

JUL 15 1991

An HCN Special Issue

# High Country News

July 15, 1991

Vol. 23 No. 13

A Paper for People who Care about the West

Three dollars

## The CUP Story

The story of the Central Utah Project is complex. Geographically, it sprawls from the rural and remote Uintah Basin to the densely populated Salt Lake City area. Historically, the water project's roots lie in the settlement of Utah by the Mormon pioneers. Politically, it is part of a national arrangement that has funneled federal dam-building funds to lightly populated western states for a century.

But the Central Utah Project can also be seen very simply: as yet another sign that the West's and the nation's attitude toward water is changing. A project that has been under construction since the 1960s, and that has long been a beloved icon to one of the most arid states in the West, is being reduced in size, is being made less environmentally damaging and is becoming a vehicle of justice for an Indian tribe that has suffered as a result of the project.

The above is simple to say, but as the following four articles in this special issue indicate, the project is enmeshed in the tangle of information and disinformation that always surrounds Western water issues. The history, politics and engineering of the project — which has consumed decades and \$1 billion in federal and local money — is not easily told.

Nevertheless, as you will see, the outlines of the story are clear, and tragic. The great damage inflicted on wildlife, rivers and Native Americans is a familiar one. But the story of the CUP includes another tragedy: the death of the West's traditional dream of reclamation. Here, in the heart of the Desert empire, the dream — which is also a religious imperative of making the desert bloom — is dying. And dying with it is the West's instrument of that dream: the United States Bureau of Reclamation.

The question that cannot be answered yet is whether the reform of the CUP is a special case or whether it indicates that permanent change has come to Western water. At the least, the apparently imminent reform of the CUP by Congress shows that the federal government is no longer an enthusiastic builder of dams. The reform of the CUP would represent the drop of a second shoe. The first shoe was the rejection of the proposed Two Forks Dam in Colorado last year by the U.S. Environmental Protection Agency. The CUP situation means that this rejection was no fluke. Nationally, the tides are running

strongly against major water projects.

Less clear is the extent to which the West is changing. Signs point in all directions. At Two Forks, it took a federal, top-down action to defeat the project. Although opposition to the dam was very strong within Colorado, it would now be under construction had the decision been left to elected officials in Denver and its suburbs.

The same is true of Utah. If Utah had the financial ability to build the CUP by itself, the state would be going ahead, almost certainly with strong support from Utah taxpayers. The project became reformable only because it needed action from Congress. And the national environmental movement, with the help of reform-minded representatives and senators, has blocked that action and appears capable of continuing to block it.

But there is an important local element. Utah has something it has never had before with regard to water — an active reform movement. And in the person of Congressman Wayne Owens, that reform movement has a voice in the House of Representatives. As a result of the need for congressional action, a strong environmental lobbying capability in the Congress, the presence of Owens and other elected officials there, and a formidable array of grassroots reformers in Utah, proponents and opponents have come to the bargaining table. Now, after much work, the CUP has been brought to the once unthinkable stage of real reform.

Much will depend on the quality of that reform. If, after a decade or so, Utahns and their leaders see that preserving streams and wetlands, minimizing the pouring of concrete, strengthening the economy of an Indian tribe and taking least-cost approaches to water make sense, and if word of these successes is communicated, then a trend may be established. If, on the other hand, the reforms miscarry, or if it proves too late for reforms, or if the voices and achievements of water reform continue to be stifled in Utah, then it will remain business as usual in one of the West's driest states.

So there is reason for caution. But there is also reason to believe that the West is being dragged and — more importantly — is dragging itself around a very definite corner of change.



## Why Utah wants 'the bureau' out

by Steve Hinchman

Utah, the second driest state in the nation after Nevada, was settled as much by the Bureau of Reclamation as by the Mormons. It was the bureau that fulfilled Brigham Young's vow to "make the desert bloom like a rose."

But that era now appears over.

After constructing 14 large water projects and 11 smaller ones, the bureau is about to go out of business in Utah. A major reason is the Central Utah Project, an engineer's dream that — over three decades — turned into an unworkable nightmare.

This story is about how the Bureau of Reclamation created a mammoth water project that nevertheless ended up betraying even those it was supposed to serve. It also tells how the bureau cut its own throat in the process, and how some of the CUP may yet be salvaged.

Beyond that, this is a tale of unchecked bureaucratic ambition that flourished within a Utahn culture that was totally wedded to traditional water development.

As late as 1985, the 12 Utah counties that supposedly were to benefit from the CUP voted by a majority of 70 percent to increase their indebtedness threefold just to keep the project alive. It was an incredible measure of support few other Western water projects have ever garnered.

Yet, as Congress considers a vastly scaled-back version of the CUP this summer, public support for the original CUP in Utah still remains high. This is despite the now obvious fact that few Utahns really understood that project's immense complexities and staggering costs.

Over the years since 1956, when Congress first authorized the CUP, its proponents developed a self-serving

mythology that became virtually unchallengeable. The first myth was that the rapidly growing Salt Lake City-Wasatch Front region would run out of water without a dramatic infusion from outside the basin. The second was that tapping into the Colorado River watershed offered the only route to a secure water supply. The third was that the \$2.2 billion CUP would generate an economic bonanza for Utah.

One of the few critics to challenge these beliefs was Jay M. Bagley, a professor of civil and environmental engineering at Utah State University's Water Research Laboratory. Bagley, who is now retired, contended that the CUP met almost none of Utah's real water needs.

Salt Lake County, Bagley argued, sits in an extremely water-rich region, unlike most other Western metropolitan areas. Using the local water agencies' own data, Bagley noted that the county's

estimated groundwater recharge (natural flow to underground aquifers) exceeded annual withdrawals by 241,000 acre-feet. If the county installed a dual potable and non-potable water supply system, he said, it could serve three times its present population.

The Salt Lake area has one of the highest per-capita water consumption rates in the region. Half of all the water delivered to the metropolitan area is used for "outside purposes," such as lawns and gardens.

Bagley also noted that traditional dam projects in the Bonneville (Great Salt Lake) Basin closer to Salt Lake City would be more cost-effective than the CUP. In short, making use of Utah's share of Colorado River Basin water would not necessarily be the best use of that water. "Opting for the big federal water project has foreclosed on the next

Continued on page 6



### HIGH COUNTRY NEWS

(ISSN/0191/5657) is published biweekly, except for one issue during July and one issue during January, by the High Country Foundation, 124 Grand Avenue, Paonia, CO 81428. Second-class postage paid at Paonia, Colorado.

**POSTMASTER:** Send address changes to HIGH COUNTRY NEWS, Box 1090, Paonia, CO 81428.

Subscriptions are \$24 per year for individuals and public libraries, \$34 per year for institutions. Single copies \$1 plus postage and handling. Special Issues \$3 each.

Tom Bell  
Editor Emeritus

Ed Marston and Betsy Marston  
Publishers and Editor on Leave

Lawrence Mosher  
Editor

Mary Jarrett  
Deputy Editor

Linda Bacigalupi  
Associate Publisher

Florence Williams  
Staff Writer

C.L. Rawlins  
Poetry Editor

Diane Sylvain  
Production/Graphics/Map Design

Cindy Wehling  
Desktop Publishing

Ann Ulrich  
Typesetting

Kay Henry Bartlett, manager  
Gretchen Nicholoff  
Michelle Godsey  
Circulation/Business

Rick Craig  
Auden Schendler  
Jane Bailie  
Interns

Judy Donald, Washington, D.C.  
Michael Ehlers, Boulder, Colo.  
Jeff Fereday, Boise, Idaho  
Bert Fingerhut, Aspen, Colo.  
Tom France, Missoula, Mont.  
Karl Frohboese, Park City, Utah  
Sally Gordon, Buffalo, Wyo.  
Bill Hedden, Moab, Utah  
Dan Luecke, Boulder, Colo.  
Geoffrey O'Gara, Lander, Wyo.  
James B. Ruch, Flagstaff, Ariz.  
Emily Swanson, Bozeman, Mont.  
Lynda S. Taylor, Albuquerque, N.M.  
Herman Warsh, Emigrant, Mont.  
Andy Wiessner, Denver, Colo.  
Board of Directors

Articles appearing in *High Country News* are indexed in *Environmental Periodicals Bibliography*, Environmental Studies Institute, 800 Garden St., Suite D, Santa Barbara, CA 93101.

All rights to publication of articles in this issue are reserved. Write for permission to print any articles or illustrations. Contributions (manuscripts, photos, artwork) will be welcomed with the understanding that the editors cannot be held responsible for loss or damage. Enclose a self-addressed stamped envelope with all unsolicited submissions to ensure return. Articles and letters will be edited and published at the discretion of the editors.

Advertising information is available upon request. To have a sample copy sent to a friend, send us his or her address. Write to Box 1090, Paonia, CO 81428. Call *High Country News* in Colorado at 303/527-4898.



Printed on recycled paper:  
45 percent de-inked,  
9 percent post-consumer.

## Dear friends,



New intern

Jane Bailie hails from California, where she recently worked for the Pacific News Service in San Francisco and covered the city of San Jose for a regional newspaper. She finds small-town life a new and refreshing experience — especially the baby foxes she finds in the driveway at night. One of the most overqualified interns *HCN* has ever managed to attract, Jane holds degrees in English, political science and journalism and has enjoyed previous internships at the *Los Angeles Times*, the United Nations, the Smithsonian Institution and CNN. She says she's here to learn more about environmental issues, and wonders why she didn't come sooner.

### Not-so-old interns

"At Last, a Paper Students Put Out Without Paper," announced the headline in *The New York Times's* "Campus Life" section. The publication is *A Sense of Place*, a Dartmouth College environmental bimonthly that is produced and transmitted to 800 readers entirely by computer. Its editor, Clay Fong, was an *HCN* intern last summer; assistant editor Diane Grauer interned with us last fall.

### Sun, straw, falafel

Vennie White's story on solar cookers in the May 20 issue failed to tell

readers how to get more information, but the author has remedied that omission. "I just returned from travels in Arizona and New Mexico, and several people mentioned the story," she writes. "They all had the same question: How do I find out more?" Here are her answers: Contact Solar Box Cookers International at 1724 11th St., Sacramento CA 95814, or Solar Box Cookers Northwest at 7036 18th Ave. NE, Seattle WA 98115. Both are all-volunteer organizations.

We'd also like to provide some information about Matts Myhrman's straw-bale construction business, mentioned in the same issue. It is Out on Bale (un)Ltd., 1037 E. Linden Street, Tucson, AZ 85719; 602/624-1673.

For those readers who have been asking how to find Mary Butters's Paradise Farm falafel mix, her telephone number is 208/882-6590.

### Passers-through

We met Tom and Vicki Moore, subscribers from Tempe, Ariz., while they were on vacation in the Colorado mountains, winding along jeep trails from Silverton to Leadville and all sorts of points in between. With them was their Australian shepherd, "Sammi the Wonder Dog." Tom monitors air for the Arizona Department of Environmental Quality.

Bruce Macpherson, of Santa Rosa, Calif., came by to say there are still no bugs in the Grand Canyon. He teaches environmental economics and politics at his city's junior college, and spends summers running rivers in the West; his trip this year included 17 days in the canyon. Next month he takes a group to Scotland's University of Edinburgh, where they will study Scottish literature in the mornings and explore the city and its countryside in the afternoons. The annual, month-long course is offered by the University of California at Berkeley.

Tara Parr, John Ambler and Mary Whelan, all of Fort Collins, Colo., dropped by on their way home from the Telluride Bluegrass Festival. They reported that the town's narrow valley was filled to the brim. Imagine!

### Emily's fund

The Emily L. Jackson Memorial Fund now contains \$410. This fund, established in honor of the extraordinary young woman who died last April during her internship here, will be used (when it grows big enough) to provide financial

assistance to *HCN* interns who otherwise would not be able to work and learn at *High Country News*. Thanks to all who have contributed so far: readers Allyson Mathis and Jack and Corinne Holder; former *HCN* editor Marjane Ambler; Rita Rice, Emily's aunt; Dan McRoberts, Emily's boyfriend, and his parents, Helen and Keith McRoberts.

Dan stopped by the office one recent Saturday, but it was a very gorgeous day and nobody was here. So he planted a row of wildflowers by our office door and made a little drawing:



Summer skipping

Twice a year we all get a break from *HCN's* relentless tide of news. It's that time again, so we'll skip the next issue; *High Country News* will appear again Aug. 12.

### On ending it

We began our year of editing *High Country News* by writing in the Aug. 27, 1990, "Dear friends" that we felt privileged to "take the helm" for 12 months. We still feel that way. The Marstons' sabbatical gave us an unprecedented opportunity to work with a dedicated and competent staff, and a wonderfully varied group of writers and other contributors around the region. In addition, we came to appreciate first-hand the remarkably involved readership of this newspaper. We hope we have been faithful stewards. We will miss you all, but we're not going far — just to Crawford, 12 miles away. This year has given us great joy and a sense of place. What more could anyone ask?

— Larry Mosher and Mary Jarrett  
for the staff

## HOTLINE

### Grazing fee hike passes

An amendment that would more than quadruple grazing fees on public lands was passed by the U.S. House of Representatives in June. The amendment was added to the House Fiscal 1992 Interior Appropriations Bill by Rep. Mike Synar, D-Okla. "Unless you pass this amendment, grazing fees will continue to encourage overgrazing of public lands, costs will continue to exceed receipts and taxpayers will continue to subsidize livestock grazers who represent only 3 percent of the industry," Synar told the Gannett News Service. The proposal would raise the monthly fee paid by ranchers for one animal unit (a unit consists of one horse, one cow with a calf or five sheep) from \$1.97 to \$8.70 by 1995. Dave Flitner, president of the Wyoming Farm Bureau, told The Associated Press, "This is not really a rental increase, this is an eviction notice

[for ranchers]." The House vote on the bill was a close 232-192; it passed by a much smaller margin than a similar bill in 1989 that was rejected by the Senate. The new bill goes before the Senate this month.

### Wolf committee's plan rejected

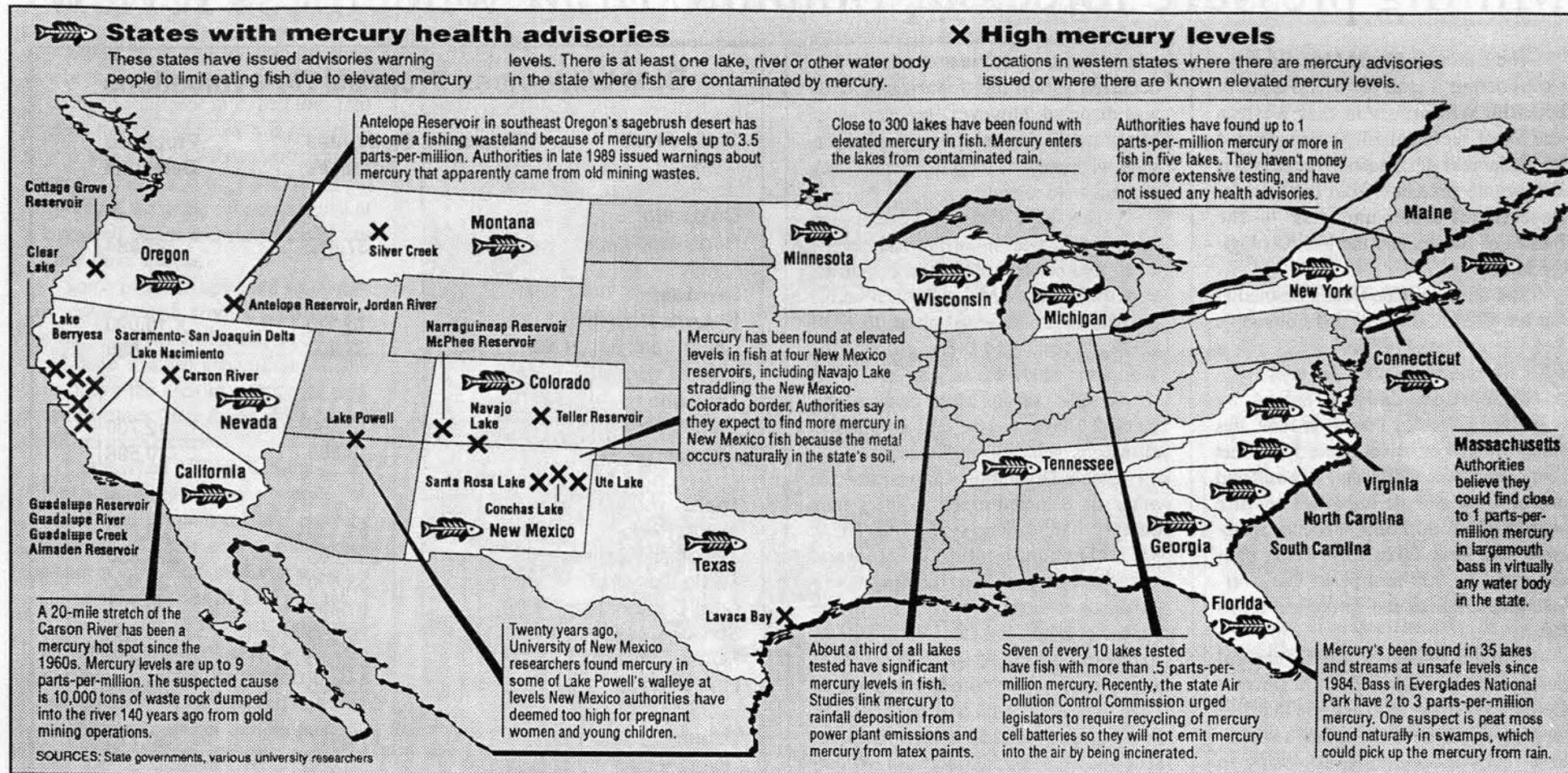
A House subcommittee has rejected the federal wolf management committee's controversial plan for reintroducing wolves to Yellowstone National Park. The plan, which was opposed by environmentalists, would classify all wolves in Montana, Idaho and Wyoming as "experimental, non-essential" populations. That designation would reduce their protection under the Endangered Species Act, and subject them to killing by private ranchers and state agencies if the animals left the park. Neal Sigmond, a staff assistant to the House Appropriations Committee's Interior Subcommittee, told the Jackson Hole, Wyo., *Guide* the plan was panned

because "it put too many impediments in the way of wolf recovery." The subcommittee voted to fund an Environmental Impact Statement for a 1987 plan, developed by the U.S. Fish and Wildlife Service, that retains the provisions of the Endangered Species Act.

### Owl blocks timber sales

One year after the northern spotted owl was listed as a threatened species, the majority of the planned timber sales in the Pacific Northwest have been blocked to preserve habitat for the birds, reports The Associated Press. Two federal rulings since the listing have effectively stopped logging in spotted owl habitat on public lands, causing the U.S. Forest Service to sell 1 billion rather than 3 billion board feet of timber in Washington and Oregon this year. The Bureau of Land Management had planned to sell 750 million board feet of timber in western Oregon, but U.S. Fish and Wildlife Service biologists blocked two-thirds of those sales.

# WESTERN ROUNDUP



Jeff Neumann/Albuquerque Tribune

## Mercury-tainted fish threaten a puzzled public in the West

By any standard, Antelope Reservoir in southeastern Oregon is miles from nowhere. It lies in the heart of high-desert sagebrush country, 70 miles from the nearest major town, about 15 miles west of the Idaho border.

Today, it has become one of the West's first mercury-poisoned wastelands. The state Department of Fish and Wildlife used to stock it annually with 50,000 rainbow trout, and it was a popular spot for Boise-area fishermen. In late 1989, however, authorities found the reservoir had unacceptably high mercury levels. Mining wastes left over from a century ago apparently had sent mercury into the Jordan River, which feeds the reservoir.

There's nothing new about toxins in fish, given the spread of dioxins, PCBs and pesticides into fish around the country. But mercury, compared to the others, presents a double-barreled problem, authorities say. Its health hazards to people are far better documented, yet its sources are much more elusive and will be much harder to eliminate. In addition, most of the mercury discoveries have occurred in places where one would least expect pollution: remote, near-pristine lakes and reservoirs.

Antelope Reservoir is one of some 15 rural reservoirs, lakes and streams in seven Western states for which state authorities have issued mercury-related health warnings. New Mexico has four reservoirs with mercury-tainted fish; Colorado has three; and Montana has a small stretch of creek north of Helena with fish so badly contaminated with mercury that anglers are told to throw back whatever they catch.

Several of these bodies of water lie near old, usually abandoned mining sites. An often-heard theory to explain the others is that mercury occurs naturally in the reddish, volcanic Western soil called cinnabar. Another theory is that it drops onto the water as acid rain does, from power plant and other industrial emissions that may have traveled hundreds of miles. Many authorities believe that reservoirs intensify mercury pollution by holding back mercury-tainted soil that used to head downstream in the days when the rivers ran free.

Perhaps the single biggest case of mercury contamination in the West is in northern Nevada, east of Carson City.

About 10,000 tons of mercury that were used to extract gold in 1850s mining operations found its way into the Carson River.

In the 1960s, authorities found slightly elevated mercury levels when they checked to see if the fish were suitable for shipping across state lines. Twenty years later, officials found mercury levels as high as 9 parts per million in walleye. That's nine times the level that the U.S. Food and Drug Administration allows in fish sold in grocery stores.

Today, a 20-mile stretch of the Carson River is posted for mercury, and the area may become a federal Superfund toxic site. Some state officials say it could cost \$50 million or more to dredge the contamination from the soil or otherwise clean the river up. But perhaps the most chilling concern is that if workers disturb the river bottom by trying to dredge the soil, it would cause more damage than if people left it alone.

Even Lake Powell, the "Jewel of the Colorado," may not escape the mercury threat. Nearly 20 years ago, University of New Mexico researchers found elevated, but still relatively low, levels of mercury in the then-new reservoir's fish. The highest levels, in sizable largemouth bass and walleye, were about the same at which authorities now tell pregnant women not to eat the fish.

Retired University of New Mexico biology professor Loren Potter, who worked on the 1971 study, predicts that if authorities test the lake again, they'll find higher mercury concentrations. For one thing, pollution-testing technology has improved. But Potter believes the high levels may be caused by the neighboring coal-fired Navajo Power Plant, which was starting up in the early 1970s and today is in full operation. He says it could be emitting mercury into the air that could be going into the lake.

### Dangers to birds and people

U.S. Fish and Wildlife Service officials are concerned that mercury in fish could damage the reproductive capacity of bald eagles and common mergansers, a diving duck species that relies heavily on fish. The eagle, whose comeback from near-extinction by pesticides has become one of the nation's most heralded success stories, winters at reservoirs

throughout the West.

"There's nothing to do to get eagles to stop eating fish," said Richard Roy, an assistant environmental specialist for the U.S. Fish and Wildlife Service in Albuquerque. "They don't read signs."

For humans, mercury is considered to be one of the more potent toxic threats simply because the scientific data on its effects are much stronger than on many other chemicals and heavy metals. Mercury is known to have caused mass poisoning in humans not just once, but twice — in Japan in the 1950s and in Iraq in the 1970s.

"Mercury poisoning is one of the ugliest diseases I've heard of," said Jim Piatt, chief of New Mexico's surface water quality bureau. "I'd rather have people be overcautious and healthy than go out and eat these fish while we wait for more studies. I don't want people to panic, but I'd rather have people panicked than dead."

Authorities, however, are tempering their warnings with assurances. They say people should not stop fishing; nor, except in extreme cases, should they stop eating all fish. Many states' health warnings are tailored differently for different groups of people depending on how often they fish at the lakes and streams in question.

An informal survey of 14 of the 19 states that have mercury advisories around the country found huge inconsistencies. Some states, such as New Mexico and Wisconsin, have a cutoff point of 1 part of mercury per million at which they urge people to stop eating fish. Others, such as Minnesota, say it can be all right for people to eat small amounts of fish with nearly 3 parts per million.

Rochester University toxicology professor Thomas Clarkson, considered one of the world's leading authorities on mercury, admits that so far, "We don't know the safe level in fish."

Many anglers who live near contaminated lakes say they're eating fish with as much gusto as ever.

"People have been fed a line of bull for so long they don't believe anything the government says," said Jeff Johnson, a Portales, N.M., vacuum cleaner salesman who comes to Ute Lake, N.M., to "party."

Some fish in the lake, not far from the Texas and Oklahoma borders, have mercury levels as high as 3 parts per million.

Copies of state guidelines on fish consumption are available inside the Ute Lake State Park office. But Park Superintendent Eric Booker said he eats fish from Ute Lake twice a week, mercury or no mercury.

He said, "A lot of other risks are more hazardous to my health, like driving to the market in my car and stepping out the front door and getting hit by a meteorite."

— Tony Davis

Tony Davis is a reporter for the Albuquerque Tribune.

## HOTLINE

### Council approves Zion theater

The Springdale, Utah, Town Council has approved the construction of a giant-screen theater next to Zion National Park (HCN, 6/17/91). The Associated Press reported that in addition to a 300-seat theater the developer plans to build a 12,000-square-foot retail complex and a 169-stall parking garage. Opponents, who take issue with locating the theater at the entrance to the park, fear that its presence would tempt visitors to substitute a synthetic for a natural experience. Others are concerned that the theater — directly opposite Watchman campground — would detract from the camping experience. The town council's approval of the conditional-use permit was the final obstacle in the path of construction.

### Canyon haze comes from L.A.

The smog that frequently mars the view over the Grand Canyon is coming from Los Angeles, according to a recent study by two scientists at Washington University in St. Louis. The study is part of an \$8.5 million research project funded by the Southern California Edison Co. The key to the new findings was the fact that the haze dissipated over the weekends. The Associated Press reported. New tracking techniques showed that the source of most of the smog was Los Angeles, more than 240 miles away, not the nearby Navajo Generating Station, as the U.S. Environmental Protection Agency had suspected.

# Mining pressure forces last-minute BLM wilderness review

The Bureau of Land Management is reconsidering a total of 450,775 acres of potential wilderness in four Western states that were initially recommended for wilderness designation. The reason is last-minute pressure from two Interior Department sister agencies — the Bureau of Mines and the U.S. Geological Survey.

The areas include Utah's Desolation Canyon (224,850 acres) and Colorado's Red Cloud Peaks (27,884 acres). For a list of the other areas, see box to right.

Desolation Canyon, named by Major John Wesley Powell in 1869, lies along the Green River some 5,000 feet below the Book Cliffs, and is considered one of Utah's most important wildlife areas. Red Cloud Peaks, a popular recreation area near Lake City, Colo., contains two 14,000-foot peaks that overlook glacial lakes and spruce and aspen forests.

Bureau of Mines and Geological Survey officials met with BLM Director Cy Jamison May 16 to ask him to delete these acreages from his agency's wilderness recommendations, according to Keith Corrigan, BLM's wilderness branch chief. The BLM's recommendations will go to Congress in October.

Corrigan said the timing of such a request was unusual because so much

administrative review had already occurred within the department. This was disputed, however, by Bureau of Mines and Geological Survey spokespersons, who said that such late interagency requests were routine.

Utah's BLM wilderness coordinator, Greg Thayne, said his office had already taken into consideration the comments from the Bureau of Mines. "When we did the final EIS, I convened about 15 BLM geologists and had them go over the Wilderness Study Areas," he said. "And we did make changes based on their comments." Thayne said he had no plans to change his initial recommendations.

Utah's Desolation Canyon and the other six disputed areas in the state's eastern canyonlands region (HCN, 6/17/91) could contain commercial quantities of coal, oil, natural gas or hardrock minerals, according to the Bureau of Mines and Geological Survey. Eighty-one percent of the disputed BLM wilderness recommendations are in Utah. The state's BLM office already had cut out 193,250 acres from the state's total of 559,905 acres of Wilderness Study Areas.

"These areas are being re-evaluated for their potential of high mineral values," Ron Smith, a BLM official on loan to the Geological Survey, explained. He said the mineral values appeared "so high that wilderness values couldn't possibly meet them."

Colorado's Red Cloud Peaks could contain commercial deposits of gold, silver, zinc, lead, copper, molybdenum, uranium and alunite. But Eric Finstick, the state's BLM wilderness coordinator, said he had resubmitted his original supporting

## BLM Wilderness Proposal Re-evaluations

| State Areas             | Wilderness Study Area Acreages | Proposed Deletions |
|-------------------------|--------------------------------|--------------------|
| <b>Colorado:</b>        |                                |                    |
| Red Cloud Peaks         | 37,442                         | 27,884             |
| <b>Nevada:</b>          |                                |                    |
| Roberts Mountain        | 15,090                         | 15,090             |
| Silver Peak Range North | 33,900                         | 17,850             |
| <b>Oregon:</b>          |                                |                    |
| Blue Canyon             | 12,700                         | 12,700             |
| Owyhee Breaks           | 13,380                         | 10,596             |
| <b>Utah:</b>            |                                |                    |
| Notch Peak              | 51,130                         | 28,000             |
| Desolation Canyon       | 290,005                        | 224,850            |
| Turtle Canyon           | 33,690                         | 27,960             |
| Coal Canyon             | 61,430                         | 20,774             |
| Spruce Canyon           | 20,350                         | 14,736             |
| Flume Canyon            | 50,800                         | 16,495             |
| Fish Springs            | 52,500                         | 33,840             |
| <b>Totals</b>           | <b>672,417</b>                 | <b>450,775</b>     |

data for Colorado's BLM wilderness recommendations. He said that 19,000 acres had already been deleted because of requests from the Bureau of Mines and the Geological Survey during the Environmental Impact Statement process.

Environmentalists have criticized the re-evaluations as violations of the National Environmental Policy Act, which requires EISs. "If we ever needed further proof that the process is corrupt, this is it," says Brant Calkin, execu-

tive director of the Southern Utah Wilderness Alliance. "Why produce a final EIS if it can be altered outside of its own process?" Calkin emphasized that the BLM had made no official announcement of pending changes in the state wilderness recommendations.

—Michael J. Robinson

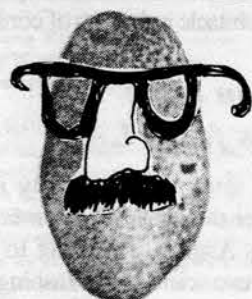
Michael J. Robinson, a former HCN intern, is director of Sinapur, a Colorado

## HOTLINE

### Suit threatened against Moab drilling lease

The Sierra Club Legal Defense Fund has announced that it will sue the Bureau of Land Management if an Environmental Impact Statement is not filed for a proposed oil well near Moab, Utah. The controversial well and the road leading to it, to be constructed by Coors Energy Co., would bisect critical bighorn sheep habitat. A Southern Utah Wilderness Alliance release says the bighorn herd near Arches National Park is "only one of two native viable populations of bighorn sheep remaining in Utah." SUWA is a co-plaintiff in the proposed suit, the Moab *Times-Independent* reported. The Utah Mountain Bike Association had also intended to join the suit, but withdrew when the BLM, as a compromise, offered to return the road to its primitive condition after drilling is completed. SUWA successfully obtained a temporary restraining order against the drilling on June 27, only a week before construction would have begun.

## BARBS



Mr. Potato Head would be proud.

Idaho's World Potato Expo, held last month in Blackfoot, featured the opening of the state's first potato museum. "This museum will feature every facet of potatoes," executive director Maurine Hill told the Idaho Falls *Post Register*. Exhibits will include the world's largest potato chip as well as artifacts from ancient Peruvian potato-worshipping cultures.

## Filmmaker unfazed by Ford grazing pullout

Documentary filmmaker Roger Snodgrass of Santa Fe is not worried about the corporate jitters of the Ford Motor Co. He's rather enjoying it.

Last month, the Detroit maker of the nation's most popular pickup trucks and a major producer of ranch and farm equipment yanked its support of a documentary on the degradation of the nation's public rangelands. Ford spokesman Larry Weiss said the film, titled *The New Range Wars*, was apparently too hot a potato for the company's tastes.

"We simply felt it was too controversial," Weiss said. "It's against our policy to take sides in highly politicized controversies of this kind."

The documentary aired June 23 on the Turner Broadcasting System and will air again Aug. 6 on Public Broadcasting System stations.

The one-hour film focuses on the growing controversy between environmentalists and ranchers over livestock grazing on public lands. The film is part of the "World of Audubon" series, which is supported by the National Audubon Society.

Ford drew immediate criticism from Audubon president Peter A.A. Berle for bucking under to fear of criticism from ranchers, despite the film's well-balanced approach. Ranchers threatened to boycott Ford.

Ford pulled its commercial support from another Audubon-sponsored production two years ago. That film, *Rage Over Trees*, focused on the destruction of forests in the Pacific Northwest, and drew threats of a boycott from loggers.

Snodgrass is unfazed by Ford's actions and said the loss of \$60,000 in advertising would not affect broadcasting plans.

"If Ford wants to be perceived as anti-environmental rather than tolerant of compassionate criticism of public lands ranching, that is their choice," Snodgrass said from his studio in Santa Fe. "I'm glad to get the added attention."

Snodgrass said the project cost more than \$200,000, and took nearly three years to complete and was "in the works" for nearly 10 years, he said. He was approached about the film by David Henderson of the Santa Fe chapter of the Audubon Society, and then began working with Chris Palmer of Audubon Productions. Almost all the filming was done in New Mexico, Arizona, southern Utah and Colorado.

The documentary addresses a wide range of problems brought on by more than 100 years of cattle grazing. It provides examples of land that is unlikely to recover from overgrazing unless drastic action is taken.

"We didn't go out looking for the worst areas," Snodgrass said, but added, "They're easy to find." He said the facts point to a dire need for change in management practices on public rangelands.

"The General Accounting Office has found one-quarter of the lands to be overstocked and declining in productivity," he said. "That's 100 million acres."

On the other hand, Snodgrass noted, "there's a lot of land that is in good shape. We say in the film that vast portions have improved. But there's a lot of work to be done in riparian areas and overgrazed areas."

The film cites critics of other government programs, such as the federally subsidized killing of tens of thousands of wild animals such as coyotes and mountain lions that are thought to prey on cattle.

The film also criticizes the subsi-

dized leasing of range for some \$2 per acre when private lands lease for up to \$10 an acre.

Ranchers interviewed in the film claim they are inheritors of problems that have gone on for generations. They say most of the damage was done during the last century, when range grazing was uncontrolled.

Chuck Cushman of the National Inholders Association, based in Battle Ground, Wash., reviewed the film in early June and called it a "hit piece designed to drive ranchers off public lands." Bud Eppers of the New Mexico Cattle Growers called the film "irresponsible and filled with misinformation." Vic Culberson, also with the New Mexico Cattle Growers, claimed that scientists consider the rangelands in better shape this century than ever.

Santa Fe's Henderson defends the film and believes Ford may have hurt itself by backing out. "It's a fair representing and fair accounting," he said of the documentary. "The livestock industry is bellyaching without seeing it."

Abuses of rangelands, Henderson said, may not be the fault of current generations, but "they are continuing the abuses. The land is not healing itself. They may have to pay for the sins of their forefathers."

"Ford should not be picking sides," Henderson said. "I can guarantee there are more environmentalists out there than ranchers. We all drive vehicles. I think Ford made a mistake. They buckled under."

—Peter Eichstaedt

Peter Eichstaedt is a reporter for *The New Mexican* in Santa Fe.

# Airport expansion and posh resort plans stir Taos

TAOS, N.M. — Although this town has been expanding ever since the first Spanish conquistador marched into Taos Pueblo, the issue of growth is now coming to a head. The debate concerns the proposed expansion of Taos Municipal Airport and the proposed construction of a large golf course and resort called Las Sierras Development.

Some of those opposed to change are recent arrivals from California and the East. Many of the locals, on the other hand, have watched generations of children leave the area in search of jobs, never to return. They favor anything that promises more income.

The survival of Taos County means different things to different people. Traditionally an agricultural and ranching community, Taos is now economically dependent upon tourism. Even so, it has an unemployment rate of 15.5 percent.

The majority of the local population is Hispanic, with Anglos and Pueblo Indians placing second and third. The unspoiled beauty of the area and its tri-cultural heritage are major selling points to visitors. Taos also is known as a mecca for Southwestern art and boasts one of the most challenging ski areas in the nation.

The proposed airport expansion is funded by an \$8 million grant to the town of Taos from the Federal Aviation Administration. The project would involve lengthening the one existing runway, building a new cross runway and acquiring sophisticated weather-forecasting equipment.

Although many residents are concerned about the effects of increased growth, the town has refused to conduct a complete environmental study. The Coalition for an Environmental Impact Statement, a consortium of local environmental groups, has filed suit against the town in Federal District Court in Albuquerque.

According to coalition co-chairperson Katherine Pettus, an environmental assessment — a less rigorous review — was conducted by the town in 1988, but "did not adequately study impacts of this major project on the environment, health, community and economy of Taos County." Pettus said the coalition has filed a motion for a preliminary injunction to stop construction should the town break ground before a hearing yet to be scheduled.

According to coalition attorney Steve Sugarman, the town of Taos and the coalition have also filed motions for summary judgment, to "ask the judge to decide the case without a full-blown trial."



Julia Mullen

An anti-Las Sierras sign in Las Colonias

Town Manager Gus Cordova said the town plans to break ground by the end of the summer. "Our position has always been," he said, "that we have met all the administrative requirements from the FAA." Cordova said a larger airport and automatic weather equipment could make landings safer and accommodate "executive" jet service.

Earl Cook of Leedshill, Herkenhoff Inc., the architectural engineering firm hired by the town, said the construction could permit "larger charter operations, primarily during ski season." He added, "It will allow the ski area to stay even with what is going on in Colorado."

Opponents question the projections of increased traffic included in the 1988 report. This February, Mesa Airlines, the one commercial carrier that flies into Taos, canceled all flights except one per week during ski season. "Taos just isn't a profitable market," Mesa spokeswoman Sarah Sproul said at the time.

Taos Pueblo, the village center of the Pueblo Tribe, has come out strongly against the airport expansion, saying in a Tribal Council Resolution that its opposition is "based upon the need to protect our people, land and traditional way of life."

Although the Taos County Commission supports the Coalition for an EIS, it has no authority over the town. Members of the local legislative delegation have endorsed the project, citing the need for economic growth.

## A new "destination"

Even more controversial is the proposed Las Sierras Development, a resort that would occupy 448 acres in a valley four miles north of town. It would include an 18-hole golf course with several ponds, a 216-room "destination" resort hotel, a 750-seat performing arts center, a commercial plaza, and 300 residential lots with prices starting at \$175,000.

The Chicago-based developers say the resort would be environmentally sensitive. "Our top priority," said David Buck, a locally affiliated partner, "is that we want to be an environmental model for developers around the world." Buck said the golf course would double as a wildlife refuge where nesting boxes would attract birds of prey.

But concerns over water and quality of life persist. A group called the Las Colonias-West Mesa Preservation Soci-

ety has used drastic tactics to dramatize its opposition to the project. Members have boycotted local businesses rumored to be investors. Every day a picket line forms in front of David Buck's office — Coldwell Banker/Lota Realty — located at the town's major intersection.

Kat Duff, co-chairperson of the group, said she has two major complaints about the proposed development. The first is its water consumption: The development would require 453 acre-feet per year, an enormous amount for the Taos area, where water is scarce. The developers plan to build a wastewater treatment plant to recycle water for the golf course, but potable water would have to come from wells.

"It will definitely have an impact on the water table," Duff said. "It is just a question of how much." Irrigation water is also at stake, Duff said, because the amount of water flowing in the local ditches would be drastically reduced. "There will be less water," Duff said, "so less volume and pressure. The water won't reach across the fields. This will start to shut down agriculture in the entire valley."

The second issue that worries Duff is the social and cultural impact of a development this size. "They will be charging \$175,000 for less than half an acre in an area where an acre sells for \$10,000," she said, "and property taxes will shoot up dramatically."

The pueblo has taken no official stand on the development, but residents voice private concerns. "These people will come here and buy property," said Scott Fields, an official with the Pueblo War Chief's Office. "Then they will start to miss the amenities they left behind and demand them here. The entire character of the community will change."

If the subdivision is approved by state agencies, the county controls the ball. At a recent county commission meeting, some residents called for a moratorium on development until county-wide zoning can be established. Others, however, oppose all regulation, preferring to retain absolute rights as property owners.

Whether or not the proposals for Las Sierras and the airport survive, the pressure is on and the future is now for Taos residents.

— Julia A. Mullen

Julia A. Mullen is a reporter for the Taos News.

## HOTLINE

### Phoenix's brown cloud

The brown cloud that hangs over the Phoenix Valley is composed of harmful petrochemical pollutants, according to a two-year study released by the Arizona Department of Environmental Quality in May. The study dispelled the notion previously held by many valley residents that the cloud was benign desert dust. A comparison of state health and environmental records by the *Arizona Republic* showed a marked increase in death rates directly after particularly smoggy days, and research by the Environmental Protection Agency found "a significant correlation between particulate levels and increased mortality," according to the *Republic*. The main pollutants contained in the brown cloud are carbon-based emissions from cars and trucks. The Arizona Department of Environmental Quality has begun to study solutions to the problem.

### Thousand Springs plant dropped

Controversial plans for a coal-fired generating plant near Wells, Nev., have been dropped. Sierra Pacific Resources, the company that led the consortium seeking to build the Thousand Springs plant (*HCN*, 5/21/90), said the plan was dropped because long-term buyers for the proposed plant's electricity could not be found. Sierra Pacific spokeswoman Carol Martin said the extensive public comments opposing the Bureau of Land Management's draft Environmental Impact Statement had no influence on the decision not to build. She added that she "saw no problem in meeting federal [air-quality] standards," which she believes would have appeased the public. The Nevada BLM office, which had to extend the comment period to accommodate public input, said more than 85 percent of the comments opposed the facility. Martin said that Environmental Energy Enterprises, a new company headed by former Sierra Pacific presi-

dent Joe Gremban, has expressed interest in building a smaller coal-fired plant at the Thousand Springs site.

### Gold sought in proposed wilderness area

A proposed wilderness area in western Utah's Confusion Range is the site of a potential open-pit gold mine. The King Top Wilderness Study Area encompasses a sky island ecosystem, a unique habitat found in isolated mountains that rise above surrounding deserts. The Salt Lake *Tribune* reports that the area is currently the site of exploratory drilling by a number of mining companies. The Bureau of Land Management is required to protect the wilderness quality of the area until Congress decides its official designation, and mining ordinarily would not be permitted. However, several mining claims filed before the Federal Lands Policy Management Act of 1976 are exempt from the stipulations governing wilderness study areas. Ken Rait, issues coordinator for the Southern Utah

Wilderness Alliance, blames the situation on the 1872 law that gives mining precedence over all other public land uses. "Gold development in potential wilderness areas is demonstrative of the kind of dinosaur we're dealing with in the 1872 Mining Act," Rait said.

### Murrelet recommended for listing

The U.S. Fish and Wildlife Service recommended last month that the marbled murrelet, a rare bird dependent on the Northwest's old-growth forests, be listed as threatened in Washington, Oregon and California. The murrelet is a small seabird that flies inland to nest. There are fewer than 10,000 of them left in the Northwest, and the Fish and Wildlife Service's proposal cited the "loss and modification of its nesting habitat in old-growth and mature forests" as the reason for decreased populations. The listing could be critical to the protection of wildlands in the three states.



A giant backhoe places material at the Jordanelle Dam site

Bureau of Reclamation/Gayla Heaton

## The CUP Story ...

(Continued from page 1)

generation's freedom to implement cost-effective options adapted to their own situation," he concluded in a 1987 review of Salt Lake City's water supply options.

Such criticisms of the CUP, however, never were debated in Utah. Bagley was vilified and threatened with loss of funding for his Water Research Laboratory. His reports were either suppressed or ignored. Utah's pro-CUP political atmosphere was described this way by Lee Swensen, an award-winning reporter for the *Deseret News*:

"Anytime I wrote a negative story about the CUP, the Central Utah Water Conservancy District and their allies would attack. But they wouldn't attack the story; they would attack me."

Now his newspaper's bureau chief in Washington, D.C., Swensen says all of Utah's newspapers and reporters still treat CUP stories cautiously because of the project's powerful backers. "For decades no politician has ever criticized the CUP," he recalls. "Anyone who questions any aspect of it is almost viewed as a commie, or an Easterner

who just doesn't understand water in Utah."

### Redesigning a Cadillac

In 1956, when the Central Utah Project was first authorized, Congress set its cost at \$330 million. Since then, the Bureau of Reclamation has spent more than \$1 billion to complete about half of the blueprint. This work includes 8 dams and reservoirs; more than 200 miles of aqueducts and tunnels; several giant pumping stations; and various siphons, drains and power stations. (See map on pages 10-11.)

After 35 years of work, however, the bureau has yet to move one drop of water from the Uintah Basin in the Green River drainage to the Wasatch Front. Moreover, the bureau says it will take another \$1 billion to finish constructing the CUP — or at least those parts it says it *can* finish!

Small wonder, then, that Congress refused to pass another blank-check reauthorization bill. The bureau's lengthening history of CUP mismanagement and mistakes alienated even its two biggest Utah allies — Republican Sen. Jake Garn, who sits on the all-important Appropriations Committee, and the Central Utah Water Conservancy District, CUP's local sponsor. Both have asked Congress to remove the bureau from further involvement with the project.

Instead, the Utah congressional delegation and the district have done the unthinkable — negotiated with the environmentalists to redesign the CUP. Those negotiations, all-night sessions held a year ago April in Rep. Wayne Owens' Capitol Hill office, wrought a fundamental transformation of the CUP. The new proposal, now before Congress, is called the Central Utah Project Completion Act.

"We just totally rewrote the CUP," says Owens, the Utah delegation's maverick Democrat and key liaison with the environmental community. "We killed

\$300 million in new construction starts and substituted \$138 million of Fish and Wildlife rehabilitation projects."

The new bill mandates instream flows, taking project water and putting it back in five of eight streams that were being dried up. It creates two new wetland preserves, buys increased big game winter range and hatcheries for endangered fish, and establishes a fund for future rehabilitation projects.

In addition to the unprecedented environmental mitigation package, the measure requires a thorough water conservation program in the 12 Utah counties that will receive CUP water, and provides a \$200 million water settlement for the Northern Ute Indian Tribe.

The remaining construction — mostly for irrigation and drainage — is scaled back dramatically. However, before any dirt is moved Utah must first come up with the money for 35 percent of the remaining costs (about \$150 million) and find buyers for at least 90 percent of the water. It has five years to meet these requirements, or it loses the project.

These conditions are firsts for a federal water project. The bill's most stunning provision, however, is that it fires the Bureau of Reclamation. The Central Utah Water Conservancy District will receive the bill's \$895 million to finish the new CUP, and a special presidentially appointed commission will oversee the environmental work. This would virtually shut down the Bureau of Reclamation's Utah office and end the agency's role in Utah.

Sen. Garn, who has spent most of his political life pushing the CUP and fighting environmentalists, says the bill "reflects the realities of the 1990s, while honoring the commitments made by the government to the people of Utah in the 1950s." Many environmentalists, on the other hand, would have liked to kill the CUP outright. But they eventually agreed that the project was too far along. Instead, as Kenley Brunsdale, former staff assistant to Rep. Owens, put it, the

bill "took the Cadillac of *Cadillac Desert* and turned it into a Volkswagen with environmental running gear."

The CUP Completion Act passed both houses of Congress last year, but died at the last minute because of a dispute over the Reclamation Reform Act Amendments, to which it was tied. This year's bill (H-1306) is now on the floor of the House.

Given its unprecedented support, it is almost certain to pass. For the first time in the history of Western water politics a state's congressional delegation, its governor, local politicians and water users stand united with local and national environmentalists to support a major federal water project.

### Water and prosperity

The original CUP was a behemoth federal water project, born in the bureau's heady dam-building days. For Utah, however, the CUP embodied a century-old dream of prosperity in the desert and security for future generations.

In 1847, two years before the California Gold Rush gave birth to the Prior Appropriation Doctrine, the Mormon pioneers became the first Anglo settlers in the West to divert water for irrigation and domestic use. Ever since, growth in Utah — originally named Deseret by Brigham Young — has been predicated on water development.

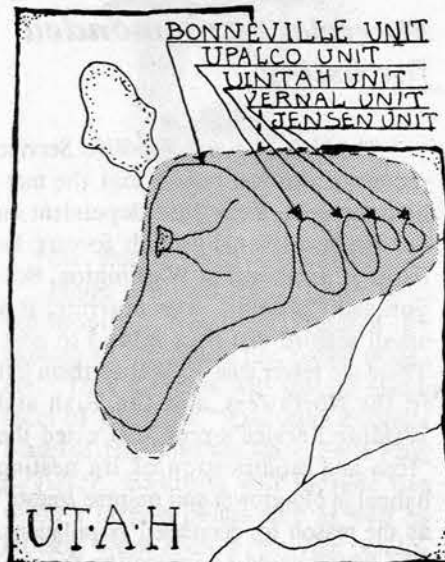
The reason is that most of the state's people and some of its best farmland are in the Bonneville Basin. The people are clustered in Salt Lake City and along the Wasatch Front; the farms are on the bottomland around Utah Lake. Much of Utah's water, however, is in the Green and Colorado watersheds hundreds of miles away at the bottom of deep canyons.

As the Salt Lake City area grew, Utah and the bureau built several water projects on the Bonneville Basin's few big rivers. While there was never a shortage of water, the Colorado River Basin always was considered the last watering hole. Its flush snowmelt streams drain the southern slopes of the Uinta Mountains, about 100 miles east of Salt Lake City. Those Uintah Basin streams — tributaries of the Green River and thence the Colorado — are close enough to make a transbasin diversion possible.

In 1913 the bureau completed the Strawberry Valley Project, which did just that. However, it only harnessed the Strawberry River. There were nearly a dozen more untouched rivers and streams, all ripe for development.

In the 1940s Utah leaders began a concerted campaign to win congressional approval for a massive federal water project. First the state negotiated the Upper Colorado River Basin Compact with Colorado, Wyoming and New Mexico. The 1948 treaty allotted Utah 23 percent of the river, or about 3.25 million acre-feet of water a year. (The three lower basin states, California, Nevada and Arizona, secured their water rights in the 1922 Colorado River Compact.)

The four upper basin states spent the next eight years writing and lobbying for the Colorado River Storage Project. CRSP is one of the most extensive federal water projects ever. Four main dams — Glen Canyon on the Colorado River, Flaming Gorge on the Green, Navajo on the San Juan and Blue Mesa on the Gunnison — would store water to protect the upper basin from a call on the river by the lower basin. Once built, the dams would serve as cash registers, generating hydropower dollars that would pay for 13 more "participating projects." Those



would develop irrigation, municipal and industrial water systems for the upper basin. The CUP was Utah's only project of these 13, but it was the largest and most complex.

After a long fight, Congress passed the \$1.6 billion CRSP in April 1956, which included \$330 million for the CUP. This was a critical victory for tiny Utah — one of the more sparsely populated and politically weak states in the West of the 1950s. It meant that the state could finally tap into the two greatest sources of wealth available to the West: the Colorado River and the federal treasury.

The CUP was organized into five independent units. Four of them, the Vernal, Jensen, Uintah and Upalco units, are located entirely within the Uintah Basin and serve local agricultural and municipal needs. They are relatively small dams and reservoirs. The fifth unit, the Bonneville, is the key to the whole project. It brings Uintah Basin water westward across the divide to urban areas and farms in the Bonneville Basin; it also supplies irrigation water to five counties in the Sevier River basin to the south. The Bonneville Unit is what makes the CUP huge. It is several times larger and more expensive than the other four units combined.

All this required very complex engineering. The bureau's designs called for 16 new reservoirs, more than 200 miles of tunnels and aqueducts, six power plants with a combined capacity of 166 megawatts, 12 pumping stations, hundreds of miles of irrigation canals and drains, and two massive dikes in Utah Lake.

The bureau also designed a sixth unit called the Ute, or Ultimate Phase for later construction. This would tunnel under the Uinta Mountains from Flaming Gorge Reservoir in the northeast corner of the state to link up with the Bonneville Unit in the Uintah Basin.

The first set of plans for the Bonneville Unit was released in 1964. Bureau and Central Utah Water Conservancy District officials expected the project to be finished within a decade.

Today, only one of the four Uintah Basin projects, the Vernal Unit, is completed (1962), and it is the smallest. A second, the Jensen Unit, was declared done in 1986 when it was 80 percent complete and nearly 700 percent over budget. The other two units, Uintah and Upalco, were never even started. Bonneville, the fifth unit, is about 66 percent complete at a cost of \$1 billion. Even if it gets more money from Congress, it could take another five years before it makes its first delivery of water.

#### The bureau's blunders

**T**he CUP may have been doomed from the start. It was just too big. The engineering was too difficult and the costs — both environmental and economic — were too high.

Blame for the failure of the project has landed squarely on the Bureau of Reclamation from all sides. The water users became upset because the bureau couldn't pour concrete fast enough. The environmentalists were angry over all the rivers the project would dry up. But the problem really was the way the bureau designed the project.

Despite its massive construction, the CUP would not have delivered a lot of water. The entire project, if completed, would have only diverted 270,000 acre-feet of water a year from the Colorado River, which was less than one-tenth of Utah's legal share. The Bonneville Unit — which accounts for \$1.9 billion of the CUP's \$2.2 billion price tag — would



Wayne Owens, D, Utah

have diverted only 140,000 acre-feet a year from the Uintah Basin. It would have developed an additional 22,000 acre-feet for the Uintah Basin, and an additional 100,000 acre-feet in the Bonneville Basin.

The Bonneville Unit captures so little water because more is simply not available. In fact, the project produces so little water that only one-ninth of the 225,000 acres of land irrigated by the Bonneville Unit would have been new lands — lands never farmed before. The rest is already in production. The CUP would provide supplemental irrigation water, such as to help the farmers get a third cutting of hay.

In Salt Lake City, the CUP would supply less water than numerous other alternatives, such as tapping the Bear River (see story on page 14), revising groundwater management, transferring water from agricultural uses and conservation.

The CUP also did not make sense economically. For example, the benefit-cost ratio for the Bonneville Unit's irrigation and drainage facilities is .3 to 1. According to the bureau's numbers, it would have spent \$3,948 an acre to irrigate land whose crops generally don't justify that level of investment. Because

the farmers couldn't afford it, the irrigation facilities would have had to be subsidized by public power — to the tune of almost \$1 billion.

Similarly, in Salt Lake City rates are already going up in anticipation of the more expensive CUP water. Prof. Bagley, of the Utah State University's Water Research Laboratory in Logan, said the CUP water, at \$250 to \$300 an acre-foot, would be the most expensive water the city could buy, with the exception of treating sewage.

Michael Clinton, a former bureau engineer, criticizes the agency for designing the showcase dams and power generation facilities first. Only at the very end of the process did the bureau ever get around to talking to the farmers who were going to use the water. Clinton believes it was the bureau's attitude that killed the CUP.

"The seeds were there long ago, when Teddy Roosevelt and Gifford Pinchot created the Bureau of Reclamation with the philosophy that a centralized technocratic bureaucracy could make better decisions than the public at large," Clinton explains. "That is the way the bureau's culture was established, and that culture is still alive and well."

The bureau designed the basic system for the CUP and then went out and told the water users what the answer was, says Clinton. "They never did sit down and define the project's purpose, what facilities were necessary to do that and then get political agreement on it."

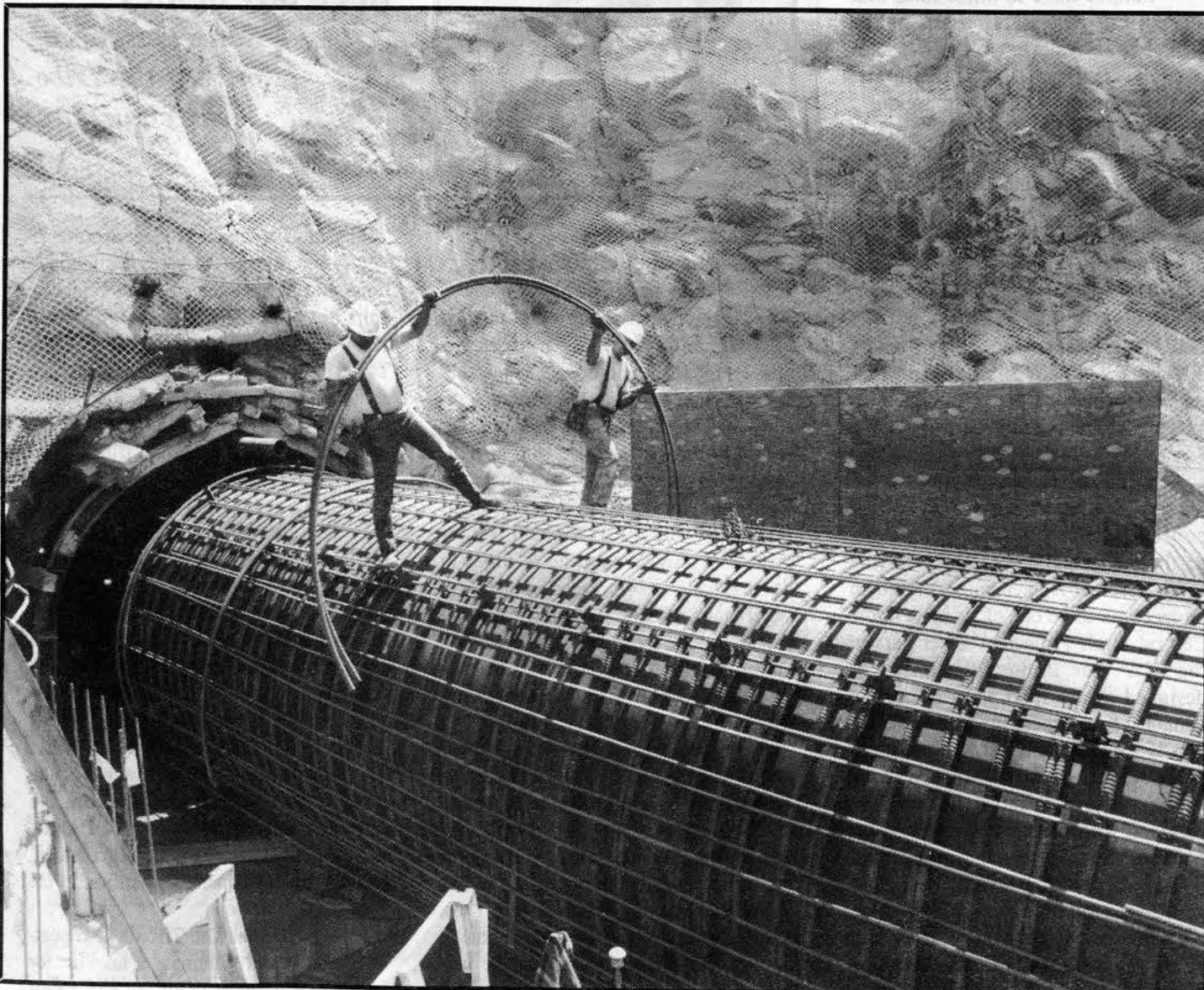
Thus many of the original plans didn't work and had to be constantly revised or scrapped — at tremendous cost. Whole portions of the project were overbuilt and now sit unused. In other cases, million-dollar engineering studies sit on the shelf, never to be used. Estimated costs and even bid prices were chronically low, causing constant overruns. And everything took too long to finish.

Key units of the project also failed to work right. Soldier Creek Dam — whose 1 million acre-foot reservoir was the CUP's biggest in the Bonneville Unit — leaked upon completion. Consultants determined that because of faulty design and construction procedures, the dam was at significant risk of failure. The bureau was forced to open the gates and partially drain the reservoir to fix it.

Likewise, controversy is still raging over the geologic integrity of the half-built Jordanelle Dam on the Provo River. The U.S. Geological Survey will begin an investigation of the dam site this summer. More studies will determine if there is enough water in the Provo River to fill the 320,000 acre-foot reservoir when the dam is safely built. In the meantime, the bureau is proceeding full steam ahead with construction.

Some parts of the CUP are simply white elephants. Red Fleet Dam in the Jensen Unit was built right after the Teton Dam broke, sending a deadly wall of water down the Snake River in Idaho. New federal dam safety standards then raised Red Fleet's total cost from \$12 million to \$80 million. However, the dam sits almost entirely unused, with no population base to support it. The new CUP bill would have the federal government buy back 16,000 of the Jensen Unit's 18,000 acre-feet of municipal and industrial water, and dedicate it to the

*Continued on next page*



A section of rebar is placed around the 114-inch-diameter steel liner pipe at the Jordanelle Dam

Bureau of Reclamation/Gayla Heaton

## The CUP Story ...

(Continued from previous page)

U.S. Fish and Wildlife Service.

There also were lots of expensive little disasters. Bob Weidner, a 13-year staff assistant to Sen. Jake Garn and the man responsible for uncovering most of the bureau's mistakes, says that aqueduct contractors twice demolished large lengths of freshly buried cement pipe while doing other work. They were forced to dig them up and start over again.

At the start of the Carter administration the bureau got a mole (an underground tunnel-mining machine) stuck

while constructing the Stillwater Tunnel. Four years later, when Reagan took office, it was still stuck.

"They actually stopped construction of that part of the project for four years," says Weidner. "They had to go renegotiate the contract, and then some guy just walked in and blithely started up the mole and backed it out, so who knows what happened there. That cost us millions."

### Its own worst enemy

Every mistake or problem set the project back a little further. And every delay raised the cost a little higher. Ultimately, the Bureau of Recla-

mation alienated just about every constituency concerned with water in Utah.

The most alienated, of course, were the environmentalists, anglers, duck hunters, biologists and outdoor enthusiasts. "Utah's environment has suffered greatly at the hands of the Bureau of Reclamation and its thoughtless, irresponsible, poorly planned water developments," says Dr. Fred Reimherr, president of the Stonefly Society, the Salt Lake chapter of Trout Unlimited.

The CUP wrought extensive damage in the Uintah Basin — the source of most of the water. The project dewatered nine rivers in the basin, destroying over a hundred miles of Utah's best native

trout streams and flooding thousands of acres of riparian habitat and winter range. But it was the bureau's heavy-handedness as much as the actual damage that incited the conservation community, Reimherr says.

Rep. Wayne Owens says the bureau has been "terribly inept and insensitive. They've spent \$1.2 billion and only \$10 million of that has gone into direct mitigation.... In essence they left it knowing that if they got all their construction in first the federal government would be more disposed to mitigate what's damaged."

Jeff Appel, attorney for a coalition of 70 Utah sportsmen and conservation

# The Northern Utes' long water ordeal

by Daniel McCool

Curtis Cesspooch, vice chairman of the Northern Ute Tribe, leaned back in his chair and gazed out his office window at the broad expanse of the Uintah and Ouray Reservation. His desk was littered with numerous books and articles on water in the West. "I was an electrician before I was elected to the Tribal Council in 1988," he explained. "Suddenly I had to know everything about water law. The other side brought in these experts who'd try to tell us what to do. Luke and I had to learn quick."

Cesspooch and Luke Duncan, the tribal chairman, were elected to the Tribal Council of the Northern Ute Tribe at a critical time. The tribe, the U.S. government, the state of Utah and the sponsors of the \$2.2 billion Central Utah Project were immersed in a long series of negotiations concerning the tribe's water. Funding for the massive CUP water project was stalled in Congress, in part because the claims of the tribe had never been settled. But after 25 years of delays and broken promises, tribal leaders were leery of any new settlement.

"People have to understand that since 1965 we've been a part of the CUP, but we really haven't been included in the benefits," Duncan said firmly. "Now we're asking for compensation."

Particularly galling to the Utes is the fact that their participation in the CUP helped get it authorized. Years ago Anglo water developers discovered that they could generate more political support for a proposed project if they cloaked it with a veneer of Indian benefits. This strategy, often called the "Indian blanket," has helped water developers obtain authorization and funding for many projects that primarily serve Anglo water users.

In 1965 CUP supporters signed an agreement with the Northern Ute Tribe that promised the Indians a large water project if they would defer using water on their irrigable lands until 2005 (the 1965 Deferral Agreement). The Indian project was to be one of six units in the Central Utah Project. Another part of the CUP, the Bonneville Unit, was designed to transport water out of the Uintah Basin, where the Utes' reservation is located, and over the mountains to the heavily populated Wasatch Front. In the ensuing decades the CUP has received millions in federal funds for construction, but the Indian unit was never built (HCN, 3/30/87).

Cesspooch is a soft-spoken man, but the anger in his voice was evident as he gestured toward the office window. "See that? That's all we got." Bottle Hollow Reservoir, a small impound-

ment just north of tribal headquarters, was barely visible. There was virtually no water in it. "And now, even that's no good. It was built on a trash dump and the water became contaminated."

The Ute leaders are well aware that their water settlement will affect their tribe for many years. It could also affect many other people in the West. In recent years many tribes have begun to negotiate their water rights, which are based on the Winters Doctrine of reserved water. Three major settlements were signed in 1988, and four more in 1990. According to Interior Department officials, approximately two dozen more are "in the pipeline." Indian water claims are currently being litigated in 50 different court cases involving every

Indian Manufacturing, where tribal members make casings for the Defense Department. On the way we crossed a barren mesa dotted with sage. In the valley below we could see the green bottomlands along the Duchesne River — lands that were once part of the reservation, but were sold to Anglos as "surplus lands" the Indians didn't need. Across the valley to the north rose the Uinta Mountains.

"The bill they're working on now will give us money to develop the reservation and the basin-wide economy," Cesspooch said as we toured the plant. "We need money to improve our industry, education and vocational training. A lot of Anglos think we live in teepees and don't have electricity," he added.

the only major negotiation that has not been preceded by years of court battles. Yet just the mention of a lawsuit over reserved Indian water rights strikes fear into the hearts of supporters of the Central Utah Project. They are well aware that a settlement of the Utes' water rights is critical to continued funding for the project; that the Utes could scuttle the entire CUP by refusing to accept their terms.

Project supporters must convince the Utes that they can be trusted to keep their promises, but their track record is not good. The ink was barely dry on the 1965 Deferral Agreement when the federal government began hinting that the Ute Indian portion of the project would probably not be built. In 1967 the Bureau of Reclamation project manager for the CUP stated in a press conference that there was probably not enough water in the Colorado River system for the Ute Indian Unit. By the early 1970s, political support for big water projects was beginning to wane, and the Ute's unit was one of the first to go.

In 1980 many of the unresolved issues created by the Deferral Agreement were dealt with in a compact between the state of Utah and the Northern Ute Tribe. Proponents of the compact argued in the Utah Senate that "if we don't ratify this compact and this water has to go to litigation ... it could slow down the Central Utah Project by 10 or 15 years." Both houses of the Utah Legislature unanimously endorsed the Ute Indian Compact.

The Compact had to be approved by the tribe, however, before it could become law. But by this time the Ute Tribe had begun to lose faith in the process. Opposition to the compact began to build, and ultimately a majority of tribal voters opposed its ratification.

In 1984 the tribe requested that negotiations be re-opened. The following year the Interior Department's negotiating team made an offer that tribal leaders found insulting, and again negotiations broke off. In 1988 a new effort to resolve differences was initiated. By that time the CUP had exhausted its authorized funding and an increase was required. Proponents of the project knew the re-authorization bill probably would not pass without a settlement of the Utes' claims. A settlement bill was introduced in Congress, but the Reagan administration opposed it because of its \$430 million price tag.

In the meantime the Ute Tribe was going through convulsive tribal elections. Despite a tribal referendum in 1988 that approved the Ute Water Compact, many tribal leaders spoke out against the settlement bill. A dissident faction that included Luke Duncan and Curtis Cesspooch labeled the bill a

Photos by Daniel McCool



**"A lot of Anglos think we live in teepees and don't have electricity. They think we don't need any money"**

— Curtis Cesspooch,  
Northern Ute Tribe  
vice chairman

major watershed in the West.

Negotiated settlements are supposed to offer two distinct advantages. First, they may save time and money, compared to litigation. Court cases can drag on for years and cost unbelievable sums in attorneys' fees. For example, it is estimated that the state of Wyoming spent \$14 million, and the U.S. government spent \$10 million, to litigate the water rights of the Wind River Reservation (HCN, 8/27/90). Second, settlements can provide funding to tribes to develop water resources; they get "wet water" rather than an avalanche of legal paperwork, the so-called "paper water."

### Ute negotiations: a test case

But the negotiations and re-negotiations with the Northern Utes constitute an important exception to this. The process has been time-consuming and expensive, and the tribe has yet to receive any appreciable benefits. Other tribes are watching the Northern Utes. If the promised benefits never accrue, it could scare tribes away from the bargaining table.

Cesspooch drove us over to Ute

"They think we don't need any money."

Often, during the years of negotiations and disappointments, the relationship between the Ute Tribe and state and local interests has been strained. The Utes complain that the state has sometimes tried to minimize the tribe's benefits in the negotiations.

Dee Hansen, executive director of the Utah Department of Natural Resources, and the state's chief negotiator, disagrees. He notes that at the beginning of the latest round of talks, the state argued that the Utes could get money or water, but not both. Eventually the state abandoned that position. "In the spirit of getting things resolved," Hansen said, "we've agreed to a settlement that provides both water rights and development funds for the tribe. We are trying to mend fences." The money for the settlement is from the federal government; the state of Utah, which did not sign the 1965 Agreement, has no direct payment obligations in the proposed settlement.

Although the Ute Tribe has repeatedly threatened to initiate a lawsuit for its reserved water rights, it has never done so. This makes the Ute settlement

groups that have protested the CUP, says the agency constantly violated the National Environmental Policy Act. In a number of cases, he says, the bureau didn't write environmental impact statements at all. Those that it did write segmented the project into small units, completely ignoring the cumulative impacts, he argues. The Bonneville Unit, for instance, was divided into three separate EISes, but only one was ever finished.

What most angered Appel and other conservationists was the bureau's practice of making major revisions in the project after an EIS was completed, without allowing public comment on the new plans.

Over time, the fight against the CUP built strong ties among a small cadre of activists who worked in both the local and national arenas. These people laid the foundation arguments against the CUP and ultimately played a lead role in its overthrow.

No one seemed to listen, however, until the bureau started running out of money. First, because project costs had increased so much, the 12 counties in the Central Utah Water Conservancy District had to approve a new repayment contract. They approved the contract by a 70 percent majority in a 1985 election, which increased the district's debt on the CUP from \$150 million to \$550 million.

In the process, however, the district got a new management that lost much of its faith in the bureau. "We have changed our focus and our way of doing business 180 degrees at least," says Don Christiansen, the new general manager.

Second, the bureau had spent all of the money Congress originally authorized for the CRSP, plus most of two additional re-authorizations. So in 1987 the bureau was forced to go back to Congress for a third. But because the Central Utah Project is the last remaining CRSP project, it had to stand alone for the first time in its history. The bureau could no longer hide the CUP in large appropriation bills. Nor could the

Utah delegation trade votes with other states that needed approval of their project. That's when the project began to come under real scrutiny.

Ironically, most of the problems were uncovered by the bureau's own supporters. Don Christiansen, concerned that the project was not keeping up with inflation, asked Sen. Garn's office for an accounting of the bureau's expenditures.

"The first thing we learned," says Garn's aide, Bob Weidner, "was that in 1985 the bureau spent 56 percent of its Bonneville construction budget on administrative overhead. On average it

*Continued on page 13*

"sellout." In April 1989 the dissidents won control of the Tribal Council and quickly withdrew tribal support for the settlement, which then died in Congress. Later that year the Tribal Council declared the 1965 Deferral Agreement void. It looked as if the Utes might sink the massive project.

But large water projects, once begun, have a life of their own. Abandoning the CUP was unthinkable to most Utah politicians and water developers. Negotiators eventually worked out an entirely new settlement that became part of the 1990 CUP re-authorization bill and was reintroduced in January of this year as Title IV of the 1991 CUP bill. Unlike the previous bills, the current settlement is designed as direct compensation for the broken promises made in the 1965 Deferral Agreement, in order to "put the Tribe in the same economic position it would have enjoyed had the project ... been constructed."

According to one estimate, the benefits promised in the 1965 Agreement would have totaled about \$17 million annually. The settlement in its current version awards the tribe both water and money. It ratifies a revised compact between the state of Utah and the tribe that grants the tribe a right of 480,000 acre-feet of water for diversion (250,000 acre-feet of actual depletion). The act authorizes \$125 million for a tribal development fund, \$45 million for a farming and feed lot operation, and nearly \$27 million for a variety of small projects on the reservation, including the repair of Bottle Hollow Reservoir. In addition, the bill allows the tribe to keep a percentage of the repayment funds for the Bonneville Unit, which is estimated to be worth over \$100 million.

#### **The catch**

For a tribe of about 3,200 Indians, many of them destitute, this sounds like the deal of the century. But there is a catch. In return for a guaranteed reserved water right and a packet of money, the tribe must relinquish all other claims to water and submit to a high degree of state and federal control over its water resources. In essence, the tribe is compromising its sovereignty for a price.

In the long run, the most significant limitation imposed on the Utes by the settlement agreement concerns their ability to market their water. The marketing of Indian water has been the most contentious issue in most of the recent water settlements, because the economic and environmental implications are enormous. The Ute bill, like most of the other settlements, permits off-reservation sale or lease within the state. But the real market for Indian water is out-of-state. Following the example of other Western states, Utah

has made it extremely difficult for the Utes to sell the water to anyone other than Utahns.

If the Utes could lease their water downstream, they would not need any water project at all. They would simply leave the water in the watercourse, where it would flow naturally to the intake pipes of cities such as Los Angeles, Phoenix, Tucson and Las Vegas. These cities, strapped for water, would pay many times the amount that the CUP contract can offer. It could mean a bonanza for the Northern Utes and every other tribe that is situated upstream from large urban areas. It would also help cities avoid building more water projects. The cost to the government would be minimal because no big projects would need to be built. It sounds too good to be true.

It is. There are three reasons tribes

a negotiated payoff, accompanied by a guaranteed water right, is their best option. Most observers agree that economic necessity will eventually force acceptance of interstate water marketing, but impoverished Indian tribes cannot afford to wait.

Some Utes express doubts about the extent of outside control that the settlement imposes on them. Some local non-Indian interests also oppose the new re-authorization bill because two Uintah Basin dams — Taskeech and Whiterocks — were stripped from the bill in 1990. These projects were eliminated because the Bureau of Reclamation was unable to find suitable dam sites, and because the bill's sponsors feared that Congress would not fund more dam-building activities.

The elimination of the local dam projects has provoked cries of betrayal.

**"People have to understand that since 1965 we've been a part of the CUP, but we haven't really been included in the benefits."**

— Luke Duncan,  
Northern Ute Tribe  
chairman



such as the Northern Utes are willing to give away their right to market water in any manner they choose. First, state and local governments are usually opposed to out-of-state sales or leases. They view all water within the state as theirs and they want to keep it in-state so that some day they can develop it and use it locally. Many upper basin politicians are willing to go to great lengths to "keep California from getting our water." Second, lower basin states also oppose the marketing of Indian water, because they now get that water for free. As long as tribes cannot consumptively use their water, it ends up in downstream cities without an accompanying water bill. And last, tribes are unsure that the Supreme Court will support their right to market water out-of-state. The current court has not been particularly friendly toward the Indians; in a 1989 case (*Wyoming v. U.S. et al.*), several justices questioned the very existence of the Winters Doctrine.

The questionable stance of the High Court, and the apparent intransigence of state water officials both upstream and down, have convinced many tribes that

The Anglos who live on or near the reservation are in a difficult position because many of them oppose the CUP re-authorization as it is now formulated, but support the section of the bill that settles the Ute water claims.

#### **Broken promises**

Jim Reidhead, Uintah County commissioner, has been a vocal opponent of the re-authorization. "I'll be the first to say that the Indians haven't received what they were promised, but neither has the rest of the Uintah Basin," he said. "The majority of concessions in the bill were made on behalf of environmentalists. None were made for the water users in the Uintah Basin. We'd like to see the dams added to the bill. We need the storage." The Uintah County Commission recently voted to officially oppose the new re-authorization bill.

Brad Hancock, the city administrator for Roosevelt, an Anglo enclave on the Reservation, said many local people support the Ute settlement "because it will improve the water situation and pump some money into the local economy."

The local economy could use a shot in the arm. The Uintah Basin was hit hard by the oil bust in the 1980s. In the town of Duchesne abandoned buildings and rusted cars are commonplace. The high mesa country is dotted with motionless oil rigs. The bottomland along the Duchesne River supports a good crop, but most of this high desert country offers marginal agriculture at best.

Despite the opposition, the bill's sponsors remain confident, especially in regard to the Ute settlement portion of the bill. They say there is a widespread perception in Congress that the Utes were cheated by the 1965 Deferral Agreement, and that the current settlement is well-deserved compensation. "I don't think they'll try to cut the money and benefits for the Utes; everyone knows this is a good deal compared to what was promised the Indians in the past," noted a staff member for one of the bill's House sponsors. Thus the Utes' portion of the bill may help carry the entire package of legislation to victory.

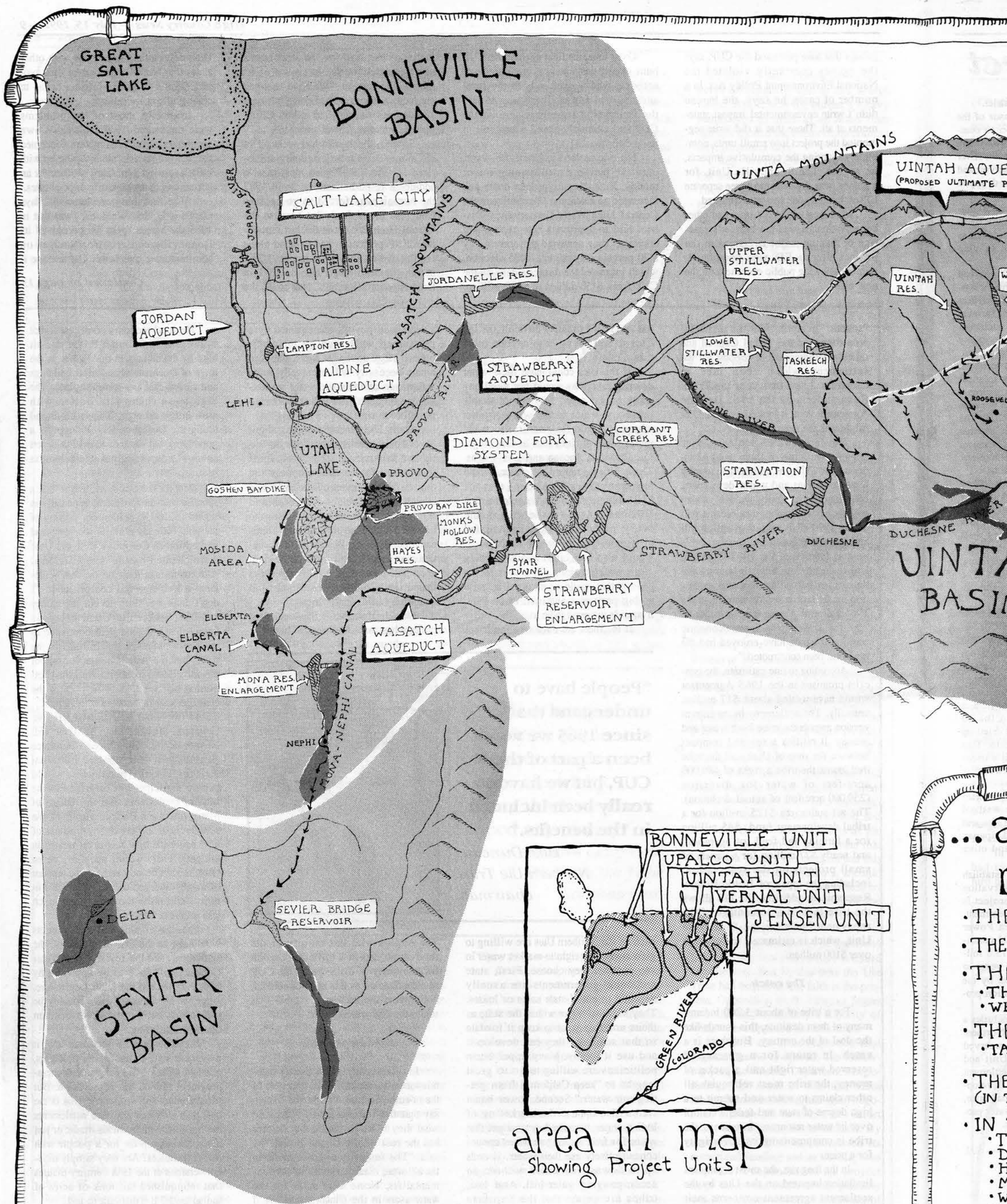
If the CUP bill again dies in Congress, the Northern Ute Tribe will have to decide if it wants to introduce its settlement as a separate bill. That strategy is risky because it would expose the settlement to critics in the Interior Department and the Office of Management and Budget who think the settlement is too costly, regardless of how badly the tribe has been treated in the past. There would probably be an effort to significantly reduce the amount of money awarded to the Utes. This in turn would make the settlement much less palatable to the tribe.

Passage of the bill in Congress would not be the end of the story; the settlement, and the revised Ute Water Compact, will have to be approved by both the tribe and the Utah Legislature. Approval by the state will probably be pro forma, but the tribal referendum could go either way.

If the settlement becomes law, it may solve some of the tribe's problems, perhaps reducing the 67 percent unemployment rate on the reservation. But tribal leaders still wonder if this is the best deal they can get. Are settlements the fulfillment of promises made, or just the consolation prize for a people with few real choices? Are they simply modern versions of the 19th-century treaties that relinquished millions of acres of Indian lands? It is difficult to tell.

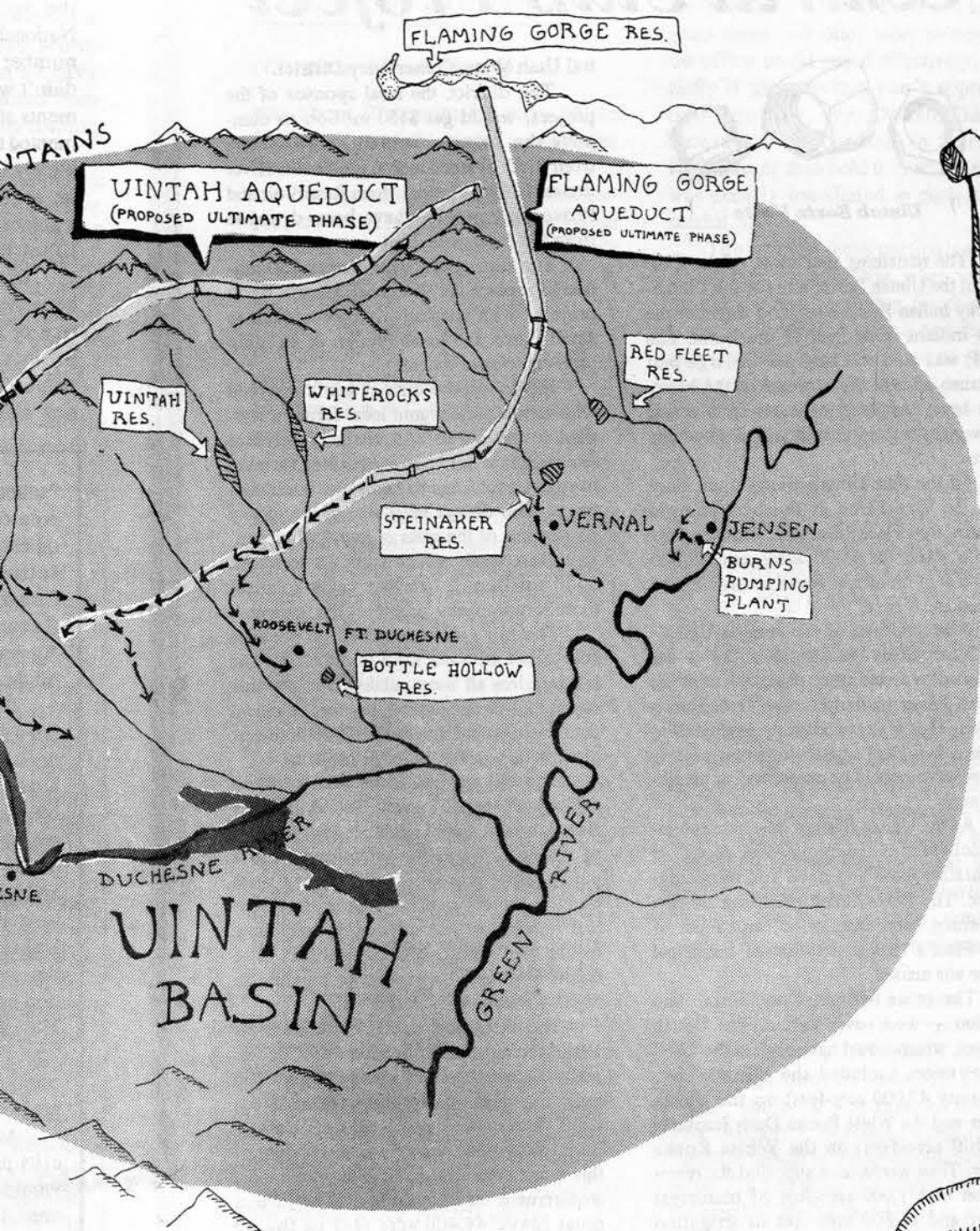
"The bottom line," says Vice Chairman Cesspooch, "is we are trying to save and protect our homes, our land, and our culture."

Daniel McCool is professor of political science at the University of Utah in Salt Lake City and author of *Command of the Waters*.



CUP: what was planned...

... a  
m  
• THE  
• THE  
• TH  
• TH  
• WH  
• THE  
• TA  
• THE  
CIN  
• IN  
• T  
• D  
• H  
• M  
• W  
• M  
• I  
• G  
• F  
• E  
• F  
• T  
• T



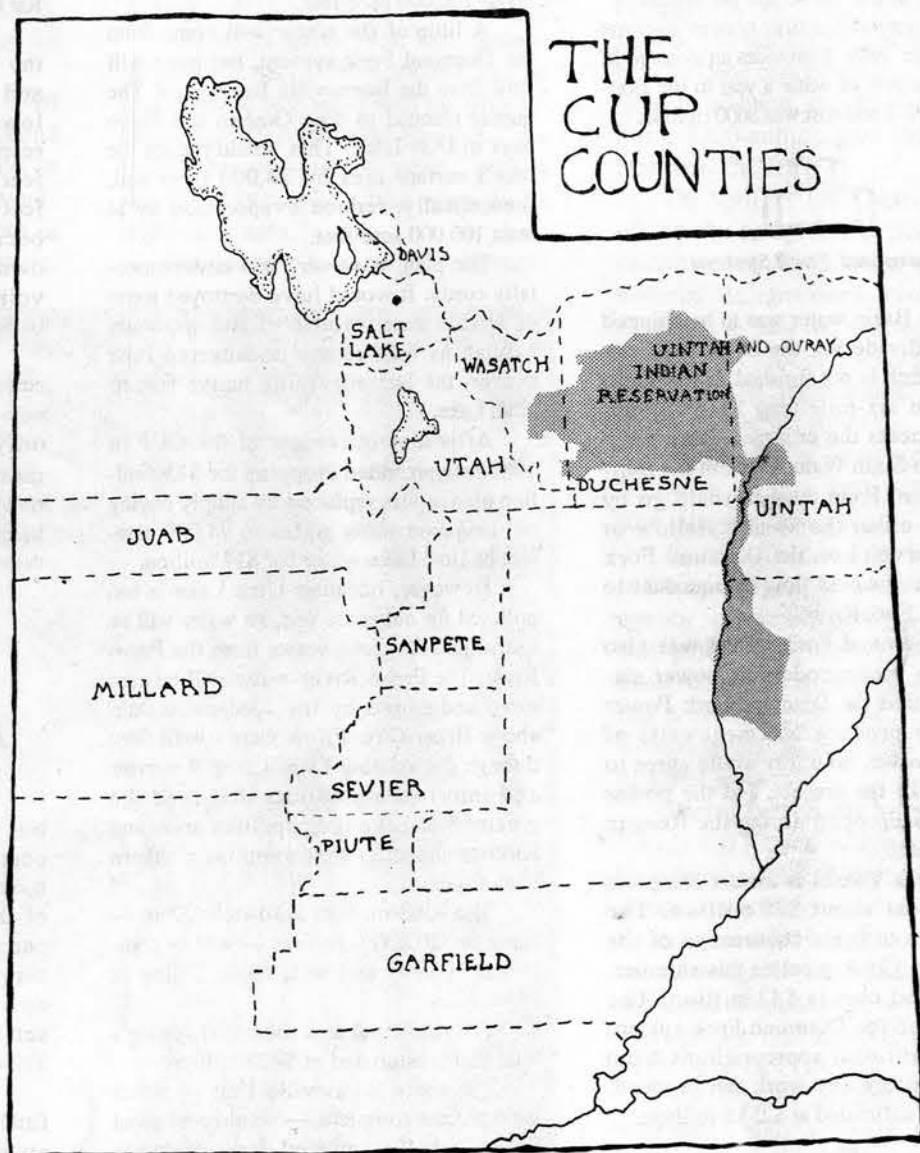
# THE CENTRAL UTAH PROJECT

## map key

- irrigation lands
- basin areas
- pipelines
- tunnels
- canals
- power plants
- dikes
- municipal water
- existing lakes and reservoirs
- CUP reservoirs
- lake area dried out by CUP
- features of Proposed Ultimate Phase

...and what was never built:

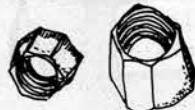
- THE VINTAH AQUEDUCT
- THE FLAMING GORGE AQUEDUCT
- THE VINTAH UNIT:
  - THE VINTAH RESERVOIR
  - WHITEROCKS RESERVOIR
- THE UPALCO UNIT:
  - TASKEECH RESERVOIR
- THE BURNS PUMPING PLANT (IN THE JENSEN UNIT)
- IN THE BONNEVILLE UNIT:
  - THE LOWER STILLWATER RESERVOIR
  - DIAMOND FORK POWER PLANT
  - HAYES RESERVOIR
  - MONKS HOLLOW RESERVOIR
  - WEST MONA RESERVOIR ENLARGEMENT
  - MOSIDA PUMPING PLANT AND IRRIGATION LANDS
  - GOSHEN BAY DIKE
  - PROVO BAY DIKE
  - ELBERTA CANAL AND IRRIGATION LANDS
  - FULL IRRIGATION LANDS ALONG THE MONA-NEPHI CANAL AND THE WASATCH AQUEDUCT



map drawn by Diane Sylvain

# The nuts and bolts of the Central Utah Project

The Bonneville Unit is the key to the five-phase Central Utah Project. It diverts water from the sparsely populated Uintah Basin in eastern Utah to the farms and cities in the Bonneville or Great Salt Lake Basin. The Bonneville Unit is extremely complicated. It has four parts: a collection system in the Uintah Basin; the Diamond Fork System, which moves the water across the divide into the Bonneville Basin; an irrigation and drainage system to deliver agricultural water to the farms around Utah Lake and south to the Sevier River drainage; and a municipal and industrial system that delivers the water to Salt Lake City and other urban areas.



Uintah Basin Collection System

Half of the Bonneville Unit's water comes from the Uintah Basin. First, before the bureau could capture water to send across the divide, it had to build a facility to replace water the Uintah farms and cities would lose in the diversion. This is the Strawberry Reservoir on the lower Strawberry River, finished in 1970. (While its capacity is 167,000 acre-feet, only a fraction of that is new water for the Uintah Basin: 21,400 acre-feet for agriculture and 560 acre-feet for municipalities.)

In 1974, the bureau finished Soldier Creek Dam, which enlarged the old Strawberry Reservoir's capacity from 283,000 acre-feet of water to over 1 million acre-feet. The largest and most important reservoir in the whole CUP, it acts as a holding pond for water bound for the Bonneville Basin.

The enlarged Strawberry Reservoir is filled by the Strawberry collection system: a 37-mile-long network of tunnels, siphons and small diversion dams that intercept 10 streams high on the southern slopes of the Uinta Mountains. Along the way, two medium-sized dams, Currant Creek and Upper Stillwater, create equalizing reservoirs. The system, finished in 1988, can move water at 650 cubic feet per second.

The entire collection system became operational in 1989. It provides an average of 140,000 acre-feet of water a year to the Bonneville Basin. Total cost was \$600 million.



Diamond Fork System

Uintah Basin water was to be shipped under the divide via the Diamond Fork System, which is not finished. It would go through the six-mile-long Syar Tunnel, which connects the enlarged Strawberry Reservoir to Sixth Water Creek in the Bonneville Basin. From there it would go by pipeline to either the Monk's Hollow or Hayes reservoirs on the Diamond Fork River. Then it would flow by aqueduct to the Spanish Fork River.

The Diamond Fork system was also designed to accommodate six power stations — called the Diamond Fork Power Plant — to produce 166 megawatts of power. However, no utility would agree to participate in the project, and the power system was dropped during the Reagan administration.

The Syar Tunnel is almost complete and will cost about \$70 million. The bureau plans to begin construction of the Sixth Water Creek pipeline this summer. Its estimated cost is \$42 million. The remainder of the Diamond Fork system requires additional appropriations from Congress before any work can proceed. Total cost is estimated at \$253.6 million.



Irrigation and Drainage System

Almost all of the 140,000 acre-feet delivered through the Diamond Fork sys-

tem was earmarked for irrigation. Most of it would be picked up at the Spanish Fork River and flow by aqueduct, tunnel and canal south to Yuba Reservoir on the Sevier River. There the water would be let out as needed for farms downstream in Delta, Utah, or used to replace water consumed by farmers upstream near Salina and Richfield.

Some of the water also would be diverted from the Sevier Canal into an enlarged Mona Reservoir, to be used on farms near Elberta and Nephi. The rest of the Diamond Fork water would travel down the Spanish Fork River and get picked up by farms east and south of Utah Lake.

A second irrigation project, called the Mosida development, would pump water out of Utah Lake to irrigate the benchlands to the west of Utah Lake. Originally, most of that farmland was owned by the Mormon Church.

Lastly, the bureau planned to turn the bottom of Provo Bay into new farmland. The plans called for a dyke across the mouth of the bay, canals bringing irrigation water in, and drains and pumps to move it out.

Not counting the Provo Bay development, which was dropped at the request of the state, the irrigation and drainage portion was estimated to cost \$360 million. It would have produced 160,000 acre-feet of water to irrigate about 25,000 acres of new lands and supplement existing irrigation systems for another 200,000 acres. However, none of it has been built and the entire system has been deferred pending the CUP revision now before Congress.



Municipal and Industrial System

The municipal and industrial system will serve both Salt Lake City and Salt Lake County, and American Fork and Lehi in northern Utah County. Its planned capacity of 136,000 acre-feet has shrunk to about 100,000 acre-feet.

A little of the water will come from the Diamond Fork system, but most will flow from the Bonneville Basin itself. The bureau planned to dike Goshen and Provo bays in Utah Lake. This would reduce the lake's surface area by 34,000 acres and, theoretically, reduce evaporation by at least 100,000 acre-feet.

The plan, however, was environmentally costly. It would have destroyed some of Utah's best waterfowl and wetlands habitat, as well as the endangered June sucker, the last surviving native fish in Utah Lake.

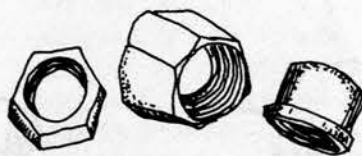
After a state review of the CUP in 1983 recommended dropping the \$150 million plan, it was replaced by simply buying old irrigation water rights to 94,000 acre-feet of Utah Lake water for \$14 million.

However, because Utah Lake is too polluted for domestic use, its water will be exchanged for clean water from the Provo River. The Provo River water will be captured and stored by the Jordanelle Dam above Heber City. From there it will flow through the existing Deer Creek Reservoir and into two aqueducts that feed the greater Salt Lake metropolitan area, and another aqueduct that supplies northern Utah County.

The \$363-million Jordanelle Dam — capacity 320,000 acre-feet — will be completed in 1993 and will begin filling in 1994.

The municipal and industrial system's total cost is estimated at \$428 million.

The entire Bonneville Unit — which is 66 percent complete — would cost about \$1.9 billion. If completed, it would supply 95,000 acre-feet of municipal and industrial water, and 180,000 acre-feet of irrigation and drainage water for almost 250,000 acres. This involves full service on 25,000 acres of new farmland and supplemental water for 225,000 acres already in production.



Uintah Basin Units

The remaining four units of the CUP are in the Uintah Basin: one for the Uintah-Ouray Indian Reservation and three for the non-Indians in the rest of the basin. The CUP was sold to Congress in large part because of need for storage in the basin. The basin has plenty of water from spring snowmelt, but can't use it without building dams.

Of the four Uintah Basin units, only one, the Vernal Unit, is finished. Its main feature, Red Fleet Reservoir, provides irrigation water for 4,000 acres and 18,000 acre-feet of municipal water to the cities of Jensen and Vernal.

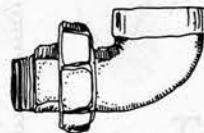
A second part of the Jensen Unit — the Brush Creek Pumping Station — was designed to divert water directly out of the Green River to irrigate the benchlands above. That water would also be used to replace Red Fleet's agricultural purpose so that reservoir could be converted to municipal use.

As the Uintah Basin's oil shale economy collapsed in the mid-1980s, so did its population base and need for municipal water. The Burns Creek pumping scheme has since been abandoned, and most of Red Fleet's 18,000 acre-feet of municipal water sits unused.

The other two units — Uintah and Upalco — were never started. The Uintah project, which would have served the Utes' reservation, included the Uintah Dam (capacity 47,000 acre-feet) on the Uintah River and the White Rocks Dam (capacity 32,000 acre-feet) on the White Rocks River. They would have supplied the reservation with 1,000 acre-feet of municipal water and 46,800 acre-feet of irrigation water for 95,500 acres. But neither was built because the Bureau of Reclamation could not find a geologically safe location for them.

The Upalco Unit's main feature was the Taskeech Reservoir on the Lake Fork and the Bonita Diversion Dam on the Yellowstone River. The 78,500-acre-foot reservoir would have supplied 3,000 acre-feet of municipal water and 19,300 acre-feet to irrigate 42,600 acres. The plan died because the Northern Ute Tribe, which owned the land under the planned reservoir, never agreed to the plan. Then the basin's economy collapsed.

The Uintah Basin units should have supplied a total of 112,000 acre-feet of new water for the basin. Instead, they have only produced 31,100 acre-feet. In the meantime, the Bonneville Unit will remove over 100,000 acre-feet a year from the basin, leaving it drier than before the CUP was initiated.



Proposed CUP Completion Act

The \$895 million CUP Completion bill doesn't lower the overall completion cost of the CUP; it just redistributes the money. The bill will complete certain parts of the bureau's original project, kill other parts, implement a project-wide water conservation program, mitigate for CUP's environmental damages and provide a final settlement for the Northern Ute Indian Tribe.

The bill provides \$433 million for final construction. Of that, \$214 million is an accounting correction. It would finish work the bureau already has under way or has completed without the formal authorization by Congress to spend the money.

The bureau gets another \$69 million to finish the Diamond Fork system as far as Sixth Water Creek. All remaining construction would be turned over to the Cen-

tral Utah Water Conservancy District.

The district, the local sponsor of the project, would get \$150 million to complete the irrigation and drainage system from Sixth Water Creek to the Sevier River drainage. The Mosida, Mona Reservoir and Provo Bay projects have been dropped from the Bonneville Unit.

The district also gets another \$30 million to replace the abandoned Uintah Basin projects with alternative projects, such as small dams and rehabilitation of existing projects to save water.

However, the district can't proceed with either project until local farmers contract to buy 90 percent of the water. But because that water is expensive, farmers have been reluctant so far to sign such contracts. The district must also agree to pay 35 percent of the costs of any further construction work, which adds up to about \$150 million. It has five years to meet these requirements, or it loses the project.

The bill's water conservation package will affect all water users in the CUP. The bill requires all water subdistricts, whether municipal or agricultural, to meet stringent conservation goals to save 25,000 acre-feet of water a year for the entire project.

The bill provides \$3 million to set up a Utah Water Conservation Advisory Board, which would establish an inventory of water conservation techniques and a public input process. The inventory must include metering, pricing, leak detection and repair, low-flow plumbing, recycling, re-use and landscaping regulations. The board may use the inventory to establish regulations for water conservation.

The mitigation package establishes the Utah Reclamation Mitigation and Conservation Commission, which would get \$138 million to repair the damage created by the CUP. The commission would set mitigation policy and oversee projects. Most of this work is already in the bill, such as the requirement for instream flow. The district must leave 44,400 acre-feet in the 10 streams that would otherwise be dried up by the Strawberry collection system. That would reduce the Bonneville Unit's trans-basin diversion from 140,000 acre-feet to about 99,000 acre-feet.

Other provisions would protect stream flows in the Provo River, create wetland preserves around the Great Salt Lake and Utah Lake, improve fisheries and riparian habitat, and buy public access and other recreational improvements.

Finally, the package would establish the Utah Reclamation and Conservation Account. From 1992 until the project is finished, the state, the federal government, the district and the Western Area Power Administration would make annual contributions to the account totalling \$13.8 million. That would be used for 20 years to repair unforeseen damage caused by the CUP or any other federal reclamation project in Utah.

The CUP completion bill includes a \$200 million settlement with the Northern Ute Tribe for use of its federal reserved water rights in the Bonneville Unit and other portions of the CUP. The settlement includes \$125 million for a tribal development fund, \$45 million for a tribal farm, and about \$26 million for small water projects and environmental mitigation.

— S.H.



## The CUP Story ...

(Continued from page 9)

was about 30 percent for most of the 1980s." Most of the money went to the Denver and Utah offices.

The agency also stretched its accounting practices. Under federal law the bureau can shift up to 15 percent of a project's yearly budget to another job without asking permission from Congress. This became routine on the CUP, and money was funnelled to several smaller projects, including the Dallas Creek project and McPhee Dam in Colorado, and the Yakima project in Washington state.

"Because the smaller projects don't have the legislative clout to get the money, they sort of bleed off the larger projects," explains Weidner. "We found out it was our project, to the tune of about \$80 million over at least the first six years of the 1980s. That's just what we found — we have no idea what the total amount is."

When those numbers were revealed in 1987, they outraged the CUP's supporters in Utah, but no one more than Jake Garn. From his seat on the Senate Appropriations Committee, Garn waged fierce battles every year to get the CUP appropriations. That year, instead of pushing the CUP reauthorization bill, Garn attached amendments to the bureau's CUP appropriation limiting the agency's overhead and banning transfers.

Bureau officials, on the other hand, contend that Congress was to blame for CUP's financial problems and, therefore, most of the rest of its problems. "I think we probably could have built the project in less than 10 years had we been able to get sufficient funding from Congress," says Larry Fluharty, chief of planning in the bureau's Utah projects office.

The rich-poor funding cycles from Congress wreaked havoc on the administration and planning of the CUP, Fluharty says. The bureau's work capability in a given year depended on that year's appropriation from Congress, and the CUP's annual funds were unpredictable, ranging from more than \$100 million to almost nothing, he recalls.

In years with no money, the bureau had to either lay off its workforce and hire a new crew the next year, or spend

all its money to keep them on. In rich years there was often more money than the office could spend effectively, especially if the previous year's appropriation was low, says Donald Dean, a bureau CUP accountant in Salt Lake City. Rather than hold it over, the money was usually transferred to projects that needed it.

The cycles were particularly bad during the Vietnam War, when very little money was available for domestic projects. In 1973 it got so bad that the entire construction office and 80 percent of the project office were laid off, Fluharty remembers. Those were years of high inflation, and every delay raised costs.

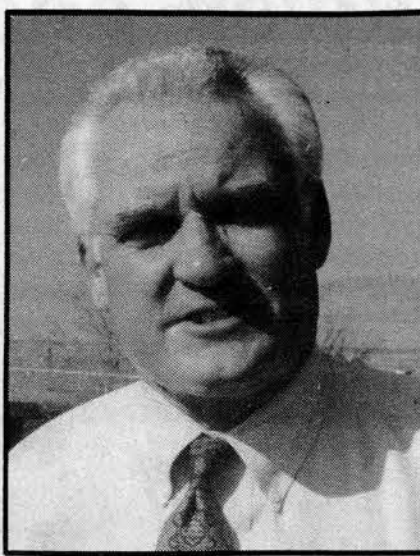
Finally, Utah's tiny five-person congressional delegation couldn't produce the money. Compared with California's 57-member delegation and Arizona's powerful Rep. Morris Udall and Sen. Barry Goldwater, Utah never had a chance. "I guess we [Utah] just did not have the political power to get what we needed to finish the project," Fluharty says.

Many people in Utah, however, feel that the only mistake their congressional delegation made was in not watching the bureau more closely. "They tended to use us as a funding conduit in order to preserve their overall mission in the West," says Weidner. "That was unfortunate, because now that everyone is onto their game, it has really soiled their reputation."

### Removing the bureau

Ultimately, the bureau's mismanagement of the CUP set the stage for a revolution. Between 1987 and 1990, the bureau's reauthorization bill failed in Congress three times, never even making it out of committee. Eventually, the Utah delegation realized it could never get the bureau's bill through. So it developed a new strategy: Owens, the Democrat, would get the environmentalists on board, and Garn, the senior Republican, would line up the administration.

The environmentalists were well organized. Ed Osann and David Conrad of the National Wildlife Federation in Washington, D.C., had spent years working on the CUP. Meanwhile, in Utah, a coalition of some 70 fishing, hunting,



Steve Hinchman

### Don Christiansen

environmental and conservation groups began meeting in 1989 at Robert Redford's Sundance Resort. They put together a 30-page report for Congress with a litany of the CUP's problems and their recommendations.

The report called for major revisions: drop the Bonneville Unit's entire irrigation and drainage system (still unbuilt); require 35 percent cost-sharing by Utah for all the remaining work; put some water back in the damaged streams; initiate a water conservation program; and carry out more environmental mitigation. Most of the environmentalists also supported a new water settlement for the Northern Ute Tribe, whose water rights had been integral to the project. (See story on page 8).

The environmentalists wielded a big club. Appel, who became the Utah coalition's spokesperson, says it threatened to sue the bureau over violations of the National Environmental Policy Act. The coalition had such a good case it probably could have stopped construction for years. The Northern Ute Tribe also had threatened to withdraw their water rights from the project if the tribe's concerns weren't met.

The water users, who were desperate to get the CUP reauthorized, had no choice but to negotiate with the environmentalists, their historic enemies. "We forced our way to the table," recalls Appel. "There were times when it was really quite ugly."

But once the talks began there was a

sort of magical meeting of the minds. The water users discovered they had many of the same concerns the environmentalists had, especially about the Bureau of Reclamation. Don Christiansen, the new manager of the Central Utah Water Conservancy District, says the district and its board finally realized that the project would probably never get finished while the bureau was in control.

The district accepted the need for a conservation program and brought in the local water users to hammer out an acceptable plan with the National Wildlife Federation. It agreed to the environmental mitigation and enhancement package, giving up 39,000 acre-feet of the Bonneville's 140,000 acre-feet of transbasin diversion to use for instream flows. The district also accepted cost-sharing — paying 35 percent of the costs up front.

The district insisted, however, on construction of the Bonneville irrigation system — the aqueduct that connects to the Sevier River Basin. "We tried as hard as we could to eliminate it, but it became clear to us that no bill was going through that didn't have some sort of potential for an irrigation and drainage system in it," says Appel.

The system was scaled back because of the cost-sharing requirements. The original \$300-million irrigation system was capped at \$150 million. That's when the district also insisted on kicking the bureau out in order to control the design and construction. "We would have spent the \$150 million on overhead and never have a project," says Christiansen.

No one wanted the bureau to touch the \$138 million environmental settlement, either. "It's just a terrible bureaucracy," Owens said. "We could do it faster, better, cleaner and cheaper without them. That's why we wrote them out of the bill."

Instead, the parties agreed to create a special commission appointed by the President to design and oversee the mitigation. The bill also requires that mitigation be done concurrently with construction. In addition, the delegation worked out a \$200-million settlement with the Northern Ute Tribe.

On April 26, 1990, both sides signed off on the compromise. Since then the environmentalists and the district have honored the agreement, jointly lobbying Congress to pass the measure. And both give all the credit to Owens and Garn.

"In those negotiations, which went on to five in the morning, Owens was sitting there typing language at his word processor for us," says Appel. "That's how involved he was."

Garn took care of the bureau. From the beginning, Christiansen says, the agency was intransigent: "We negotiated this piece of legislation without their involvement because they weren't playing a constructive part. They always wanted to pull us back into the old type of water project."

During the hearings before the Senate Energy and Natural Resources Committee in September 1990, Reclamation Commissioner Dennis Underwood tried to sabotage the compromise. He opposed the environmental mitigation and Indian water settlement, and demanded that the bureau retain oversight and final approval on all remaining work on the CUP.

His testimony set Garn on fire. Appel, who was waiting to testify, says Garn lit into Underwood, promising to go to John Sununu and even President Bush if necessary to reverse the agency's position.

A month later the bureau announced it had changed its mind and withdrew its opposition. While many in the bureau still privately oppose the legislation,

Continued on page 15



Workers install hoop bar in the Syar Tunnel

Bureau of Reclamation/Gayla Heaton

## Utah's Bear River: another CUP?

Utah's Bear River drains much of the territory between the Snake River to the north and the Colorado River to the south. After descending the northern slopes of the state's Uinta Mountains, it heads north through Wyoming and Idaho before looping southward to end in the Great Salt Lake.

Utah's legislators call the Bear River the state's last great unappropriated water hole. In the midst of the last five-year drought, the Legislature earlier this year unanimously appropriated \$2 million to divert the Bear River's water for municipal use. Last year the Legislature voted \$1.25 million to study up to five dam sites on the Bear and its tributaries.

The Bear River project would develop a storage capacity of 360,000 acre-feet, which would be distributed via an extensive array of canals and aqueducts to rural northern Utah communities as well as the Salt Lake City area.

Indeed, the Bear River project could deliver more water to the Wasatch Front than the revised Central Utah Project, which is now awaiting re-authorization by Congress. Fear of losing the CUP water, in fact, has helped to sell the Bear River development.

Proponents of the proposed dams feel the projects are necessary to ensure and attract growth. But critics say the dams are expensive, unnecessary and extremely destructive. They claim that less-damaging alternatives have not been adequately explored.

Although the immediate impetus to develop the water is coming from drought-stricken northern Utah, the political and economic forces necessary to build a project of this size reside in the Salt Lake area. Some observers say the development of the Bear River could evolve into a traditional water battle between rural and urban interests. So far, however, legislators from northern Utah and from the Salt Lake City area are unified in their support for the proposal.

"The bottom line is, do we want progress or do we want to put everything back to the Middle Ages?" says Sen. John Holmgren, R-Box Elder County. "I want a future for my kids and they're going to need that water."

Other legislators from rural northern Utah counties echo Holmgren's rhetoric. "Where would the West be if none of the great dams had been built?" asks Box Elder County Republican Rep. Lee Allen. "Civilization wouldn't be as it is today. The quality of life wouldn't be the same without those dams."

Proponents such as Evan Olsen, R, a representative from Cache County, argue that Bear River water is a vital component of growth in northern Utah. Three of the proposed dams would be built in Olsen's district. Republican Rep. Rob Bishop, also from Box Elder County, agrees: "To throw that water away by letting it go in the Great Salt Lake seems silly."

Many legislators say the potential impact on the environment is acceptable. "Do we want to cause a little inconvenience for a duck, or a bird or a fish," Holmgren asks, "or do we want to have to change our lifestyles? I'd rather develop water for the convenience of the people."

In spite of a price tag that could run as high as \$500 million, which includes environmental mitigation costs as well as the diversion to the Salt Lake City area, proponents feel the water is well worth the price. They point to southern California as an example of an area that would pay exorbitant fees for water.

"Since the federal government has been getting out of the water reclamation business, we've got to step up our efforts,"



Logan Herald Journal

### Pelicans on the Bear

says Ken Short, a senior engineer with Utah's Division of Water Resources. While some legislators are undecided about the degree of the state's involvement, most feel that the project demands the state's financial backing.

But critics are not so sure. "Most if not all of these projects do not meet economic rationales. On that ground alone I question whether any of them should be built," says Bruce Pendery, a Logan resident opposing the creation of a water conservancy district in Cache County.

"The state is following the same pattern that the Bureau of Reclamation established back in 1902," says Jay Bagley, a

also say the state has failed to adequately address conservation measures and other water resources, like groundwater. "They think there is only one way to skin a cat. They just want to build dams," says Bagley, referring to Utah's water development forces.

The conservation argument could cripple the proposal, according to Environmental Protection Agency regional administrator Jim Scherer. He says that "until a state has put a premium on conservation and efficiency," it's unlikely the EPA will permit any dam construction. He says it will be difficult to justify the dam construction when less-damaging alternatives have not been exhausted.

The most controversial of the proposed dams is the Barrens site, which would flood over 1,400 acres of unique wetlands. It would cost more than \$80 million, excluding environmental mitigation costs. Clark Johnson, a Fish and Wildlife Service official in Salt Lake City, says the dam would have "a massive impact on those wetlands." Numerous species that are candidates for listing under the Endangered Species Act — the long-billed curlew, the snowy plover, bald eagles and peregrine falcons — frequent the area.

"For now our primary opposition is to the Barrens site, but that doesn't mean we don't have some serious concerns about the others," says Audubon lobbyist Wayne Martinson. Other sites would likewise drown valuable wetlands or significant riparian and game habitat. The Mill Creek Dam and Reservoir would inundate six miles of a rare Class I blue ribbon trout stream.

Last January, Scherer attended a Bear River Water Seminar in Logan, where he warned the state's water developers that all their political and economic muscle might be no match for Clean Water Act regulations.

Obtaining dam permits from the EPA has become increasingly difficult, a trend that parallels the growing strength of national and local environmental groups. According to Scherer, Utah's water development advocates are suffering from the same problem that doomed Denver's Two Forks Dam: "They lack consensus. They haven't involved the environmental community," he says.

A divisive battle pitting pro-water

development forces against environmentalists and other concerned citizens is presently being fought over the creation of a water conservancy district in Cache County. Conservancy districts traditionally have played a vital role in federal water development by identifying need and bolstering support for dam construction.

Residents of Cache County have formed a group to oppose the formation of a local district. Members of People for Wise Water Planning worry that once a conservancy district is formed, its board — which is appointed and not elected — could finance poorly justified projects without public approval.

But the group's primary concern is the law that governs a district's formation. While proponents must collect signatures from only 5 percent of the eligible property owners, opponents must get 20 percent. "The law flat-out violates the principles of one man-one vote," says Rudy Luke, a Sierra Club volunteer from Salt Lake City.

The opponents' petition was rejected by the local district court in mid-January because of a technicality that disqualified the vote, although 30 percent of one town's property owners signed the petition.

The judge now must decide on the proponents' petition, but regardless of that outcome, opponents say they will eventually end up in court over the issue. While their short-term goal is to prevent the creation of a conservancy district, "ultimately we would like to challenge the constitutionality of Utah's conservancy laws," says Pendery. He feels that the case "could be significant to other Western states."

While many of the issues surrounding the Bear River proposal are in flux, one thing remains a constant. "There is a fundamental orientation towards water development here in Utah," says Pendery. In spite of the enormity of the proposal, he's not surprised few people have questioned it. As Lindhal puts it, "Water is just too sacred to enter the realm of reason."

— John Horning

John Horning, a former HCN intern, teaches outdoor education at the Aspen Center for Environmental Studies.



retired Utah State water research lab professor. "But they don't want to talk about economics and cost distribution. When you press [the legislators] on the numbers, they kind of turn off. They assume there's a need, but they're not interested in seeing how it relates to cost."

"It's going to work the same way it has at the federal level. Once you use the state as the financier and the project doesn't pan out, all you've done is put the burden on the general taxpayer," says Frank Hawes, also a retired Utah State water research lab professor. Hawes believes that if the project were being driven entirely by free market forces, the perceived need for water would rapidly evaporate.

Opponents of the Bear River project

## The CUP Story ...

(Continued from page 13)

insiders say the entire agency is under orders to keep quiet.

### Will it work?

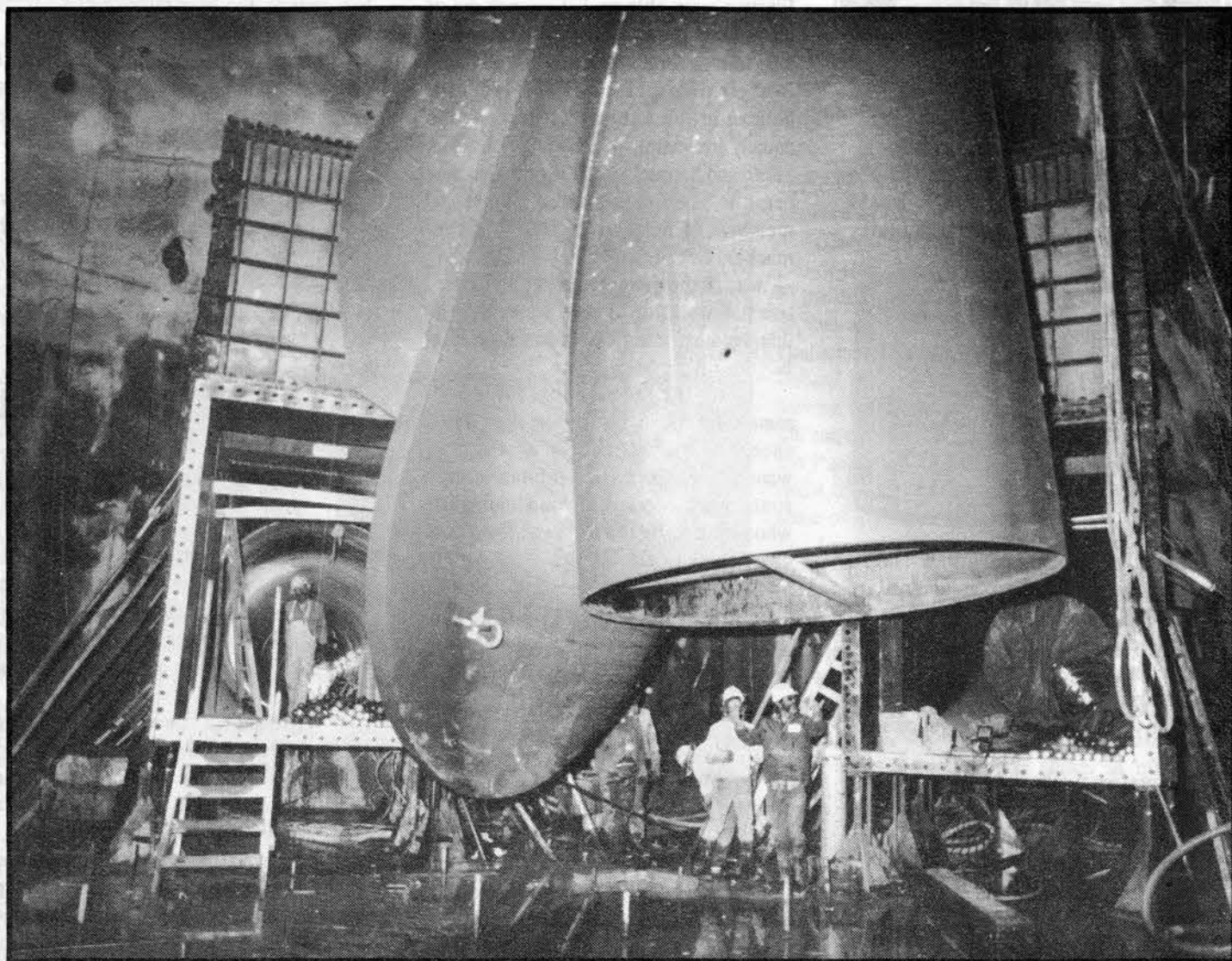
**W**ill passage of the CUP Completion Act save the CUP? Don Christiansen and the Central Utah Water Conservancy District say yes. Because the district is in charge and because it will be spending its own money, they say the bureau's inefficiencies will be eliminated. Christiansen points to two recent jobs that the bureau turned over to the district — a canal rehabilitation and a tunnel. Both were completed early and for far less money than the bureau had budgeted.

Christiansen also says the district can solve the bureau's design problems. Instead of hiring a huge in-house staff to do the work and create another self-serving bureaucracy, the district plans to hire outside engineering companies. The California firm of Bookman-Edmunston Engineering Inc. already has been asked to redesign and build the Bonneville's irrigation and drainage system.

Perhaps it is no coincidence that Bookman-Edmunston's head man on the project is Michael Clinton, the former bureau official who seems to have come full circle.

"The district has retained our firm to start not at the top like the bureau traditionally does, but from the bottom up with the water users, to start rebuilding those relationships." The farmers' needs, says Clinton, will ultimately determine what physical structures he will recommend to the district.

But in the end, it will all depend on money. Under the bill, 35 percent of all future construction costs and 50 percent of all future feasibility and environmental studies must be paid up-front by Utah. Christiansen says that comes to about \$150 million, but he is not sure how he will raise the money. His potential sources are the state legislature, the 12 counties in the Central Utah Water Conservancy District and the water users themselves. If the district can't raise the money within five years of the bill's



Workers lower a 114-inch-diameter "Y" section into the gate chamber

Bureau of Reclamation/Gayla Heaton

final passage, it loses the project.

The revised CUP would give Utah's cities about the same amount of water as the original project would have. In addition, however, the cities would be able to save money by gaining credits for water saved through conservation measures. Sevier River Basin farmers would lose about 40,000 acre-feet of irrigation water a year — water that would be left in the Uintah Basin. But the Uintah Basin will still end up drier because of the CUP. To help compensate that region, the bill would provide \$40 million to build small-scale water replacement projects, rehabilitate canals and reduce salinity.

The revision's major significance, however, is in its environmental benefits. Rep. Wayne Owens calls the bill the "finest piece of environmental legisla-

tion Utah has ever seen." Its \$138-million mitigation and enhancement package is safely in the hands of a separate commission. And the bill's long-range mitigation fund will help compensate for unforeseen impacts.

Similarly, the water conservation package may ultimately end the need for any future water developments of this size. "Over the long haul the water conservation program will be as much value to the state as the physical features of the CUP itself," says Ed Osann of the National Wildlife Federation.

No one, however, argues that the conservation package does anything more than make the best of a bad situation. The CUP Completion Act will help repair the damage wrought by the CUP, but nothing will ever put things back the

way they were before or get back all the money that was wasted.

Steve Hinchman, former HCN associate editor, writes and farms in Paonia, Colorado.

*This special issue was made possible by support from the 777 Fund of the Tides Foundation and by contributions to the 1990-91 Research Fund*

*The cover photo is of a steel tunnel within the Syar Tunnel and was taken by Gayla Heaton of the Bureau of Reclamation*

## CLASSIFIEDS

HIGH COUNTRY NEWS classified ads cost 30 cents per word, \$5 minimum. Display ads 4 column inches or less are \$10/col inch if camera-ready; \$15/col. inch if we make up. Larger display ads are \$30 or \$35/col. inch. We reserve the right to screen all ads. Send your ad with payment to: HCN, Box 1090, Paonia, CO 81428 or call 303/527-4898 for more information.

THE NATURE CONSERVANCY has a caretaker/ranger position and a guest services position available at the Muleshoe Ranch Cooperative Management Area located in southeastern Arizona. A willingness to live in a remote setting and a commitment to conservation are among the requirements for these positions. A couple is desirable. For information, contact: Katherine Beekman, The Nature Conservancy, 300 E. University Blvd. Suite 230, Tucson, AZ 85705. (2x12p)

WOLF HAVEN INTERNATIONAL, a 10-year-old non-profit conservation organization located 10 minutes south of Olympia, WA, seeks a person with strong experience in fundraising and development. Must be creative, energetic self-starter with solid communication skills, capable of taking projects from start to finish. Knowledge of all facets of fundraising, marketing, budgeting and Macintosh computer environments a must. Salary range \$18-\$24K per year DOE plus incentives. Send resume and cover letter to: Wolf Haven International, 3111 Offutt Lake Road, Tenino, WA 98589. No calls please.

COLORADO TROUT UNLIMITED, the state council of a national non-profit conservation organization, seeks candidates for the position of Executive Director. The functions of this full-time position are administration of office and staff, membership services, public affairs, leadership in resource issues, and membership and organizational development. Send resumes only to Search Committee, Colorado Trout Unlimited, 655 Broadway Suite 475, Denver, CO 80203.

6 ACRES NEAR RAMAH, NM, adjacent to Cibola National Forest. Power roads maintained. Great recreational potential. Covered with piñon, ponderosa and cedar. \$16,000 firm. 602/537-5190.

HIKE OREGON'S ANCIENT FORESTS. Transportation, cabin, ecologist, meals, hot springs soaks — \$525/wk! AF Hikes, Box 13585, Salem, OR 97309; 503/370-9844.

NEW WATER BOOK: An Introduction to Water Rights and Conflicts with emphasis on Colorado. \$14.95 plus \$3.00 S/H. To order, please write Network Marketing, 8370 Warhawk Rd., Dept. HC, Conifer, CO 80433, or call 303/674-7105. (12x5b)

**SMOKEY BEAR BELT BUCKLES**

Choice of PREVENT FOREST FIRES or FOREST FIRE FIGHTER versions. Rugged solid bronze for many years of regular wear, \$16; brass-plated for occasional wear, \$10 (prices include postage and handling). Check or money order — or inquiries to:

**Les Joslin**  
61595 West Ridge Avenue, Bend, Oregon 97702  
(503) 385-7124

OUTDOOR SINGLES NETWORK, bi-monthly newsletter, ages 19-90, no forwarding fees. \$18/1-year, \$4/trial issue-information. OSN-HCN, 1611 Cooper #7, Glenwood Springs, CO 81601. (10x10p)

SANCTUARY RETREATS in New Mexico's Gila Wilderness. Remote, beautiful, with hot springs, hundred-year-old adobe lodge, horses, llamas, river. Artist in Residence program and packing adventures too. The Fellowship for Ecology and the Arts, Rt. 11, Box 70, Silver City, NM 88061.

**CANYONLANDS FIELD INSTITUTE**

**DESERT WRITER'S WORKSHOP**

OCT. 17-20, 1991  
Pack Creek Ranch  
**David Lavender**  
**David Lee**  
**Gary Nabhan**

For more information contact:  
Canyonlands Field Institute  
P.O. Box 68 / Moab, UT 84532  
(801) 259-7750

Co-sponsored by the Utah Arts Council

"OUTDOOR PEOPLE AD-Venture" lists 60-word descriptions of active, outdoor-oriented Singles and Trip Companions nationwide. \$3/issue, \$12/ad. OUTDOOR PEOPLE-HCN, P.O. Box 600, Gaston, SC 29053

EDUCATION COORDINATOR. Excellent organization & PR skills. Experience recruiting, working with volunteers & directing workshops. Background in ecology/conservation. BA/BS. 3/4 time. CV to Tucson Audubon Society, 300 E. University Blvd., Tucson, AZ 85705.

*"The mountains are fountains of men as well as of rivers, of glaciers, of fertile soil. The great poets, philosophers, prophets, able men whose thoughts and deeds have moved the world, have come down from the mountains — mountain-dwellers who have grown strong there with the forest trees and nature's workshops."*

— John Muir

Listen to the wisdom of the great Sierra environmentalist and visionary on September 27 & 28, 1991, at "Western Rivers: Conflict and Community," the Fall Conference of the Center of the American West at the University of Colorado at Boulder.

Muir (portrayed by scholar Philip Supina) will be joined by John Wesley Powell, Sarah Winnemucca, Mary Hall-foote and William Mulholland.

The Water Chataqua is the focus of the September 27 program.

## LETTERS

## OIL AND FUNDAMENTALISM

Dear HCN,

When I first read Bill Eastlake's critical letter (HCN, 6/17/91), I was astounded that anyone could actually believe either that the world will always be blessed with plenty of oil, or that natural resources can actually be created through the pressures of economic demand. Then I realized that both of these arguments are logical (?) extensions of the tenets of current economic theory. What they fail to take into consideration, however, is that the real world runs not on a money economy, but on an energy economy instead.

If we were talking about a resource like copper, for example, it is true that, after we had run out of the richest ores, we could still produce the metal by applying more energy (and more money) to lower-grade ones. But this doesn't work for energy resources; you cannot produce energy simply by throwing more energy at it! When the amount of energy needed to produce the fuel approaches that obtained from burning it, it ceases to be an energy source, and all the money in the world can't change that fact.

This fallacy illustrates that today's economic theories are trapped in the same embryonic state that "science" found itself in when it was still based on the elegant but irrelevant inductive reasoning of Aristotle. Later, the more objective studies of Galileo, Newton and



Einstein were able to lift science out of this morass. But traditional economists, who take a literal approach to everything in their own personal "bible," still believe in the equally elegant — and equally irrelevant — teachings of Adam Smith and Samuelson. It is time that they began to listen to those few enlightened members of their own trade — Schumacher, Georgescu-Roegen, Boulding — who acknowledge that we do indeed live in a world of limited resources, and that we must make our plans accordingly.

Until they do, economics will remain far more a religion than a science. And the last people to whom we want to trust the nation's future energy strategy are economic fundamentalists who refuse to be drawn away from their own fantasy world.

James R. Guadagno  
Paonia, Colorado



## DRY GARDENING

Dear HCN,

I really enjoyed the article "Anyone for biodiversity and Tarahumara garbanzo beans?" (HCN, 6/3/91).

Our community is experiencing a severe drought coupled with a water storage system that is in a bad state of repair. Water is rationed, leaving little for gardens or lawns.

Last fall a company by the name of Native Seeds Search (2509 N. Campbell #325, Tucson, AZ 85719) advertised in your publication. We ordered and planted seeds ranging from indigo to tomatillo,

los, gourds and blue corn. I can hardly wait to harvest the fruits this fall.

These native, drought-resistant crops are the only way we could have a garden. I am glad to see that others are promoting these wonderful crops.

Patricia K. Johnston  
Helper, Utah



## THE POWER OF 'FAMILY'

Dear HCN,

We have lived in a passive solar home with a composting toilet for almost seven years. During the next school year, we will be abroad on sabbatical leave. One does not rent out a home like this to just anyone.

We found our house seven years ago through a classified ad in *High Country News*. So last month we placed a tiny ad in HCN's classifieds. It began, "Passive solar country home for rent..."

What were the odds that among the paper's 10,000 readers, spread from coast to coast, we could find even one person who happens to want an unusual home in Fort Collins, Colo., during a precise time period, and who also happens to read the classified ads?

Five times during the next week, voices from places as distant as Louisiana and California said, "I saw your ad in the *High Country News*...." We rented the house within a week.

The callers were diverse people who share a thoughtful curiosity and a dedication to living more peacefully with nature. Perhaps we should not have been surprised to find that they were such compatible people.

Still, five calls? That surprised us. Some might say, "It demonstrates the power of niche marketing." We prefer another interpretation: It demonstrates HCN's remarkable "sense of family."

Garrett and Nina Ray  
Fort Collins, Colorado

## WHERE WERE THE DOGS?

Dear HCN,

In response to Robert Turner's letter (HCN, 6/17/91) describing a coyote "rampage" which killed 32 sheep: The responsibility falls on the sheep ranchers, not on the coyotes. First of all, the sheep were left alone to fend for themselves for an entire night, while the herder went into town. One doesn't leave an infant untended for several hours and simply hope nothing adverse will occur. Sheep are like that, too — they can't tend themselves.

Secondly — where were the guard dogs — the Pyrenees, Komondor, Kuvasz, Akbash, Shar Planinetz or Anatolian shepherds? Many sheep ranchers are reporting zero losses to predation, thanks to their investment in these dogs.

Tina Marie Ekker  
Kanab, Utah

## The Hero Sheep Protector.



## COLORADO WILDERNESS COMPROMISE JEOPARDIZES NATIONAL SYSTEM

Dear HCN,

The June 3 issue of *High Country News* featured an essay by its editor, Lawrence Mosher, endorsing the recently introduced Wirth-Brown Colorado Wilderness bill. We respectfully disagree.

We have no quarrel with the wilderness areas and boundaries proposed in the Wirth-Brown compromise. Undoubtedly they will be carefully reviewed during the congressional process, and we trust any deserving adjustments will be made as part of the normal give-and-take which accompanies all wilderness bills.

What troubles us are two policy provisions which we fear will establish a negative precedent for the integrity of the National Wilderness Preservation System as a nationwide system.

The first of these provisions would expressly and unequivocally give up any and all reserved water or water rights for the wilderness areas designated by the bill, subordinate any future acquisition of water rights by the United States to the substantive and procedural requirements of Colorado law, and then force the United States to repurchase sufficient water to protect the areas. Not only would this be the first time that Congress has ever denied water rights for wilderness; in fact, it would reverse a congressional pattern to do just the opposite. In the four cases where Congress has squarely addressed the wilderness water-rights issue, it has expressly affirmed and reserved water or water rights "sufficient" or "neces-

sary" to fulfill the purposes for which wilderness is designated. The most recent affirmation of these principles occurred last fall and was championed by environmental stalwart Mo Udall for BLM wildernesses in Arizona. Similar language is also law in Nevada, New Mexico and Washington state.

The second provision which causes us concern is language for the Fossil Ridge and Bowen Gulch areas which legislates ersatz wilderness — with all the normal prohibitions of wilderness areas, except that off-road-vehicle use is allowed. This type of "backcountry" substitute not only undermines efforts to expand the wilderness system by offering watered-down alternatives, but also encourages requests by wilderness and anti-wilderness interests for Congress to micro-manage small portions of the national forests and public lands. The Bowen Gulch backcountry management area, for example, is only 6,000 acres in size.

Over the years Congress has been barraged by a never-ending stream of requests to alter the Wilderness Act to make special exceptions or allow special uses in various areas and states. There have been proposals to allow helicopter skiing in wilderness in Nevada and Utah, snowmobiling in Montana, horse logging in Wyoming, phosphate mining in Florida and mountain bikes in California. Cattlemen in New Mexico have requested that they be allowed to drive pickups and off-road vehicles into wilderness at their sole discretion to perform routine tasks,

rather than have to adhere to the limited exceptions applicable to the rest of the system under established grazing guidelines.

Several years ago *High Country News* ran an article describing the efforts of Wyoming politicians and the timber industry to obtain an exemption to log a large blowdown in the Bridger-Teton Wilderness before it rotted and "went to waste." Logging, it was argued, would enhance the scenery and would alleviate economic hardship in nearby timber-dependent communities.

To that and every other special-interest request to modify basic wilderness principles, Congress has said no. It has done so because the wilderness system on federal public lands is a uniform, nationwide system. If this policy were to be reversed and Congress were to begin making special exceptions for water interests in Colorado or heliskiing in Utah, the integrity of the wilderness system would gradually erode.

When Congress established the National Wilderness Preservation System in 1964, it did so with the purpose of protecting on the public lands a nationwide system of undeveloped and wild land that permanently retained its "natural conditions" and "primeval character and influence." Protection for the water or water rights associated with wilderness is especially critical, because water is the lifeblood of all ecological systems. The "natural conditions and primeval character and influence" intended to be protected by

the Wilderness Act cannot exist without an adequate reservation of water or water rights. It is also illogical and fiscally unsound for Congress to give up reserved water rights for wilderness with one hand and then force the United States to buy back what it has just given up. And yet that is exactly what the current version of the bill proposes.

We hope there will be a Colorado wilderness bill in this Congress. Colorado's senators are "doers" who are making a sincere attempt to resolve an extremely emotional and long-standing controversy. However, the environmental groups opposing their efforts are not uncompromising "purists" as your editor implies, nor is the Colorado wilderness question primarily the "state's business." Wilderness is a national agenda involving lands belonging to all the American people. We urge that the final solution on water rights and special management areas be one that conforms to national wilderness principles and policies.

Tom Bell  
John Seiberling

Tom Bell is the founder and editor emeritus of *High Country News*. John Seiberling was the chairman of various U.S. House of Representatives subcommittees that had primary jurisdiction over wilderness designations. During his tenure, more than half of the existing wilderness areas in the nation were added to the system.

## afield

## 'This is what I am; for that I came'

by Diane Sylvain

In Chaco Canyon on a summer afternoon, the heat flattens everything, draining color from the high cliff walls. The wonderful, extravagant ruins look dull as piled rubble; there are no shadows to give them shape or texture.

Tourists loiter in the Visitors' Center, splashing water on their faces. They pester the rangers with questions already conspicuously answered in the signs on the wall and the stacks of brochures; they buy postcards and complain about the long dirt road into this place. No one seems eager to leave this cool building and seek out whatever it is they came here to find.

I am here with my brother. We have come inside to refill our canteens, and we gulp down the shade as if somehow we could take it with us. Since early morning we have roamed the canyon; we want to see it through all the hours of its changing light and shadow. It is so hot this afternoon that we move very slowly, but the people who lived here before endured this heat, and we will, too.

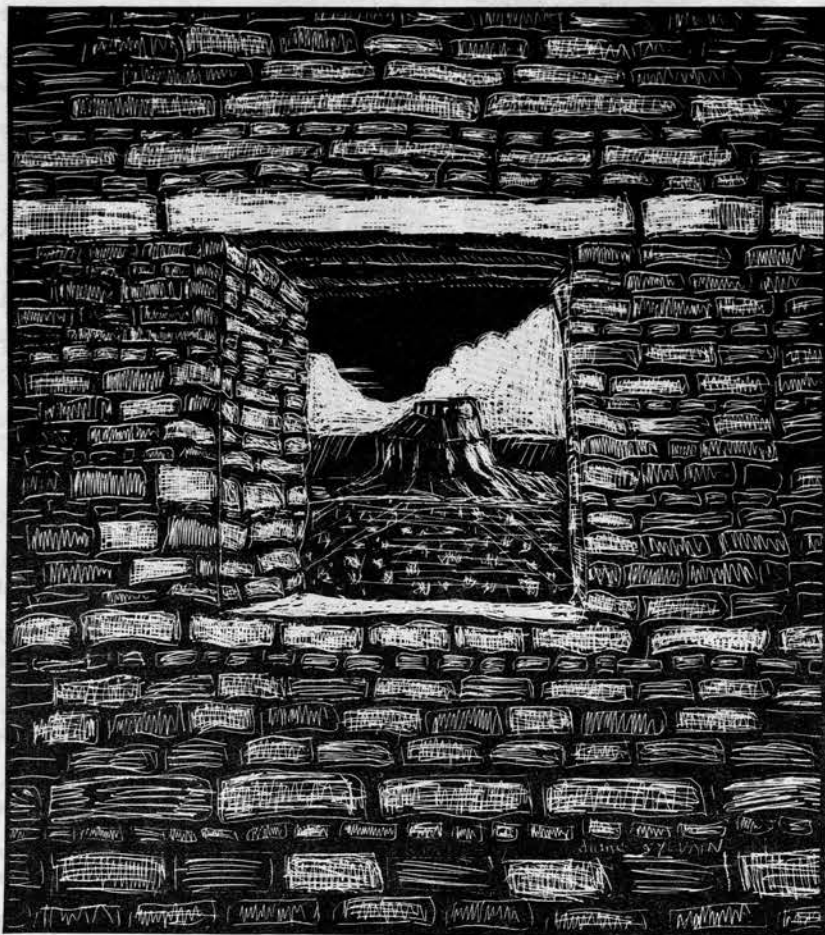
The American history textbooks I waded through as a child began with Columbus, more or less. In tedious sexist metaphor they described the continent he stumbled into as a "virgin" land, untouched, unknown, and ripe for conquest. The fact that people lived here already was conveniently overlooked — perhaps because, in European eyes, you haven't really lived in a place until you have changed it. Hunters and gatherers leave so little behind them, it is easy to convince yourself that they were never really there. In this view, the native inhabitants did nothing to earn the land because they did not use it. They did not mine or ranch or dam. They wasted their opportunities, and so deserved to be evicted by more "efficient" landowners.

So I was amazed when I saw my first Anasazi ruin, the restored and misnamed Aztec Ruin in New Mexico. I was nine years old, traveling with my family. We spent several hours exploring the huge, meticulously crafted stone buildings that were created by Native Americans centuries before the Europeans came. I could not understand why the people of this civilization, who had left monuments like Stonehenge in the American Southwest, were missing from my schoolbooks. I see it now as another demonstration of how the victors write the history, devaluing cultures whose contributions fall outside the perceived mainstream.

But perhaps another reason the Anasazi were overlooked is that so little still is known about these people, who lived in the Four Corners area of the Southwest a thousand years ago. Even their name is not *their* name: Anasazi comes from the Navajo language, often translated as "ancient ones" but perhaps more accurately as "ancient enemies." It may be that, as a culture, we are impatient with mystery, irritated by unanswered questions. There are people today who prefer to believe that the Anasazi came from other planets, rather than attempt to tackle the harder questions of how they lived here at all, and why they left.



That childhood visit to Aztec started something in me, and since then I have been to many other prehistoric sites: Mesa Verde, Canyon de Chelly, Bandelier and Hovenweep, as well as other, nameless places.



Once in Utah I spent a week camped in a wide red canyon where ruins were everywhere, once you taught yourself how to see them. My friend Teri and I discovered one ourselves, tucked under a steep overhang and so well screened by trees that we did not catch a glimpse of it until we had walked into it and stood there in silence, marvelling. There were hollowed-out stone metates and large pieces of pottery, and gourds and shriveled 800-year-old corn cobs. Then I heard a startled breath from my friend, and looked up: On the walls above our heads were the handprints of those who had lived here, red pigment blown onto rock outlining the strong, spread fingers. There were animals too, incised in the rock, and other paintings; spirals, abstractions, some roughly done, some breathtakingly alive. Scholars disagree about the meaning of these markings, but to me they spoke as artwork always speaks, singing with that voice of things that Gerard Manley Hopkins writes of: "Myself it speaks and spells/Crying What I do is me: for that I came."



Today, in Chaco Canyon, New Mexico, I am at the dry heart of this civilization. What happened here is sometimes called the Chaco Phenomenon: In some unknown way, this was the center of the Anasazi culture. Aerial photography reveals a network of straight roads, leading out from Chaco like spokes from a hub. Who walked those roads, and why, is unknown; the unusual number of kivas suggests that Chaco may have been a religious center. There are solstice markers and astronomical sites that indicate a careful, precise observation of the sky. There is a pictograph that may show the great supernova of 1054 (today's Crab Nebula) — an event also noticed by the Chinese, who politely called it a "guest star," but completely overlooked by the inhabitants of Europe. Skeletons of Central American birds and seashells from California reveal that the Chacoans traded with peoples far away. It would seem that the Chaco phe-

nomenon, whatever it was, was only part of a great network of Native American civilizations.

There are almost as many theories about the end of this culture as there are about the extinction of the dinosaurs, but it is probably no stranger, really, than any other episode in the long history of our confusing species. All we know is that the Anasazi thrived for several centuries and then disappeared, leaving their vast and lovely cities to the ravens and the rattlesnakes. Their descendants remain, among the Pueblo Indians; the ruins remain. And in the midst of all the study and scientific discoveries, the sense of mystery survives.

I wonder about it all as I follow my brother, limping along the hot pathways. Hours have passed; the sun is falling into the west now, and in the changing light the piled ruins come to sudden life. The intricate stonemasonry glows red and orange; deep purple shadows slide into place and bring out unsuspected angles and lines. The ruins seem much taller somehow, and oddly awake; the empty windows flicker at me, out of the corners of my eyes. But it is still hot, and I am tired. I sit down on a rock while Russ scrambles ahead with his camera.

Next to my booted foot, in the soft dust, is a ragged fragment of gray stone. With the tip of my walking stick I turn it over. It is not a rock; it is a piece of pottery, painted black and white. I lift it and hold it in the palm of my hand, as carefully as if I might startle it into flight. Eight hundred years, a thousand years ago — who can tell? — someone shaped this vessel with their sturdy hands, fired it, painted it, used it, broke it, abandoned it. It is a very small thing, but I feel the weight of it in my hand, like a scrap of time made solid and heavy. The potsherd burns with memories. For an electric second, I feel them: I am making hand-to-hand contact with the past. My fingertips brush those of a woman long dead and dust. I feel her singing through this fragment of her life: "Myself, it speaks and spells."

*This is what I am; for that I came.*

I stare at it for a long time, tracing the pattern with a loving finger. Then something startles me, and I am back again, in the late 20th century. I look around: What few tourists I saw earlier are gone. The light is pouring fast from the sky; the ruins are dark and depthless, fragments like the thing I hold in my hand. Their strange shapes are cut out from the turquoise, twilight sky. There is still a patch of red light gleaming on Fajada Butte, but even as I look at it, it goes.

I am tempted to keep the potsherd, but I know in my heart that the thing I want from it is not a thing I can carry away. So I put it back in the dirt, the gray and anonymous unmarked side face up. It blends so well with the dust and rock that I lose sight of it myself. It merges into the land just as these ruins seem to turn into great slabs of canyon stone. I wonder who will be the next person to find it, and what their thoughts will be.

Russ is coming back now — I can hear his footsteps scuffling down the rocky trail. I stand up, stiffly. Shadow gathers in the ruins like pools of water; Chaco drinks deeply. There is so much here we will never see or understand. I take a long last look, listening for what I cannot imagine. I wonder how soon I will return.



Diane Sylvain is a free-lance writer and HCN's staff artist. She lives in Paonia.

## Follow the leader — to High Country News

☐ One year - \$24 \*☐ One year, institution - \$34 ☐ Two years - \$42 \*☐ Two years, institution - \$60

\*Institutional rate applies to subscriptions paid for with a business, government, or other organization check. Public and school libraries may subscribe at the \$24 rate.

☐ My check is enclosed, or,

☐ charge my credit card ☐ Visa ☐ MasterCard

Acct. no. \_\_\_\_\_ Exp. date \_\_\_\_\_

Signature \_\_\_\_\_

☐ Please bill me

Name \_\_\_\_\_

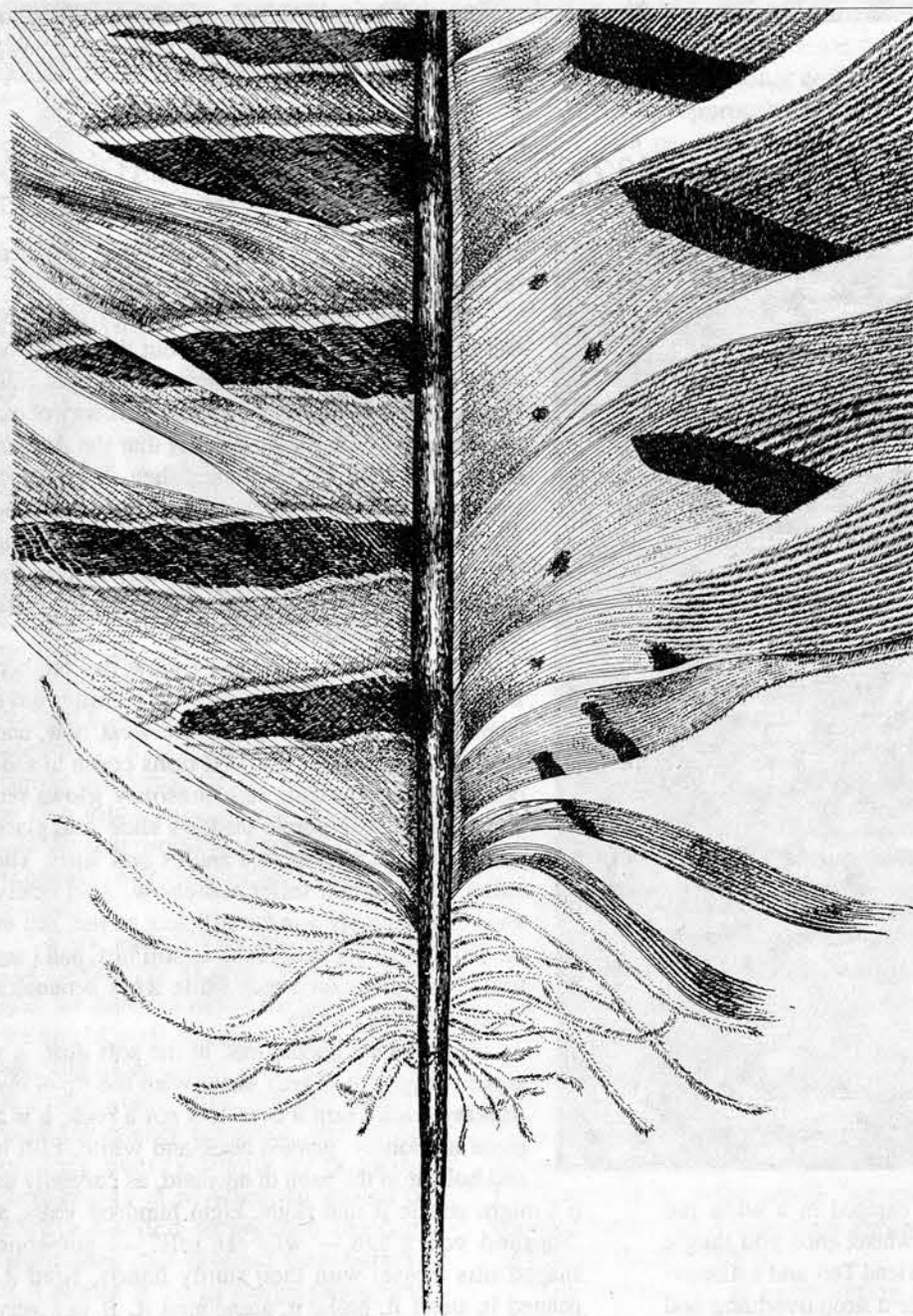
Address \_\_\_\_\_

City, State, ZIP \_\_\_\_\_

Please mail to: HCN, Box 1090, Paonia, CO 81428

Meredith Taylor

407 - Vol. 23, No. 13



Drawings by Kathleen Zuchniak

*Thanks, Research Fund  
and recycling fund donors,  
for helping us fly higher*

### PUBLISHER'S CIRCLE

Gilman Ordway  
Wilson, Wyoming

Robert Hutchins  
Fruita, Colorado

### BENEFACTOR

Charles Butcher  
Boulder, Colorado

### SPONSOR

Jean R. Anderson  
Billings, Montana

Emily Stevens  
Jackson, Wyoming

John and Edna Good  
Moose, Wyoming

Margaret D. Hayden  
Evergreen, Colorado

Don and Purnee McCourt  
Golden, Colorado

Mike Ryan  
Flagstaff, Arizona

Betty Empey  
Cody, Wyoming

Rob and Annette Hanson  
Boise, Idaho

C.N. Bliss, Jr.  
Kennett Square, Pennsylvania

Laura Fisher  
Providence, Utah

Dan and Marge Schlitt  
Hastings on Hudson,  
New York

Dorothy L. Carrico  
Helena, Montana

Norm Henderson  
Torrey, Utah

Hank Worley  
Colorado Springs, Colorado

### PATRON

Jan McCoy  
Denver, Colorado

Barbara J. Shark  
Boulder, Colorado

Jeffrey T. LaFrance  
Tucson, Arizona

Joanne Nissen  
Soledad, California

Helen E. Traylor  
Grand Junction, Colorado

Barbara Stullard and  
Steve Frank  
Menlo Park, California

Charlie Silver and  
Duffie Westheimer  
Flagstaff, Arizona

Christopher T. Smith  
Boise, Idaho

Martin J. Hornick  
Bishop, California

Stephen M. Jones  
Cave Creek, Arizona

Steve Caldwell  
Littleton, Colorado

Bob Poling  
Nederland, Colorado

Art Estin  
Boulder, Colorado

Roch Horton and  
Catherine Mataisz  
Frisco, Colorado

Anne Vickery  
Boulder, Colorado

Howard Evans  
Livermore, Colorado

Stephen C. Pope  
Los Alamos, New Mexico

C. Lincoln  
Enterprise, Oregon

Bruce and Pearl Van Haveren  
Lakewood, Colorado

Candace M. France  
Yakima, Washington

Carolee Campbell  
Sherman Oaks, California

Coby Jordan  
Hurricane, Utah

Anne Debevoise Ostby  
Dagmar, Montana

John Lund and  
Kathy Boyd  
Tempe, Arizona

Van Dyne McCutcheon  
Boulder, Colorado

Gerald Audesirk  
Golden, Colorado

Thomas Jervis  
Los Alamos, New Mexico

Gene Daniels  
Cañon City, Colorado

Keith M. Bond  
Delta, Colorado

Bob Landis  
Billings, Montana

Barbara E. McCulley  
Adrian, Michigan

Deborah MacKenzie  
Lake Forest, Illinois

Robert Ribe  
Eugene, Oregon

Will Betchart  
Cupertino, California

June Howard  
Boulder, Colorado

R.L. Latterell  
Shepherdstown, West Virginia

Gretchen Merrill  
Basalt, Colorado

Marilyn Cooper  
Houghton, Michigan

Steven Van Vactor  
Las Cruces, New Mexico

Beverly Boynton  
Jackson, Wyoming

Rob Burnett and  
Charla Brown  
Deer Harbor, Washington

Jack Waidman  
Seattle, Washington

Brooks Anderson  
Madison, Wisconsin

Robert F. Richards  
Denver, Colorado

Don Edmonds  
Boulder, Colorado

Patricia Limerick  
Boulder, Colorado

Chip Jenkins  
Agoura, California

John Benson  
Salt Lake City, Utah

Bill Preidhorsk  
Santa Fe, New Mexico

Doug Vandergon  
Prescott, Arizona

Rick Inglis, Jr.  
Fort Collins, Colorado

D. Lockwood  
Lincoln Center, Massachusetts

Evelyn B. Newell  
Cleveland, Ohio

Joy and Sam Caudill  
Aspen, Colorado

Philip C. Zacharczyk  
Denver, Colorado

### FRIEND

Beth Maczka and  
Chris Bell  
Candler, North Carolina

Berdella A. Bancroft  
Prescott, Arizona

John H. Hannahs  
Evanston, Wyoming

Lee de la Housaye  
Dallas, Texas

Elizabeth Schwarm  
Denver, Colorado

Paul Frank  
Moab, Utah

F. Neil Folks  
Maybell, Colorado

Christina Arapiles  
Boulder, Colorado

Thomas and  
Betty Budlong  
Los Angeles, California

David Wash  
Ridgecrest, California

Jack Carpenter  
Moscow, Idaho

Kenneth Kipp  
Lakewood, Colorado

Ruth Mains  
Laramie, Wyoming

Karin Lundquist  
Fort Collins, Colorado

Dave and Debra McNeil  
Gardnerville, Nevada

Oliver Chilson  
Laramie, Wyoming

J. Dryer  
Grand Canyon, Arizona

Darlene Batatian  
Pocatello, Idaho

R. Kirk Schroeder  
Albany, Oregon

Paige Inman  
Denver, Colorado

Kathy Barnes  
Independence, California

Bonnie Geppert  
La Veta, Colorado

John E. Riley  
Salt Lake City, Utah

Janna Treigman  
Fall City, Washington

Edward Morgan  
Missoula, Montana

Dave and Lori Livingston  
Basalt, Colorado

Dennis Willis  
Price, Utah

Judith Anderson  
Montrose, California

Thomas D. Warren  
Brunswick, Maine

Carl P. Keiser  
Evergreen, Colorado

Palmer D. States  
Fort Collins, Colorado

Mary Belle Bloch  
Cedar City, Utah

Roger Abelson  
Jelm, Wyoming

W.E. McDougal  
Pueblo, Colorado

Jim Roscoe  
Wilson, Wyoming

Doug and Lauren Wolfe  
Telluride, Colorado

Glenn Randall  
Boulder, Colorado

Noel and Irene Rosetta  
Helena, Montana

Joe Walicki  
Marylhurst, Oregon

Karen Lewis  
Montrose, Colorado

Sarah Stapleton  
Lander, Wyoming

David Jones  
Evergreen, Colorado

Chris Frissell  
Corvallis, Oregon

Mark Hovezak  
Mancos, Colorado

Tim and Barb Smith  
Orangeville, Utah

Savannah Steele  
Rangely, Colorado

Richard P. Higgins  
Detroit, Michigan

Fred Wetlaufer  
Montrose, Colorado

Frank J. Fitzgerald  
Drummond, Montana

Steve Haims  
Ketchum, Idaho

Leslie Harris  
Boulder, Colorado

M C Farms  
Hotchkiss, Colorado

Tom N. Pomeroy  
Ketchum, Idaho

Evan Cantor  
Boulder, Colorado

Randy Edmond  
Casa Grande, Arizona

William C. Guenther  
Laramie, Wyoming

Alden C. Hayes  
Portal, Arizona

Andrew Karoly  
Lake Powell, Utah

Brent Mortensen  
Orem, Utah

Carolyn C. Runyon  
Denver, Colorado

Rocky Smith  
Denver, Colorado

Marian Smith  
Glenwood Springs, Colorado

Helen Tollefson  
Missoula, Montana

Robert J. Utzinger  
Salt Lake City, Utah

Kelly Wilde  
Boise, Idaho

Julia Keener  
Teton Village, Wyoming

Andrew P. McNabb  
Boulder, Colorado

Patsy Culver  
Bozeman, Montana

Diana Bus  
Eugene, Oregon

Clay Johnson  
Jensen, Utah

David Thodal and  
Suzanne Beetsch  
Minneapolis, Minnesota

Matt Janssen  
San Luis Obispo, California

Peter Dobert  
Bend, Oregon

Joan Harrison Kersey  
Strafford, Vermont

Paul Finley and  
Lisa Foxwell  
Telluride, Colorado

Greg Sinton  
Manhattan, Kansas

Charlie Stavola  
La Crescenta, California

Gale A. Chase  
Hosford, Florida

Paul Sihler  
Helena, Montana

Jeff Stern  
Monte Vista, Colorado

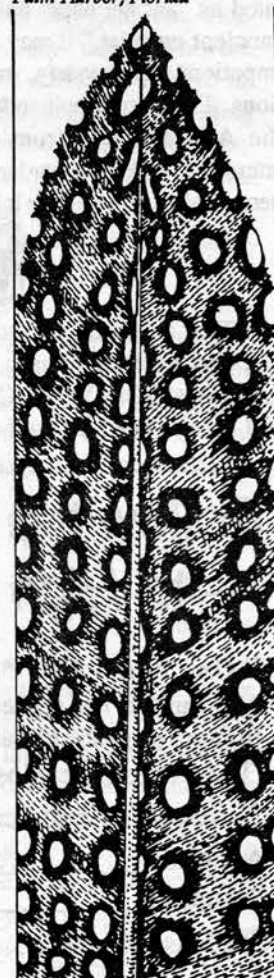
Kate Lawrence  
Denver, Colorado

Sally Nichols  
Boise, Idaho

John P. Schmidt  
Columbus, Ohio

Edwin L. McKinney  
Boulder, Colorado

Mary E. Parrott  
Palm Harbor, Florida



David G. Sterling  
Boulder, Colorado

Chuck Edwards  
Denver, Colorado

Bob Krumenaker  
Houghton, Michigan

Greg and Mary Fabisiak  
Lakewood, Colorado

Paul and Jean Peters  
Flagstaff, Arizona

Robert and Arlene Jonas  
Moscow, Idaho

Mr. and Mrs. Archibald  
Salt Lake City, Utah

Belle Richards  
Helena, Montana

Stuart W. Olbrich  
Mountain Home, Idaho

Glen Guyman  
Denver, Colorado

E.V. Carter  
Cedaredge, Colorado

Gisele and Pete Robinson  
Devils Tower, Wyoming

LeRoy Stanford  
Cedaredge, Colorado

Howard and Elsie Barnard  
Aberdeen, Idaho

Willie Killcow  
Southern New Mexico

Jay Skeen  
Carmen, Idaho

Brian Suderman  
Ajo, Arizona

Janet Wise  
Boulder, Colorado

Clair Gentry  
Weiser, Idaho

Phil Klein  
Boulder, Colorado

Tom Myers  
Marana, Arizona

Nick Novich  
Twin Bridges, Montana

Mildred Walton  
Richland, Washington

Julie Naslund  
Flagstaff, Arizona

David and Nancy Shaskey  
Salt Lake City, Utah

Sarah Cassatt  
Seattle, Washington

Jackie C. Deets  
Tucson, Arizona

Tom "Burro Packer" Taylor  
Bulldog, Washington

Jan Miller  
Salt Lake City, Utah

John Mullen  
Corvallis, Oregon

Sally Bredeweg  
Lincoln, Nebraska

Richard Kroger  
Bismarck, North Dakota

R. Rogers  
League City, Texas

Jodie Canfield and  
Ron Spoon  
Townsend, Montana

Peter Anderson  
Salt Lake City, Utah

Carl Clinesmith  
Denver, Colorado

Frank Clough  
Arvada, Colorado

Kenneth Krushel  
New York, New York

Doug Medville  
Reston, West Virginia

Ernest E. Draves  
Brighton, Colorado

Linda West  
Vernal, Utah

Robert E. Benson  
Missoula, Montana

Jody K. Brostrom  
Idaho Falls, Idaho

Julia D. Lueders  
Salt Lake City, Utah

Susan Marsh  
Jackson, Wyoming

Marianna Young  
Lakewood, Colorado

Duane Wilcox  
Ithaca, New York

Premena  
Boulder, Colorado

Paul Starrs  
El Cerrito, California

Scott T. Smith  
North Logan, Utah

Robert M. Moore  
Pueblo, Colorado

Richard Carroll  
Bartlesville, Oklahoma

Luther Linkhart  
Alameda, California

Peter C. Todebush  
Hayward, California

Michael M. Melius  
Hermosa, South Dakota

Mark Chambers  
St. Joseph, Illinois

Mary C. Cifelli  
Silver Spring, Maryland

Pamela Pride Eaton  
Arlington, Virginia

Sheila T. and David Metcalf  
El Rito, New Mexico

William L. Baker  
Billings, Montana

J.L. Rynning  
Colorado Springs, Colorado

Mr. and Mrs. James Kelsey  
Ridgway, Colorado

Jane B. Commer  
Rathdrum, Idaho

Wynne Harley  
Colorado Springs, Colorado

Denis Michaud and  
Holly Testa  
Nederland, Colorado

Mark Durham  
Fairfield, Utah

Michael E. Campana  
Albuquerque, New Mexico

Brian and Janet Lloyd  
Albuquerque, New Mexico



Douglas B. Moore  
Williamstown, Massachusetts

Jo Anne Garrett  
Baker, Nevada

Joseph R. and  
Frances Marotta  
Dolores, Colorado

Ed and Vickie Eberle  
Mesa, Arizona

Robert Neisler  
Park City, Utah

Dave and Char Corkran  
Portland, Oregon

Nic and Joyce Patrick  
Cody, Wyoming

Robin E. Neft  
Little Rock, Arkansas

Christine Osborne  
Salt Lake City, Utah

Charles Day  
Bozeman, Montana

Leslie and Mike Crosby  
Bon Carbo, Colorado

Alice Benguefield  
Dillon, Montana

Larry and Adah Werkema  
Vancouver, Washington

John Wright and Jennifer Kahr  
Bozeman, Montana

Linda Kenoyer  
Clinton, Washington

Mr. and Mrs. Jay Hertzler  
Estes Park, Colorado

Susan J. Harlow  
Montpelier, Vermont

John W. Groo  
Moab, Utah

John Bliese  
Estes Park, Colorado

Anonymous donors

## BULLETIN BOARD

### SOLAR CONFERENCE

For the first time since 1979 the International Solar Energy Society Solar World Congress will be held in the United States. The conference will run from Aug. 17-24 at the Denver Marriott City Center Hotel, and will feature various presentations designed to give an overview of solar energy around the world. Solar energy will be looked at with regard to space exploration and the environment and in terms of replacing electric utilities. For more information contact the American Solar Energy Society, 2400 Central Ave., Suite B-1, Boulder, CO 80301; 303/443-3130.

### COWBOY POETRY

The Great Pikes Peak Cowboy Poetry Gathering will be held in Colorado Springs on Aug. 2, 3 and 4. Featured events include a pancake toss contest, a "cowboy poetry free-for-all" and Gary McMahan with his sidekick, yodeling dog Cutie Pie. The gathering is sponsored by the Pikes Peak Library District, and profits will be used to buy materials for the district's Western Heritage collection. For more information call the Pikes Peak Library District at 719/531-6333, ext. 1150.

### NEW MEXICO MANAGEMENT PLANS

The Roswell District of the Bureau of Land Management is preparing Resource Management Plans and Environmental Impact Statements for the Roswell and Carlsbad resource areas in southern New Mexico. Several alternative plans will be considered, each with a different management emphasis. Public workshops have been scheduled in July, and written comments will be accepted until Aug. 16. Address questions and written comments to Pat Kelley, RMP Team Leader, Bureau of Land Management, Roswell Resource Area, P.O. Drawer 1857, Roswell, NM 88201.

### 'GREAT PLACES' — GREAT PLANS

This year's Western Planner National Conference will focus on sustainable communities in rural areas. The event, to be held July 31-Aug. 2 at the Hilton Hotel in Lincoln, Neb., will include lectures on environmental, economic and cultural issues. Workshops, organizational meetings, exhibits and a job fair are also on the agenda. Registration for the conference is \$145 for regular admission and \$50 for students or spouses. Additional fees of \$20 to \$75 will be charged for workshops and special events. For more information contact Faye Kopke at 402/472-3592.



### CONSERVATION LEADERSHIP

The Institute for Conservation Leadership will be holding training conferences for leaders of volunteer environmental advocacy groups. The hands-on training will cover interpersonal communication, fundraising, team building, media work and strategic planning. The conferences will be held in South Haven, Minn., Aug. 16-23; Raquette Lake, N.Y., Sept. 14-21; Little St. Simons Island, Ga., Dec. 7-14; and Corbett, Ore., Feb. 1-8, 1992. Costs range from \$500 to \$600 and cover food, lodging, materials and instruction. For more information, write the Institute for Conservation Leadership, 2000 P St., N.W., Suite 413, Washington, D.C. 20036, or call 202/466-3330.

### PASSPORT IN TIME

Volunteers are invited to team up with Forest Service archaeologists and historians this summer in a project called Passport in Time. Volunteers need no experience and may work with professionals on excavations of prehistoric Indian sites, historic army encampments and logging camps. Other projects include restoring historic buildings, designing exhibits and brochures, and historical research. Passport in Time is organized by the Forest Service in conjunction with CEHP, a professional firm in Washington, D.C., devoted to "Conservation, Environment and Historical Preservation." Applications are currently being accepted. For information contact Passport in Time Clearinghouse, P.O. Box 18364, Washington, D.C. 20036; 202/293-0922.



Jack Saunders

### WILDERNESS MANAGEMENT

Colorado State University is offering a series of correspondence courses designed to clarify the increasingly complex issues surrounding the management of wilderness areas. The series, titled "Wilderness Management," is aimed at professional land managers and others interested in outdoor recreation and wildlands issues. The six interrelated courses can be taken for either 19 semester credit hours or 28.5 continuing education units. Questions concerning enrollment should be directed to the Division of Continuing Education, 800/525-4950. Specific questions about the course should be directed to Dave Porter at 303/498-1057.

### PRAIRIE DOG RECOVERY

The U.S. Fish and Wildlife Service is seeking public comments on a plan to facilitate the recovery of the Utah prairie dog, a federally listed threatened species, reports the Moab Times-Independent. Prairie dog populations have been decimated by farmers and ranchers who view the animals as pests. Massive poisonings have brought the Utah species near extinction. The recovery plan aims to transfer animals from private to public lands, where stable populations can be established without human interference. Copies of the plan can be obtained by calling 801/524-4430. The comment period closes July 26.

### PLATTE RIVER GUIDE REISSUED

The Upper North Platte River float map, long a favorite among river rafters and fishermen, is once again available to the public. The updated map, which covers the section of river from Routt, Colo., to the Seminole Reservoir, is printed on water-repellent paper. It can be ordered by calling the Wyoming Game and Fish Department at 800/842-1934.

### TELLURIDE TO MOAB

A mountain bike hut system links the biking meccas of Telluride, Colo., and Moab, Utah, with a 215-mile trail. Wooden cabins and one 16-by-16-foot platform wall tent are spaced along the old mining road at 35-mile intervals. Each hut is equipped with bunks, a propane stove, kitchen utensils, water and a woodburning stove. The trail goes through the San Juan Mountains at an average altitude of 9,000 feet. It is not just a trail for experts; beginning and intermediate bikers are welcome. The San Juan Hut System can also provide guides, food and sleeping gear. For more information on the trail and fees, contact the San Juan Hut System, P.O. Box 1663, Telluride, CO 81435; 303/728-6935.

### ATTENTION CEO'S

Corporate presidents looking to join the energy-efficiency revolution can do so while increasing profits and enhancing the workplace. A video recently released by the Rocky Mountain Institute, *Negawatts: A Gold Mine of Opportunity*, aims to facilitate corporations' attempts to become energy-efficient. *Negawatts* — the term refers to a megawatt of energy saved through conservation — shows how easily new technologies can be installed. The video discusses efficient and attractive new lighting, better motors and controls, improved windows, and advanced insulation techniques that can help companies reduce energy costs and prevent pollution before it happens. Copies of the 20-minute video are available for \$20 from the Rocky Mountain Institute. To order call 303/927-3851, or write RMI, 1739 Snowmass Creek Road, Snowmass, CO 81654-9199.

### Add my gift to the 1990-91 Research Fund

- ☐ \$1-\$49 (Friend)    ☐ \$50-\$99 (Patron)    ☐ \$100-\$249 (Sponsor)  
☐ \$250-\$499 (Benefactor)    ☐ \$500-\$999 (Assoc.)    ☐ \$1000 and above (Pub. Circle)

Amount of Gift \_\_\_\_\_ ☐ Payment is enclosed ☐ Charge my credit card

Name \_\_\_\_\_ ☐ Visa or ☐ MasterCard Expires \_\_\_\_\_

Address \_\_\_\_\_

Card # \_\_\_\_\_ Signature \_\_\_\_\_

☐ Please check here if you **do not want** your gift acknowledged in *HCN*.

If you contribute \$50 or more, you may designate the recipient of a free *HCN* gift subscription (new subscriptions only, please).\*

☐ Yes, see other side for name and address of my gift sub recipient.

☐ I do not wish to receive any premium for my gift level.

Make checks payable to the High Country News Research Fund. Mail to Box 1090, Paonia, CO 81428

\* This premium has a \$24 value which must be subtracted from your Research Fund gift to arrive at the tax-deductible portion.

## OTHER VOICES

### A father's view of a dam proposal

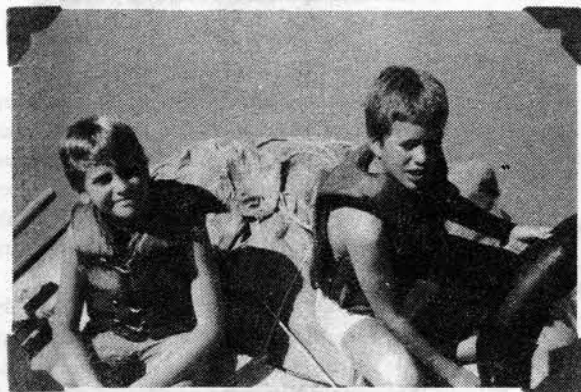
by Gregory O. Trainor

One weekend in April, I was planning to be on the Colorado River, spending some time in Horsethief and Ruby canyons. Winds and cold temperatures cancelled my plans. Instead I found myself in the office reviewing the "Application for Preliminary Permit" for the Horsethief Canyon Water Power Project. I should be well qualified to comment on such a project — first, because I've spent a lot of time in Horsethief Canyon and second, because I built a project just like it on the White River near Rangely, Colorado. I was involved with it for years, from 1977 to 1986.

Signed in Harris County, Texas, on Feb. 5, 1991, by Socrates S. Christopher, the application begins: "NaTec Resources, Inc. applies to the Federal Energy Regulatory Commission for a preliminary permit for the proposed Horsethief Canyon Water Power Project." The application's authors are the developers of a nahcolite mine in the Piceance Creek (pronounced "pee ants") basin, and the hopeful builders of a dam and hydroelectric plant.

The dam will be in Horsethief Canyon downstream from the Loma boat launch on the Colorado River, west of Grand Junction. The project is expected to generate 5.46 megawatts of power. Its central feature will be a roller-compacted concrete dam 45 feet in height above the river bed. Roller-compacted concrete is a lean concrete mixture, much like wet gravel, that is placed at the dam by a conveyor belt, spread with a blade and compacted with a roller. The material is laid down continuously until the dam is completed. The crest of the dam will be 1,400 feet in length. River flow will be controlled by 15 radial gates stretching 450 feet across the streambed. The reservoir behind the dam will store 15,370 acre-feet of water and create a lake 10 miles long from Salt Wash to Interstate 70, inundating all of Horsethief Canyon — a section of the Colorado River under study as part of the Black Ridge Wilderness Study Area and also as a scenic river.

An acre-foot is enough water to cover one acre of land one foot deep. It is 325,829 gallons — enough water for about 10 frugal people for a year. Fifteen thousand acre-feet equates to about two and one-half days of winter flow for the Colorado River at Grand Junction. Horsethief Reservoir will be a small reservoir on a big river, which will create some unique problems in the areas of sedimentation and ice flow. The dam

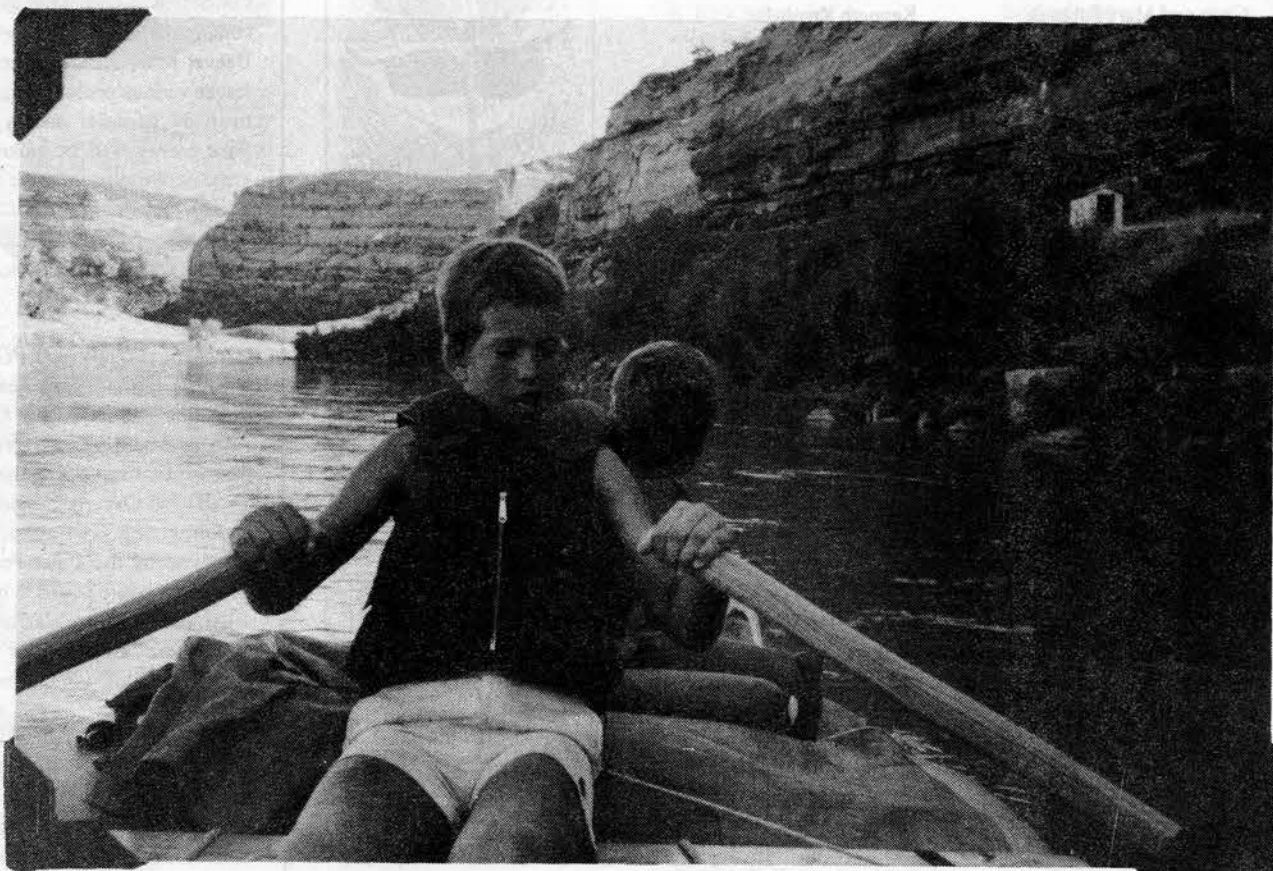


Chris and Mike Trainor ready to set out

will be designed to be overtopped by the "probable maximum flood," estimated to be 162,500 cubic feet per second at Grand Junction. Floods at Grand Junction maxed out at 69,800 cubic feet per second in 1984. This was over 2,000 tons of water passing a point on the riverbank every second.

This stretch of the Colorado River is magnificent. In a short mile, an individual is transported from the noise of Interstate 70 into red and gray sandstone canyons. Cottonwood stands line the river, holding broad cobblestone bars in place. Noisy ducks and geese compete with the more courtly great blue herons. Rattlesnake and Bull canyons terminate in Horsethief Canyon, spilling streams that originate high in the canyons of the Colorado National Monument and traverse some of the most spectacular natural arch country in the West.

The NaTec application continues: "Special efforts



Mike Trainor rows on the Colorado River near Horsethief and Ruby canyons, areas threatened by the Horsethief Canyon Water Power Project.

will be made for plans mitigating impacts on the recreational aspects for non-motorized floatboating in Horsethief Canyon."

I taught my sons to row in Horsethief Canyon. The stream current is ideal for rafts, kayaks, canoes, flat-bottomed fishing boats and an occasional inner tube. The stream braids around islands — creating problems for beginning boaters, forcing decisions on where the best current is. The side canyons spilling into Horsethief create debris fans that catch trees and logs floating from the broad plain of the Grand Valley upstream. My children learned to avoid these "strainers" by using the current wisely and staying alert. Later, breaking free of their father's hand, they floated the canyon on solo trips, graduating from the safety of the rafts to the uncertainty of kayaks. Often I waited for them at the Westwater ranger station, thinking of the river in Horsethief and Ruby canyons, its flows, its islands, its bends, its dangers. I learned at trip's end of eagles, great blue herons, cliff jumping, frogs, fish and fast water. Lessons of responsibility learned in Horsethief found tougher applications in Westwater Canyon and in life beyond home. I have to wonder how these "recreational aspects for non-motorized floatboating" will be "mitigated."

Assurances are made in the application that "evaluations will cover geology, paleontological resources, soils, vegetation, wildlife, air and water quality, and aquatic, wetland and riparian habitats."

I reflect that these aspects of the natural world can never be thoroughly "mitigated" from the effects of 45 feet of flat water. Taylor Draw Dam and Kenney Reservoir were constructed by me on the White River east of Rangely. Over a period of years I became familiar with the reservoir basin. Each spring I watched the geese push their young off the cliffs to the current below and saw the young ones learn their first lessons. I tromped the swampy areas near the river's edge, arguing for the project proponent about "mitigation" with state and federal agents who should have known better. As the waters rose, the reeds and eddies were buried. The sand bars and islands were covered. The muskrats, beavers, skunks, badgers all packed their steamer trunks and headed upriver, refugees from a world changed by men whose sole justification for construction was no more than "we have the money to build it."

The Horsethief Canyon Water Power Project will have to stand a tougher test than the ones we stood at Taylor Draw. I hope that the lessons of big-river sedimentation and ice flow, loss of irreplaceable riparian

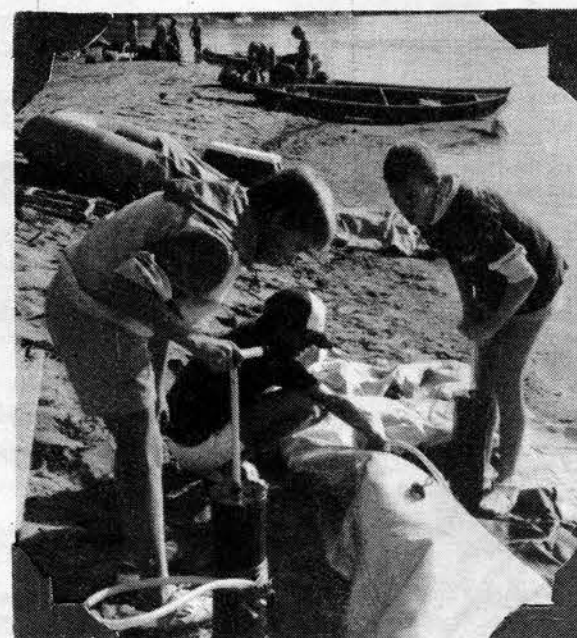
habitat, downstream channel dynamics, and interference of human and fish passage learned at Taylor Draw will not be forgotten at Horsethief. But projects such as Horsethief will be decided on narrow, technical and sterile issues enumerated in habitat units, stream wadeability, biomass and milligrams per liter of salinity. Socrates S. Christopher could likely propose to draw on "banked resources" in the Piceance Basin and destroy those in Horsethief Canyon in exchange. Under Colorado Senate Bill 120, such a notion is a possibility.

The 24-page application concludes with the following doublespeak: "The proposed project ... will facilitate the full conservation of the water resources of the region."

Damming, storing and releasing water for power production at Horsethief Canyon is not conserving water resources. It is using a public resource for a very limited private purpose.

More knowledgeable observers than I indicate that this application is "dead on arrival." It may be, but I have to speak up — I owe it to the refugees from the White River. I've also got daughters coming along who need a place to grow up.

Greg Trainor is utilities manager for the city of Grand Junction, Colorado.



Chris, Mike and Scott Trainor inflate their raft

