-native fish removal would be to study the reintroduction of natural predators. The management objectives of the AMP are to reintroduce presently extirpated species, such as the Colorado Pikeminnow or River Otter. Both aquatic predators species would gladly feed on the non-native fish, and likely not harm the native fish population.

The AMP could petition the US Fish Wildlife Service for an experimental release of the endangered Pikeminnow, despite the fact that it is unlikely that the Pikeminnow can reproduce in the present ecosystem. Thermal modification of the river could also provide the needed habitat for recruitment of these native predators. This scenario would provide sustainable control of alien fishes in Grand Canyon while providing for the recovery of two native fish.

There has been resistance to studying River Otter reintroduction due to inconclusive evidence regarding which sub-species dominated Grand Canyon habitat. However, it is clear that the increased interest and assumed need to increase predation of alien fish, particularly trout, amplifies the call for a reintroduction plan. Such nature-based proposals to mimic and rebuild the natural system should be the focus of the AMP, not short-term efforts to modify inconclusive experiments.

3. Need for a Supplemental Environmental Impact Statement

The assumed environmental baseline associated with the Glen Canyon Dam EIS, and the launching of the AMP has little bearing on reality. Options allowed under the ROD have been attempted and have proven to be ineffective, leading to continued impairment to all significant downstream resources since the ROD was implemented. This is now placing the AMP in uncharted territory, as evidenced by the implementation of trout suppression flow not contemplated by the EIS or the ROD. Furthermore, the continued drought conditions are effecting reservoir levels, and soon, water temperature and dam operations in a manner not evaluated in the EIS. The AMP is effectively operating without a net, and must advise the Secretary of the Interior to call for a supplemental EIS to guide and inform its future programs.

The most significant changes are in HBC populations and sediment budgets. While the AMP has yet to agree on how bad the current HBC count is, there is no doubt that the population is in significant decline since the program began. Furthermore, there has been no movement on establishing a second population in the mainstem Colorado. Beach building efforts under the ROD have not worked in a sustained manner. The number and size of beaches in the Grand Canyon have experienced a significant decline since the AMP was put into place. Not only has this negatively effected the Canyons recreational experience, but has also impacted the river corridor's cultural resources which are now prone to erosion.

Anticipated upstream impacts associated with reduced elevations of Glen Canyon Reservoir (i.e. increased temperatures, modified nutrient dynamics, etc.) will have significant effects on the downstream resources in the Grand Canyon. As the drought situation persists, these effects will become most pronounced once reservoir levels fall below the elevation of the penstocks.

The key to reinitiating compliance with the National Environmental Policy Act, through a supplemental EIS, is if new data or impacts are recognized. Clearly in the case of Glen Canyon Dam and Grand Canyon National Park, significant new data (biological and sediment) indicate that the ecosystem needs to be reevaluated and assessed. The fact that new data on the HBC, sediment deposits, cultural resources, water quality, and reservoir levels show that decisions made on the original data from the Glen Canyon Environmental Studies is now in need of reassessment.

Thank you for your attention to these matters, and we look forward to your reply.

Sincerely,

John Weisheit Conservation Director

LR Press Release 08/15/03
Draining Update: 50 percent--forcing marina closures.

Marinas left high and dry, power generation next to go.

Contact:
John Weisheit (435-259-1063 or 435-259-8077)

Lake Powell reservoir is down 90 feet from normal, equating to a reservoir that is half full. The National Park Service, which manages marina facilities at Lake Powell, is at the beginning of shutting down marina's because they can no longer accommodate launch vessels. Meanwhile, Glen Canyon Dam is just two years away from no longer being able to generate hydroelectric power.

Now in the fourth year of an anticipated sustained drought, Lake Powell reservoir will soon be empty. Forecasters have informed the Park Service that the reservoir levels will only be getting lower. The reservoir is dropping faster than it can be replenished.

The United States Geological Survey 2002 report on Southwest climate change predicted that the Colorado Plateau would be heading into a 30-year period of below average river flows. Previous estimates by forecasters, on the impacts of such a sustained drought, calculated that Lake Powell would be drained within eight years. It's right on schedule. In July 1999, Lake Powell was at 90 percent. As of August 1, 2003, it was at 50 percent.

If the present drought does not relent, within two years Lake Powell will drain to the level of the penstock tubes that spin the generators at Glen Canyon Dam. According to a model that was published in October of 1995 in the Water Resources Bulletin, if a severe and sustained drought similar to the drought of the late 16th century appears, Lake Powell could stay drained for eight years.

"We're witnessing the end of Lake Powell right now," says Living Rivers' Conservation Director John Weisheit. "This was predicted, and nothing the National Park Service or the marina operators can do will change this."

- Two of Lake Powell's six boat ramps have been closed, and another will be closed by the end of the season. River sediment has brought an end to the marina at Hite at the top of the reservoir. At the other end of the reservoir, near Glen Canyon Dam, Antelope Point's marina facilities will soon be forced to again close because they will be perched atop a cliff being exposed as the reservoir lowers. This, just four years after construction in 1999.

- A $3 million emergency appropriation was made in January to extend three other boat ramps at Bullfrog, Hall's Crossing and Wahweap marinas. But as the reservoir continues to lower, Bullfrog marina may also see its facilities shurt down. Wahweap and Hall's Crossing will probably be able to stay open until the reservoir completely drains.

- A a new $75 million marina facility is supposed to be under construction at Antelope Point, but with a 500-foot cliff being exposed where the launch ramps are proposed, progress has stalled. Calls to Antelope Point Holdings and their

engineers, revealed no comment to the feasibility of the project..

- The fate of the white-water rafting industry, which concludes trips at the top of Lake Powell, is also a major question. With sediment and mud clogging the marina and boat ramp at Hite, rafters will have a very difficult time getting off the water.

"As the drought persists, it is going to be very difficult, if not impossible, to conduct business as normal with the river and reservoir users. This includes the Grand Canyon river runners who will lose the large Glen Canyon Dam releases they need to run their large motorized boats through the canyon only to arrive at the sediment-choked Lake Mead," adds Weisheit.

Lake Powell is not the only problem. The entire Colorado River storage system has droped from 92 to 60 percent over the past 44 months. "Lack of access to flat water recreation is the least of our worries," concludes Weisheit. "The Southwest plumbing system is headed for complete catastrophe, and the Bureau of Reclamation and the seven states that use Colorado River water have no disaster preparedness."

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Web pages on Southwest climate change:

Severe and Sustained Drought for the Colorado River Watershed

Precipitation History of the Colordo Plateau

Latest News on the National Campaing to Drain Lake Powell and Restore Glen and Grand Canyons

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LR in the News 08/17/03
Colorado River Battle: 100 Years of Water War

Deal: Thirsty California, desperate for water, is willing to pay reluctant farmers billions to get some of their surplus.
By Alec MacGillis
Baltimore Sun National Staff

EL CENTRO, Calif. - Inch by inch, the life's blood of a large swath of the United States - Colorado River water - seeped across the desert. Or rather, across the desert that is now Mike Cox's cotton field.

For Cox, circling the field in his pickup truck to check on the water's progress, soaking his cotton is a routine procedure. Every 10 days during the summer, he uses 7.8 million gallons of water diverted by canals from the Colorado River to irrigate the 70-acre field, just a fraction of the 1,000 acres he farms in California's Imperial Valley.

But for the rest of the Southwest, Cox's routine watering represents something more significant. In this single irrigation of a tiny corner of a broad farming plain, Cox used about as much water as 50 households use in a year - as much as all their showering, toilet-flushing and dish-washing put together.

This is the explosive equation at the heart of the battle that, after gripping the Southwest for years, is now nearing a climax.

With the cities of the western Sun Belt booming, much of the water from the Colorado River, the main water source in a parched region, continues to be used by only a few hundred farmers in the Imperial Valley along the Mexican border.

The valley won the right to the water more than 100 years ago and has guarded it ever since. But in a historic shift, the Southwest is now on the verge of a landmark transfer of Colorado water from the Imperial Valley to San Diego.

The deal, which negotiators hope to seal by next month but which could still collapse, might help resolve a conflict that has been building for a century.

The war over Colorado water has pitted cities against farmers, fomented tensions among seven states, and dominated the attention of Native American tribes, environmentalists, federal officials and Mexico. The water wars have transformed a whole corner of the country, from the construction of vast cities on arid plains to the accidental creation of a sea in the middle of the desert.

For the 25 million Americans who rely on the river as it flows 1,400 miles from the snowpacks of the Rocky Mountains to its delta across the Mexican border, the outcome of the negotiations is nothing less than a matter of their region's survival.

"The big picture is that there are more rights to water from the Colorado than there is reliable water in the river," said Robert Glennon, a law professor at the University of Arizona. "We have a train wreck ahead of us."

Under the deal, San Diego would pay the Imperial Valley $2.5 billion over 45 years to receive about 7 percent of the valley's share, water made available by more efficient irrigation. The water would compensate for the cutback California faces because of higher usage in Arizona, which now stores river water underground, leaving less for its western neighbor.

The deal, which also includes several smaller transfers within California, looks like a win-win arrangement. San Diego would get a reliable new source of water, while the Imperial Irrigation District would be able to sell water to San Diego at a rate 16 times what its own farmers pay.

But in the kind of twist so common to the water wars, a possible deal-breaker arose last year. Conserving water on Imperial farms, it turns out, would doom the Salton Sea, the giant lake in the middle of the desert at the valley's edge, imperiling millions of birds for which it is a key stop on the Pacific flyway.

Last week, amid the hoopla of the effort to recall Gov. Gray Davis, negotiators spent long days in Sacramento seeking a way to split the cost of protecting the sea and still salvage the transfer.

It is a surreal situation, with all the water machinations of the classic film Chinatown: Because of water being pumped into the Arizona sand, farmers in the California desert are being urged to sell water to a port city but are being held up by the danger of causing a landlocked sea to vanish from the Earth.

A century of change

It seemed simpler when farmer Cox's predecessors in the valley won rights to the water more than 100 years ago. Phoenix was a desert town of 5,000, San Diego a fledgling port city of 17,000 and the river water was the farmers' for the taking.

One century later, the farmers are not about to give up the water easily, no matter how many Beverly Hills lawns or Las Vegas casino gardens need to be kept a luscious green.

"It does take a lot of water, but I get a lot of production out of it," said Cox, 52, as he looked down his cotton furrows to monitor the water, which is drawn from an irrigation ditch by small siphon hoses and flows by gravity across the slightly slanted field. "Why is it OK for [cities] to use it in their fountains and spray it on their sidewalks? I think I have the right to use it for productive purposes."

But to many in the Southwest, such farmers' claims represent an entitlement the region can no longer afford. Phoenix, which has grown 75 percent in 30 years to 1.4 million people, will soon surpass Philadelphia as the fifth-largest U.S. city; Las Vegas, a railroad town of 5,000 in 1930, now has a metropolitan area population of 1.5 million.

This boom has caused the most problems for California, which uses more Colorado water than any other state. For years, California has taken more than its allocated share of the river because other states haven't used their full amount.

Now, with the Southwest growing fast and suffering a long drought, there's less extra water to go around, and California is under strict orders from the federal government to cut back.

The pressure on California is driven most by Arizona, which profoundly altered the region's water equation with the construction, in the 1980s, of a 336-mile aqueduct to carry Colorado water over the mountains and desert as far as Tucson.

This has allowed Arizona to claim its full share of river water, even though it doesn't actually use the full amount. Instead - in a tactic viewed as being unfair by some, brilliant by others - it pumps surplus water into the ground, reserving it for future use and thereby leaving no surplus for California.

Forcing California to cut back to its allocated share of the river would hit hardest in Southern California's sprawling cities, which have the legal right to far less than the state's farms, and therefore have been relying heavily on the leftover water.

That's where the deal comes in. By transferring Imperial water to San Diego, California can gradually wean itself from excessive use of the river.

Imperial Valley leaders were close to signing on to the transfer late last year when they balked, worried that the valley would be liable for the cost of restoring the Salton Sea, estimated to be as much as $2 billion. The 15-by-35-mile sea, created when floodwaters on the Colorado broke an early canal to the Imperial Valley in 1905, depends on runoff from valley farms as its main water source.

Reducing runoff would rapidly shrink the sea, threatening the birds that, deprived of other wetlands, now rely on it.

As a penalty for pulling out of the deal, Interior Department Secretary Gale A. Norton cut the valley's river allocation by 10 percent last winter, saying that farmers were wasting water.

It was a major step: The Interior Department, which has the authority to withhold water if it's not put to "reasonable and beneficial use," had rarely invoked the right before. The valley sued in protest.

Unlike the backroom water deals in Chinatown, dealing over the transfer has played out in public view. In a region where residents face rising water bills and threats of rationing, water politics is front-page news.

If a deal is reached, it could be the blueprint for future transfers from farms to ever-thirstier cities, possibly spelling the decline of agriculture in the region.

The transfer is "a model for how historic distrust between urban and agricultural water interests can be overcome," said Dennis Cushman, assistant general manager of the San Diego County Water Authority.

But if the deal falls through and Imperial farmers are forced to give up water anyway, they say they'll defend their century-old rights to the end.

"If we have to fight them in the Supreme Court, that's what we'll do," said John Pierre Menvielle, a third-generation farmer who is running for the Imperial Irrigation District board, a paid, five-member panel elected by the voters of 140,000-resident Imperial County. "We got some hard-headed people down here - maybe because we've been in the heat for too long."

The river's journey

Once a raging river, the Colorado now peters out in marshes well short of its outlet in the Gulf of California.

It barely makes it that far. Massive dams halt its flow for storage and power generation, and wide canals carry off its water like so many needles stuck in a blood donor.

Near Parker Dam, one aqueduct heads west carrying about 1.2 million acre-feet of water a year 242 miles to Southern California, while close by another carries 1.5 million acre-feet a year 336 miles east into Arizona. (An acre-foot is the amount of water needed to cover an acre of land at a depth of 1 foot. It is about 326,000 gallons and is roughly equal to what two households use in a year.)

Farther south, near the Mexican border, 3 million acre-feet of water a year are diverted into the All-American Canal, the 82-mile canal built in 1942 to carry water into the Imperial Valley. From the canal, the water flows into a network of smaller canals connected to irrigation ditches.

The broad reach of Colorado River water is extraordinary because it is not a particularly big current to begin with, with an average depth of only about 20 feet and an annual flow that is only 3 percent of the amount of the Mississippi River's.

Indeed, seen from the riverbank at Blythe, Calif., on the border with Arizona, the Colorado looks like any other medium-size river. A few small trees sprout on its bank. Children in life vests are paddled upstream in a canoe. A man on a jet ski roars up and down.

In effect, many say, the Colorado today is less a river than a glorified water main serving seven states - a main that happens to have carved out the Grand Canyon eons ago.

"The river is extremely generous - as a desert river it produces a lot of water," said Lisa Force, a program director for Living Rivers, a group seeking to reduce Colorado River water use. "But it was seen as inexhaustible, and it's not."

Valley of green

The mining of the river began in earnest more than 100 years ago when enterprising farmers made a discovery that would change the Southwest forever: The California desert near Mexico may look bleak, with less than 3 inches of rainfall a year, but sprinkle water on it, and it turns to gold.

The desert adjacent to the river was made of silt carried from the Grand Canyon and elsewhere upstream, deposited in a broad swath by the river's shifts in direction. When irrigated, this soil was extremely fertile. And with the warm climate, farmers had a far-longer growing season than those in the rest of the country.

Cox, who has farmed for 30 years, marvels at the founders' ingenuity every time he drives out of the valley and reaches the point where green fields stop and the brown desert resumes.

"I'm in awe of this valley," he said. "I'm in awe of the people who had the foresight to divert the water from the river."

Backing up the farmers' discovery was the law. When it comes to allocating natural resources, the East operates on riparian rights: You can use water your property abuts, as long as you're not taking from your neighbor's fair share.

Not so out West. Ever since the gold rushes of the mid-19th century, natural resources on the frontier were awarded on a first-come, first-served basis. By diverting water into the desert, farmers not only won themselves newly fertile land, but they also secured the Imperial Valley's place in a series of compacts and court rulings that make up the "law of the river."

In 1922, an interstate compact divided the river's annual flow in two portions: 7.5 million acre-feet to the upper basin states of Utah, Colorado, Wyoming and New Mexico; and 7.5 million to the lower basin states of California, Arizona and Nevada. In a 1944 treaty, Mexico won rights to 1.5 million acre-feet a year.

Shares among the lower basin states were settled by the Supreme Court in 1963: California got 4.4 million acre-feet, Arizona got 2.8 million, and Nevada got 300,000. Within California, the Imperial Valley and some smaller farming districts eventually were allocated 3.85 million acre-feet, while the Metropolitan Water District, which delivers water to 18 million people in Southern California, gets only 550,000.

After all the divvying up, the Imperial Valley receives about 3.1 million acre-feet a year. That's more than all of Arizona, and nearly one-fourth of the river's flow, which has averaged about 13 million acre-feet a year, far less than the 15 million assumed in the original divisions.

This worked well enough for years; California was able to take as many as 800,000 additional acre-feet a year left over by other states. But in the past decade, the arrangement has been badly strained. Not only have Arizona and Nevada started claiming their shares, but a four-year drought has further reduced river flow.

The crop debate

With supplies running short, scrutiny has fallen on the Imperial Valley's $1 billion farming industry. Most of the valley's 470,000 acres is in water-guzzling field crops, mostly alfalfa and other grasses that feed the West's dairy and beef industries, as well as cotton, wheat and sugar beets.

Only about 55,000 acres are used for vegetables and melons, which use much less water per acre than field crops. The area's long growing season makes it ideal for winter vegetables, and its lettuce, asparagus, broccoli, cauliflower, onions and carrots are its most lucrative crops on a per-acre basis.

But many farmers prefer field crops: Their prices fluctuate less, due partly to federal price supports; they require less labor; and farmers say there is limited demand for vegetables.

"We have a huge amount of water being used in inefficient ways for crops that one might question why they're being grown in this area," said Joseph L. Sax, a law

professor at the University of California, Berkeley who has consulted for the Interior Department. "It's a good place to grow avocados, but why we're growing cotton and alfalfa here is a question a lot of people have been asking for some time."

Meanwhile, having enjoyed a large share of river water for so long, valley farmers have seen little reason to limit use.

The valley's canals are unlined, allowing water to seep through their borders. Irrigating by gravity means that 15 percent of the water used runs out at the end of the field, runoff that goes into the Salton Sea. Some farmers, like Cox, now use pumps to recycle some of the runoff, but the pumps, and more costly conservation tools like drip irrigation systems, are relatively rare.

"They won't admit they're wasting water," said Adan Ortega Jr., vice president of the Metropolitan Water District. "Because they believe they have this God-given right to the water, they don't have any incentive to preserve it."

This kind of talk infuriates Imperial Valley farmers, who say they would use more efficient irrigation if they could afford it. Already, they say, they've spent thousands on tiles placed beneath their fields to keep salt from sinking too far into the soil.

Moreover, they say, it's their thousands of tons of field crops that fuel California's dairy industry (the largest in the country), feed the Southwest's cattle and help maintain America's cotton industry.

"Where's this agriculture going to go? It has to go someplace," said Steven A. Pastor, director of the Imperial County Farm Bureau. "You need your feed grown, your cotton. Do we want to rely on other countries to supply our food and fiber?"

Heidi Kuhn, an activist whose husband owns and runs one of the valley's largest farms, sums up the argument with a simple refrain for what she calls "the person sitting in Starbucks": "We're the latte in your coffee."

"We're not just doing this for our own health. We're doing it because there's a market need for it," she said. "I don't know if growing food is any less beneficial than having 112 golf courses in Palm Springs."

Hard-won success

On a tour of her family's 14,000-acre, 300-employee operation, Kuhn shows just how productive a single Imperial Valley farm can be. After passing field after field of the Kuhns' hay crops, she stops at the vast lot where the grasses are baled, compressed and stacked by the hundreds under long sheds.

Many of the bales, a grass variety called Sudan grass, will be loaded in containers to be transported to California ports by the train line running adjacent to the lot. There, they will be shipped to Japanese ranchers, who prefer Sudan grass for cattle feed but lack room to grow it.

Other bales will go to California dairies, but many stay with the Kuhns, to serve as feed at their own 4,000-cow dairy. The dairy's milk, in turn, goes across the street to a cheese-making plant that produces Muenster and Swiss cheese.

It's a thriving operation, but Kuhn says it's not hugely profitable, given slumping commodity prices and the cost of state labor and environmental regulations. Her family recently moved into her mother-in-law's old house, a three-bedroom rancher with a cracked tennis court. It's one of the nicer houses in El Centro, a struggling town of small bungalows and shuttered stores, but it's no mansion.

Indeed, many valley landowners resent the widespread notion that their big share of Colorado water has made them wildly wealthy.

"They see us driving nice pickups and cars and having a house in San Diego," said John Grizzle, a valley farmer since 1964, sitting in the office of his 7,000-acre operation. "They don't realize the hard work and the risk involved. The return on our investment is not large."

As they fend off critics, the valley's residents also face internal divisions.

There are disagreements about how to divide the $2.5 billion San Diego would pay for the 200,000 acre-feet a year it would receive under the transfer. As the deal stands, the Imperial Irrigation District would distribute most of the money among the county's roughly 400 farmers, requiring much of it to be used for more efficient irrigation, while some would go toward the larger community.

A large faction of farmers, though, believes that the money, as well as any revenue from future transfers, should go directly to landowners, who in turn would give part of it to the community. This group has sued the irrigation district.

Others view this effort as a naked grab by farmers for the millions in water revenue.

"We better make sure that if the money comes in, it's applied to increasing efficiency, to insulate us against long-term attacks on our water use," said district board member Andy Horne. "If landowners are allowed to take the money and do whatever they want with it, including sticking it in their pocket and not doing anything toward efficiency, then we haven't accomplished that."

Farmers also disagree over whether to reduce their usage by investing in more efficient irrigation or by leaving fields fallow, which would mean lower crop yields and fewer farm jobs but would require less effort and leave more water for the Salton Sea than conservation would.

To valley outsiders, the ambivalence over the transfer is hard to fathom, given how much money is involved. The valley would get $258 an acre-foot from San Diego for water that costs farmers $16 an acre-foot.

"What they're not admitting is that these are the first farmers that will be allowed to sell water at market rates," said Ortega, of the Metropolitan Water District. "They're going to create a precedent that a lot of people in the valley can benefit from."

But this is just what alarms many in the valley - including some of the non-landowning Mexican immigrants who see the farms as the biggest source of employment in the county. Once farmers start selling water, they fear, it may it be hard to stop; farmers will walk away rich, but the valley will have sold away its livelihood.

One thing unites the county residents: All see themselves as underdogs trying to keep their rights from being pried away by powerful California cities.

"We can see the handwriting on the wall: We have a very large water right, and there is a seemingly unquenchable thirst for this water around the southwestern United States," said district board member Horne. "We're such a small community facing such a huge population that doesn't care what happens to us in the future."

And all in the valley think the same thing when they hear urban critics question the wisdom of desert farming: Why doesn't the same argument apply to the cities of the arid Southwest?

"San Diego is as much of a desert as we are," Kuhn said. "Why is it any more logical for people to live there?"

Growing demand

It's a question that San Diego officials don't have the luxury of asking. Whatever the wisdom of its growth, the city is now the country's seventh largest, it lacks water of its own, and officials need supplies for 3 million area residents and counting.

The transfer deal with the Imperial Valley is the centerpiece of this effort, but it's not the only element. The San Diego County Water Authority is planning a desalination plant that would process enough ocean water, at great cost, to provide 15 percent of the county's demand.

In addition, the authority is about to finish a massive new dam in a box canyon in Olivenhain, 30 minutes north of the city, that will hold more than two months' supply of emergency water. The aqueducts that bring San Diego's water south from Los Angeles, a mix of Colorado River and northern California water, cross major fault lines, and the city's been at risk of running dry after an earthquake.

The new dam is visible proof of water's primacy in the Southwest. At 318 feet high and 250 feet long, it is designed to withstand an earthquake measuring a magnitude of 7.2. The reservoir, a giant cavity that will be filled over the coming year, is 2,552 feet long; 700,000 cubic yards of fill was blasted out of it.

"With the amount of water we have to deliver to people, we just have to build some amazing structures to do it," said project manager Jerry Reed as he oversaw work on a recent morning.

That is what happened hundreds of miles away in Arizona, where two decades ago engineers designed an aqueduct to carry 1.5 million acre-feet a year of Colorado River water as far as Tucson. The $3.8 billion Central Arizona Project uses six 60,000-horsepower pumps to lift water 824 feet above the river.

Fourteen pumps along its 336-mile route lift the water high enough so it can run downhill to the next pump. At a control room north of Phoenix, two men sitting before a big screen regulate the flow on the 80-foot-wide, 16-foot-deep canal by raising or lowering gates at checkpoints every seven miles.

Things to come

The Arizona aqueduct represents more than just the driving force behind the pressure on California to reduce its river use. The project also offers hints of what might happen in California if the San Diego water deal sets a precedent for future transfers.

That's because in Arizona, transferring water from agriculture to urban use has been the policy for decades. Unlike their counterparts in the Imperial Valley, the cotton and alfalfa growers on the plains of central Arizona lack enshrined rights to the Colorado River, and have long relied on groundwater.

When the state built the aqueduct, it allocated two-thirds of the water to farmers - but with the understanding that their share of the water would decline as farmland was developed for homes, leaving most of the water for urban users. And indeed, large tracts of former farmland around Phoenix are sprouting dense subdivisions.

This sprawl has met with relatively little official resistance. Subdivisions may cause problems, officials reason, but they have one thing going for them: They require about half as much water as the farms they replace.

"We want to sustain agriculture as long as possible, but while making sure we have a sustainable water source" for residential use, said Dennis G. Kimberlin, a state water manager in Pinal County, an agricultural area south of Phoenix that is rapidly being developed.

Those farms that remain, meanwhile, have already taken many of the steps that California farms may face. Because water is at a greater premium in Arizona, costing farmers $36 an acre-foot - more than double the Imperial Valley rate - there is incentive to conserve.

Dan Thelander, for instance, added an underground drip irrigation system four years ago at his 500-acre cotton field in Pinal County. It cost $1,500 per acre, but his cotton now uses one acre-foot less per acre.

His neighbor, C.L. "Bill" Scott, long ago leveled many of his fields so that less tailwater runs out at the end. Instead of irrigating his fields at a steady stream for a full day as Cox does in the Imperial Valley, Scott sends a stronger stream across for only two hours, producing a more even level of saturation while using less water.

Scott happens to know the Cox family and isn't about to second-guess their techniques. He chalks up his conservation to market demands: His water costs more, so he must use less.

"There are a lot of things you can do to make better use of water," he said, driving a visitor across his 6,800-acre farm. "It's a matter of economics. It makes you do things that are cheaper."

Future battles

Even if the transfer from the Imperial Valley to San Diego is approved, few expect the deal to settle the water wars for good.

Other demands for water loom: The state of Colorado is discussing building its own version of the Central Arizona Project to carry its share of the river over the Rockies to Denver and other cities. This may be prohibitively expensive, but if it happened, it would remove 400,000 more acre-feet a year from the river, about 3 percent of its flow.

More immediate is a drive by environmentalists to allow more of the river to make it to Mexico, to start restoring the delta, at a cost of 150,000 acre-feet a year. And in Arizona, Native Americans winning rights to hundreds of thousands of acre-feet, forcing cities to buy water from them.

But the biggest fights ahead, many expect, will be continued clashes between cities that will need ever more water and farms that still use most of it.

Regional water officials admit they may eventually push the limits of their supply, even with the transfer. This, they say, will force higher water prices, constraining further growth, and may even raise the once-unthinkable prospect of "toilet-to-tap," treating wastewater for drinking use.

Aware of the growing needs of the cities, Imperial Valley farmers say they are bracing for the federal government, goaded on by the Metropolitan Water District, to return and pressure them to give up even more water. If the valley refuses to sell, they fear, federal officials will again declare it is wasting water and take the water for free.

"It's a slippery slope," said Pastor, the farm bureau director. "A lot of farmers worry this isn't going to end until all the water is shipped to San Diego or Los Angeles."

Valley landowners say they owe it to their forerunners on the land not to let that happen. Their critics may question the wisdom of having created a farming valley in a desert, they say, but the transformation happened, and it can't just be reversed, 100 years later.

"This place is not unworthy of being here. It's families who are proud to be here, who put roots here, who had kids here," said Kuhn, the activist. "It's not as simple as wiping us off the map to have more water for L.A."

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River News 08/19/03

PECOS RIVER MANAGEMENT PLAN UPDATE

An Environmental Assessment containing the Pecos Wild and Scenic River Forest Plan Amendment and Management Plan was sent out for public review on April 23, 2003 thirteen years after its declaration as a Wild and Scenic River. The proposed management plan banned all boating in the Wild and Scenic Corridor as it "can only be done in short sections along the river during periods of high water flow, which commonly does not occur. Prohibiting floating would therefore not be expected to displace many users and it would enhance fishing within the corridor."

The Pecos River was declared a Wild and Scenic River in 1990. Above Cowles (mostly in the Pecos Wilderness) is designated wild. From Cowles to Terrero is designated recreational. The section from Cowles past Terrero to Windy Bridge is runnable by kayak, canoe and inflatable kayaks during spring high water each year. This is a period of heavy boating use of other rivers in New Mexico and the Pecos serves as an alternative run for boaters looking for more solitude. Although there is development along the road to Cowles, the sections of the river away from the road retain much of the wilderness characteristics of the surrounding Pecos Wilderness. The run is unique for New Mexico due to the clear water and forested environs that are reminiscent of rivers further north in Colorado and Idaho. Although the area is very popular for fishermen, they generally prefer lower water levels when the river is unrunnable by boaters.

Tom Robey (River Runners for Wilderness) noticed the public comment period for the management plan and Tim Scofield (Adobe Whitewater Club) discovered the prohibition on boating. Enlisting the help of Jason Robertson (American Whitewater Association) they undertook a campaign during Memorial Day weekend to send in comments. An excerpt from the comments submitted by Tom Robey stated:

"...There is no reasonable basis that eliminating boating would enhance fishing. It is evident that there have not been any recreational surveys of boating use on the Pecos River. Have you done any surveys of fishermen about their encounters with boaters? Have you documented any adverse impacts of boaters upon fishing? My experience is that very few fishermen encounter boaters and that encounters between fishermen dwarf any such impacts. As fast as the Pecos is moving during high water (there are few eddys) it is ludicrous to suggest that boaters have any impacts on the fish or fishing. Therefore I suggest that the management plan allow boating and that the Forest Service gather data before even considering any management action regarding boating between Cowles and Terrero."

The first item of the Decision Notice issued July 31st stated:

"Revised the provision to allow floating use. The Standard now reads, 'The use of non-motorized rafts, boats, or other conveyances to float down the river is permitted. No additional facilities (put-ins, parking areas) will be constructed to facilitate floating' ",

The entire decision and other materials should be available at www.fs.fed.us/r3/sfe or upon request from the Pecos/Las Vegas Ranger District, PO Drawer 429, Pecos, NM 87552 (phone 505-757-6121).

LR in the News 08/20/03
Drought drying up boater fun

by Tom Wharton
The Salt Lake Tribune
Prolonged drought in the western United States, particularly Utah, has left boaters high and dry on launches at many major lakes and reservoirs.

At Lake Powell, water levels have dropped below boat ramp and marina access levels, forcing closures, especially in the upper end of the huge reservoir on the Utah-Arizona border. Visitation is down 13 percent from a year ago. And the lake level is expected to drop even farther, perhaps as far as 112 feet below capacity by April. Still, Barry Wirth of the U.S. Bureau of Reclamation said there are still 12.5 million acre-feet of water in the reservoir.

"That is an awful lot of water," he said. "It is important to note that that is a pretty nice half-full body of water."

Char Obergh, of the Glen Canyon National Recreation Area, said boaters have experienced few delays launching despite the closure of Hite Ramp and "use at your own risk" warnings at Stateline and Antelope Point, a precaution to boaters that they could get stuck in the muck, or worse.

She expects some launching delays to occur during the upcoming Labor Day weekend.

"It has been an interesting year," she said. "But there is a lot of lake to enjoy. It's just a different lake. We are asking people to be aware of that. We have done our best to maintain access. As it goes down this winter, we will be faced with additional challenges."

Because of low water at Lake Powell, Defiance House and Three Roof Ruins are no longer accessible by water. The Castle Rock Cut is closed. And vehicle access is not possible at Dirty Devil, Farley, White Canyon, North and South Bullfrog Primitive Camping Area and Crosby Canyon. Stanton Creek may be the best primitive vehicle camping area still available.

On the upper end of the lake, Hite Marina is out of service. The launch ramp there is closed, though river runners floating down from Cataract Canyon on the Colorado River are using a temporary dirt facility. All water-based marina facilities have been relocated downstream.

These developments have not gone unnoticed by environmentalists who would like to drain Lake Powell and decommission its dam.

"This drought emphasizes the dubious nature of Lake Powell reservoir," said John Weisheit of Moab-based Living Rivers in a news release.

"By decommissioning Glen Canyon Dam, we could restore 500 miles of river to its natural habitat, which includes Grand Canyon National Park, while at the same time saving the water that is otherwise lost to evaporation."

Low water apparently has not affected boating safety, either on Lake Powell or other reservoirs across Utah.

"We have had no safety problems out of the ordinary," said Obergh. "We do caution people if they have not been here for a while that it is a different lake and they need to boat with caution."

Ted Woolley, boating coordinator for the Utah Division of Parks and Recreation, said added congestion among boaters has not contributed to safety problems.

"It seems that when you get more people in there, they pay more attention to what is going on," he said.

Visitation has been down at some water-based state parks because of perceptions -- some real, some not -- that the drought is affecting boating. But Woolley said there are plenty of good boating opportunities if you know where to look.

"We have some areas in good shape and some that are in real poor shape," he said.

He listed eastern Utah reservoirs such as Starvation, Red Fleet, Steinaker and Flaming Gorge as good boating alternatives that, in some cases, have been underused this summer.

Closer to the Wasatch Front, Rockport, Jordanelle, East Canyon and the Great Salt Lake are relatively safe for boating.

Perhaps the biggest problem area is Willard Bay, where the south marina has been closed and the north marina is available for personal watercraft and smaller boats. But, Woolley said, boaters should use Willard Bay at their own risk because rescue boats are not available.

Yuba Reservoir has been drained for dam repairs, and Lost Creek Reservoir's ramp is not available. The main ramp at Deer Creek Reservoir State Park is out of the water, but boaters are still launching on the dirt ramp at the Island area. Trailer parking, however, can be a problem there.

Utah Lake's boat ramp has major problems, though some boaters are launching smaller craft. Bear Lake's marina is still OK for motor boats, but some sailboaters are experiencing problems. Echo Reservoir is about 50 percent of capacity but is still in use. Pine View reservoir is also low, but there is adequate water for launching.

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River News 08/25/03

Sediment Clogs River Runner Access At Former Hite Marina

Submitted by Tom Robey on Mon, 08/25/2003 - 23:00 August 2003.
Sediment at Hite Marina, the most upstream facility at Powell Reservoir, has necessitated the removal of all reservoir conveniences such as the floating store, fuel docks, water and septic lines, boat rentals, and courtesy docks. The concessions operator, ARAMARK, has towed its floating facilities down-reservoir to keep the facilities from becoming trapped in mud. The land-based facilities at Hite, which includes a store, gasoline, drinking water and a sewer clean-out, remain open to service the needs of the residents and the traveling public.

A primitive "use at your own risk" boat takeout area opposite the former Hite boat ramp can still be used by river runners for inflatable and small, hard-hull boats. Since Powell Reservoir continues to drop rapidly, this site could be completely unusable by September, which will force river runners to go another 45 miles down-reservoir to exit at Bullfrog Marina. Glen Canyon National Recreation Area currently has no plans to accommodate river runners by constructing an alternate ramp, despite spending over $1 million earlier in the year to temporarily extend ramps for houseboats and power boats. A description of the takeout site is posted at Canyonlands National Park's Cataract Canyon website at http://www.nps.gov/cany/river/lakepowell.htm.

According to a sediment survey conducted by Mussetter Engineering of Denver in 2000, the Colorado River delta beginning at Dark Canyon and reaching to the mouth of the Dirty Devil River was advancing at a rate of about one mile per year. At present the delta is just beyond Hite Marina where the original river channel is 245 feet below the full reservoir elevation of 3700 feet. The survey predicted another 35 years of power boat access at Hite Marina provided the reservoir could be maintained at full pool. "Such a projection is incredibly optimistic," says John Weisheit, Conservation Director of Living Rivers. "Considering the downstream demand for water, the present drought situation, and how the river erodes into the exposed sediment and feeds the delta, the facilities at Hite may never again be usable."

By April of 2004, Powell Reservoir is predicted to be 106 feet below normal. At this elevation, Bullfrog and Antelope Point marinas will be affected by the sustained drought. The lack of incline and shallow depth at the Bullfrog Marina boat ramp will make it very difficult to load and unload boats--especially longer craft such as houseboats and the Bullfrog-to-Halls crossing ferryboat-the only method of transporting land vehicles across the 186-mile-long reservoir. Because Antelope Point is located on a cliff at the rim of the original Colorado River canyon, the dropping reservoir level will perch this boat ramp high and dry. During the spring snowmelt, Powell Reservoir levels rose a mere 11 feet and the reservoir has now returned to the levels of the previous winter, about 90 feet down from full-pool. With no drought relief in sight, this continuing trend will eventually place power generation at risk. The minimum storage level to safely produce electricity is set at 6 million acre-feet. Currently the reservoir is at 50% of capacity storing 12.7

million acre-feet of water. Power generation at Glen Canyon Dam could effectively end in two or three years under present drought conditions. "This drought emphasizes the dubious nature of Lake Powell reservoir. By decommissioning Glen Canyon Dam we could restore five hundred miles of river to its natural habitat, which includes Grand Canyon National Park, while at the same time saving the water that is otherwise lost to evaporation" observes Weisheit.

LR in the News 08/28/03
Hite Marina closure leaves Cataract Canyon outfitters high and dry

Times Independent
Moab, Utah
by Lisa Taylor, contributing writer
The end of a Cataract Canyon river trip usually involves motoring or rowing for miles from where Lake Powell effectively absorbs the Colorado River's current to the small marina at Hite. This year, with the lake receding to record lows, some commercial trips are having to motor right on to Hall's Crossing or Bullfrog, 45 miles to the south.

Lake Powell is currently about 100 feet below "full", and is expected to drop another 12 feet by next spring. Dropping water levels and rising sediment have acted as pincers, squeezing away the usable access at the marina on Hite's eastern shore. In July, concessionaire ARAMARK got approval from the National Park Service to move its floating facilities down-lake, and in mid-August towed them completely clear of the area. The facilities include a floating store, fuel docks, water and septic lines, boat rentals, and courtesy docks. Hite's land-based store, gas, water and sewer services are still open.

Commercial and private boaters can use an "at your own risk" launch area, but as water levels continue to drop, the primitive ramp is barely usable, and at least one outfitter, Sheri Griffith River Expeditions, has opted to continue to Hall's Crossing, another 11 hours farther if the weather cooperates.
Tag-a-Long Expeditions president Bob Jones is frustrated that the Park Service didn't heed outfitter warnings about the marina going dry. "They should have been ready, because we met with them in March and outlined almost to the day when they'd have to find a solution. I'm discouraged they're not responding to the public."
Until the Park Service officially deals with the problem, Jones is improvising. "We've opened up another road [the NPS] allowed to the old marina site on the east side, where the water is pretty close. We've simply taken down our Snow-cat, to take people and boats across that dry mud." The dry mud he's referring to is a 150-yard-wide band of compacted silt, webbed with cracks up to two inches across and two feet deep. Vehicles and pedestrians would have trouble with it on a dry day – if it rains, forget it.

Jones says the access he's using won't work for everyone, but argues that it wouldn't cost much to upgrade it, and with the Colorado River's original channel closest to the west side, "we're where the water will always be." Tag-a-Long has about 12 more trips

this season, and Jones isn't interested in bypassing Hite. "The alternative – to go to Bullfrog – is 12 to 14 hours of motoring on a calm day, but if you get into wind and waves, rafts don't go like hard-hull boats, they go all over the place."

As to the environmental impact of restoring river access on the western shore, Jones points out, "We're talking about moving silt that's not supposed to be there anyway. Any environmental assessment will tell you to get rid of it."

An ARAMARK/Park Service sediment survey done in 2000 showed that the Colorado River delta, effectively the "top" of the lake, had crept four miles downstream in four years, and was about 11 miles north of Hite.

The survey allowed the marina 35 years of use provided the reservoir held steady at 3,700 feet, an "incredibly optimistic" projection according to John Weisheit, conservation director of environmental group Living Rivers. "Considering the downstream demand for water, the present drought situation, and how the river erodes into the exposed sediment and feeds the delta, the facilities at Hite are basically history."

Even Jones, with a vested interest in Hite's recovery, guesses it will take at least five years to restore the facilities, provided there's a break in the drought and the reservoir can recharge. In the meantime, a 2003 NPS/ARAMARK survey showed the delta had already crept past Hite, and new dock and pumping-station closures pop up on the official Glen Canyon National Recreation Area website every week. Lake Powell businesses are insistent that there are still unlimited activities on the water – the trouble for the foreseeable future is how to get out there.

LR Press Release 08/28/03
Drought could cause Lake Powell Reservoir to drop as low as 39% next year

For immediate release
August 27, 2003

Contact: John Weisheit (435) 259-1063

Drought could cause Lake Powell Reservoir to drop as low as 39% next year.

Recreation access to be cut substantially.

Federal forecasts for the operation of major dams in the Colorado River system indicate that if drought conditions continue as anticipated, Lake Powell could see another significant drop to as low as 39 percent over the next 12 months. System-wide storage could drop from 57 to 48 percent as water users in the basin continue to use water at pre-drought rates.

Using data from the past 30 years, the Bureau of Reclamation's (BuRec) "2004 Draft Annual Operating Plan" forecasts a range of inflow scenarios for Lake Powell reservoir

from 3.8 to 15.6 million acre feet. This would equate to a range of reservoir levels from 39 to 83 percent.

The lower level would represent a near repeat of 2002, when flows into Lake Powell reservoir were 75 percent below normal. Normal flows as estimated by BuRec are approximately 12 million acre-feet. The upper level would represent flows not seen since 1997.

"As federal scientists continue to forecast that drought conditions will last several decades, water managers and the public should not count on any high flows," says John Weishiet, Conservation Director for Living Rivers. "During the drought of 1942 to 1977, flows were off by 19% percent. Taking into account increased diversions above Lake Powell reservoir since that time, which now are approximately 4.7 million acre-feet per year, it's easy to see why Lake Powell continues to drop."

Over the past four years, inflows into Lake Powell have averaged just 50 percent of normal: 62, 59, 25 and 54 percent respectively from 2000 to 2003. Even last year's forecasted El Niño conditions, which generally result in well above average precipitation, yielded a snowpack of just 84 percent of normal. Due to the significantly dry soil conditions from three straight years of well below average precipitation, Lake Powell received just 54 percent of its average inflow of 12 million acre-feet.

Simulating a significant drought event, as the region is now experiencing, the American Water Resources Association estimated that it could take just eight years of drought for Lake Powell reservoir to be emptied of its store of water. "They're right. It's been four years, and we're half way there," adds Weisheit.

Presently, Lake Powell reservoir is reported to be at 51 percent capacity, down from 59 percent last year and 95 percent at the beginning of 2000. The actual amount of available water is 50 percent, as BuRec is not compensating for 500,000 acre-feet of storage lost to sediment since its last sediment inventory was conducted in 1986.

When full, Lake Powell reservoir can store 24.3 million acre-feet. An acre-foot of water represents 326,000 gallons, or enough for two urban families per year.

If inflows into Lake Powell reservoir continue to average 50 percent of normal, or about six million acre-feet per year, this would result in the reservoir level dropping an additional eight percent next year, to 10.7 million acre-feet, or 44 percent of capacity.

This would bring the reservoir elevation down 140 feet from full. Only two of the reservoirs six marinas would be operational. Commercial and private Colorado River rafting trips, which normally end at Lake Powell reservoir, would have no way to get off the reservoir, short of rowing or motoring their rafts more than fifty miles to the nearest functioning marina.

"This is a multi-million dollar industry that we are about to lose," adds Weisheit. "First they killed the rafting industry through Glen Canyon when they built Glen Canyon Dam, and now they're stopping us from running the rivers upstream too."

In addition to Lake Powell dropping eight percent, the systems other major reservoir, Lake Mead, will also drop. In water year 2003 (October 2002-September 2003) Lake Mead will have dropped from 66 to 60 percent. 2004 will see a repeat of this six percent reduction. Lake Mead's primary input comes from releases from Glen Canyon Dam which are only 8.2 million acre-feet per year. Hoover Dam is scheduled to discharge 9.4 million acre-feet for its users downstream, which combined with evaporation and reservoir withdrawals will draw the reservoir down to 54 percent of capacity next year.

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Additional information

Draft Annual Operating Plan

Severe and Sustained Drought for the Colorado River Watershed

Drought Conditions in Utah During 1999-2002

Precipitation History of the Colordo Plateau

Living Rivers's Drought Watch Campaign

River News 08/29/03
GLEN CANYON DAM UPDATE

Operations
Releases from Glen Canyon Dam will be lower in September than August. Releases in August averaged about 14,600 cubic feet per second (cfs) with a total of 900,000 acre-feet released. In September, releases will average 8,000 cfs with a total of 476,000 acre-feet scheduled to be released. On Mondays through Saturdays (except for Labor Day) in September, daily fluctuations due to load following will likely vary between a low of 5,000 cfs (during late evening and early morning off-peak hours) to a high of 10,000 cfs (during late afternoon and early evening on-peak hours). On Sundays (and on Labor Day), releases will be 5,000 cfs from 7 pm until 7 am, and 8,000 cfs from 7 am until 7 pm.

Releases from Glen Canyon Dam in October and November of 2003 are currently scheduled be 492,000 acre-feet and 476,000 acre-feet respectively, with the same load following pattern as September.

Because of the draw down condition of Lake Powell, releases from Lake Powell in water year 2003 are being scheduled to meet the minimum objective release of 8.23 million acre-feet. This is consistent with the requirements of the Criteria for Coordinated Long-Range Operation of Colorado River Reservoirs.

Basin Hydrology

Drought in the Colorado River basin continues. Inflow volumes have been substantially below average this year with water year 2003 being the 4th consecutive year with below average inflow to Lake Powell. April through July unregulated inflow to Lake Powell in 2003 was 3.91 million acre-feet, only 49 percent of the 30 year average. Total unregulated inflow for water year 2003 will likely be about 51 percent of average.

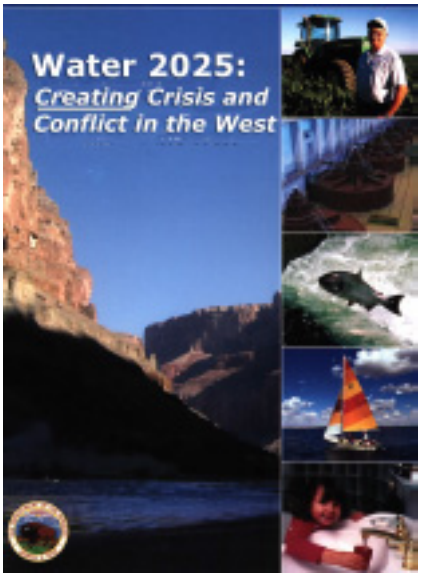
Snow accumulations in water year 2003 were again well below average levels. Additionally, what snowpack there was in the Upper Colorado River basin this year melted earlier than normal, with the runoff for the most part, being completed by late June. This has resulted in very low summer flows. Inflow to Lake Powell in July tallied up to only 350,000 acre-feet or 22 percent of average. Summer thunderstorms can help augment river flows in the summer, but thus far there has been only limited monsoonal precipitation in the Upper Colorado River basin. Unregulated inflow to Lake Powell in August will likely be only 24 percent of average. Inflow to Lake Powell on August 28, 2003 was 4,800 cfs, 50 percent of what is usually seen in late August.

Total unregulated inflow into Lake Powell in water years 2000 and 2001 was 62 and 59 percent of average, respectively, and only 25 percent of average in 2002. Inflow in 2002 was the lowest ever observed since the completion of Glen Canyon Dam in 1963. These low inflows have reduced water storage in Lake Powell. Lake Powell reached a low water surface elevation this spring at 3605 feet (95 feet from full pool) on May 1, 2003. The lake then rose in response to snowmelt-runoff, reaching a peak on June 23, 2003 at 3616.6 feet. The current elevation of Lake Powell is 3,604.8 feet (95.2 feet from full pool). Current storage is approximately 12.2 million acre-feet (50 percent of capacity). The water surface elevation at Lake Powell will likely continue to decrease for the remainder of the year. Under expected inflows, Lake Powell will likely be near elevation 3600 feet on January 1, 2004.

This release courtesy Tom Ryan.

Living Rivers Currents 09/01/03

Water 2025: A Crisis in the Making



Throughout the summer the Department of Interior, through the Bureau of Reclamation (BuRec), has been orchestrating another of its legendary public relations charades. At a time when most Western states are experiencing major problems with water allocation, BuRec is responding with a long-term managment plan which completely ignores the problem. It is dubbed "Water 2025: Preventing Crises and Conflict in the West," and is little more than a repackaging of existing management strategies combined with a heightened push for desalinization technology. It contains no proposals for how to substantively address major water

shortages, such as those already manifesting in the Colorado River watershed. "Minor efficiency gains and conservation measures as Secretary Norton prescribes will bring about some savings, but these are merely drops in the bucket given that the Colorado River is providing barely half the water the Department of Interior is contracted to deliver," says Owen Lammers, executive director of Living Rivers.

Abundant historical evidence reveals that the present drought in the Colorado watershed is far from unprecedented, and warnings from the United States Geological Survey one year ago urged water managers to be prepared for several decades of below average precipitation. Lammers notes, "Water 2025 demonstrates that the Department of Interior is ignoring this responsibility."

* The Plan emphasizes Interior's long-standing tradition of acquiescing to the states for resolving disputes. However, as 80 years of conflict reveals, cooperation is rare, even in the best of times.

* The Plan's market-driven water banks and transfers from farmers to municipalities during times of shortages are laudable on a small scale, but there is no discussion of what will happen when the real shortages occur. Certainly, the 25 million people reliant on Colorado River water will not be deprived, but what will it cost? Farmers are becoming increasingly reluctant to make water transfers. Without strict federal guidelines and policies, municipalities like Los Angeles, Phoenix, Las Vegas and Salt Lake City will be forced into a cost environment not unlike what California energy utilities faced three years ago.

* Crop substitutions, which represent the greatest opportunities for water savings, are completely ignored by the Plan. Nearly half of Colorado River water is used to grow water-intensive alfalfa and other forms of cattle feed. Much of this water could be saved by growing crops for human consumption.

* The Plan advocates maintaining and enhancing existing infrastructure. However, much of this infrastructure is responsible for the loss of up to 20 percent of the Colorado River's flow due to evaporation and seepage amongst its reservoirs, but there are no capital improvements planned to reduce these losses.

Not until the 25-page report's last 100 words does the term "drought" receive much attention. This should be Interior's main focus at this time. Areas that Interior should be addressing include: outlining specific solutions for federal management to employ; how farmers will be enticed or forced to release their water to preserve municipal economies; and how Interior will enforce necessary conservation strategies and efficiency standards.

"This report is all about carrots with no federal stick," adds Lammers. "Interior must begin developing water use standards and practices, as well as allocation strategies to be implemented as this drought situation worsens. Absent this, crises is inevitable, despite Secretary Norton's report and marketing strategy titled to prevent it."

Living Rivers Currents 09/01/03
Volume 3, Number 2, September 2003

The Articles

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- Water 2025: A Crisis in the Making
- Riverkeeper: On the Yampa, Green and Grand Canyon
- Glen Canyon Dam: LR Demands Supplemental EIS
- Powell Reservoir: Draining Recreation
- LR Drought Watch: No Relief In Sight

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Living Rivers Currents 09/01/03
Riverkeeper: On the Yampa, Green and Grand Canyon

From June 2-6, Living Rivers' Colorado Riverkeeper program, in conjunction with Holiday River Expeditions, honored the 50th Anniversary of the first Yampa/Green river trip organized to stop the inundation of Dinosaur National Monument from Echo Park Dam. It's purpose included drawing attention to the slow death of Dinosaur National Monument's river corridor due to the operations of Flaming Gorge Dam upstream. This month the Riverkeeper program will return to the Green River. It will spend nine days in Desolation Canyon, the most remote wilderness- quality river corridor in the continental United States. Like those in Dinosaur National Monument, native fish in this stretch suffer from the impacts of Flaming Gorge Dam. This critical habitat is being ignored by federal researchers developing re-operation plans for the dam.

In October the program will undertake a 12-day science trip down the Colorado River through Grand Canyon National Park. Participants will assist researchers from Northern Arizona University in collecting data to evaluate how the food base of Grand Canyon's river ecosystem has changed due to the operation of Glen Canyon Dam. Federal scientists are considering ceasing financial support for such research, despite its vital role in understanding the steps needed to recover endangered fish species in the Grand Canyon National Park.

Living Rivers Currents 09/01/03
Powell Reservoir: Draining Recreation

The reservoir-draining drought is again revealing canyon walls not seen in 30 years. For example, the National Parks Service's marina facilities at Antelope Point near Glen Canyon Dam will be perched on a cliff's edge this Autumn.

The situation at Hite Marina at the top of Lake Powell reservoir is already disastrous, where a vanishing reservoir has exposed a sediment plug that backs up the Colorado River Arm for 30 miles. Because of the thick, gooey mud, the Hite concessions operator, ARAMARK, has literally pulled anchor and moved their floating docks 50 miles downstream to the marina at Hall's Crossing. Hite Marina is looking like a ghost town of thick mats of non-native weeds and obnoxious tamarisk trees.

Colorado River runners who previously finished their trips at Hite, now have no place to exit. Thoughts of pushing rafts through a choppy reservoir 50 miles further to Bullfrog or Hall's Crossing marinas are not welcomed. Bullfrog's boat ramp is about to become unusable itself, and Hall's Crossing is too small to accommodate all of the visitors now that these other facilities are closing. In desperation, river outfitting companies are attempting to forge a road across the sediment themselves at a location across the reservoir from Hite.

In a letter to the superintendent at Glen Canyon National Recreational Area, Living Rivers has reminded the National Park Service that the money targeted for capital improvements at Hite Marina must immediately be shifted toward mitigating the impacts from sediment on the river running public, who typically have to endure the National Recreation Area's bias to the powerboat industry. In 2003, power boaters have received $3 million dollars in boat ramp improvements, and river runners have received none.

Living Rivers Currents 09/01/03
LR Drought Watch: No Relief In Sight

Federal forecasts for the operation of major dams on the Colorado River indicate that if drought conditions continue, Lake Powell could see another significant drop to 39 percent in one year. Basin-wide storage could drop from 57 to 48 percent as water users continue to use water at pre-drought rates.
BuRec's "2004 Draft Annual Operating Plan" forecasts a range of inflow scenarios for Lake Powell reservoir from 3.8 to 15.6 million acre-feet. This would equate to a range of reservoir levels from 39 to 83 percent. The lower level would represent a near repeat of

2002, when flows into Powell reservoir were 75 percent below normal. Normal flows estimated by BuRec are approximately 12 million acre-feet, flows not seen since 1997.

"During the drought of 1942 to 1977, flows were off by 19 percent. Taking increased diversions above Lake Powell reservoir since that time, which are now approximately 4.7 million acre-feet per year, it's easy to see why Lake Powell continues to drop, " says John Weishiet, conservation director for Living Rivers.

Since year 2000, inflows into Lake Powell have averaged just 50 percent of normal: 62, 59, 25 and 54 percent respectively. Presently, Lake Powell reservoir is reported to be at 51 percent capacity, down last year from 59 percent. The actual amount of available water is 50 percent, as BuRec is not compensating for .5 million acre-feet of storage lost to sediment since its last inventory was conducted in 1986.

If inflows into Lake Powell reservoir continue to average 50 percent of normal, or about six million acre-feet per year, this would result in the reservoir level dropping an additional eight percent to 10.7 million acre-feet, or 44 percent of capacity. This would bring the reservoir elevation down 140 feet from full. Only two of the reservoirs six marinas would be operational. Commercial and private Colorado River rafting trips, which normally end at Lake Powell reservoir, would have no way to get off the reservoir, short of rowing or motoring their rafts to the nearest functioning marina.

"This is a multi-million dollar industry that we are about to lose," adds Weisheit. "First the Bureau of Reclamation killed the rafting industry through Glen Canyon when they built Glen Canyon Dam, and now they're stopping us from running the rivers upstream too."

Living Rivers Currents 09/01/03
Glen Canyon Dam: LR Demands Supplemental EIS

In a letter submitted this month to Michael Gabaldon, chair of the Adaptive Management Program (AMP) for Glen Canyon Dam, Living Rivers outlined the justification for the Department of Interior initiating a new Environmental Impact Statement (EIS) for Glen Canyon Dam. This would would compel the federal government to examine decommissioning Glen Canyon Dam as a means of recovering endangered species habitat lost in Grand Canyon National Park as a result of the dam's operations. Completed in 1996, the existing EIS for Glen Canyon Dam prescribed a set of operational criteria for the dam in an effort to halt the Bureau of Reclamation's violation of the Endangered Species Act in Grand Canyon. So far, all these efforts have failed.

* The decline of the Humpback Chub population from 8,000 to 2,000 fish, and the inability to establish a second location in the river corridor for Humpback Chub to live.

* The inability to provide enough sediment for the preservation of beach habitat. The number and size of beaches in the Grand Canyon have experienced a significant decline since the AMP began. This negatively effected the Canyon's recreational

experience, but has also impacted the river corridor's cultural resources, which are now prone to erosion.

* Unanticipated impacts resulting from reduced elevations of Glen Canyon Reservoir, such as increased temperatures and modified nutrient dynamics, could have significant effects on the downstream resources in the Grand Canyon. As the drought situation persists, these effects will become more pronounced.

The key to reinstating National Environmental Policy Act compliance, through a supplemental EIS, is if new data or impacts are recognized. Clearly in the case of Glen Canyon Dam, significant new data (biological and sediment) indicate that the system needs re-evaluation.

More Information:
Letter demanding Supplemental EIS

Living Rivers Currents 09/01/03

Delta Deficit: Wasting Money and Habitat

Congress is about to fund the start-up of a defunct desalting plant on the Colorado River near Yuma, Arizona, dooming critical habitat in the delta region. The Bureau of Reclamation (BuRec), which has recommended that Congress authorize the desalter's repair, is downplaying the results of its own analysis, which reveals far less costly and less environmentally damaging measures to meet US treaty obligations for water delivery to Mexico.
"This is reminiscent of BuRec of the past," says Lisa Force, Living Rivers program director. "At a time when federal deficits are the largest in U.S. history, it's unbelievable that Congress would consider throwing away taxpayers' dollars to prop up this boondoggle." "There are cheaper and less destructive ways to save Colorado River water than running the Yuma Desalting Plant," added Myra Wilensky, regional organizer at the National Wildlife Federation.

BuRec's objective is to produce about 108,000 acre-feet of water from the plant of sufficient quality to help meet its 1.5 million acre-feet annual obligation to Mexico. Taxpayers will be required to pay $26 million to replace obsolete technology-plus a minimum of $36 million in annual operating costs for the plant.

Completed in 1992 at a cost of $256 million (a five-fold increase in projected construction costs) to clean up brackish wastewater from farms in southern Arizona, the plant was shut down several months later due to extremely high operating costs.

Another option ignored by BuRec for the 108,000 acre-feet involves paying willing sellers to lease water they presently do not need, at just 15 percent the cost of starting

the Yuma plant. "The Department of the Interior has already proposed an alternative that could save $30 million every year. Not only does Interior's alternative have great economic advantages, it will also save enough electricity to supply 25,000 people," says Jennifer Pitt of Environmental Defense.

International water expert and director of the Pacific Institute in Oakland, Dr. Peter Gleick, said "Despite the Department of Interior's much ballyhooed 'Water 2025 Plan' claiming a new era in western water management, the decision to reopen the expensive and environmentally damaging Yuma desalter shows that federal water policy is really business as usual - spending taxpayer money for unsustainable water projects."

The agricultural wastewater that the plant would process now flows into the Cienega de Santa Clara, a 40,000-acre open water ecosystem in the Colorado River delta region. The desalting plant would remove this flow from the Cienega and return only highly saline brine to the wetlands.

"This provision would destroy an extremely important wetland in Mexico that contains the largest remaining breeding population of Yuma Clapper Rail in the world," says Bill Snape, Chief Counsel for Defenders of Wildlife.

"It will be impossible to replace the value of the Cienega de Santa Clara to the Colorado River ecosystem."

The Cienega is the largest remaining wetland in the Southwest and is home to 56 threatened, endangered and declining species. Several scientific studies funded by the Department of Interior confirm that the wetland would be completely destroyed by desalter operations.

River News 09/12/03
MOTOR RIG STRANDED IN UNKAR RAPID

Grand Canyon National Park
A Wilderness River Expeditions 36 foot motorized tour boat ran aground in Unkar Rapid on the Colorado River in Grand Canyon Thursday afternoon. The boat was part of a two-boat trip of 41 people. National Park Service technical rescue personnel used a helicopter to short-haul 6 people off the stranded raft late yesterday afternoon. This type of rescue involves lifting two people at a time off the boat by a 100-foot line from the helicopter. Rescue personnel acknowledge this is the most dangerous type of rescue the park performs. Darkness halted the rescue operation of the remaining boat occupants around 7:00PM. The remaining passengers spent last night on the boat. The short-haul operation resumed this morning.

The river trip was scheduled to exchange passengers at Phantom Ranch before noon today. Concessions passengers hiking into the canyon to join the river trip are being told they can expect the arrival of the boats late this afternoon.

Flows from Glen Canyon Dam have been between 5,000 and 8,000 cubic feet per second. This flow is considered very low for motorized tour boat travel through the park.

During low water flows in 2000, the NPS conducted 3 short-haul operations for motorized tour boats stranded in the rivers rapids. Drought conditions in the Colorado River Basin continue, with Powell Reservoir above Glen Canyon Dam at 50% capacity.

It's been a busy period over the last 30 days for National Park Rescue teams responding to commercial river tip calls for evacuations. There have been two rescues of passengers with broken arms, a number of rescues of passengers with Norwalk Virus-like gastrointestinal distress, and one passenger sustained a de-gloving injury to his hand when he caught his wedding ring on boat rigging as he jumped off the boat into the river.

River News 09/17/03
RRFW Riverwire - USFS TO TRASH WILDERNESS ON MIDDLE FORK

The Salmon Challis National Forest has released a Finalized Environmental Impact Statement (FEIS) which proposes to reduce the number of days that parties can remain on the Middle Fork of the Salmon river. The idea is to reduce the impacts of boaters on the river corridor, while at the same time the analysis would allow for an increase in jetboat numbers on the wilderness mainstem Salmon River.
The boiled down synthesis goes something like this: Public parties of 21-24 members, and commercial parties of 21-30 customers, would be limited to a maximum of 6 days on the river. Parties (both commercial and public) of 11 -20 members would be limited to 7 days on the river. Only those groups of 10 or less would be allowed to remain on the river for the current use limit of 8 days.

Lloyd Knapp, with North West Rafters Association, notes that most commercial trips don't stay on the river for 8 days due to quick turnaround times. This new ruling will not affect commercial outfitters, but it will fall onto the backs of self-outfitted recreational boaters, who typically take longer trips through the area. While the intent of the plan is to reduce the wear and tear on the Frank Church River of No Return Wilderness, Lloyd notes that in doing quick-turnarounds, the commercial outfitters are pouring more people down the river than trips that moving at a slower pace. Knapp notes “I would say that the river is not over-used. It does get a lot of use, but the Summer float season is relatively short. It's not at all like the Gauley in West Virginia, or other rivers that are loved to death.”

Knapp also points out that the river also raises a substantial fortune in the contested Recreation Fee Demonstration program. “There is no evidence that the Forest Service has spent a dime of this money on the river. If there is over use in certain areas, then the Fee Demo money should be used for repairs and maintenance.”

Jo Johnson, co-director of River Runners For Wilderness, notes there are clear flaws in this management plan. “Increasing motorized use and speeding up river travel through the wilderness do nothing to promote wilderness character. This plan continues the now outdated concept of allocating river use between the public and a small oligopoly of middlemen. This model has outlived its usefulness, especially in light of a continued

growth in public rafting and ongoing declines in demand for guided river running services."

The FEIS has been issued, and the deadline for comments is October 27, 2003. A summary version of the FEIS is available at the website below. This is a Forest Service publication known as Frankly Speaking (a reference to Frank Church).

www.fs.fed.us/r4/sc/recreation/fcronr.htm

Your comments strongly opposing this plan are needed. Quite simply, there is very little justification for this type of wilderness river use. It's discriminatory against public river users, and doesn't do anything about the commercial interests, who carry very large groups of people quickly through while putting most of the use on the wilderness.

Comments can be submitted to:

Ken Wotring Supervisor's Office Salmon Challis National Forest 50 Highway 93 South Salmon, Idaho 83467

Comments can also be e-mailed to:

comments-intermtn-salmon-challis@fs.fed

RRFW encourages you to mail a hardcopy. It's a lot harder to lose a hardcopy than it is to press a delete button.

RRFW thanks Lloyd Knapp for information supplied in this Riverwire

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River News 09/18/03
PARK AIRLIFTS 17 PEOPLE OFF STUCK RAFT

By Brad Fuqua Editor, Grand Canyon News
A 37-foot motorized raft, operated by Wilderness River Adventures, became pinned on a rock at Unkar Rapid September 11, 2003. Unkar Rapid is at river mile 72.5. "At approximately 2 p.m., the motorized raft experienced engine failure upon entering the rapid," incident commander K.J. Glover said in a report. "It traveled to the left side and got lodged on rocks towards the base of the rapid." For the next three hours, the boatman and crews from two other Wilderness River Adventures' boats attempted to free the raft. The NPS received a satellite call for assistance at 5 p.m., after the self-rescue attempts failed. But SAR [search and rescue] personnel had less than two hours of daylight left for the operation.

Two rangers were inserted onto the boat via short-haul, a technique of moving rescuers utilizing a 100-foot rope attached to the helicopter. Six passengers were evacuated before nightfall, but air operations had to be suspended at dusk due to safety protocols. "Rangers stayed on the boat with the remaining passengers throughout the night," Glover reported. "In the morning the passengers were short-hauled to safety." There

were no reports of injuries. Some of the 17 were able to get onto other river trips and hike out from Phantom Ranch.

Following the helicopter operation, rescuers and boatmen remained on the raft to assist with efforts to free it from the rock. Attempts to free the boat Friday proved unsuccessful. However, the boat was moved with a "Z rig" from the initial point of entrapment to a location 10 feet downstream. The boat also rotated 180 degrees. On Saturday morning, park rangers returned to Unkar Rapid to assist with freeing the boat. The raft finally broke free utilizing engine power. The boat then continued down river without further incident.

A photo of the stranded boat is at http://www.grandcanyontourguide.com/ click on "Grand Canyon Newspaper".

River News 09/29/03
GRAND CANYON SLIDESHOW TOUR

Tom Martin, Co-Director of River Runners for Wilderness, will be presenting a slideshow on the Colorado River Management Plan and on his book Day Hikes from the River: A Guide to 100 Hikes from Camps on the Colorado River in Grand Canyon National Park. The CRMP-Hikes slideshow will be shown in Grand Junction, Boulder, Denver, Fort Collins and Colorado Springs, Colorado. See beautiful vistas illustrating Grand Canyon hikes you can do from the river and exciting river running shots. Tom will cover the latest news on the controversial Colorado River Management Plan now in progress for Grand Canyon National Park, and how this plan will affect your boating access. Tom will be signing books, the sale of which will benefit River Runners for Wilderness.
Round up your boating buddies, and catch one of these free shows:

Grand Junction Wednesday, October 8th, 7PM - 9PM White Water West 418 South 7th St Hosted by W.A.T.E.R.

Boulder Thursday, October 9th, 7PM - 9PM The Dairy Center 2590 Walnut St. Plenty of free parking in Dairy Center's Walnut St lot

Ft. Collins Tuesday, October 14th, 7PM - 9PM REI 4025 S. College Ave. Hosted by REI

Denver Downtown Wednesday, October 15th, 7PM - 9PM AAA Inflatables 3264 Larimer St. Hosted by High Country River Rafters

Colorado Springs Thursday, October 16th, 7PM - 9PM Sports Page 965 Summer Games Dr. Hosted by Pikes Peak River Rafters

All shows are free and open to the public. For more information or for scheduling a show in your area, contact Jo Johnson at jojohnson@rrfw.org or 303-443-1806.

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River News 10/01/03
GLEN CANYON DAM UPDATE

Operations
Releases from Glen Canyon Dam will be nearly identical in October to what they were in September. In October, releases will average 8,000 cfs with a total of 492,000 acre-feet scheduled to be released. On Mondays through Saturdays in October, daily fluctuations due to load following will likely vary between a low of 5,000 cfs (during late evening and early morning off-peak hours) to a high of 10,000 cfs (during late afternoon and early evening on-peak hours). On Sundays, releases will be 5,000 cfs from 7 pm until 7 am, and 8,000 cfs from 7 am until 7 pm.

Releases from Glen Canyon Dam in November of 2003 are currently scheduled be 476,000 acre-feet (an average releases of 8,000 cfs), with the same load following pattern as October.

Because of the draw down condition of Lake Powell, releases from Lake Powell in water year 2003 were scheduled to meet the minimum objective release of 8.23 million acre-feet. This is consistent with the requirements of the Criteria for Coordinated Long-Range Operation of Colorado River Reservoirs.

Basin Hydrology

Drought in the Colorado River basin continues. Inflow volumes have been substantially below average this year with water year 2003 being the 4th consecutive year with below average inflow to Lake Powell. April through July unregulated inflow to Lake Powell in 2003 was 3.91 million acre-feet, only 49 percent of the 30 year average. Total unregulated inflow for water year 2003 will be 53 percent of average.

Inflow into Lake Powell picked up somewhat in September, 2003. Significant amounts of precipitation fell in the Colorado River Basin, particularly in the Four Corners region, in the first two weeks of September. Unfortunately, a drying trend followed. There has been almost no precipitation in the Colorado River Basin in the latter part of September. Total unregulated inflow in September will end up at about 453,000 acre-feet, or 95 percent of average. Inflow on September 29, 2003 was 5,600 cfs, about 60 percent of what is usually seen in late September.

Total unregulated inflow into Lake Powell in water years 2000 and 2001 was 62 and 59 percent of average, respectively, and only 25 percent of average in 2002. Inflow in 2002 was the lowest ever observed since the completion of Glen Canyon Dam in 1963. These low inflows have reduced water storage in Lake Powell. Lake Powell reached a peak elevation in 2003 on June 23 at 3616.6 feet. The current elevation of Lake Powell is 3,603.8 feet (96.2 feet from full pool). Current storage is approximately 12.1 million acre-feet (50 percent of capacity). The water surface elevation at Lake Powell will likely continue to decrease for the remainder of the year. Under expected inflows, Lake Powell will likely be near elevation 3600 feet on January 1, 2004.

Experimental Flows

Daily high fluctuating releases from Glen Canyon Dam, as part of the Glen Canyon Dam experimental flows, were completed on March 31, 2003. From January through March 2003 releases ranged between a high of 20,000 cfs to a low of 5,000 cfs each day. These same high fluctuating releases are scheduled to be repeated in January through March of 2004.

The January through March high fluctuating releases were intended to benefit the endangered humpback chub. Scientists have recognized that the humpback chub population has been in general decline since highly fluctuating flows were curtailed in November of 1991. Those flows helped keep the non-native fish, especially the rainbow and brown trout, in check. The trout are thought to prey upon and compete with native fish such as the endangered humpback chub.

The experimental flows from Glen Canyon Dam received environmental clearances in December 2002. The flows were analyzed in an environmental assessment in accordance with the National Environmental Policy Act. The experimental flows are the result of ongoing studies by scientists from the United States Geological Survey and were recommended by the Glen Canyon Dam Adaptive Management Work Group, a Federal advisory committee. The experimental flows address the decline of two key resources in the Grand Canyon: sediment and population viability of endangered humpback chub. The Finding of No Significant Impact on the experimental flows can be found at http://www.uc.usbr.gov/amp/flow_fonsi.pdf.

This release courtesy Tom Ryan.

River News 10/06/03
COLORADO RIVER ECOSYSTEM SYMPOSIUM

The Glen Canyon Dam Adaptive Management Program and the Grand Canyon Monitoring and Research Center will be hosting a symposium on the Colorado River in Grand Canyon. The symposium will be held in Tucson Arizona, October 28-30, 2003, and is open to all interested persons (public and students welcome!). The symposium will address questions such as:
Was the Low Steady Summer Flow in 2000 good for the river? How can conditions for the endangered humpback chub be improved? Are the new flows and experimental removal of non-native fish working? What is the role of experimentation under the Record of Decision?

Registration is free, but please register your attendance online using the website link below so organizers have enough meeting materials and light refreshments available. The program will run from approximately 8:30 a.m. to 5 p.m. each day, with a special poster session the evening of October 28th.

The program and flyer are available at http://www.gcmrc.gov/symposium/2003/symposium.html The Symposium will be held at the Sheraton Tucson Hotel and Suites, 5151 E. Grant Road, Tucson, AZ 85712. For further information, contact Serena Mankiller, USGS/BRD, Southwest Biological Science Center, Grand Canyon Monitoring and Research Center, 2255 N. Gemini Dr., Flagstaff, AZ 86001, Ph: 928/556-7094, E-mail: smankiller@usgs.gov

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River News 10/06/03

BOULDER, GRAND JUNCTION SLIDESHOW REMINDER

Grand Canyon enthusiasts in Boulder and Grand Junction, Colorado: Don't forget the free upcoming Day Hikes from the River slideshow and CRMP update this week at the following locations.
Grand Junction Wednesday, October 8th, 7PM - 9PM White Water West 418 South 7th St Hosted by W.A.T.E.R.

Boulder Thursday, October 9th, 7PM - 9PM The Dairy Center for the Arts 2590 Walnut St.

If you can't make it to one of those, you have more opportunities in Fort Collins, Denver and Colorado Springs.

Fort Collins Tuesday, October 14th, 7PM - 9PM REI 4025 S. College Ave. Hosted by REI

Denver Downtown Wednesday, October 15th, 7PM - 9PM AAA Inflatables 3264 Larimer St. Hosted by High Country River Rafters

Colorado Springs Thursday, October 16th, 7PM - 9PM Sports Page 965 Summer Games Dr. Hosted by Pikes Peak River Rafters

Additional shows are tentatively scheduled in Colorado for Salida, December 2nd and Durango, December 4th, and in Salt Lake City. For more information on any of the shows, contact jojohnson@rrfw.org or at 303-443-1806.

River News 10/09/03

RIVER RUNNERS WANT LARGER SHARE OF CANYON

By Chris Barge, Boulder Daily Camera Staff Writer
So let's say you're a hard-core paddler who wants to lead your own trip down the Colorado River through the Grand Canyon. Now, pretend you want to do that some time in the next decade. Good luck. Under the current wait-list system, you'd have to buy a Day Planner for the year 2023 before finding a page to pencil in a trip. The wait list for recreational paddlers is about 20 years long. If you want to go this year, cash in those stocks: A spot is waiting for you on a commercial trip with one of the many outfitters that

share 68 percent of the trip allocations. A woman from Boulder and a man who spends most of his time near the Grand Canyon are trying to rally the public behind a movement to change the status quo.

Jo Johnson of Boulder and guide book author Tom Martin co-founded River Runners for Wilderness one year ago. Martin will present a slide show tonight to promote their organization and his updated guidebook, "Day Hikes from the River: 100 Hikes from Camps on the Colorado River in Grand Canyon National Park." The book, an expanded version of his first guide, points out fun side hikes from the river for the 32 percent of river runners who are going it on their own. He says he hopes the book warms people to the idea of joining his and Johnson's cause.

Together, Johnson and Martin are trying to get the public engaged as the National Park Service develops a new Colorado River Management Plan. "There has been 30 years of stagnation down there to the benefit of an oligopoly of concessionaires," Martin said. "Fixed allocations don't work." The Park Service is scheduled to publish a draft environmental impact statement for the plan this fall. It will address the allocation system, as well as whether to continue allowing motorized boats on the river.

Commercial outfits in the canyon like using motor boats because they allow them to offer customers longer river trips over fewer days. Johnson says, in addition to being expensive, fast trips rob visitors of the true immersive psychological experience that the Grand Canyon can provide.

Hooey, says Mark Grisham, executive director of the Grand Canyon River Outfitters Association, which represents the concessionaires. Go to Minneapolis or Dallas and fill an auditorium with people who would seriously consider taking a river trip through the Grand Canyon, he said. Then, ask for a show of hands to these questions: Who wants to book an outfitter for a one- to two-week trip? Now, who wants to round up their own gear, own group and all the time off necessary to do the trip on their own? "We don't think that show of hands would be 50-50," Grisham said. "We think it would be more like 95-five."

Grisham said he and Martin disagree on how many commercial boats should run the river. It's the right mix, Grisham said. It's the antiquated wait-list system that needs to change. He suggests introducing a lottery. Both sides agree that the current method for private boaters to get on the water needs improvement. "That's why people are so pissed off," Grisham said. "They feel like the Park Service has let them down, so we become the for-profit bad guys."

The Grand Canyon River slide show and park plan update will be from 7 to 9 p.m. today at the Dairy Center, 2590 Walnut St., Boulder. For more information, call Johnson at (303) 443-1806. Martin's book is available at www.vishnutemplepress.com. For more information on the Colorado River Management Plan, visit www.nps.gov/grca/crmp/. Contact Chris Barge at (303) 473-1389 or bargec@dailycamera.com. Copyright 2003, The Daily Camera. All Rights Reserved.

River News 10/13/03

RRFW Riverwire – RIVER OF NO RETURN MANAGEMENT PLAN UPDATE

The final environmental impact statement (FEIS) has been released for the Frank Church River of No Return Wilderness Management Plan by the Salmon Challis National Forest. This plan will guide management of the Main and Middle Fork of the Salmon River for years to come. The wild character of this area has degraded significantly in the past 20 years and that trend will actually increase under the new plan. Please take a few minutes to write a letter to the Forest Service asking them to protect the wilderness character of the Frank Church - River of No Return Wilderness. Comments must be submitted by October 27, 2003.

The final plan allows unlimited expansion of aircraft and motorboat use, continued degradation around campsites, lakes, streams and trails, serious impairment of the opportunity for a wilderness experience on the Middle Fork Salmon and Main Salmon rivers, and an unfair quota system that has commercialized much of the access to these rivers. While the draft EIS included 11 alternatives for consideration, the final EIS has been reduced to a final five (A to E). Though none of these alternatives are optimal to preserve Wilderness character and values, Alternative B comes closest. We endorse Alternative B, but only with the following changes:

(1) Managing use on the Middle Fork and Main Salmon rivers: Alternative B is the only alternative that caps use at a level that protects Wilderness character and opportunities for a wilderness experience. However, because this alternative continues an outdated and unfair allocation system (60 percent of use is for commercial trips), and allows for overly large party sizes (19 per group) it unnecessarily limits the number of public boaters who can float these rivers. The Forest Service should cap river use at the level set in Alternative B, but increase the number of trips available to the public by reducing group size limits to 12 per trip, and by allocating a much larger percentage of the launches to the public, rather than commercial users. The opportunity to experience Wilderness should not be based on one's willingness to pay a commercial outfitter.

(a) Jetboats: The plan allows virtually unlimited motorboat use on the Mail Salmon. Jetboat use has grown dramatically since 1978, much of it for "jetback" shuttles, which bring rafters upriver to their cars. Urge the Forest Service to prohibit jetbacks, and to cap motorboat use at 1978 levels.

(b) Painter Bar Road: The Painter Bar road is a primitive route that was used to access a private inholding within the Wilderness and Wild Salmon River corridor. The Forest Service has acquired the inholding. The FEIS proposes to leave this road open to ATVs and 4-wheel drive traffic. The Wilderness Act prohibits permanent roads and the Wild Scenic Rivers Act prohibits roads along Wild Rivers. Urge the FS to close the Painter Road in the final plan.

(2) Aircraft Use: The Forest Service estimates that 5,500 aircraft land on airstrips in the Wilderness each year. Most of the use is not for wilderness dependent activities but part of a new fad where pilots "bag" airstrips to prove their competence, or engage in an airplane version of car camping. All of the alternatives the Forest Service developed

allow aircraft use to increase without restriction. Urge the Forest Service to limit the number of aircraft landings to pre-Wilderness designation levels, and to implement a permit system that allows access for legitimate Wilderness dependent activities only.

In addition, and without agency approval, pilots have converted four Wilderness meadows into landing strips, referred to as the Dewey Moore, Mile-Hi, Simonds, and Vines "landing strips". The Forest Service preferred alternative proposes to maintain these strips for "emergency use," though landing at other times would not be prohibited. Urge the Forest Service to permanently close the Dewey Moore, Mile-Hi, Simonds, and Vines landing strips.

(3) Backcountry: Urge the Forest Service to implement specific management strategies to reduce crowding and on-site physical impacts by reducing group size limits from the current 20 people/20 head of stock, to 10 people/10 head of stock.

(4) Outfitter Camps: The plan would continue the practice of reserving over 80 camps for commercial land-based outfitters. The camps include permanent structures such as corrals, tent logs and fences. All Wilderness users should be required to meet the same rigorous leave-no-trace standards. Urge the Forest Service to require that outfitter camps be temporary and removed at the end of each season.

(5) Livestock grazing, fire control, fish stocking: These three important ecological issues are not addressed in the plan despite the fact that each has a significant effect on natural conditions in the Wilderness. Urge the Forest Service to adopt standards that promote naturally functioning ecosystems. Natural fires should be allowed to burn, stocking non-native species should cease, and strict controls should be incorporated into livestock allotment plans.

Send your comments to: Ken Wotring, FC-RONR Wilderness Coordinator, Forest Supervisor's Office, Salmon-Challis National Forest, 50 Highway 93 South, Salmon, ID 83467. Phone: (208) 756-5131, Fax: (208) 756 - 5151, email: comments-intermtn-salmon-challis@fs.fed.us

River Runners for Wilderness thanks Wilderness Watch www.wilderness.org for gathering the information contained in this release.

River News 10/21/03
RRFW Riverwire - Update on the CRMP Planning Process

To: All Interested Persons From: Planning Team Leader, Colorado River Management Plan

Subject: Update on the CRMP Planning Process Grand Canyon National Park is making considerable progress in developing a Draft Environmental Impact Statement for revising the park's Colorado River Management Plan (CRMP). We have developed a full range of reasonable draft alternatives (including the current situation which is the No

Action alternative), which is now undergoing preliminary impacts analysis. The planning team has carefully considered and addressed input including the following:

* Extensive comments the park received during the public scoping period in 2002,
* Input from the stakeholder workshops and expert panels,
* Consultation with Native American Tribes,
* Interagency consultation,
* Provisions of the 2002 lawsuit settlement agreement,
* Extensive data and other information gathered by the planning team, and
* Laws, policies, and principles guiding plan development (on the CRMP website at www.nps.gov/grca/crmp).

The next steps in the CRMP planning process will include:

* Add mitigation measures to the alternatives, as necessary, to address any major impacts identified in the preliminary impacts analysis. The mitigated alternatives will then undergo additional impacts analysis. All of this is scheduled for completion in early November.
* Review the draft alternatives and draft impacts analysis, make any necessary changes, and select a preferred alternative. The preferred alternative will be the agency's proposal for a revised CRMP; it may be one of the draft alternatives, the No Action alternative, or a new alternative developed during the preferred alternative selection process.
* Publish a Draft CRMP/EIS for public review and comment (after any additional revisions and analysis).

We will not know the exact timing for publishing and public review of the Draft CRMP/EIS until the preferred alternative selection process has been completed. Once that process is completed, we will announce the schedule in a note to the CRMP email list, and on the CRMP website.

When the Draft CRMP/EIS is published, the park will issue a Notice of Availability in the Federal Register, a press release, and a note to everyone on the CRMP mailing list. We have begun planning for extensive public review opportunities, including public meetings, and we will keep you informed as we develop the details.

Please send any comments or questions concerning this note or the process to grca_crmp@nps.gov (please be sure to use an underscore to make grca_crmp). Thank you for your interest in Grand Canyon National Park and the Colorado River Management Plan. Rick Ernenwein CRMP Planning Team Leader.

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River News 10/21/03
NOROVIRUS UPDATE

River trip illnesses down from last year By Brad Fuqua, September 24, 2003 Grand Canyon News Editor
One year after a series of norovirus outbreaks on the Colorado River, things appeared to be pretty much back to normal this summer as river runners made their way through Grand Canyon. Last year, dozens of river trip passengers fell sick to the gastrointestinal illness, the same strain that ran rampant on cruise ships. This summer at Grand Canyon, only one trip reported three or more sick passengers. The infected trip launched from Lee's Ferry on Sept. 1 and a passenger became sick the following day. As a result, there is a theory that the person may have arrived for the trip already carrying the virus.

"The first person got sick on the 2nd, so our wildest guess is that it was brought in," said Michael McGinnis, Grand Canyon National Park river sub-district ranger. "The Coconino County Health Department actually has the toilets ... they took samples and are testing for norovirus. That's what they think it is, they don't know for sure." McGinnis said it appears 13 people got sick from the incident. Two people were flown out and taken to the hospital in an evacuation done above Crystal Rapid. Last year's problems with the illness were traced to discharges from Glen Canyon Dam's water-treatment plant. This year, McGinnis said "they did testing and did not find it," so that problem has seemingly been solved.

In addition, the National Park Service, commercial river runners and public boating groups met in a series of meetings to go over sanitation practices. Out of those meetings came a policy that private or commercial boating groups must report three or more illnesses immediately via satellite phone. That happened just the one time this year.

If fewer than three people become sick with contagious gastrointestinal illness on a river trip, the boaters are not required to report it until the end of the trip. That happened 12 times this summer, including one person who had to be flown out.

According to the Centers for Disease Control, symptoms of norovirus usually include nausea, vomiting, diarrhea and some stomach cramping. Sometimes people additionally have a low-grade fever, chills, headache, muscle aches and a general sense of tiredness. The illness begins suddenly is usually brief, with symptoms lasting only about one or two days, the CDC reports.

River News 10/23/03
UPDATE ON CRMP PLANNING

Released October 21, 2003 To: All Interested Persons From: Planning Team Leader, Colorado River Management Plan Subject: Update on the CRMP Planning Process Grand Canyon National Park is making considerable progress in developing a Draft Environmental Impact Statement for revising the park's Colorado River Management Plan (CRMP). We have developed a full range of reasonable draft alternatives (including the current situation which is the No Action alternative), which is now undergoing preliminary impacts analysis. The planning team has carefully considered and addressed input including the following:
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* Laws, policies, and principles guiding plan development (on the CRMP website at www.nps.gov/grca/crmp). The next steps in the CRMP planning process will include:

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The mitigated alternatives will then undergo additional impacts analysis. All of this is scheduled for completion in early November.

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Thank you for your interest in Grand Canyon National Park and the Colorado River Management Plan. Rick Ernenwein CRMP Planning Team Leader

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River News 10/25/03
RIVER CONCESSION SALE POSSIBLE

Grand Canyon, AZ
A Grand Canyon river concessionaire has initiated the process of being purchased by another rafting concession, according to park officials. The river concession contract, owned by High Desert Adventures, has two years left on its present contract extension. The purchaser, if approved by the park, will be Arizona Raft Adventures. High Desert Adventures has 3,323 user days, while Arizona Raft Adventures has 10,368. There are currently 16 river concessions contracts today, with one company holding two contracts. If the sale is approved, there will be 16 contracts held by 14 companies. The contract period is now up to 10 years, with three-year extensions allowed beyond the 10-year period. All river concessions are presently operating under an extension that will expire December 31, 2005.

Grand Canyon National Park will be renewing the river concession contracts based on the Colorado River Management Plan (CRMP), now in the midst of an Environmental Impact Statement review. The final management plan will set the stage for river use for another 10 years.

Jo Johnson, River Runners For Wilderness Co-Director, is hoping for a change in the way the park distributes these permits. Johnson notes that 21 businesses become river concessionaires in the fall of 1971, with the initiation of 5-year contracts. At that time, all government agencies were to be following the National Environmental Policy Act, known as NEPA. Though federal law requires public review and scoping of such activities, these have never been conducted, and river concessions contracts have since been awarded based on requirements found in the CRMP. "Today, the split-allocation system has resulted in the do-it-yourself river running public waiting in a projected 20 year backlog of permits for river access while river concessionaires are slashing prices on river trips to assure their river trips fill." Johnson adds "We question the continued usefulness of a split allocation system."

According to Johnson, there are only two ways to shift user-days from the river concessions back to the public. The first is if the CRMP identifies a decreased need for commercial concessionaire services as they are presently offered. "The other way would be for the CRMP to adopt an allocation-free access system like the one at Boundary Waters or at Grand Canyon for backpackers. This completely eliminates the need for concessions to have a fixed allocation base." Johnson points out that de-regulating the concessions would move them from an oligopoly with fixed subsidies to an oligopoly "that could compete for market share. The park could terminate the concessionaire contracts and award any number of qualified Incidental Business Permits for guided river services."

"A number of businesses have been thriving for over a decade servicing the non-commercial river running public without any allocations whatsoever" Johnson noted. "These businesses provide a wide array of great services at low cost to the public. Allocation-free access plans hold the only hope for a contention free future for the river."

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LR in the News 10/29/03
Interior Dept. favors more Canyon flooding

By Mitch Tobin ARIZONA DAILY STAR
Tucson, Arizona - Despite initial resistance, the Bush administration favors continued experimental floods meant to restore the Grand Canyon's ecology, a senior official said in Tucson on Tuesday.

Assistant Secretary of the Interior Bennett Raley, the administration's point man on water issues, spoke to 60 scientists at the start of a three-day meeting on how Glen Canyon Dam affects the Colorado River.

Researchers explained how they're using lasers, underwater cameras, century-old photos and experimental flumes in Minneapolis to learn how sand grains and Volkswagen-sized boulders move through the Canyon's rapids and eddies.

Raley urged the scientists not to politicize their work and to remember that "science is not the only input factor for management of the Colorado River."

"If scientists are sloppy and mix advocacy with science, you will end up with the same public perception of integrity that lawyers have," said Raley, a lawyer by training.

Glen Canyon Dam, completed in 1963, dramatically altered the Colorado's flow. Before the dam, the warm, muddy river roared with spring snowmelt. Sediment was lifted onto beaches and sand bars, creating wildlife habitat and backwaters vital to native fish, such as the endangered humpback chub. The beaches are still important campsites for boaters.

After the river was plugged to stabilize the Southwest's water supply, it ran colder and clearer below the dam, which trapped 90 percent of the silt. But dam releases--which often fluctuate with the Sunbelt's electricity demands--have also caused the Colorado's baseline flow to double downstream. As a result, much of the silt and gravel deposited by the Grand Canyon's 740 tributaries gets whisked into Lake Mead downstream.

"It wasn't that we just lost the spring floods, which redeposited sand," U.S. Geological Survey researcher Ted Melis said, "we lost the low-flows the rest of the time, which were low enough to retain those inputs for use during the high-flows. We're getting hit on both ends."

The result is an ecosystem transformed by a dam that helps supply water and power to 25 million people.

Tucson is becoming increasingly dependent on the Colorado, whose water comes here via the Central Arizona Project's 336-mile canal.

After passage of the 1992 Grand Canyon Protection Act, the Clinton administration tried to replicate the river's natural flows. With much fanfare, Interior Secretary Bruce Babbitt opened the dam's floodgates in 1996; another flooding experiment was tried in 2000.

Despite initial claims of success, scientists now say the results were minimal. A lack of sediment in the river made it tough for sandy areas to expand, and many gains were quickly washed away.

Scientists want to create more floods and time them when the Paria River is dumping sediment into the Colorado.

But the drought has caused that tributary, 15 miles below the dam, to deposit less silt in the past three years than any time in recorded history.

Raley said at first he was "deeply, deeply skeptical about the experimental flow program." But, after talks with scientists on a river trip, Raley accepted it was "good science and it was worth taking the political risks to move forward."

"We know when we're being gamed. Had we sensed that, we probably would have slow-walked, ducked, evaded and done everything not to move forward," he said.

John Weisheit, an environmentalist with the group Living Rivers who would like to see Glen Canyon Dam removed, was encouraged by Raley's words. But he said the Interior Department still isn't spending enough money to restore the Grand Canyon.

In the past 30 years, researchers have flip-flopped on whether the Canyon was losing or gaining sediment, said Jack Schmidt of Utah State University. Some thought the lack of

floods created a surplus of silt and there was enough sand in the river to form new beaches.

"What we've learned in the Grand Canyon is, the system may be in sediment deficit all the way to Lake Mead," he said.

* Contact Mitch Tobin at 573-4185 or mtobin@azstarnet.com.

River News 10/31/03
RRFW Riverwire - PUBLIC TO BE BYPASSED AGAIN

Grand Canyon National Park October 31, 2003
River Runners for Wilderness has learned that a Recommendation for Wilderness Proposal has been submitted to the park by Representative George Radanovich (R-CA, Chairman, Subcommittee on National Parks, Recreation and Public Lands).

Chairman Radanovich is proposing a wilderness recommendation which excludes the Colorado River. Grand Canyon National Park staff are responding to a request from the NPS Directorate to prepare the necessary documentation. Representative Radanovich and committee staff members intend to introduce this alternative through the congressional process as a wilderness bill.

"Here we go again." commented Tom Martin, Co-Director of River Runners for Wilderness "We are in the middle of a public process dealing with the river-wild, where the public, as it has for over 30 years, is clamoring for preservation of the wilderness character of the river, and in steps Congress to bypass the public. In fact," Martin notes, " we are possibly only two months away from seeing the release of the long awaited preferred alternative for the Colorado River Management Plan Environmental Impact Statement. Just like this spring, the summer of 2001, and in 1980, we're seeing an attempt to muzzle the public process. This recommendation not only shuts down the public process," he continues, " but it flies in the face of a court ordered settlement from two years ago to include a wilderness alternative."

Grand Canyon Superintendent Joe Alston and staff are in the process of producing a map that reflects the Chairman's intent, which excludes the river from Wilderness designation. The park is providing narrative explanation that delineates further exclusions besides the river, as defined in the 1993 Final Wilderness Recommendation. RRFW has also learned that the 1993 recommendation will also be included for reference purposes. These documents will be submitted to the NPS Office of Congressional Affairs for final drafting services. The information is being provided as a service to the Chairman and Subcommittee staff, who will then handle all further liaison activities with the Congressman's office relating to the proposed recommendation.

"The river rafting public has discovered that wilderness rivers are an incredibly unique and scarce resource. This recommendation eliminates 240 miles of the best wilderness river running in the world. There are no motorized boats on the river for three months of

the year, and no jet-boats at all. The loss of wilderness protections will change all that." remarks Jo Johnson, also of River Runners for Wilderness. "Most importantly, allowing 80% of the public river access to be given to park rafting concessionaires, 75% of which use motorized tour boats to run through the canyon, while the do-it-yourself paddler waits in a 20 year backlog for access, is inconsistent with wilderness management. Thirty years of access wars over the character of the river have taught us that outdated fixed allocations are not what wilderness river running is supposed to be all about."

This recommendation will result in a reduction in wilderness acreage at Grand Canyon National Park. The 1993 Final Wilderness Recommendation proposes 1,139,077 acres. By excluding the river, the amount is reduced by 12,190 acres to 1,126,887 acres of wilderness. RRFW has learned that Grand Canyon National Park has taken no position on this recommendation at this time.

All river runners are encouraged to contact the following congressmen and ask to speak with the environmental staffer. Politely request that the Radanovich Grand Canyon Wilderness recommendation not be introduced while a public process to sort these issues out is ongoing. Even if the listed congressmen below are not in your district, you are all encouraged to contact them as this is a National Park, and therefore a national issue.

Rick Renzi 202-225-2315 Mark Udall 202-225-2161 Tom Udall 202-225-6190 Raul Grijalva 202-225-2435 George Radanovich 202-225-4540 John McCain 202-224-2235

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River News 11/02/03
RRFW Riverwire - GLEN CANYON DAM UPDATE

Updated October 31, 2003
Operations

Releases from Glen Canyon Dam in November will be nearly identical to what they were in October. In November, releases will average 8,000 cfs with a total of 476,000 acre-feet scheduled to be released. On Mondays through Saturdays in November, daily fluctuations due to load following will likely vary between a low of 5,000 cfs (during late evening and early morning off-peak hours) to a high of 10,000 cfs (during late afternoon and early evening on-peak hours). On Sundays, releases will be 5,000 cfs from 7 pm until 7 am, and 8,000 cfs from 7 am until 7 pm.

Releases from Glen Canyon Dam in December of 2003 will likely be higher than November. The volume releases in December is likely to be 600,000 acre-feet (an average release of about 10,000 cfs).

Because of the draw down condition of Lake Powell, releases from Lake Powell in water year 2004 are being scheduled to meet the minimum objective release of 8.23 million acre-feet. This is consistent with the requirements of the Criteria for Coordinated Long-Range Operation of Colorado River Reservoirs.

Basin Hydrology

Severe drought conditions in the Colorado River Basin continue. As we move into a new water year there are no signals of the drought easing. Water year 2004 began on October 1, 2003 and the first month of our new water year was much warmer and drier than average. Basinwide precipitation in October was only about 30 percent of average. Soil moisture levels throughout the basin are very low, and as we move into winter it appears likely that the snowpack will be building upon these very dry soils. The scenario is not favorable for next spring's runoff, as much of the melting snow will be absorbed by the dry soil. Reclamation is estimating that with average snowpack conditions this winter, runoff next spring would be about 75 percent of average.

The Colorado River Basin is now in its 5th year of drought. Inflow volumes have been below average for 4 consecutive years. Unregulated inflow in water year 2003 was only 53 percent of average. Unregulated inflow in 2000, 2001 and 2002 was 62, 59, and 25 percent of average, respectively. Inflow in 2002 was the lowest ever observed since the completion of Glen Canyon Dam in 1963.

The trend of low inflow continues. Unregulated inflow in October, 2003 will end up being only 55 percent of average. As of October 31, 2003 observed inflow to Lake Powell is about 6,000 cfs, about 58 percent of what is usually seen in late October.

Low inflows have reduced water storage in Lake Powell. The current elevation of Lake Powell is 3,602.0 feet (98.0 feet from full pool). Current storage is approximately 11.9 million acre-feet (49 percent of capacity). The good news is that even after 4 years of severe drought, Lake Powell is still storing a large volume of water (nearly 12 million acre-feet).

Experimental Flows

Daily high fluctuating releases from Glen Canyon Dam, as part of the Glen Canyon Dam experimental flows, were completed on March 31, 2003. From January through March 2003 releases ranged between a high of 20,000 cfs to a low of 5,000 cfs each day. These same high fluctuating releases are scheduled to be repeated in January through March of 2004.

The January through March high fluctuating releases were intended to benefit the endangered humpback chub. Scientists have recognized that the humpback chub population has been in general decline since highly fluctuating flows were curtailed in November of 1991. Those flows helped keep the non-native fish, especially the rainbow

and brown trout, in check. The trout are thought to prey upon and compete with native fish such as the endangered humpback chub.

The experimental flows from Glen Canyon Dam received environmental clearances in December 2002. The flows were analyzed in an environmental assessment in accordance with the National Environmental Policy Act. The experimental flows are the result of ongoing studies by scientists from the United States Geological Survey and were recommended by the Glen Canyon Dam Adaptive Management Work Group, a Federal advisory committee. The experimental flows address the decline of two key resources in the Grand Canyon: sediment and population viability of endangered humpback chub. The Finding of No Significant Impact on the experimental flows can be found at http://www.uc.usbr.gov/amp/flow_fonsi.pdf.

This release courtesy Tom Ryan.

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River News 11/03/03

Endangered Species: Interior mulls warming Colorado River to help humpback chub

April Reese, Land Letter Southwest correspondent
This story is the first of a series on management of natural resources in the Grand Canyon.

GRAND CANYON NATIONAL PARK, Ariz. -- Almost 40 years after Glen Canyon Dam plugged the Colorado River, one of the river's oldest inhabitants is struggling for survival. But as the debate swirls over recovering the endangered humpback chub while meeting human water demands, the river's federal caretakers have devised a new solution: warm up the river.

The chub, which ranges in size from 5 to 20 inches and can live up to 30 years, evolved in the Colorado River basin 3 million to 5 million years ago. Once numbering in the millions throughout the watershed, the fish has been reduced to a couple thousand, although scientists disagree over just how many remain. While small groups of the fish persist in the upper Colorado River basin, the only surviving lower basin population is in the Little Colorado River, near its confluence with the mainstem in Grand Canyon National Park.

[The largest known population of humpback chub is in the Little Colorado River in the Grand Canyon, where there may be up to 10,000 fish. Photo courtesy of the Fish and Wildlife Service/John Rinne.]

Scientists attribute the species' decline primarily to Glen Canyon Dam, built in 1963 to provide water and power to the interior West. While many credit the dam and its reservoir, Lake Powell, with turning the arid region into a land of verdant farms and booming cities, the project also has drastically changed the ecosystem downstream. The Colorado River, which historically ran muddy and warm, turned clear and cool with the closing of the floodgates.

As incoming water pools behind the dam, its sediment load settles, and the water released through the dam's penstocks is drawn from the cool depths of the reservoir. Water temperatures that once fluctuated seasonally from about 80 degrees in summer to almost freezing in winter now average 46 degrees year-round, according to the Bureau of Reclamation. Biologists suspect the chub and other native fish that have disappeared from the river altogether have difficulty tolerating the cool, clear waters that now flow through the Grand Canyon.

[The picture on the left shows the clear-running Colorado River in the Grand Canyon above the confluence with the Little Colorado River; the other picture shows the murky Little Colorado. Photos by April Reese.]

On a recent data-gathering trip funded by the U.S. Geological Survey, Joe Shannon, a Northern Arizona University-based aquatic ecologist who has been monitoring the Grand Canyon ecosystem for 15 years, pointed out the contrast between the murky Little Colorado and the mainstem river. A recent storm had loaded the Little Colorado with sediment, and its milk-chocolate flow muddied the crystalline main stem where the two rivers meet in Grand Canyon National Park, about 75 miles downstream from the dam.

"That's how the Colorado should look," he said, pointing to the river, which has grown murky under the influence of its temporarily muddy tributary. "It's not supposed to be clear."

It was a rare glimpse of the river as the humpback chub saw it for millions of years, before the construction of the dam 40 years ago. But a quick splash of the hand in the cloudy waters is a reminder that this is still a "designer ecosystem," as Shannon calls it. The water is cool -- too cool for humpback chub to reproduce.

Warming the river

The Bureau of Reclamation, which owns and operates the dam, hopes to improve those conditions by using a "temperature control device" (TCD) to release warmer water into the river. Dennis Kubly of BuRec's Environmental Resources Division said the agency wants to send water from the reservoir's warm surface layer downstream instead of drawing from the deep, cold waters of the lake.

The impetus for the project was a biological opinion issued by the Fish and Wildlife Service in 1994. The agency recommended that BuRec investigate using temperature control technology, which up to that point had only been used to enhance conditions for game fish, to help recover the humpback chub.

In August, the proposal received an endorsement from the Glen Canyon Dam Adaptive Management Work Group, comprised of 25 stakeholders representing the park service, BuRec, FWS, power interests, environmental groups and others. This week, the group formally asked Interior Secretary Gale Norton to give BuRec the green light to go forward with the project. Norton is expected to make a decision on the proposal within the next few weeks.

But several biologists question whether the water drawn from the top of the reservoir will be warm enough to significantly benefit the chub. While BuRec's proposal to increase water temperatures in the river is partly in response to FWS' recommendations, some biologists are concerned that warming the river could benefit non-native fish that prey on the chub as well. For instance, channel catfish -- one of several species, including striped bass and carp, introduced to the Colorado River by fishery managers -- respond to increases in water temperature by speeding up their metabolism, which causes them to eat more food, including chub, Shannon said.

"Right now, those fish may be suppressed by cold water temperatures," said Sam Spiller, Lower Colorado River coordinator for the Fish and Wildlife Service. "There might be more damage if we warm the water." Even so, the increase in temperature could help control cold water species like trout, he added.

Even if the TCD succeeds in boosting chub numbers, it's likely to fall short of federal recovery goals for the species, said David Haskell, a former director of Grand Canyon National Park's Science Center. "The recovery plan calls for [establishing] another major, viable population," he said. "The TCD would not do that."

Shannon was more optimistic. "I think the TCD can work, but only if there's a total reworking of dam operations," so that water releases would more closely mimic historic fluctuations in flows, Shannon said. "Recovery efforts have to be on a big scale, because the dam and its impacts are so big."

If the project goes forward, Kubly said it will probably be implemented in small steps so federal managers can monitor the effects on both native and non-native fish and adjust the plan accordingly.

"In a sense, it's a one-arm-behind-your-back approach," he said. "Not everyone trusts one another, so this makes sure we don't move too far too fast."

It also costs less to go slow, Kubly noted. The initial two-penstock plan will cost about $25 million; to alter all eight, the cost would be about $100 million, he said.

The agency has used temperature control devices with some success on other dams, including Shasta on California's Sacramento River, Hungry Horse on Montana's Flathead River and Flaming Gorge on Utah's Green River, Kubly added.

"There aren't any known disasters out there," he said. "By and large, the system responses have either been positive or neutral."

Recovering the chub

But Haskell, who was also a ranger at Glen Canyon National Recreation Area in the 1970s, said the only way to restore native fish -- and the rest of the ecosystem -- is to decommission the dam. He compared the TCD project to "tinkering while Rome is burning."

"If there wasn't a dam, the trout would be dead real quick, because they can't take a lot of this," said Haskell, gesturing toward the murky water.

According to the Fish and Wildlife Service, the chub will be considered for removal from the endangered species list "when five viable, self-sustaining populations have been restored ... and when the fish's habitat has been protected."

With one of the river system's biggest dams just upstream from the largest population of the chub, that's a tall order, say Haskell and other decommissioning advocates.

In addition to the TCD proposal, federal managers have launched a program aimed at killing non-native fish. But that effort, too, is fraught with uncertainty. Some biologists are worried that reducing the numbers will only give the remaining non-native fish more room -- and more resources -- to thrive. The question, Shannon said, is, "How do you kill all the bad fish and grow the good fish?"

Complicating recovery efforts are conflicting management objectives in the same ecosystem, Shannon added. "The park is killing non-native fish, but [state managers] are still stocking them upstream," he said.

Debbie Felker, a spokeswoman for FWS' Upper Colorado River endangered fish recovery program, said the agency is working with state game and fish officials to scale back stocking programs that conflict with endangered species recovery.

The challenge of recovering the humpback chub is part of a larger debate over how to protect the park's resources while meeting water delivery mandates.

Lake Powell is one of several reservoirs that are part of the Colorado River Storage Project, which provides water for seven states: Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming. About 85 percent of the water is used for irrigation; the rest is allocated for residential, commercial and industrial use. Balancing those demands with the protection of an extensively altered river ecosystem is a daunting task, observers say.

Meanwhile, the stakes are becoming increasingly higher for the chub in the Grand Canyon, Shannon said. "If we lose the base flow of the Little Colorado River because of drought, it's all over," he said. "We're talking at most another 20 years."

River News 11/06/03
RRFW Riverwire CONDOR CHICK FLIES!

Grand Canyon National Park

Biologists from Grand Canyon National Park and The Peregrine Fund have confirmed the fledging of the first California Condor nestling in Arizona in perhaps over a century. The flight was observed at 1:30 p.m. on Wednesday, November 5. The chick jumped out looking like it wanted to land but there was nothing there. It ungracefully circled and landed 500 - 600 feet below its cave in a remote canyon. The California Condor was included on the first Federal Endangered Species List in 1967.

"It was spectacular!" announced an excited Sophie Osborn, Field Manager of The Peregrine Fund. "It was not the graceful flight we had envisioned, more like a controlled fall and our hearts were in our throats as it dropped 500 to 600 feet below the nest cave. Minutes after the chick landed it started to explore its environment, tugging on a yucca plant and hopping from boulder to boulder. We waited and hoped so long for this to happen that being part of it was indescribable!" she added.

"Our biggest worry after the chick left the cave was how long it would take for the parents to find it," remarked Chad Olson, Raptor Technician for the National Park Service. "Both parents were away from the area when the chick fledged. To our great relief, female 127 flew to the nest about two hours after the chick fledged, realized the chick was not in the nest cave, immediately found it, and dropped down to feed it. Since fledging is such a dangerous time for the chick it is tremendous to be past this and on to another exciting phase." Olson said.

The chick is healthy and alert to its surroundings. Biologists are planning to attach telemetry equipment and assess overall health issues. The bird will be closely monitored.

"A fledgling condor chick spreads its wings and flies into the wild, and not just the parents share in the pride. The partners who have worked for decades to rescue this species from the brink of extinction see it as a great cause for hope," observed Interior Secretary Gale Norton.

"I have watched adult condors soaring above the spectacular beauty of the Grand Canyon. The birth and flight of this young condor creates optimism that condors will flourish in the Canyon for many generations to come," Norton added.

Biologists first suspected that Condors 123 and 127 were incubating an egg in March 2003. Daily observations were made, with assistance from a group of "Nestwatch" volunteers. The parents became very attentive to the nest in early May. The existence of the chick was confirmed on August 18 after biologists made an arduous 24-mile hike in 100 degree heat down to below the nesting cave. Daily monitoring continued.

"We are very pleased about this new step in the recovery of the California Condor species," stated Joseph Alston, Superintendent of Grand Canyon National Park. "We are proud to be a part of this highly anticipated and monumental event for both the park and the Colorado Plateau. We look forward to working with our partners in order to ensure the well-being of this new arrival to the condor population and to ensure continued success in the program."

Three pairs of California Condors produced eggs in Arizona in 2003 (one in BLM's Vermilion Cliffs National Monument and two in Grand Canyon National Park). Two of the eggs did not hatch, which is not uncommon for California Condors during their early breeding years. In fact, this was the second egg laid by Condor 127 and the third laid by Condor 119. In California this year, one egg was laid and hatched in early May, but, unfortunately, the chick did not survive.

As Roger Taylor, Arizona Strip Field Manager for the Bureau of Land Management (BLM) states, "We have been anxiously awaiting this bird's first flight. With the good condor viewing opportunities that are typically available along the Vermilion Cliffs, perhaps the public will have an opportunity to view the young condor this winter."

"The significance of the first wild-hatched condor in Arizona is tremendous. While captive-bred condors have exceeded our expectations, it is this chick and others like it in the future that ensure condor recovery in Arizona," says Arizona Game and Fish Director Duane Shroufe.

"The partners have watched this chick prepare to fledge with as much anticipation as any natural parent might," said H. Dale Hall, Southwest Regional Director of the U.S. Fish and Wildlife Service. "We all wish the best for this fledgling and look forward to further successes."

The historic Arizona reintroduction is a joint project among the U.S. Fish and Wildlife Service, the National Park Service, The Peregrine Fund, the Arizona Game and Fish Department, the Bureau of Land Management, Southern Utah's Coalition of Resources and Economics, and others. Funding for the project is being provided by The Peregrine Fund, U.S. Fish and Wildlife Service, Arizona Game and Fish Department, Peter Pfendler, National Fish and Wildlife Foundation, Nina Mason Pulliam Charitable Trust, Disney Wildlife Conservation Fund Awards, Steve Martin/Natural Encounters, Grand Canyon National Park Foundation, Bureau of Land Management, Grand Canyon National Park, Kearney Alliance, Grand Canyon Trust, Patagonia, Turner Foundation, Globe Foundation, Earth Friends, Arizona Public Service, Wallace Research Foundation, Mattie Wattis Harris Foundation, Arizona Community Foundation, and Oracle Corporation Grand Canyon Conservation Fund, and others.

Images and other information may be obtained from the following websites:

The Peregrine Fund: www.peregrinefund.org/press/condor_chick_fledges_2003.html
The Grand Canyon National Park Foundation: www.gcnpf.org, Grand Canyon National Park: www.nps.gov/grca

The California Condors are being released as a "non-essential/experimental population" under section 10(j) of the Endangered Species Act. Section 10(j) provides that the species can be released in an area without impacting current or future land use planning. However, in Grand Canyon National Park condors are provided full protection as federally protected threatened species. This authority has been spelled out further in an innovative agreement between the U.S. Fish and Wildlife Service and local

governments. This "Implementation Agreement" spells out a positive working relationship between the Federal government and the various local governments.

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River News 11/07/03
Study: Global warming to 'substantially affect' California in 20 years

Associated Press
Sacramento, Calif.
Global warming will substantially affect California in about 20 years, experts say, warning that the state is more vulnerable because of its coastline, its climate and its dependence on Sierra Nevada snowpack for water and hydroelectricity.

"It's going to affect all of us," said Robert Wilkinson of the University of California, Santa Barbara, School of Environmental Science and Management, who wrote a 432-page treatise on the impact on California.

It means a shorter ski season in the Sierra, and poorer habitat for endangered salmon in lower streams. It may mean more wildfires and more floods. Extreme heat waves, easier spread of diseases and increased air pollution all could imperil health.

Oceans that rose 4 inches to 8 inches over the last century could rise up to 3 feet this century, swamping San Francisco Bay estuaries and endangering pumps sending freshwater from the Sacramento-San Joaquin River Delta to the Bay Area, San Joaquin Valley and Southern California.

It will mean more fights over water throughout the West.

"Climate change is upon us. In 20 to 25 years, we really will be working with a different climate," said Michael Dettinger, a U.S. Geological Survey research biologist and researcher with the Climate Research Division at Scripps Institution of Oceanography.

Every scientific model predicts warmer temperatures, with the bulk projecting an increase in the range of 3 degrees to 6 degrees by 2100. But the computer models split on whether California will become wetter or drier.

Either way, warmer temperatures mean a shift in California's water cycle.

The Sierra snowpack that functions as the state's largest reservoir could shrink by a third by 2060 and to half its historic size by 2090. Runoff that fills reservoirs will start in midwinter, not spring. And rain falling on snow will trigger more flooding, scientists said Thursday at a seminar hosted by the Water Education Foundation.

Models projecting a drier California predict a sharp increase in critically dry periods, said Alan Hamlet, a water resources engineer with the University of Washington.

"We're going to have exacerbated conflicts over water, both in California and the Colorado Basin" that also supplies six upstream states, he said. Fortunately for California, it is rare -- but not unheard of -- for the Sierra and the Rockies to have a simultaneous drought, so usually there is substantial water for Southern California from one or the other.

The trends are already in play.

Spring temperatures have increased 2 degrees to 3 degrees since 1950, peak spring snowmelt comes two to three weeks sooner, and vegetation blooms one to three weeks earlier and stays green longer, scientists earlier told a state Assembly committee on water and climate change.

While more dams and reservoirs could capture vital runoff and control flooding, there are substantial questions where or if to build them given the uncertain long-range weather pattern forecasts. Experts predicted the state will have to rely more on conserving and reusing water, desalinization, groundwater storage, and water trades and transfers between regions.

As with the ebb and flow of the Ice Age, warmer temperatures mean grass and oak woodlands and chaparral will grow higher into the mountains over the next 100 years, while conifer forests can grow above the current tree line, said Susan Ustin, an environmental and resource science professor at the University of California, Davis.

But 100 years is a blink in geologic time, and the relatively quick change will disrupt ecosystems that need millennia to adapt, she said. Invasive species that already threaten native plants and animals may be quick to fill that void.

Earlier snowmelt means less spring runoff for salmon, and water could get too warm for them to spawn. Already, runoff into the Sacramento River has dropped 11 percent over the last century.

But warmer weather means longer growing seasons, which could help agriculture -- as long as there's enough water for irrigation, said Rick Snyder, a biometeorologist at UC Davis. While many of California's crops could benefit, its famed wine grapes need a precise combination of temperatures and could suffer, said Snyder and Wilkinson.

The effect could come down to "if you're talking white wine or red wine," said Wilkinson. "Is that a great research project, or what?"

LR in the News 11/07/03
Dry state will fight to restart desalter

Shaun McKinnon

The Arizona Republic
Nov. 7, 2003 12:01 AM
YUMA - Down along the final, gasping miles of the Colorado River, on the edge of a desert too dry to notice the drought, an unusual skirmish has erupted over a plan to squeeze more water from the West's already over-tapped supply.

The battleground is a water desalination plant on this city's west side, a $280 million white elephant that operated for all of nine months a decade ago, before floods and design flaws forced it into hibernation. The plant was designed to recycle agricultural runoff water that was otherwise too polluted and salty.

Now Arizona wants to restart the desalination plant as a hedge against the drought and has asked the federal government to spend $30 million to bring it back on line and an additional $24 million to $30 million a year to keep it running. Without the plant, Arizona officials say, Phoenix and Tucson could someday face crippling water shortages.

Critics question that claim and say the desalter is a failure best left idle. Even other Colorado River states, sympathetic to Arizona's effort to reclaim the lost water, shy away from the plant's enormous cost and the relatively meager return, about 25 billion gallons of desalted water a year, or roughly 0.6 percent of the Colorado River's total flow. But the fiercest opposition comes from environmentalists, who say that operating the desalter would destroy a thriving Mexican wetland and spoil the first real success story in the struggle to restore the Colorado River Delta. That argument frames a larger one, not about who should use the water or how, but whether it should be used at all.

'Very perplexing'

"There are tough issues," admits Herb Guenther, director of the Arizona Department of Water Resources. "It could be quite a tug of war down there. But if we don't operate the plant, there is a potential for water shortages and Arizona is the one to feel the impact. . . . This is a very perplexing problem."

Perplexing barely begins to describe what's happening here. This is, after all, a story about a desalination plant in the middle of the desert. And it asks a sort of chicken-and-egg question of whether the government should take water from a wetland that was the unintentional creation of that plant in the first place. Racing through it all is a gnarly tangle of issues: the environment, border politics, public money and, gnarliest of all in the West, water and how it should be managed.

"There is a taxpayer issue and an environmental-impact issue," said Lisa Force, Arizona program director for the advocacy group Living Rivers. "But the bigger issue is about the Bureau of Reclamation continuing to operate in an old-fashioned way. Re-operating the desalination plant is more of the same old pork-barrel politics, continuing to throw away taxpayer dollars on unsustainable water projects. "There are so many other options to create new water."

30 years of history

As odd as it sounds here at the end of the mighty Colorado, creating new water - or at least wringing every last drop from the water that already exists - is where this story started three decades ago when Mexico complained that the water flowing out of Arizona was too salty.

Mexico is entitled to 1.5 million acre-feet per year from the Colorado, about 489 billion gallons. Because Mexico is last on the river, it sometimes has had to settle for the dregs, often irrigation runoff from farms around Yuma and across the border in California.

Mexico finally complained that the water it was receiving was too salty, unfit to irrigate crops. Although the Colorado River originates half a continent from an ocean, it's one of the saltiest freshwater rivers in the country. It picks up minerals along its rugged 1,400-mile route, along with runoff from thousands of acres of irrigated farmland. In all, the river carries 9 million tons of salt a year, the equivalent of nearly 250 full railroad cars a day. To reduce the salinity of the river as it crossed the border, the United States decided to build a desalination plant at Yuma. The plant would take heavily polluted water from farms in the Wellton and Mohawk valleys to the northeast - water that had been running back into the Colorado and down to Mexico - treat it and return it to the river, in effect using it twice by recycling it.

"The plant is just a tool for salinity on the Colorado river," said Jim Cherry, who oversees the desalination plant as Yuma-area director for the Bureau of Reclamation. "It's just one of the tools. It won't change the salinity of the river significantly - it's almost like running a hose into the swimming pool - but it's a good amount of water we save (by recycling)."

The bureau fired up the plant in late 1992 at one-third capacity. It operated for about nine months, then shut down after a flood on the Gila River washed out one of the delivery canals. A chain of frustrating design flaws kept the plant inactive and a series of wet years in effect rendered the plant unnecessary. Enough water was flowing down the Colorado to fill Mexico's orders.

That changed this year. The drought sucked up all the surplus water and forced the Bureau of Reclamation to draw about 35 billion gallons of water from Lake Mead.

Although the reservoirs are nowhere near running out of water, many scientists predict that drought conditions will persist for years. Both Utah and Colorado are considering plans to use more of their river allocations. If the river can't deliver enough water, Arizona - specifically the Central Arizona Project, which supplies Phoenix and Tucson - is the first to have its flow halted.

Water shortage risks

"The desalter is important to Arizona because it reduces our long-term risk for shortages," said Tom Carr, who oversees Colorado River issues for the state Water Resources Department. "Reducing the water in storage on the river is a significant

issue." So is time, Carr said. Fixing the remaining design flaws and preparing the desalination plant for full-scale operation would take four to five years. An environmental-impact study could stretch that timetable. Congress will have to appropriate up to $30 million just to fix the design flaws and prepare the plant to operate.

State officials worry that the price tag could hold up their request. The annual operating budget would likely top $29 million, about $311 per acre-foot delivered to Mexico, or about 30 times what Yuma farmers pay. But they say a long-term water shortage in Arizona could run up damages of more than $300 million in lost crops and money spent to find alternate sources.

Shifting money to the desalter would probably mean taking it from other uses, said Bob Johnson, regional director for the Bureau of Reclamation in Boulder City, Nev. Although the agency is moving ahead with an environmental-impact study and repairs to the desalination plant, officials also are exploring other ideas.

Most often mentioned is leasing water from farmers along the river or paying them to leave croplands unplanted. "My guess is if you packed something correctly, you could probably get some water out of there at a lesser cost and with less of an environmental impact than operating the plant," Johnson said. Other states along the Colorado have expressed limited support for Arizona, but they also suggest there may be better alternatives.

"It's been in storage a long time and the technology has changed tremendously. We need to know if it is cost-effective to upgrade it," said Kay Brothers, deputy general manager of the Southern Nevada Water Authority in Las Vegas.

Arizona officials say the other options are even more expensive. Leasing water or paying farmers to fallow land could cost nearly $54 million a year, the state estimates. A plan to bank surplus water underground to allow more water to flow down the river could cost nearly $40 million.

Water leases or purchases are equally troublesome, said Carr of the Water Resources Department. If an irrigation district, for example, agrees to give up some of its water, other users on the river, such as California or the CAP, could claim the water first, leaving the state and the bureau no better off than before.

"Arizona pays the price no matter what," said Larry Dozier, deputy general manager of the Central Arizona Project. "It's pretty apparent if there is land fallowed, it would be in Arizona. And if they use system water, well, we're on the short end of the stick, so if you give up system water, you give up CAP water."

Dozier said if the bureau would upgrade the desalter's technology, it could increase output and feed more water into the system.

Far more troublesome for Arizona and the bureau are the claims raised by environmental groups that the desalter would destroy the Cienaga de Santa Clara, a

wetland about 50 miles south of Yuma in Mexico that supports hundreds of species of birds, fish and other wildlife.

The wetland is, in a way, a byproduct of the desalter. While the plant was under construction, the agricultural runoff it would someday treat was diverted south toward what was then a mostly dry corner of the Colorado River Delta.

Because the plant only operated for nine months, the water continued to flow into Mexico. Over the years, it formed the wetland, in effect restoring a sliver of the delta. It is home to dozens of endangered species.

"The delta is coming back by itself," said Michael Cohen, a senior associate for the Pacific Institute, a water research and advocacy group. "They added water and it came back. Vegetation springs up in response to water. It's pretty clear-cut. There are studies that show when they took the water out in the '90s, it dried up. Here's a benefit that has occurred just because people added water."

Three strikes?

If the government restarts the desalting plant, that water will be taken away again. Using existing technology, the desalter can recover as much as 75 percent of what it treats. The remaining 25 percent would be returned to the diversion canal and sent south to the wetland, but it would be up to six times saltier than before.

"They reduce the amount of water, that's strike one," said Steve Cornelius, a Colorado delta specialist for the Tucson-based Sonoran Institute. "The water that does get there will be higher in salinity. That's strike two. The cattails there are pretty resilient, but they're not going to be able to survive that change."

Arizona officials concede that the wetland could suffer some damage if the desalination plant is restarted and the flow of runoff water is altered. But they say the plant's construction was responsible for the wetland's almost accidental creation, an accident that was never meant to happen.

"The original environmental study acknowledged there would be a temporary wetland down there," said the CAP's Dozier. "It would evolve into something different once the plant was started." The fact that the marsh grew over the years is unfortunate, Dozier said, but doesn't alter the original assessment.

Contentious times

That argument peeves conservation advocates: "They did create the wetland area by mistake, but in order to do that they had to destroy it first," said Force, with Living Rivers. "That was a much more biodiverse area before. It did have wetlands, and it also had riparian corridors, estuaries and much more complex ecosystem that died when they filled the reservoirs."

Instead of trying to drain the river dry with a recycling plant, water managers should confront the issue of whether cities and farms should claim every drop of water in the

river, Cornelius said. "The river itself needs water," he said, enough to restore flow all the way to the Gulf of California. Returning the freshwater mix to the gulf would not only benefit wildlife habitat, but fisheries along the coast that have been devastated by the loss of the delta.

"It was fortuitous that the cienaga became what it was today," he said. "We ought to be looking at this as a positive thing instead of a mistake."

Both the state and the environmental groups are preparing for a contentious study period. Carr plans to meet with a conservation advocates in the coming weeks and pledged to listen to their concerns and their ideas. He'll get an earfu

"When you take on anybody on water in the West, it's tough," Force said. "Everybody's very protective of the old way of doing things. But we have a diverse group this time, taxpayer groups, environmental groups, even farmers who want to lease water. It's going to be a tough battle, but it's going to be worth it."

River News 11/09/03
RRFW Riverwire - WILDERNESS UPDATE AND THANK YOU!

Thanks to all the folks who called into your elected officials about Representative Radanovich's (R-CA) river-less "wilderness" proposal. The wilderness documents, with the Colorado River omitted, were requested from Grand Canyon National Park by the representative's office. RRFW has learned that these documents are being forwarded to his staff, but the representative has not yet submitted a bill based on this material. Your congressional leaders heard you loud and clear, and it helped! It turns out many congressional members do not take kindly to this sort of back door approach to wilderness management, especially at a place like Grand Canyon National Park. Indications are that a member of congress will submit a counter bill with the river included. This will be done in the event a bad river-less wilderness bill is introduced, to stop the bad bill so that the public process is allowed to continue.

The Radanovich spurn-the-river proposal would circumvent the public management plan that has already generated over 50,000 comments. The clear signal from congress is that the on-going Colorado River Management Plan should be allowed to run its course without pressure from the park's own river concessionaires to bypass the public process. "There is no doubt we will need to keep up the pressure with more phone calls in the future" notes Jo Johnson, River Runners for Wilderness co-director. "We are grateful to Grand Canyon lovers who have been responsive to this issue. Circumventing the process allows the nightmare of fixed allocations to continue while trashing park wilderness values."

RRFW will continue to keep you informed of developments as they happen.

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LR in the News 11/09/03

Eco Fighting for Rivers: Living Rivers keeps David Brower's legend alive

Paddler Magazine
By Matt Hansen
November/December 2003

It's a warm June morning on the Yampa River and 66-year-old river guide Dee Holladay stands in the shade of Mantle Cove, a magnificent alcove of sandstone in Dinosaur National Monument that harbors ruins from the ancient Fremont civilization. While his guests quietly peruse the alcove, Holladay watches swifts dart back and forth among the high cliffs. The birds are making a ruckus but only a few others notice them. "Look," he says, using his stained coffee mug as a pointer, "they're fighting."

The same could be said about many of Holladay's floatmates this week--although they're not fighting each other, they're fighting for rivers. The nonprofit Living Rivers--an environmental group primarily focused on draining Lake Powell--has gathered river and wilderness advocates to float the canyons of the Yampa and Green with Holladay's Holiday River Expeditions. The trip's purpose is to celebrate the life of David Brower, who first floated through Dinosaur in 1953 as the head of the Sierra Club. Afterward he singlehandedly defeated two dams that had been proposed for the monument. In doing so, he launched the modern conservation era but forsook Glen Canyon, which now sits below the motor-heavy waters of Lake Powell. It was a decision that haunted Brower the rest of his life. A cunning fighter for wilderness, he died in 2000 at the age of 88, but his fight presses on through Living Rivers, which he helped found just before his death.

Those floating with Holladay in June included Roderick Nash, whose 1967 book Wilderness and the American Mind has been noted as one of the most definitive pieces ever written on wilderness; Jeffrey Ingram, an activist characterized in Marc Reisner's book Cadillac Desert as Brower's "most valuable" asset in successfully fighting off dams proposed for the Grand Canyon in the 1960s; Kim Crumbo, former Grand Canyon river guide and activist with the Arizona Wilderness Coalition; and former river guide John Weisheit, who serves as Living Rivers' conservation director. They're all fighting for more responsible water usage, specifically fewer dams and eliminating motorized vessels on the Colorado in the Grand Canyon. "This is not a happy river," says Ingram of the Colorado. "Outfitters spend hundreds of thousands of dollars to defend themselves against outside interests. Private floaters are angry because of the grievances they go through to get on the river and because they're discriminated against. And people like me have been angry for 30 years because we think it should be wilderness."

Among those present, the 49-year-old Weisheit is these days the one most often tangling with the Bureau of Reclamation and Western politicians. The Los Angeles native first met Brower in the early 1990s, when he told Brower that he hated him for not fighting Glen Canyon Dam. Brower responded by asking for forgiveness, and for help. So that's what Weisheit did. And it's Glen Canyon Dam that he has in the crosshairs, although there are others on his agenda (see sidebar). "We can't manage our rivers this way," he says. "We have sacrificed our natural heritage for short-term gain."

But for these activists, going after Glen Canyon Dam is akin to a mosquito trying to suck a bison dry. The Glen Canyon National Recreation Area and Lake Powell are visited by more than 2 million people annually--making it one of the National Park Service's most popular sites. The Bureau of Reclamation says the reservoir ensures water for millions of Southwest residents. Perhaps more important, however, the Bureau sees Glen Canyon Dam as a symbol of its ability to fundamentally change the desert landscape. Giving up Lake Powell would require the Bureau to turn its back on nearly a century of dogmatic belief that the Colorado River must be harnessed in order to make it valuable. Indeed, this summer Bureau Commissioner John Keys was quoted by The Associated Press as saying the decommissioning of Glen Canyon Dam "is something that's never going to happen. I won't spend a dollar studying it."

Barry Wirth, public affairs officer for the Bureau's Upper Colorado Office in Salt Lake City, says furthermore that if Glen Canyon were drained, there would have to be someplace else for that water to be stored. That reservoir, he says, is simply too important to the well-being of the seven states that depend on the Colorado River. "The current drought has clearly driven home the importance of Glen Canyon Dam," he says, adding that the Bureau's focus is how to balance the needs of agricultural and industrial interests, the public and conservation groups.

Given such statements, Ingram, 66, says being an activist is like "banging your head against a 710-foot concrete wall," which, incidentally, is the height of Glen Canyon Dam. But Weisheit, like Brower before him, doesn't belch anger despite his fanatical belief that Glen Canyon Dam wastes water and is killing the Grand Canyon. He speaks softly and fluidly, smiling often. He sees children as his inspiration, hoping to give them the chance to visit the former Glen Canyon with their own children.

Despite the enormous task, Weisheit believes he will see Glen Canyon drained. "Congress built these dams and said we'd worry about the problems later" he says. "Well, later is now, and the public needs to know there are alternatives." One of Lake Powell's primary problems is the loss of water due to sediment buildup, seepage and evaporation. According to Scott Miller's 2000 report titled "Undamming Glen Canyon," published in the Stanford Environmental Law Joumal, some 65 million tons of sediment fills Lake Powell each year, reducing storage capacity. Evaporation accounts for the second highest consumptive use of Lake Powell's waters, behind only irrigation. Bank seepage accounts for 350,000 acre-feet of water being lost each year. The hydropower produced by the dam provides electricity for only 3 percent of the region, according to Miller. And the cold, clear water being sent through the Grand Canyon harms endemic fish that have evolved over millennia in warm, silty water. "These systems are going to

fail before our mortgages are paid," says Weisheit. "And I don't want to pass our poor planning on to future generations. It's unacceptable and it's embarrassing."

Weisheit also points out that this year Lake Powell was only half full due to the drought. He says if the current drought persists, the reservoir will be empty in two years, rendering the dam useless for water storage and power generation. Of removing the dam, he says, "people are beginning to believe that it's not impossible."

On the day that Holladay and his group float into Echo Park, the confluence of the Yampa and Green and approximate site of one of the two proposed dams Brower defeated, he asks everyone to stay silent, allowing their senses to take in the canyon's immensity and the power of two rivers becoming one. Overhead a turkey vulture rides a thermal, floating gently among the 500 foot high canyon walls. Cliff swallows dart back and forth looking for insects. On the bank a lone deer grazes quietly. The sun is warm and the Yampa's muddy waters sparkle beneath an unspeakably blue sky. Other than the sound of the oars plying the river, it is silent. As Roderick Nash floats his dory through these spared canyon walls, he reflects on the significance of Brower's fight. "The only reason why we're not on a lakeshore right now," he says, "is because somebody cared."

Sidebar

Glen Canyon Dam isn't the only bull's-eye being targeted by Living Rivers. The several-hundred-member-strong group promotes large-scale river restoration, habitat preservation and responsible water use. Among the many issues on its agenda, the group has asked the Bureau of Reclamation to decommision Flaming Gorge Dam in northeast Utah. Flowing cold and gin clear from the dam, the Green River here is the best tailwater trout fishery in the country, but Living Rivers contends that the cold water coming from the reservoir is killing the warm-water-loving and endangered humpback chubs as well as the riparian habitat downriver in Dinosaur National Monument. Living Rivers is also trying to preserve a permanent water flow into the Colorado River Delta in Mexico's Gulf of California. In addition, the group opposes the Big Straw, a proposal to siphon water from the Colorado River near the Utah-Colorado border and pump it back to the Front Range of the Rockies to fuel urban growth. "As these depletions continue, we'll find fewer rivers to run because we can't seem to lose our addiction for irresponsible water use," says Living Rivers' John Weisheit.

River News 11/14/03
RRFW Riverwire - Interior Dept. Favors More Canyon Flooding

By Mitch Tobin, ARIZONA DAILY STAR
Despite initial resistance, the Bush administration favors continued experimental floods meant to restore the Grand Canyon's ecology, a senior official said in Tucson on Tuesday.

Assistant secretary of the Interior Bennett Raley, the administration's point man on water issues, spoke to 60 scientists at the start of a three-day meeting on how Glen Canyon Dam affects the Colorado River.

Researchers explained how they're using lasers, underwater cameras, century-old photos and experimental flumes in Minneapolis to learn how sand grains and Volkswagen-sized boulders move through the Canyon's rapids and eddies.

Raley urged the scientists not to politicize their work and to remember that "science is not the only input factor for management of the Colorado River."

"If scientists are sloppy and mix advocacy with science, you will end up with the same public perception of integrity that lawyers have," said Raley, a lawyer by training.

Glen Canyon Dam, completed in 1963, dramatically altered the Colorado's flow. Before the dam, the warm, muddy river roared with spring snowmelt. Sediment was lifted onto beaches and sand bars, creating wildlife habitat and backwaters vital to native fish, such as the endangered humpback chub. The beaches are still important campsites for boaters.

After the river was plugged to stabilize the Southwest's water supply, it ran colder and clearer below the dam, which trapped 90 percent of the silt. But dam releases - which often fluctuate with the Sunbelt's electricity demands - have also caused the Colorado's baseline flow to double downstream. As a result, much of the silt and gravel deposited by the Grand Canyon's 740 tributaries gets whisked into Lake Mead downstream.

"It wasn't that we just lost the spring floods, which redeposited sand," U.S. Geological Survey researcher Ted Melis said, "we lost the low-flows the rest of the time, which were low enough to retain those inputs for use during the high-flows. We're getting hit on both ends."

The result is an ecosystem transformed by a dam that helps supply water and power to 25 million people. Tucson is becoming increasingly dependent on the Colorado, whose water comes here via the Central Arizona Project's 336-mile canal.

After passage of the 1992 Grand Canyon Protection Act, the Clinton administration tried to replicate the river's natural flows. With much fanfare, Interior Secretary Bruce Babbitt opened the dam's floodgates in 1996; another flooding experiment was tried in 2000. Despite initial claims of success, scientists now say the results were minimal. A lack of sediment in the river made it tough for sandy areas to expand, and many gains were quickly washed away.

Scientists want to create more floods and time them when the Paria River is dumping sediment into the Colorado. But the drought has caused that tributary, 15 miles below the dam, to deposit less silt in the past three years than any time in recorded history.

Raley said at first he was "deeply, deeply skeptical about the experimental flow program." But, after talks with scientists on a river trip, Raley accepted it was "good science and it was worth taking the political risks to move forward."

"We know when we're being gamed. Had we sensed that, we probably would have slow-walked, ducked, evaded and done everything not to move forward," he said.

John Weisheit, an environmentalist with the group Living Rivers who would like to see Glen Canyon Dam removed, was encouraged by Raley's words. But he said the Interior Department still isn't spending enough money to restore the Grand Canyon.

In the past 30 years, researchers have flip-flopped on whether the Canyon was losing or gaining sediment, said Jack Schmidt of Utah State University. Some thought the lack of floods created a surplus of silt and there was enough sand in the river to form new beaches.

"What we've learned in the Grand Canyon is, the system may be in sediment deficit all the way to Lake Mead," he said.

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River News 11/15/03
RRFW Riverwire - Free Grand Canyon Slideshow Comes To Durango

Author Tom Martin will be in Durango at the Abbey Theater at 6:30 p.m., Nov. 30, to update local boaters on the controversial Colorado River Management Plan (CRMP) now in progress for Grand Canyon National Park, and how this plan will affect the boating public. Tom will illustrate his talk with a slide show on the Grand Canyon based on his book, Day Hikes From The River: A Guide to 100 Hikes from Camps on the Colorado River in Grand Canyon National Park.
The highly controversial CRMP, which was stopped by the Park in 2000, was restarted as part of a settlement agreement in a lawsuit filed by river running groups and individuals. The public comment period during the past summer gathered over 50,000 comments. "The wait for do-it-yourself river runners is so long, those at the bottom of the list will wait an incredible 20 years to get permission to run the river" said Martin, who notes that "you can book a commercial trip tomorrow for next summer, if you can afford it. This process is of vital interest to all Colorado boaters, as more Coloradoans are waiting for a permit to boat the Colorado River in Grand Canyon than river runners from any other state."

The free slide show will be open to the public and features beautiful vistas illustrating Grand Canyon hikes you can do from the river and exciting river running shots. Tom will

be signing books, the sale of which will benefit River Runners for Wilderness, a non-profit group which is sponsoring the event. RRFW represents the interests of the boating public. Taxpayers for the Animas River and the Weminuche Group of the Sierra Club are co-sponsoring the event locally.

Following the slide show, there will be an 8:30 p.m. screening of the movie, "The Same River Twice." This award winning independent film is about a group of friends who re-ran Grand Canyon 25 years after their first trip. There will be an admission charge for the movie.

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LR in the News 11/20/03
Feds gear up for new round of test flows to aid Grand Canyon

April Reese, Land Letter Southwest correspondent
GRAND CANYON NATIONAL PARK, Ariz. -- Seven years after releasing a torrent of water from behind Glen Canyon Dam to provide a much-needed ecological boost to the Grand Canyon, federal water managers are preparing to try it again. But while the dam's gatekeepers hope this experimental flood will bring back some of the river's wild characteristics, some scientists and river advocates say those good intentions may not be enough.

The Colorado River once raged and whimpered through the Grand Canyon in accordance with the seasons, swelling during the monsoons and laying low during dry periods. Those changeable flows alternately carried huge amounts of sediment into the canyon and deposited it in the river channel and on the banks, creating sandbars and beaches. The muddy river also provided prime habitat for several species of native fish (Land Letter, Oct. 30).

Glen Canyon Dam, completed in 1963, drastically altered the historic flow regime and reduced the amount of water -- and sediment -- transported downstream. According to federal estimates, about 90 percent of the sand and silt carried by the upper Colorado River now settles in Lake Powell, the reservoir created by the dam.

The result has been a sediment-starved canyon with fewer and smaller sandbars and beaches, less backwater habitat for native fish and a clearer river that is alien to native fish accustomed to murky water.

Now, the Bureau of Reclamation is poised to open the floodgates in an attempt to deliver some of the sediment that is so crucial to the ecosystem -- and to boaters who camp on the canyon's beaches.

BuRec spokesman Barry Wirth said the agency, which operates the dam, plans to release water from the dam at a rate of about 45,000 cubic feet per second for two days. The volume of water will be about the same as it was in the 1996 flood, but the tap will be shut off six days earlier this time. Scientists and managers monitoring the earlier flood found that continuing the high flows after two days brought no additional benefit, said Bob Hart, a hydrologist with the U.S. Geological Survey in Flagstaff, Ariz.

"Within the first couple of days, the goal was reached," Hart said.

Building the beaches

But the biggest change this time around will be in the timing, Wirth said. The surge of water will be released after the Paria River, a tributary of the Colorado just downstream of the dam and above the park, is running high and thick with sediment. The hope is that timing the rush of water from the dam to coincide with high sediment loads in the Paria will bring more sand and silt into the canyon, where it will build sandbars and beaches and muddy up the river for the endangered humpback chub.

With the dam trapping most of the Colorado's sediment, the Paria River is crucial for delivering what little sediment the canyon receives, said Utah State University professor Jack Schmidt. "The Paria River is the only major source of sediment for the first 60 miles of the Grand Canyon," Schmidt said. "So it's the only significant natural source that the canyon has. It's everything."

A USGS study found that an August 1992 flood of the Paria River delivered 544,000 tons of sediment -- primarily sand -- into the Colorado in less than 24 hours. Typically, flows of that size occur on the Paria about every two years, according to USGS. In all, the Paria dumps about 1 million tons of sediment downstream during the monsoon season in late summer and early fall.

But this year is not a typical precipitation year. BuRec, the National Park Service and USGS have signed off on the necessary environmental studies for the project, and it has the blessing of the Bush administration. The only thing missing is rain.

"We're just not getting the floods during the monsoon season that we need," Wirth said. "The big key is having enough sediment flowing out of the Paria River to justify having the experiment." Without a roiling Paria, there cannot be experimental flows, he said.

A sense of urgency

Nikolai Ramsey of the Grand Canyon Trust said he is supportive of the test flows, but cautioned the canyon may not be able to wait for the drought to recede. "If the weather helps us, we're in good shape for an experiment. If it doesn't, we're still stuck with a sediment-starved system," Ramsey said.

A more timely idea, Ramsey said, is to move the sediment that is building up behind the dam -- at a rate of 6 centimeters annually, by some estimates -- downstream. While that solution may come with its own set of issues--including the potential for carrying heavy metals into the canyon and a price tag of up to $500 million--it would guarantee a

dependable supply of sediment to the canyon, he said. That, in turn, would head off difficult questions about whether to decommission the dam, Ramsey added.

"The ecosystem in the Grand Canyon would recover, and power and water supplies would be secure," Ramsey said.

Wirth said that option is not on the table. "It's never been studied from a scientific viewpoint," he said. "Maybe some day. Right now we're focused on that which is probably more realistic."

The experimental flows come at a crucial time because there simply is not much sediment left to manipulate, Schmidt said. "We're losing the beaches in the Grand Canyon and continue to do so. Either this will work, or we'll know it's impossible."

If it does not work, federal managers could be left with some tough choices, he added. "Basically, we'll either have to come up with a radical new solution, or announce to the public that we've raised the bar too high--that the price paid for the construction and operation of Glen Canyon Dam is the progressive deterioration of the ecosystem of Grand Canyon Nationa Park," Schmidt said.

John Weisheit, conservation director for the advocacy group Living Rivers, supports decommissioning the dam as the only long-term solution. "These experiments are going to show that the dam does need to come down because the sediment the canyon needs is above Glen Canyon Dam," Weisheit said.

"They're going to have a sediment deficit as long as the dam is there."

But decommissioning is highly controversial and would involve major changes in how water tagged for downstream states is stored and distributed. Lake Powll is one of several reservoirs in the Colorado River Storage Project, which provides water for Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming. About 85 percent of the water is used for irrigation; the rest is allocated for residential, commercial and industrial use. Removing the dam would also eliminate a power source for Southwest cities, critics add.

For now, federal water managers are waiting to open the floodgates and see what happens when the sediment-rich water pulses through the Grand Canyon.

"We're ready to do it," Wirth said. "I think we're going to show, over time, some positive results."

River News 11/26/03

RRFW Riverwire - THE NEXT GENERATION GRAND CANYON RIVER GUIDEBOOK

River Runners For Wilderness is pleased to announce the imminent release of a "next generation" Grand Canyon guidebook written by boaters for boaters! Preview copies

have gotten rave reviews for the wealth of information presented in a easy-to-use format. It's been called the definitive Grand Canyon river guide.
Tom Martin, author of Day Hikes from the River, & Duwain Whitis, publisher of RiverMaps map books, have teamed up to write a new guidebook titled Guide To The Colorado River In The Grand Canyon - Lees Ferry to South Cove. This is the only guidebook to the canyon with USGS topographic map backgrounds, printed at their original scale, with additional map detail added in an easy-to-read format. In addition, it is the only guide with maps extending to South Cove in Lake Mead. Each map shows campsite locations, rapids, scout points, river miles and other points of interest. The accompanying mile-by-mile text describes all campsites on the park inventory (and some not on the inventory), with campsite pull-in information, geological, botanical and historical points of interest. All of the significant hikes, rapids and scouting points are also described, with color photographs on almost every text page. The Guide is 8.5" X 14" spiral-bound to lay flat. The 108 pages are printed on tough water proof and tear resistant synthetic paper. Published by Vishnu Temple Press.

RRFW is pleased to be able to take advance orders for titled Guide To The Colorado River In The Grand Canyon - Lees Ferry to South Cove. The cost of this river guide is $29.00 ($25.00 each, plus $4.00 shipping and handling per Guide), with a tentative shipping date of February 27, 2003. Checks or money orders only please. Advance guidebook sales will benefit River Runners For Wilderness, a not-for-profit organization seeking equitable access to a wilderness river running experience in Grand Canyon. Please send your order to:

River Runners For Wilderness PO Box 17301 Boulder, CO, 80308-0301

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Living Rivers Currents 12/01/03
WAPA Blues: Hydro Not Missed

The ongoing drought is seriously effecting hydroelectric power production on the Colorado River. Colorado River Storage Project (CRSP) dams are experiencing an overall reduction of 25% from normal. The Western Area Power Administration (WAPA),

the agency which distributes federal hydropower, must now purchase electricity from private sources to meet their long-term obligations to their customers.
The Bureau of Reclamation has emphatically stated that the region could not survive without power from Glen Canyon Dam. The drought has demonstrated this to be untrue, with surplus power from non-federal projects easily making up the shortfall. Should the pattern of drought continue for another two years, Lake Powell reservoir will lower to the point where Glen Canyon Dam's powerplant will become inoperational.

This situation will effect US taxpayers. Congress mandated that hydropower revenues must repay the loans used to build CRSP projects. Lower reservoir levels mean less power and less revenue to meet these loan obligations. Additionally, power purchased by WAPA to replace the difference comes at premium price, further effecting loan payments which are scheduled for full payment in about fifty years.

According to WAPA spokesperson LaVerne Kriss, this is not yet a problem. "When we have cash flow problems, we use a pool called the Colorado River Basin Fund to float us through times of shortage, and we make up the difference when the reservoirs recharge and surplus water becomes available again."

"Not true," says Living Rivers' conservation director John Weisheit. "That fund has been near zero for some time, and with persistent drought it's not going to be replenished anytime soon."

This will also cause further strains for WAPA-supported recovery programs, which are designed to mitigate the negative impacts from CRSP operations on the critical habitat of endangered species. The failure of these recovery programs will only drive the budget up further and will undermine WAPA's payback schedule over time. "WAPA will never break even. In fifty more years they will be forced to mitigate other impacts such as sediment removal from the reservoirs. When this occurs the taxpayers will have to contribute to unprecedented subsidies to keep theses projects operational, " concludes Weisheit.

Living Rivers Currents 12/01/03
Volume 3, Number 3, December 2003

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- Colorado Riverkeeper: All Hands on Grand Canyon
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LRC V3, N3, December 2003

Living Rivers Currents 12/01/03

Science Performs: Management Ignores

Scientists meeting in Tucson this past October were criticized by the Department of the Interior for expressing little confidence in federal efforts to mitigate the downstream impacts of Glen Canyon Dam operations on the Colorado River ecosystem in Grand Canyon National Park.

“Advocacy positions belong to lawyers,” said assistant Secretary of the Interior, Bennett Raley, to the assembled scientists, many who have expressed frustration that their research is being ignored.

Dr. Jack Schmidt, a geologist who’s worked in Grand Canyon for 15 years, stressed that scientists have done their jobs well in reporting accurately to Interior’s Adaptive Management Working Group (AMWG) and then asked, “When is AMWG going to act upon this knowledge?”

Raley stated that Interior could “drag it’s feet” if it did not like what was being recommended. Raley, a water attorney by profession, who has asked Congress to repeal the Endangered Species Act, openly advocated to the scientists the concerns of water and power suppliers, and that these interests maintain superior political and legal positions as compared to environmental interests. He argued that the Grand Canyon Protection Act should be subservient to prior Colorado River laws, and river management policy should therefore follow such a doctrine. Nonetheless, scientists should “continue to support” the adaptive management process.

Dr. Richard Valdez, a senior researcher of endangered fish, gave strong recommendations to AMWG concerning the endangered Humpback Chub by saying, “If you are not going to address the threats to their critical habitat, then you will continue to have endangered species in Grand Canyon.” Humpback Chub populations have declined 75% to just 2,000 adult fish over the past eight years.

Although this gathering was organized specifically for AMWG, very few of its members actually attended. The program is presently facing increased criticism as it was established to recover endangered species in Grand Canyon, but native species diversity has actually declined under their management.

Hydrologist William Vernieu reported on the impacts of drought on Lake Powell reservoir and the downstream implications for Grand Canyon’s water chemistry, which has so far been ignored by AMWG. The reservoir is currently experiencing a decrease in available oxygen along with increases in phosphorus, nitrates and salt. Such changes in water quality will exacerbate the decline in the river’s native food base for endangered fish.

The meeting illustrated that the political situation regarding Grand Canyon's management is deteriorating as rapidly as its ecology. Several scientists admitted privately that absent some form of litigation, there will be little chance of recovering the natural and cultural heritage of Grand Canyon before these resources are lost forever as a result of operations at Glen Canyon Dam.

Living Rivers Currents 12/01/03

Grand Canyon Management: Stepping Backwards

In 1986 the Department of the Interior requested that the National Academy of Sciences review their science program for the Glen Canyon [Dam] Environmental Studies (GCES). While many of the Academy's recommendations were applied by science managers in the Grand Canyon, and continued by subsequent program managers, politics and budget considerations are once again compromising the integrity of science. The National Research Council of the Academy encouraged the GCES to "solicit scientific talent for the work based on a research plan [through a peer-reviewed request for proposals]," and to "use merit competition to select researchers, including a peer-review system outside the agency or agencies conducting the study."

David Wegner, former director of science for the Bureau of Reclamation, informed Living Rivers that, "The advice the Academy gave GCES was very helpful to the science community. We are very proud of the programs that later developed, which continued on through the EIS process of the early 1990s." Even after the Environmental Impact Statement this attitude prevailed during the research and monitoring phase under the auspices of the Grand Canyon Research and Monitoring Center (GCMRC), which is administered by the US Geological Survey in Flagstaff, Arizona.

Living Rivers has recently cautioned members of the Adaptive Management Program (AMP) that research programs are reverting back to old ways. This turn of events is gaining the attention of scientists who are fearful that heavy administrative costs will hinder their results. Additionally, a lack of competitive bidding and sufficient peer review will also detract from the quality and quantity of the monitoring undertaken.

For example, GCMRC recently decided to use in-house staff to undertake mechanical removal of trout in Grand Canyon. Bruce Taubert of Arizona Game and Fish Department (AGFD) pointed out to AMP members that "GCMRC may do this at a cost of $500,000, while AGFD could hire a consultant to do the same work for $365,000. There would be a savings of $135,000 that would return money back to the science programs in Grand Canyon."

Living Rivers Currents 12/01/03

Drought Forecast: Situation Unchanged

A barrage of reports and media advisories continue to come forth from scientists about the persistent drought in the Colorado River basin. The public has been reminded that the region experienced droughts of similar intensity before, notably 1901-1904 and 1953-1956. However, the year of 2002 was singled out as the driest year ever in recent history.
While common forecasting techniques allow for predictions of 3 to 6 months, scientists are beginning to observe two patterns of sea surface temperatures that provide a degree of confidence in predicting long-term droughts, notably the warming of the North Atlantic ocean with the cooling of the tropical Pacific ocean.

By obtaining tree ring data, scientists have reconstructed the climate of past centuries with tested credibility. The analyses of both instrumental and tree ring precipitation records should allow scientists to project drought conditions beyond a mere seasonal forecast. By comparing the data sets, the analyses demonstrate that a drought can persist for one or two decades and, in a few cases, even longer. Additionally, the data can be linked with the aforementioned ocean temperatures and thus provide the indicators necessary to forecast a persistent drought.

In 1998 observers were prompted to anticipate the current drought situation and the conditions remain unchanged and will likely persist into the coming decade. “In the context of shifting ocean climate, the current drought should give water and other resource managers in the Rockies and Southwest little cause for optimism about the drought ending any time soon,” said Julio Betancourt of the US Geological Survey.

In a recent report Betancourt and others stated the implications, “It is always prudent to be conservative about water and other resources vulnerable to drought; it is particularly prudent now. ...Societal demands on surface water are on the increase. ...Clearly, the context for long-term drought is different now than it has been in the past.”

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Stephen T. Gray .et .al
Patterns and sources of multidecadal oscillations in drought-sensitive tree-ring records from the central and southern Rocky Mountains

Living Rivers Currents 12/01/03

Colorado Riverkeeper: All Hands on Grand Canyon

In October, Living Rivers' Colorado Riverkeeper undertook a 12-day science trip through Grand Canyon National Park. Our assignment was to aid in documenting the status of the river's food supply for endangered native fish. Ten volunteers witnessed first hand how the river ecosystem is affected due to climate change.

"Because Lake Powell's reservoir capacity has been reduced by 52%, the chemical and temperature output from the dam is further altering the food web in ways that we have never observed before," said the Colorado Riverkeeper, John Weisheit. Given this recent turn of events in Grand Canyon, Living Rivers and the Colorado Riverkeeper are now devoting the majority of their resources toward mobilizing national support to save what's left of the canyon's native ecosystem. "If the public can't support protection of this world heritage site, there's probably little hope for the rest of the river," concludes Weisheit.

The first obvious observation was a warmer than usual Colorado River. The volunteers knew from experience that the discharge from Glen Canyon Dam normally originates from the chilly depths of the reservoir. While sampling, the volunteers were amazed with the abundant zooplankton found. This indicates that the water used to generate power is coming from the warmer water zone near the reservoir surface, an area containing many exotic life forms, including pathogens and parasites. "It's only a matter of time before these exotic species from Lake Powell become competitors for the available food that endangered native fish must have to survive. This new condition will become a serious issue for the stakeholders of Grand Canyon," said volunteer David Haskell, retired science director of Grand Canyon National Park.

Tatiana Lawson, a river guide from Moab, was intrigued with the organisms now existing in the river. "A flatworm is something I expect to see in my biology class at school," said Lawson, " not in the Colorado River system. But these newly introduced New Zealand Mud Snails are especially worrisome for me. Tiny as they are, by the millions they are effectively over-grazing the river bottom and depleting the food supply."

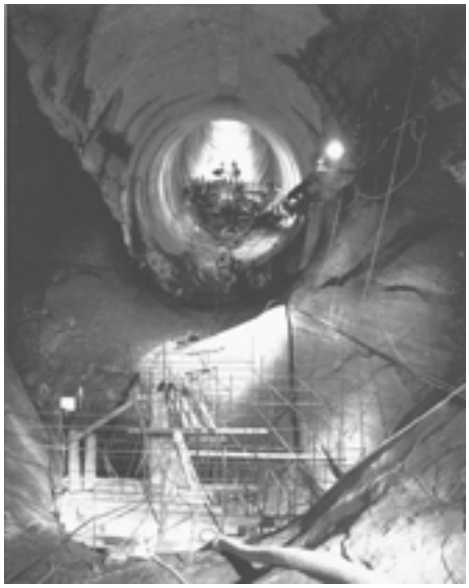
Joe Shannon, a Northern Arizona University aquatic ecologist who has studied the river's food base for 14 years, supervised the volunteers and staff. "The ecosystem here has changed since I first arrived," remarked Shannon. "This river was loaded with algae called Cladophora and an invertebrate called Gammarus. Now there is another suite of algal types and Gammarus numbers have declined. The flows from Glen Canyon Dam are not managed consistently and consequently the food web is in constant flux." Shannon laments how managers continue to be unresponsive to the sound

recommendations of his fellow scientists who support flows that mimic the natural flows of the Colorado River. “They continue to manage the dam for hydropower revenues first, with the management mandates of our National Park coming last,” adds Shannon.

“It’s unbelievable how bad things are down here in the Grand Canyon,” remarked Michelle Harrington, coordinator for the Center for Biological Diversity. “The river ecosystem here has completely changed from its unique and natural condition because of Glen Canyon Dam. If the public was fully aware of this condition , I think they would respond in the same way as they have for protecting the Arctic National Wildlife Refuge, and would demand river management alternatives that include the decommissioning of Glen Canyon Dam.”

Living Rivers Currents 12/01/03

Access Denied: No Release of Inundation Maps



The public has no right to know who might be in the flood path should Glen Canyon or Hoover Dam fail. Using national security risks as their trump card, the Bureau of Reclamation was able to convince Judge Tena Campbell to deny Living Rivers’ appeal for their inundation maps, effectively ending the 18 month effort to obtain this information.
If Glen Canyon Dam fails an estimated 500-foot wall of water would race through the narrow parts of the Grand Canyon toward Hoover Dam. Even if Hoover Dam withstood the initial impact of the flood, a waterfall over the top would last 11 days and would destroy the water delivery infrastructure and communities downstream.

"The funny thing about all this, is that some of this information is already in circulation, we had just hoped to obtain it through official channels," says Living Rivers’ executive director, Owen Lammers.

Until the trial the Bureau's arguments for withholding the information had nothing to do with national security. They now claim this information is exempt from disclosure based on things like arrest procedures, or the design of the President's limousine; something that aids criminals in completing a crime. This is certainly not the case with inundation maps.

Since the 9/11 political scene, the government is using national security as a means to keep information from environmental groups. Living Rivers has been told that this case is being used to equip federal attorneys in fighting Freedom of Information requests. In

this political climate Living Rivers does not feel it likely that an appeal would overturn the verdict and is not pursuing the matter further.

PDF Version Download
District Court's Opinion

More Information:
LR Press Release and Dam Failure Study

LR in the News 12/01/03
'Securing' the Public With Secrets

The News Media and the Law
Published by the Reporters Committee for Freedom of the Press

By Rebecca Daugherty

Judicial deference to the government' s widespread claims of national security is keeping unclassified records from public view

Wanting to know what would happen if the Glen Canyon Dam in Arizona burst, a small environmental group filed a freedom of Information Act request in September 2001 for the federal government's projections as to where the renegade waters would go. If the dam should falter, its downstream flow would not only jeopardize the nearby Hoover Dam but waterworks beyond, flooding or destroying communities along the way.

But the Bureau of Reclamation, which creates the "inundation maps" projecting what might happen, denied the request. And in March, the federal district court in Salt Lake City upheld the denial.

Judge Tena Campbell ruled that the government could withhold the unclassified maps under an exemption to the FOI Act for "law enforcement" records because terrorists might make use of the information. One arm of the law enforcement exemption protects against release of information that might help anyone circumvent the law, which Campbell said applied here.

That decision is one of three since the events of Sept. 11, 2001, that defer to the government's pleadings that "national security" interests excuse agencies from giving out records--even when they cannot use the exemption to the FOI Act that is specifically designed to protect national security, or the other far-reaching protection for national security information, a law that protects intelligence sources and methods.

The first FOI Act exemption only covers records that are properly classified in the interest of national security or foreign policy. To classify records, the exemption requires agencies to follow a set of formal procedures laid out in an executive order.

Yet in these three cases the government has used a "national security" excuse to invoke the law enforcement exemption to the FOI Act, denying information that would have likely been released if the government had not played the "terrorist" card to justify use of the exemptions.

Together they demonstrate the breadth of denials in which national security trumps government transparency due to the tenor of the times. With no end in sight to the war on terrorism, the judiciary's deference to administrative secrecy could conceivably trouble FOI requesters for some time to come.

Photo caption: Unclassified information about what would happen if the Glen Canyon Dam in Arizona burst can be withheld from the public based on the government's claims of national security interests, a federal court in Salt Lake City ruled in March.

Examining the U.S. Customs Service

In 1998, Coastal Delivery Corp. successfully sued a warehouse for breaking a contract that made the trucking company the exclusive carrier of its cargo which had to be delivered to a U.S. Customs Service examination station at the Los Angeles/Long Beach port. But in order to recover damages, Coastal Delivery needed to know how often the agency's contraband enforcement team examined containers.

The company asked for the records in October 2001 for use in its complaint, but never got them. Coastal Delivery brought suit against the Customs Service, and again walked away empty-handed.

Coastal Delivery could not have the information, U.S. District Court Judge Matthew Byrne in Los Angeles wrote in March, because "terrorists and others could use the information to discover the rate of inspection and then direct their containers to vulnerable ports." Knowing where the government is lax in its examinations, Byrne reasoned, might tell terrorists how vulnerable some seaports are.

The parties in Coastal Delivery Corp. v. U.S. Customs Service agreed that the purpose of the request made no difference in determining whether information would be available. A reporter hoping to evaluate how thoroughly the Customs Service checked containers would also not be able to see the records under this decision, which was not appealed.

Secretly Detained

Twenty-one public interest and human rights groups have petitioned the U.S. Supreme Court to hear arguments that the government should be required to release the names of hundreds of detainees jailed after Sept. 11, 2001.

The Center for National Security Studies, an advocacy and research group in Washington, D.C., has taken the legal lead on behalf of the organizations, including The Reporters Committee for Freedom of the Press, that are suing the government for the records.

In its request for review, the groups wrote the purpose was "to make clear that a national security crisis is no justification for courts allowing the Government to evade so easily its responsibilities under FOIA--and that courts cannot ignore the vital countervailing interests at stake such as the individual rights petitioners here seek to enforce."

For the divided appeals panel in Center for National Security Studies v. Department of Justice, decided in June 2003,Judge David Sentelle wrote that the judiciary would defer to the government's expertise in a "national security" probe. The Justice Department is in a better position than the court to know what should be withheld in a terrorism investigation, the judge wrote, in reversing a lower court. His opinion triggered a lengthy and pointed dissent by judge David Tatel.

The majority's approach "drastically diminishes, if not eliminates" the judiciary's role in FOI cases involving national security, Tatel said.

Fighting an Upstream Battle

"If we had gone forward on this prior to 9/11 it would have been a slam dunk," said Owen Lammers, executive director of the environmental group Living Rivers in Utah and Arizona.

What public interest groups throughout the nation are quickly learning, however, is that policies resulting from the never-ending war on terrorism have done significant damage to the idea of public accountability.

Lammers says his organization wanted copies of the Bureau of Reclamation's inundation maps because it hoped to show the value of decommissioning certain dams in Arizona. The structures are inherently unsafe, he said, and they are far more expensive to maintain than to decommission.

To highlight his point, Lammers says the Glen Canyon dam nearly failed in 1983, as rainfall almost caused the reservoirs to top off and spillways were damaged. Because there are a number of dams along the Colorado River, catastrophic failure of one can affect others. Water from a breached Glen Canyon Dam could flow downstream, flood Lake Mead and possibly breach the Hoover Dam, which holds back the lake.

"It would be quite a scene," Lammers said.

But the government had little interest in allowing Living Rivers to make the projections public. In Living Rivers v. the Bureau of Reclamation, the court deferred to the government's claim of national security interests in not releasing the unclassified material. Living Rivers did not appeal, but that does not mean the organization agreed with the rationale.

Photo caption: Environmental groups say the Glen Canyon Dam should be decommissioned, but it's difficult to make a compelling case when public records about the dam are withheld.

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"We are trying to point out that a couple of these facilities could fail on their own," he said. "Most states require that inundation maps be public. But the federal government says that it doesn't have to give these out."

Furthermore, says Living Rivers attorney Joro Walker, if people knew the risks, they could better equip themselves against future danger. Instead, notes Walker, the government is saying, "You don't have to worry about it, we have a plan."

Sidebar: Petitioning for Supreme Court Review

The petition to the U.S. Supreme Court by the Center for National Security Studies and others asks the high court not only to find that the government has misused the exemptions to the FOI Act to deny information about the hundreds of people detained since Sept. 11, 2001, but that the First Amendment requires the government to make the information available.

The First Amendment prohibits secret arrests and detentions except in the most compelling circumstances, the groups wrote. In Richmond Newspapers, Inc. v. Virginia, the high court first examined what was to become a test for a First Amendment right of access: If the information was traditionally open, and openness served a purpose in democracy, then the First Amendment requires public access to the information.

That test should apply here, the petition says. Public scrutiny is vital, as it is the public's only restraint on the government's awesome power to arrest and detain people in these situations.

Sidebar photo caption: Kate Martin, director of the Center for National Security Studies, argued the FOI Act case before the appeals panel.

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More Information:
LR Press Release and Dam Failure Study

LR in the News 12/01/03
'Securing' the Public With Secrets

The News Media and the Law
Published by the Reporters Committee for Freedom of the Press

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More Information:
LR Press Release and Dam Failure Study

River News 12/02/03
RRFW Riverwire - HOW DID WE GET IN THIS MESS?

River Runners For Wilderness is pleased to announce the imminent release of Hijacking A River, The Political History of the Colorado River in the Grand Canyon, by Jeff Ingram. Hijacking A River tells the whole story of "How did we get in this mess?": A pummeled government agency, intransigent businessmen and their political allies, apathetic environmentalists, and disorganized river runners; these are the characters who have made a mess of Colorado River management in Grand Canyon National Park. From the first steps to usher in a wilderness river to the Goldwater-Garn-Hatch Rider of 1980, Ingram unfolds the activities of such players as Fred Burke, Steve Carothers, Kim Crumbo, Fred Eiseman, Marvin Jensen, John McComb, Joe Munroe, Bo Shelby, Gaylord Staveley, Sam Steiger, Merle Stitt, Morris Udall, and many others. Surprisingly, a number of the players in the 1970s are still active in today's Colorado River Management Plan revision.

The book follows the changes in Grand Canyon river running from the 1960s onward, while answering all those persistent questions river runners have been asking for over a decade. With humor and wit, Jeff Ingram answers questions like "Why is it the public now waits 13 years for a self-guided permit to raft the Colorado River in Grand Canyon?" The book also clearly spells out why there is no congressional Wilderness designation for Grand Canyon National Park to this day. Step by step, year by year,

Ingram tells the "how and why" behind Grand Canyon river concessionaire's seeming lock on river travel in the Canyon.

Colorado River crusader and historian Jeff Ingram has, since 1964, been fighting for the Canyon and the public. David Brower hired Ingram as the first Southwest Representative for the Sierra Club, and together they successfully fought the proposed dams in Grand Canyon in the 1960s. Ingram worked with then-writer/environmentalist Martin Litton for a Grand Canyon National Park Wilderness bill, until Litton turned...but you'll have to read about it in the book! Ingram documented events, meetings, legislative and legal moves and tells us about the on-going battle of protecting the Grand Canyon for the people of the world, with personal interviews and painstaking research from a number of archives.

If you want to truly understand the supercharged issue of Grand Canyon's wilderness designation (the lack thereof), the denial of public boaters access rights to the river in the park, and the politics behind Grand Canyon National Park management, Hijacking a River is a must-read.

RRFW is pleased to be able to take advance orders for Hijacking A River, 496 pages, including maps, readers guide, and index. The cost of this book is $20 ($17.95 each, plus $2.05 shipping and handling per book), with a tentative shipping date of January 15, 2003. Checks or money orders only please. Advance book sales will benefit River Runners For Wilderness, a not-for-profit organization seeking equitable access to a wilderness river running experience in Grand Canyon. Please send your order to

River Runners For Wilderness PO Box 17301 Boulder, CO, 80308-0301

If you'd like to place an order for that special Christmas someone, just let us know with your order and we'll send an announcement card before Christmas, letting them know they will be receiving a gift from you soon.

For additional book information and dealer inquiries, contact: Vishnu Temple Press, PO Box 30821, Flagstaff, AZ 86003-0821 Info@vishnutemplepress.com ### RIVERWIRE is a free service to the boating community from River Runners for Wilderness. Membership is FREE! Send your e-mail address to riverwire@rrfw.org and we'll add you to the RRFW RIVERWIRE e-mail list. To join, visit our website at www.rrfw.org and click on the "membership" link. RRFW is a project of Living Rivers.

River News 12/05/03

RRFW Riverwire - CRMP STAKEHOLDER WORKSHOP VIDEOS AVAILABLE

Grand Canyon National Park is making available to the public the audiotapes from the general session of the stakeholder workshop in June 2003, and the videotapes from the stakeholder workshop in January 2003. The costs for these products covers the duplicating and shipping cost. It will be $28 for the videotapes. Audiotape prices are not

yet available. The order form for the videotapes is below. If you are interested, contact Julie Graham at BJ Communications, (602) 277-9530, ext 229, or julie@bjc.com
If you would like to purchase a copy of the expert panel series and/or the stakeholder workshop for the Colorado River Management Plan revision, please fill-out the form below and send it along with a check or money order for the appropriate amount to:

BJ Communications Attention: Julie Graham 340 East Palm Lane, Suite 280 Phoenix, AZ 85004 If you have any questions, don't hesitate to contact Julie at 602-277-9530 ext. 229 or julie@bjc.com

Name: Organization: Address (where tapes should be mailed): City, State, Zip: Phone: Email: Please check the box to indicate the event/s you would like to purchase.

******Expert Panel: Carrying Capacity, Group Size and Seasonality Wednesday, January 29, 2003 [ ] VHS Cost: $28.00 includes tax and shipping

******Expert Panel: Allocation of Recreational Use Among User Groups Friday, January 31,2003 [ ] VHS Cost: $28.00 includes tax and shipping

******Stakeholder Workshop Thursday, January 30, 2003 [ ] VHS Cost: $28.00 includes tax and shipping TOTAL COST: $_____

Thank you for your interest in the Colorado River Management Plan revision process. RRFW thanks Mary Orton, mary@maryorton.com for the above information. ### RIVERWIRE is a free service to the boating community from River Runners for Wilderness. Membership is FREE! Send your e-mail address to riverwire@rrfw.org and we'll add you to the RRFW RIVERWIRE e-mail list. To join, visit our website at www.rrfw.org and click on the "membership" link. RRFW is a project of Living Rivers

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River News 12/09/03
RRFW Riverwire - PARK FREEZES ADDITIONS TO WAITING LIST!

Grand Canyon National Park News Release
For Immediate Release December 9, 2003 Dawn O'Sickey

Hold Placed on Adding Names to Noncommercial River Permit Waitlist

Grand Canyon, AZ - Grand Canyon National Park is placing a hold on adding new members to the noncommercial river permit waitlist. As part of the current Colorado River Management Plan (CRMP) planning effort, park staff and planners are carefully examining and considering alternatives to the current waitlist permit system. An overwhelming majority of public comments stated the opinion that the permit system should be overhauled. With this in mind, park management does not want to perpetuate the current system while other alternatives are being considered. There are now over 8,000 people on the waitlist, and more than 1,000 are typically added each year. In the event that the current system is selected as part of the final CRMP decision, to be

completed by December 31, 2004, the system for allowing additions to the waitlist would simply be reinstated.

Until a record of decision is made for the CRMP, current waitlist members will be served in the same manner as they have been in the past. They will soon receive the familiar annual letter regarding waitlist procedures, the schedule of release dates, and other topics. The River Permits Office may be contacted at 1-800-959-9164 or 928-638-7843.

Please go to www.nps.gov/grca for more information regarding Grand Canyon National Park. Information about the Colorado River Management Plan may be found at www.nps.gov/grca/crmp.

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River News 12/14/03
RRFW Riverwire - LAKE MEAD UPDATE

Lake Mead elevation is currently at 1140 feet, having dropped 14 feet since March, 2003. The lake is forecast to drop to 1129 feet by June, 2004, subject to the winters snowfall and outflow requirements to California, Arizona and Nevada. Lake Mead full pool elevation is 1220 feet.
Colorado River current continues to flow past Boundary Point, as the sediment cone and river channel pushes out into Iceberg Canyon. End of current is now at North Howland Cove, roughly half way through Iceberg Canyon. The channel runs down the west side of Iceberg Canyons western cliffs. The Lake is still 90 feet deep at Devils Cove, just above Sandy Point. The river may be fairly clear at Separation Canyon (River Mile 240), but becomes more turbid by Burnt Spring, so much so that by Columbine Falls the river is brown with moving silt. There are lots of beach areas to camp on below South American Point, downstream of Pearce Ferry. Hydraulics at Lava Point continue but no rapid has formed there yet.

The upper rapid by Pearce Ferry has cut into the right river bank sediments. The run here is to the right, with exposed rock on the left. The lower riffle still has a strong eddy on the right and a strong wave train. A new sandbar has formed on river left below the lower riffle, and river runners will need to go to the right of this sandbar. Pearce Ferry will remain closed to all boating into the foreseeable future due to low reservoir levels.

Sandbar Alley, an area of shallow water with many sandbars, is now extending from just below the Bat Caves upriver to Mile 253, but there are several sandbars above that up to Surprise Canyon. Dry Canyon corner has a large bar on river right that extends all the way down to the Bat Caves. The current is on the left. There are lots of sandbars in the channel near the Oriental Tours boat landing. Just upstream of there, at Burnt Canyon, there is a big bar on the left, and just above that there is a large bar on the right. There

is good access to the Burnt Canyon campsite, with a big sandbar ½ mile above that on the right.

South Cove is not going to be impacted by the draw down this year and remains open. All river runners taking out at South Cove are supposed to use the gravel area on the south side of the concrete ramp. River runners are asked to be patient in the de-rig area as Hualapai, concessions and public rafters are all taking out in the same area. River runners are encouraged to maintain as small a take-out footprint as possible, and try to de-rig as quickly as possible. Early take-outs are recommended in the high use seasons of late spring, summer and early fall, to avoid late afternoon river traffic. Maintenance work on the South Cove asphalt ramp has been completed. Dumpsters at South Cove are not for downriver use at this time per trip permit regulations.

National Park Service Rangers note that no camping is allowed on the South Cove ramp and take-out area, or the public swimming area just north of the concrete ramp. Camping is allowed outside the harbor area, and is available one-quarter mile downstream (south) of the concrete ramp below the rock jetty just downstream of the take out. The Mead View Scat machine is closed for the winter, and will tentatively re-open in March.

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River News 12/15/03

RRFW Riverwire - Commercial Bookings Continue as NPS Freezes Public Access

On December 9, 2003, Grand Canyon National Park announced it will no longer allow the public to seek boating permits for the Colorado River. River Runners For Wilderness Co-Director Jo Johnson called the move "shocking and premature. Now people wishing to reserve a future trip are forced to use expensive commercial services as they can no longer add their names to the permit list. The Park Service cites the failure of the current system without offering any remedies for public relief except the option of purchasing access from a park river concessionaire."

Grand Canyon officials noted that an overwhelming majority of public comments requested an overhaul of the present permitting system, and offered this as their reasoning for disallowing new applicants to the non-commercial permit system to float the canyon. "Granted, Grand Canyon National Park has a serious problem with the non-commercial permit system." says Johnson. "Our own review of the public comments has shown that an overwhelming majority of the public would like to see the access methods and allocation between the public and the river concessions changed. There is a backlog of 130,000 people already waiting years to raft the canyon without paying the high concessions fees. So why add fuel to that fire?" says Johnson, who is quick to

point out that "We want the Park to be thinking about changing the access and allocation method to one that reflects real public demand and shows no favoritism."

Johnson brings up another point: "Freezing the waiting list removes an indicator of public demand for river trips, the only indicator NPS has. Now the park has no way of measuring demand at all. Vigorous advertising by commercial operators to fill trips and lack of demand for those same trips-many of which have gone unfilled the last few years-indicates an oversupply in their allocation. This is in stark contrast to the multi-year wait those 130,000 paddlers face.

One solution for the park that would be responsive to public demand is to introduce a Universal Permitting system. The trip leader gets a permit, then uses whatever commercial services they desire once they have a permit. "We look forward to the park's soon-to-be released draft alternatives for the Colorado River Management Plan" says Johnson, who points out that "If the park does not put forward the idea of an allocation free concept along with other possibilities, then this freeze is a signal that the future of access to our National Parks is in serious jeopardy."

"The Park has given no indication of what will replace the waiting list for public access" notes Jeff Ingram. Ingram's new book on the politics of access to the Colorado River in Grand Canyon, titled Hijacking A River, details how the current problem developed. " The Park started with a First-Come, First-Served system after 92% of the river access was assigned to the commercial operators. The public didn't like that, so the Park used a lottery from 1976 to 1980. This also failed. The Park then started the waiting list. It doesn't work, either, but the 20-year stagnated "status quo" of river management has not changed. Given the Park's attempts at various access systems, we are hoping the park releases a robust spectrum of alternatives, including a Universal Permit system, to get a serious public discussion as a basis for a sound access method."

"Trip opportunities are only open to anyone with the thousands of dollars needed to buy seats on commercial trips, but forbidden to anyone wishing to do it on their own." said Tom Martin, also with River Runners for Wilderness. "This commercialization of our parks is a chilling trend we have seen in this administration, with similar moves at Yellowstone National Park toward privatization of access."

Martin notes that allocations, if they exist at all, need valid indicators of demand so that allocations can shift yearly as needed. "We have heard that the river concessions had 18 trips worth of unused allocation this season. While we are glad to hear that the park will be transferring these unused commercial trips to public boaters for use this winter and next spring, we are amazed that the park does not immediately shift some allocation from the 14 river concessions back to the public. Given the public's huge backlog, if this isn't a clear indicator that the current management system is a failure, and not reflecting real demand, I don't know what is."

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River News 12/17/03

RRFW Riverwire - Park Turns 18 Unused Concessions Launches Over To The Public

Officials at Grand Canyon National Park confirmed today the release of 18 additional launches to perspective permittees on the Park's non-commercial waiting list. These permits have been made available as a result of the 2002 lawsuit agreement between Grand Canyon Private Boaters Association with others, and Grand Canyon National Park. The settlement stipulates that unused summer commercial allocation will be turned over to non-commercial launches for the following off-peak season. The dates are limited to the spring of 2004 season: March 1, 3, 4, 7, 10, 11, 13, 15, 18, 20, 23, 26, 29, 31 and April 3, 6, 7, 8.

According to the Continuing Interest Newsletter mailed December 16, 2003 to those on the non-commercial waiting list, during the week of January 5, 2004 to January 9, 2004, the River Permits Office will be releasing 18 launch dates through the cancellation line. Those with a waiting list number assignment of 03#00001 to 03#01499 may call in on Monday, January 5, those with numbers from 03#00001 to 03#02999 may call in on Tuesday, January 6, those from 03#00001 to 03#04499 can call on Wednesday, January 7, those with a number of 03#00001 to 03#05999 on Thursday, January 8, and those holding any number may call on Friday, January 9. Call the River Office cancellation line between 8:00 a.m. to 12 noon and 1 p.m. to 5:00 p.m. at (928) 638-7883. Launch dates will be given out on a first call, first served basis to eligible callers.

The letter goes on to note that many winter launch dates released in past years were not claimed until the very last call-in day. Provided this trend continues, callers who are eligible to call in the first few days should have a good choice of available dates.

The newsletter assures current waiters on the list that their position on the list is not affected by the recently announced hold on new additions to the non-commercial permit waiting list.

Park officials also noted that self guided trip scheduling during the normal year has included a 12% overbooking of non-commercial river trips. This overbooking has all but eliminated the need to release additional launches to the cancellation line, while assuring self guided river trips used all the available user days each season.

Our thanks to Steve Sullivan, Grand Canyon National Park, for this information.

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River News 12/30/03

RRFW Riverwire - GLEN CANYON DAM UPDATE

Basin Hydrology
Severe drought conditions in the Colorado River Basin continue. As we move into mid-winter, there are no clear signals that the drought is easing. While much of Utah was slammed with a major winter storm the last week of December, snowpack in the Colorado River Basin remains near average. The bulk of the moisture from the Utah storm was in the Wasatch Mountains,west of the Colorado River Basin. As of December 30, 2003, snowpack in the Colorado River Basin is 101 percent of average. Because of the extended drought, the snowpack lies atop a mantle of very dry soil. This scenario is not favorable for next springs runoff, as much of the melting snow will be absorbed by the soil. Reclamation is estimating that with average snowpack conditions this winter, runoff next spring would be about 75 percent of average. The National Weather Service will issue an April through July inflow forecast for Lake Powell on January 5, 2004.

The Colorado River Basin is now in its 5th year of drought. Inflow volumes have been below average for 4 consecutive years. Unregulated inflow in water year 2003 was only 53 percent of average. Unregulated inflow in 2000, 2001 and 2002 was 62, 59, and 25 percent of average, respectively. Inflow in 2002 was the lowest ever observed since the completion of Glen Canyon Dam in 1963.

The trend of low inflow continues. Unregulated inflow in November, 2003 was 64 percent of average and Decembers will likely end up at about 65 percent of average. On December 29, 2003 observed inflow to Lake Powell was 5,000 cfs, about 60 percent of what is usually seen in late December.

Low inflows have reduced water storage in Lake Powell. On December 5, 2003, the elevation of Lake Powell dropped below 3600 feet. The last time the water surface elevation was this low was in 1973. The current elevation (as of December 30, 2003) of Lake Powell is 3,597 feet (103 feet from full pool). Current storage is 11.5 million acre-feet (47 percent of capacity). The good news is that even after 4 years of severe drought Lake Powell is still storing a large volume of water.

Operations Experimental Flows

Daily high fluctuating releases from Glen Canyon Dam, as part of the Glen Canyon Dam experimental flows, will be implemented from January through March 2003. Releases will range between a high of 20,000 cubic feet per second (cfs) to a low of 5,000 cfs each day. The 20,000 cfs releases will be maintained for about 9 hours each day (from about 11:00 am until about 8:00 pm), while the 5,000 cfs releases will be maintained for about 8 hours (from about 1:00 am until about 9:00 am). The remainder of the hours will be transition releases where releases will be between the daily high and the daily low. This pattern will be maintained for 7 days a week during the January through March

time period. It should be noted that due to real-time power considerations and regulation to stabilize the power system, actual releases may deviate somewhat from this pattern

The January through March high fluctuating releases are intended to benefit the endangered humpback chub. Scientists have recognized that the humpback chub population has been in general decline since highly fluctuating flows were curtailed in November of 1991. Those flows helped keep the non-native fish, especially the rainbow and brown trout, in check. The trout are thought to prey upon and compete with native fish such as the endangered humpback chub. This is the second year of high fluctuating releases as part of the experimental flows. High fluctuating releases were first implemented in January through March of 2003.

Monthly release volumes in January, February, and March 2003 are scheduled to be 788, 737, and 788 thousand acre-feet, respectively, which averages out to 12,800 cfs per day. Because of the draw down condition of Lake Powell, releases from Lake Powell in water year 2004 are being scheduled to meet the minimum release objective of 8.23 million acre-feet. This is consistent with the requirements of the Criteria for Coordinated Long-Range Operation of Colorado River Reservoirs. The experimental flows will not change the total volume of water to be released from Lake Powell in water year 2004.

The experimental flows from Glen Canyon Dam received environmental clearances in December 2002. The flows were analyzed in an environmental assessment in accordance with the National Environmental Policy Act. The experimental flows are the result of ongoing studies by scientists from the United States Geological Survey and were recommended by the Glen Canyon Dam Adaptive Management Work Group, a Federal advisory committee. The experimental flows address the decline of two key resources in the Grand Canyon: sediment and population viability of endangered humpback chub. The Finding of No Significant Impact on the experimental flows can be found at http://www.uc.usbr.gov/amp/flow_fonsi.pdf

This release courtesy Tom Ryan.

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