NEWS

U.S. DEPARTMENT OF THE INTERIOR

Office of the Secretary
For Immediate Release
December 17, 1999

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Babbitt Calls 1999 "Year of Accomplishment" on Colorado River, Outlines Efforts Necessary For Continued Progress Toward More Efficient Use

Las Vegas, NV - - In an address to the Colorado River Water Users Association today, Interior Secretary Bruce Babbitt said substantial progress was made in 1999 toward resolving several Colorado River water management issues.

Babbitt said the most prominent 1999 accomplishments were the publication of a final rule authorizing interstate agreements for the storage of Colorado River water off stream for future use, and development of an agreement between the Imperial Irrigation District, Coachella Valley Water District and Metropolitan Water District of Southern California that quantifies each entity's Colorado River water entitlement. The rule, which will help implement Arizona's water banking law, also opens the way for Nevada to be able to meet its water needs for the next several decades, and gives California another option to bank water for its future use. The quantification agreement ends decades of uncertainty regarding the relative right of key water contractors in California, and will allow Imperial Irrigation District to transfer conserved water to San Diego to help California reduce its Colorado River water use.

The Secretary also outlined his hoped-for accomplishments in 2000 to assure more efficient use of the river in the future. In particular, Secretary Babbitt emphasized that new surplus guidelines would be developed over the coming year.

"I intend to issue a Record of Decision one year from now, hopefully one that will be embraced by all seven basin states," he said.

Babbitt attributed the accomplishments to collaboration, negotiation and agreement - and the avoidance of litigation. Further, he noted, they were achieved within the existing "law of the river" and the existing governmental structure.

(MORE)

this program is "the sort of showing of community responsibility for environmental protection and recovery" he hoped to see copied throughout the country, and praised the supportive efforts of the states, power customers and water users, Tribal governments and environmental organizations in helping craft the cost-sharing legislation.

* resolution of the **Animas-LaPlata Project** issue. The Secretary hopes that the long-running controversy over the Animas-LaPlata Project can be reached in the coming year through legislation that will authorize a scaled-down, off-stream reservoir for Indian and Municipal and Industrial use.

"That approach has broad support in Colorado and New Mexico, and will fulfill our trust commitments to the Southern Ute and Ute Mountain Ute Tribes," he said.

A supplemental EIS is being prepared, and should be available for public review and comment shortly after the first of the year.

* resolution of several **Arizona issues**. Substantial and "historic" progress occurred this year in shaping the water settlement for the Gila River Indian Community, potentially the largest such settlement ever. Progress also is being made in implementing the 1982 Southern Arizona Water Rights Settlement Act for the Tohono O'odham Nation. However, resolution of the financial dispute between the United States and the Central Arizona Water Conservation District over repayment of the Central Arizona Project remains elusive, although negotiations to try to resolve the dispute continue.

Editor's Note: A copy of the full text is available at: <www.doi.gov/secretary/speeches.html>

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NEWS

U.S. DEPARTMENT OF THE INTERIOR

OFFICE OF THE SECRETARY

Contact: Noel Gerson 202/208-6291

For Immediate Release: October 28, 1999

Department of Interior Publishes Final Water Banking Rule

Secretary of the Interior Bruce Babbitt announced today the publication of a final rule that establishes a new framework to allow the voluntary movement of Colorado River water among the lower basin states of Arizona, California and Nevada.

"This rule represents an historic step toward water management of the Colorado River in the 21st Century," said Secretary Babbitt. "We now have a framework in place to facilitate the movement of water among the three lower basin states. By developing voluntary arrangements under the authority of this new rule, states that are facing significant water needs, such as Nevada, have an important new tool for assuring adequate water supplies for their futures."

In announcing the new rule, the Secretary thanked Senator Harry Reid for his strong, persistent leadership on this important matter. "Senator Reid, working in tandem with his home state's water leaders, has played an instrumental role in encouraging the Department to develop and finalize this important rule. I salute Senator Reid for the determination that he has shown throughout this process to bring market-based principles to the Colorado River, thereby providing a new avenue to satisfy Nevada's water needs."

Secretary Babbitt also commended leaders in the State of Arizona for creating the innovative Arizona Water Bank, through which unused Colorado River water can be stored in underground aquifers for future use. By way of example, the rule would allow an entity in Nevada to pay the cost of storing water in Arizona or California. At some future date, the Nevada entity could request access to the water, via the Colorado River. This innovative arrangement will be facilitated by the water master of the Colorado River, the Secretary of the Interior, so long as an interstate agreement has been entered into with the Secretary, and so long as the other requirements and protections that are outlined in the final rule have been satisfied. The availability of this mechanism provides new flexibility to Arizona, Nevada and California.

(More)

NEWS

U.S. DEPARTMENT OF THE INTERIOR

Office of the Secretary

Contact: Noel Gerson 202/208-6291
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For Immediate Release: October 18, 1999

CALIFORNIA WATER PLAN NEGOTIATIONS COMPLETE

Washington DC - Secretary of the Interior Bruce Babbitt today commended the leadership of California's largest water agencies for publicly releasing the terms of a proposed Colorado River quantification agreement among the water Districts. The three Boards took action today, making good on the promise of an agreement that they had announced in August.

Babbitt said, "I would like to congratulate the leadership of the Imperial Irrigation District, the Coachella Valley Irrigation District and the Metropolitan Water District. All Californians will benefit from your joint commitment to conserve limited Colorado River water supplies."

The agreement resolves long-standing water quantification and use disputes that date back to the 1930's. These disputes have blocked progress in distributing and utilizing Southern California's essential water supply. This agreement should enable California to better utilize and manage its use of Colorado River water.

Negotiations were facilitated by Acting Deputy Secretary of the Interior David J. Hayes -- the second highest ranking official at Interior, and by Tom Hannigan, Director of the State of California's Department of Water Resources. Deputy Secretary Hayes said, "Approval of this agreement sets the stage for historic changes in water distribution patterns in Southern California. Looking 75 years into the future is not easy, but the parties are committed to resolving these important issues. Today they have taken a key step forward in reaching this goal". Hayes also noted, "In the coming weeks the next step in the process is to develop a series of legally binding documents. The parties will need to continue to work hard and remain focused to meet that goal."

The quantification agreement, among other things, opens the way for proposed water transfer from the Imperial Water District to San Diego. The agreement also establishes the basis for petitioning the Secretary of Interior to issue surplus guidelines to assist California through a period of transition of reducing its over-reliance on Colorado River water.

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NEWS

U.S. DEPARTMENT OF THE INTERIOR

Office of the Secretary
For release: August 4, 1999

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California's Colorado River Water Talks Successful

Negotiations among the largest California water agencies that utilize Colorado river water supplies – the Metropolitan Water District of Southern California, the Imperial Irrigation District, and the Coachella Valley Water District – have been successful. After nearly a year of effort, and working against an August 3 deadline, negotiators for the parties reached consensus late last night on all core elements of a framework agreement. The agreement will resolve long-standing water quantification and use disputes that date back to the 1930s, and which have blocked progress in distributing and utilizing an essential California water supply -- the Colorado River.

"Because of this agreement, the goal of bringing California's take of Colorado River water under control is now more clearly in sight," said Secretary of the Interior Bruce Babbitt. "I am delighted that David Hayes, working with Governor Davis and his water chief, Thomas Hannigan, were able to facilitate this important milestone. The historians of California water will now be able to say the 20th century ended with a key achievement, one which can facilitate smarter approaches in the next century."

The negotiations were led by David J. Hayes, Acting Deputy Secretary of the Interior and Thomas M. Hannigan, director of California's Department of Water Resources. The framework agreement will be presented to the water agency boards for approval and implementation within the coming weeks.

"The parties have resolved all major issues and are incorporating their understandings in a framework agreement," Hayes said. "This is the keystone agreement that Southern California needs to help secure its water future."

"The complicated arrangements necessary to accomplish an agreement have their genesis in the 1932 Seven Party Agreement and the 1934 Compromise Agreement," stated Hannigan. "The 1930s-era structure must be modernized if California is to move forward with sound water planning. The framework agreement will make that possible."

(more)

NEWS

U.S. DEPARTMENT OF THE INTERIOR

Office of the Secretary
For release: June 15, 1999

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CALIFORNIA WATER AGENCIES MOVE CLOSER TO RESOLUTION

On June 14, 1999, the Metropolitan Water District of Southern California, the Imperial Irrigation District and the Coachella Valley Water District concluded a three-day meeting with David Hayes, Acting Deputy U.S. Secretary of the Interior, and Tom Hannigan, Director of the California Department of Water Resources, on Colorado River issues. The parties have agreed to extend their negotiating period to August 3, 1999.

This six-week extension will provide time for a number of high level work groups to develop solutions to some critical technical issues. On August 3, 1999, the parties anticipate concurrence on a conceptual, durable agreement--subject to individual board approval--on all major issues regarding a California Plan for the Colorado River.

In conjunction with this process, Hannigan and Hayes have agreed to ask the State Water Resources Control Board to extend to August 13, 1999, the deadline for filing protests regarding the proposed Imperial Irrigations District/San Diego County Water Authority water transfer.

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Beyond the Valley of THE DAMMED

A strange alliance of fish lovers, [illegible] bureaucrats say it's time to [illegible]

BY BRUCE BARCOTT

By God but we built some dams. We backed [illegible] in Maine and the Neuse in North Carolina and a [illegible] creeks that once ran [illegible] Colorado [illegible] the Hoover, high as 35 houses, and because it pleased us we kept [illegible] and diverting the river until it no longer reached the sea. We dammed our way out of the Great Depression with the Columbia's Grand Coulee, a dam so immense you had to borrow another fellow's mind because yours alone wasn't big enough to wrap around it. Then we cleaved the Missouri with a bigger one still, the Fort Peck Dam, a jaw dropper so outsized they put it on the cover of [illegible] of *Life*. We turned the Tennessee, the Columbia, and the Snake from continental arteries into still bathtubs. We dammed the Clearwater, the Boise, the Salmon, the Deschutes, the Skagit, the Willamette, and the McKenzie. We dammed Crystal River and Muddy Creek, the Little River and the Rio Grande. We dammed the Minnewawa and the [illegible] and the Kalamazoo. We dammed the Swift and [illegible]

One day we looked up and saw 75,000 dams impounding more than [illegible] million miles of river. We looked down and saw rivers [illegible] salmon and sturgeon and shad. Cold rivers ran warm, warm rivers ran cold, and fertile muddy banks turned barren.

And that's when we stopped talking about dams as instruments of holy progress and started talking about blowing them out of the water.

Right: Interior Secretary Bruce Babbitt rafting on the Colorado.

Surrounded by a small crowd, Secretary of the Interior Bruce Babbitt stood atop McPherrin Dam, on Butte Creek, not far from Chico, California, in the hundred-degree heat of the Sacramento Valley. The constituencies represented—farmers, wildlife conservationists, state fish and game officials, irrigation managers—had been wrangling over every drop of water in this naturally arid basin for most of a century. On this day, however, amity reigned.

With CNN cameras rolling, Babbitt hoisted a sledgehammer above his head and—"with evident glee," as one reporter later noted—brought this tool of destruction down upon the dam. Golf claps all around.

The secretary's hammer strike in July 1998 marked the beginning of the end for that ugly concrete plug and three other Butte Creek irrigation dams. All were coming out to encourage the return of spring-run chinook salmon, blocked from their natural spawning grounds for more than 75 years. Babbitt then flew to Medford, Oregon, and took a swing at 30-year-old Jackson Street Dam on Bear Creek. Last year alone, Babbitt cracked the concrete at four dams on Wisconsin's Menominee River and two dams on Elwha River in Washington state; at Quaker Neck Dam on North Carolina's Neuse River; and at 160-year-old Edwards Dam on the Kennebec in Maine.

By any reckoning, this was a weird inversion of the natural order. Interior secretaries are supposed to christen dams, not smash them. Sixty years ago, President Franklin D. Roosevelt and his interior secretary, Harold Ickes, toured the West to dedicate four of the largest dams in the history of civilization. Since 1994, Babbitt, who knows his history, has been following in their footsteps, but this secretary is preaching the gospel of dam-going-away. "America overshot the mark in our dam-building frenzy," he told the Ecological Society of America. "The public is now learning that we have paid a steadily accumulating price for these projects. . . . We did not build them for religious purposes and they do not consecrate our values. Dams do, in fact, outlive their function. When they do, some should go."

Many dams continue, of course, to be invaluable pollution-free power plants. Hydroelectric dams provide 10 percent of the nation's electricity (and half of our renewable energy). In the Northwest, dams account for 75 percent of the region's power and bestow the lowest electrical rates in the nation. In the past the public was encouraged to believe

that hydropower was almost free; but as Babbitt has been pointing out, the real costs can be enormous.

What we know now that we didn't know in 1938 is that a river isn't a water pipe. Dam a river and it will drop most of the sediment it carries into a still reservoir, trapping ecologically valuable debris such as branches, wood particles, and gravel. The sediment may be mixed with more and more pollutants—toxic chemicals leaching from abandoned mines, for example, or naturally occurring but dangerous heavy metals. Once the water passes through the dam it continues to scour, but it can't replace what it removes with material from upstream. A dammed river is sometimes called a "hungry" river, one that eats its bed and banks. Riverbeds and banks may turn into cobblestone streets, large stones cemented in by the ultrafine silt that passes through the dams. Biologists call this "armoring."

Naturally cold rivers may run warm after the sun heats water trapped in the reservoir; naturally warm rivers may run cold if their downstream flow is drawn from the bottom of deep reservoirs. Fish adapted to cold water won't survive in warm water, and vice versa.

As the toll on wild rivers became more glaringly evident in recent decades, opposition to dams started to go mainstream. By the 1990s, conservation groups, fishing organizations, and other river lovers began to call for actions that had once been supported only by environmental extremists and radical groups like Earth First!. Driven by changing economics, environmental law, and most of all the specter of vanishing fish, government policy makers began echoing the conservationists. And then Bruce Babbitt, perhaps sensing the inevitable tide of history, began to support decommissioning as well.

So far, only small dams have been removed. Babbitt may chip away at all the little dams he wants, but when it comes to ripping major federal hydropower projects out of Western rivers, that's when the politics get national and nasty. Twenty-two years ago, when President Jimmy Carter suggested pulling the plug on several grand dam projects, Western senators and representatives politically crucified him. Although dam opponents have much stronger scientific and economic arguments on their side in 1999, the coming dam battles are apt to be just as nasty.

Consider the Snake River, where a major confrontation looms over four federal hydropower dams near the Washington-Idaho state line. When I asked Babbitt about the Snake last fall, he almost seemed to be itching for his hammer. "The escalating debate over dams is going to focus in the coming months on the Snake River," he declared. "We're now face to face with this question: Do the people of this country place more value on Snake River salmon or on those four dams? The scientific studies are making it clear that you can't have both."

Brave talk—but only a couple of weeks later, after a bruising budget skirmish with congressional dam proponents who accused him of planning to tear down dams across the Northwest, Babbitt sounded like a man who had just learned a sobering lesson in the treacherous politics of dams. The chastened interior secretary assured the public that "I have never advocated, and do not advocate, the removal of dams on the main stem of the Columbia-Snake river system."

Showdown on the Snake

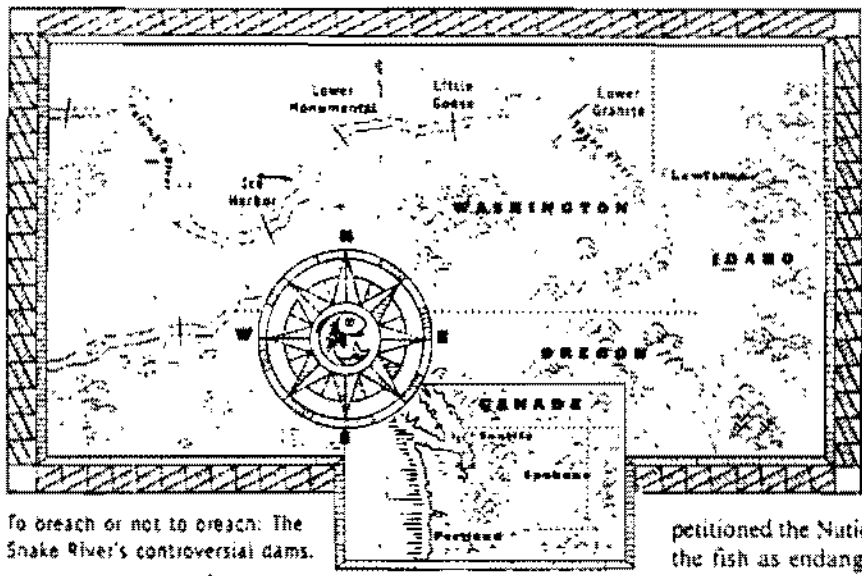
Lewiston, Idaho, sits at the confluence of the Snake and Clearwater Rivers. It's a quiet place of 33,000 solid citizens, laid out like a lot of towns these days: One main road leads into the dying downtown core, the other to a thriving strip of Wal-Marts, gas stations, and fast-food greaseries. When Lewis (hence the name) and Clark floated through here in 1805, they complained about the river rapids—"Several of them verry bad," the spelling-challenged Clark scrawled in his journal. Further downriver, where the Snake meets the Columbia, the explorers were amazed to see the local Indians catching and drying incredible numbers of coho salmon headed upriver to spawn.

The river still flows, though it's been dammed into a lake for nearly 150 miles. Between 1962 and 1975, four federal hydroelectric projects were built on the river by the Army Corps of Engineers: Ice Harbor Dam, Lower Monumental Dam, Little Goose Dam, and Lower Granite Dam. The dams added to the regional power supply, but more crucially, they turned the Snake from a whitewater roller-coaster into a navigable waterway. The surrounding wheat farmers could now ship their grain on barges to Portland, Oregon, at half the cost of overland transport, and other industries also grew to depend on this cheap highway to the sea.

Like all dams, however, they were hell on the river and its fish—the chinook, coho, sockeye, and steelhead. True, some salmon species still run up the river to spawn, but by the early 1990s the fish count had dwindled from 5 million to less than 20,000. The Snake River coho have completely disappeared, and the sockeye are nearing extinction.

In and around Lewiston, the two conflicting interests—livelihoods that depend on the dams on the one side, the fate of the fish on the other—mean that just about everyone is either a friend of the dams or a breacher. The Snake is the dam-breaching movement's first major test case, but it is also the place where dam defenders plan to make their stand. Most important, depending in part on the results of a study due later this year, the lower Snake could become the place where the government orders the first decommissioning of several big dams.

In the forefront of those who hope this happens is Charlie Ray, an oxymoron of a good ol' boy environmentalist



To breach or not to breach: The Snake River's controversial dams.

its current state "as transportation."

Ever since the dams started going up along the Snake River, biologists and engineers have been trying to revive the rapidly declining salmon runs. Their schemes include fish ladders, hatcheries, and a bizarre program in which young smolts are captured and shipped downriver to the sea in barges. By the late 1980s, it was clear that nothing was working: the fish runs continued to plummet. In 1990, the Shoshone-Bannock Indians, who traditionally fished the Snake's sockeye run, successfully petitioned the National Marine Fisheries Service to list the fish as endangered. Every salmon species in the Snake River is now officially threatened or endangered, which means the agencies that control the river must deal with all kinds of costly regulations.

In 1995, under pressure from the federal courts, the National Marine Fisheries Service and the Army Corps of Engineers (which continues to operate the dams) agreed to launch a four-year study of the four lower Snake River dams. In tandem with the Fisheries Service, the Corps made a bombshell announcement. The study would consider three options: maintain the status quo, turbocharge the fish-barging operation, or initiate a "permanent natural river drawdown"—breaching. The study's final report is due in December, but whatever its conclusions, that initial statement marked a dramatic shift. Suddenly, an action that had always seemed unthinkable was an officially sanctioned possibility.

Two separate scientific studies concluded that breaching presented the best hope for saving the river. In 1997 the *Idaho Statesman*, the state's largest newspaper, published a three-part series arguing that breaching the four dams would net local taxpayers and the region's economy $183 million a year. The dams, the paper concluded, "are holding Idaho's economy hostage."

"That series was seismic," says Reed Burkholder, a Boise-based breaching advocate. Charlie Ray agrees. "We've won the scientific argument," he says. "And we've won the economic argument. We're spending more to drive the fish to extinction than it would cost to revive them."

In fact, the economic argument is far from won. The *Statesman*'s numbers are not unimpeachable. The key to their prediction, a projected $248 million annual boost in recreation and fishing, assumes that the salmon runs will return to pre-1960s levels. Fisheries experts say that could take up to 24 years, if it happens at all. The $34 million lost at the Port of Lewiston each year, however, would be certain and immediate.

The Northwest can do without the power of the four lower Snake River dams: They account for only about 4

whose booming Tennessee-bred baritone and sandy hair lend him the aspect of Nashville Network host. Ray makes his living as head of salmon and steelhead programs for Idaho Rivers United, a conservationist group that has been raising a fuss about free-flowing rivers since 1991. At heart he's not a tree hugger, but a steelhead junkie: "You hook a steelhead, man, you got 10,000 years of survival instinct on the end of that line."

Despite Ray's bluff good cheer, it's not easy being a breacher in Lewiston. Wheat farming still drives a big part of the local economy, and the pro-dam forces predict that breaching would lead to financial ruin. Lining up behind the dam defenders are Lewiston's twin pillars of industry: the Potlatch Corporation and the Port of Lewiston. Potlatch, one of the country's largest paper producers, operates its flagship pulp and paper mill in Lewiston, employing 2,300 people. Potlatch executives will tell you the company wants the dams mainly to protect the town's economy, but local environmentalists say the mill would find it more difficult to discharge warm effluent into a free-flowing, shallow river.

Potlatch provides Charlie Ray with a worthy foil in company spokesman Frank Carroll, who was hired after spending 17 years working the media for the U.S. Forest Service. Frankie and Charlie have been known to scrap. At an anti-breaching rally in Lewiston last September, Carroll stood off-camera watching Ray being interviewed by a local TV reporter. Fed up with hearing Ray's spin, Carroll started shouting "Bullshit, Charlie, that's bullshit!" while the video rolled. Ray's nothing more than a "paid operative," Carroll says. Ray's reaction: "Yeah, like Frankie's not."

"A lot of people are trying to trivialize the social and economic issues," Carroll says, "trying to tell us the lives people have here don't count, that we'll open up a big bait shop and put everyone to work hooking worms. We resent that. Right now, there's a blanket of prosperity that lies across this whole region, and that prosperity is due to the river in

percent of the region's electricity supply. The dams aren't built for flood control, and contrary to a widely held belief they provide only a small amount of irrigation water to the region's farmers. What the issue comes down to, then, is the Port of Lewiston. You take the dams out, says port manager Dave Doeringsfeld, "and transportation costs go up 200 to 300 percent."

To breach or to blow?

The pro-dam lobbyists know they possess a powerful, not-so-secret weapon: Senator Slade Gorton, the Washington Republican who holds the commanding post of chairman of the Subcommittee on Interior Appropriations. Gorton has built his political base by advertising himself as the foe of liberal Seattle environmentalists, and with his hands on Interior's purse strings, he can back up the role with real clout. As determined as Bruce Babbitt is to bring down a big dam, Slade Gorton may be more determined to stop him.

During last October's federal budget negotiations, Gorton offered to allocate $22 million for removing two modest dams in the Elwha River on the Olympic Peninsula, a salmon-restoration project dear to the hearts of dam-breaching advocates. But Gorton agreed to fund the Elwha breaching if—and only if—the budget included language forbidding federal officials from unilaterally ordering the dismantling of any dam, including those in the Columbia River Basin. Babbitt and others balked at Gorton's proposal. As a result, the 1999 budget includes zero dollars for removal of the Elwha dams.

Gorton's Elwha maneuver may have been hardball politics for its own sake, but it was also a clear warning: If the Army Corps and the National Marine Fisheries Service recommend breaching on the Snake in their study later this year, there will be hell to pay.

Meanwhile, here's a hypothetical question: If you're going to breach, how do you actually do it? How do you take those behemoths out? It depends on the dam, of course, but the answer on the Snake is shockingly simple.

"You leave the dam there," Charlie Ray says. We're standing downstream from Lower Granite Dam, 35 million pounds of steel encased in concrete. Lower Granite isn't a classic ghastly curtain like Hoover Dam; it resembles nothing so much as an enormous half-sunk harmonica. Ray points to a berm of granite boulders butting up against the concrete structure's northern end. "Take out the earthen portion and let the river flow around the dam. This is not high-tech stuff. This is front-end loaders and dump trucks."

It turns out that Charlie is only a few adjectives short of the truth. All you do need are loaders and dump trucks—really, really big ones, says Steve Tatro of the Army Corps of Engineers. Tatro has the touchy job of devising the best way to breach his agency's own dams. First, he says, you'd draw down the reservoir, using the spillways and the lower turbine passages as drains. Then you'd bypass the concrete and steel entirely and excavate the dam's earthen portion. Depending on the dam, that could mean excavating as much as 8 million cubic yards of material.

Tatro's just-the-facts manner can't disguise the reality that there is something deeply cathartic about the act he's describing. Most environmental restoration happens at the speed of nature. Which is to say, damnably slow. Breaching a dam—or better yet, blowing a dam—offers a rare moment of immediate gratification.

The Glen Canyon story

From the Mesopotamian canals to Hoover Dam, it took the human mind about 10,000 years to figure out how to stop a river. It has taken only 60 years to accomplish the all-too-obvious environmental destruction.

Until the 1930s, most dam projects were matters of trial and (often) error, but beginning with Hoover Dam in 1931, dam builders began erecting titanic riverstoppers that approached an absolute degree of reliability and safety. In *Cadillac Desert*, a 1986 book on Western water issues, author Marc Reisner notes that from 1928 to 1956, "the most fateful transformation that has ever been visited on any landscape, anywhere, was wrought." Thanks to the U.S. Bureau of Reclamation, the Tennessee Valley Authority,

The Lower Granite Dam in eastern Washington: great for wheat farmers, hard on fish.

and the Army Corps, dams lit a million houses, turned deserts into wheat fields, and later powered the factories that built the planes and ships that beat Hitler and the Japanese. Dams became monuments to democracy and enlightenment during times of bad luck and hunger and war.

Thirty years later, author Edward Abbey became the first dissenting voice to be widely heard. In *Desert Solitaire* and *The Monkey Wrench Gang*, Abbey envisioned a counterforce of wilderness freaks wiring bombs to the Colorado River's Glen Canyon Dam, which he saw as the ultimate symbol of humanity's destruction of the American West. Kaboom! Wildness returns to the Colorado.

Among environmentalists, the Glen Canyon Dam has become an almost mythic symbol of riparian destruction. All the symptoms of dam kill are there. The natural heavy metals that the Colorado River used to disperse into the Gulf of California now collect behind the dam in Lake Powell. And the lake is filling up: Sediment has reduced the volume of the lake from its original 27 million acre-feet to 23 million. One million acre-feet of water are lost to evaporation every year—enough, environmentalists note, to revive the dying upper reaches of the Gulf of California. The natural river ran warm and muddy, and flushed its channel with floods; the dammed version runs cool, clear, and even. Trout thrive in the Colorado. This is like giraffes thriving on tundra.

Another reason for the dam's symbolic power can be traced to its history. Four decades ago, David Brower, then executive director of the Sierra Club, agreed to a compromise that haunts him to this day: Conservationists would not oppose Glen Canyon and 11 other projects if plans for the proposed Echo Park and Split Mountain dams, in Utah and Colorado, were abandoned. In 1963, the place Wallace Stegner once called "the most serenely beautiful of all the canyons of the Colorado" began disappearing beneath Lake Powell. Brower led the successful fight to block other dams in the Grand Canyon area, but he remained bitter about the compromise. "Glen Canyon died in 1963," he later wrote, "and I was partly responsible for its needless death."

In 1981 Earth First! inaugurated its prankster career by unfurling an enormous black plastic "crack" down the face of Glen Canyon Dam. In 1996 the Sierra Club rekindled the issue by calling for the draining of Lake Powell. With the support of Earth Island Institute (which Brower now chairs) and other environmental groups, the proposal got a hearing before a subcommittee of the House Committee on Resources in September 1997. Congress has taken no further action, but a growing number of responsible voices now echo the monkey-wrenchers' arguments. Even longtime Bureau of Reclamation supporter Barry Goldwater admitted, before his death last year, that he considered Glen Canyon Dam a mistake.

Defenders of the dam ask what we would really gain from a breach. The dam-based ecosystem has attracted peregrine falcons, bald eagles, carp, and catfish. Lake Powell brings in $400 million a year from tourists enjoying houseboats, powerboats, and personal watercraft—a local economy that couldn't be replaced by the thinner wallets of rafters and hikers.

"It would be completely foolhardy and ridiculous to

deactivate that dam," says Floyd Dominy during a phone conversation from his home in Boyce, Virginia. Dominy, now 89 years old and retired since 1969, was the legendary Bureau of Reclamation commissioner who oversaw construction of the dam in the early 1960s. "You want to lose all that pollution-free energy? You want to destroy a world-renowned tourist attraction—Lake Powell—that draws more than 3 million people a year?"

It goes against the American grain: the notion that knocking something down and returning it to nature might be progress just as surely as replacing wildness with asphalt and steel. But 30 years of environmental law, punctuated by the crash of the salmon industry, has shifted power from the dam builders to the conservationists.

The most fateful change may be a little-noticed 1986 revision in a federal law. Since the 1930s, the Federal Energy Regulatory Commission has issued 30- to 50-year operating licenses to the nation's 2,600 or so privately owned hydroelectric dams. According to the revised law, however, FERC must consider not only power generation, but also fish and wildlife, energy conservation, and recreational uses before issuing license renewals. In November 1997, for the first time in its history, FERC refused a license against the will of a dam owner, ordering the Edwards Manufacturing Company to rip the 160-year-old Edwards Dam out of Maine's Kennebec River. More than 220 FERC hydropower licenses will expire over the next 10 years.

If there is one moment that captures the turning momentum in the dam wars, it might be the dinner Richard Ingebretsen shared with the builder of Glen Canyon Dam, Floyd Dominy himself. During the last go-go dam years, from 1959 to 1969, this dam-building bureaucrat was more powerful than any Western senator or governor. Ingebretsen is a Salt Lake City physician, a Mormon Republican, and a self-described radical environmentalist. Four years ago, he founded the Glen Canyon Institute to lobby for the restoration of Glen Canyon. Ingebretsen first met Dominy when the former commissioner came to Salt Lake City in 1995 to debate David Brower over the issue of breaching Glen Canyon Dam. To his surprise, Ingebretsen found that he liked the man. "I really respect him for his views," he says.

Their dinner took place in Washington, D.C., in early 1997. At one point Dominy asked Ingebretsen how serious the movement to drain Lake Powell really was. Very serious, Ingebretsen replied. "Of course I'm opposed to putting the dam in mothballs," Dominy said. "But I heard what Brower wants to do." (Brower had suggested that Glen Canyon could be breached by coring out some old water bypass tunnels that had been filled in years ago.) "Look," Dominy continued, "those tunnels are jammed with 300 feet of reinforced concrete. You'll never drill that out."

With that, Dominy pulled out a napkin and started sketching a breach. "You want to drain Lake Powell?" he asked. "What you need to do is drill new bypass tunnels. Go through the soft sandstone around and beneath the dam and line the tunnels with waterproof plates. It would be an expensive, difficult engineering feat. Nothing like this has ever been done before, but I've done a lot of thinking about it, and it will work. You can drain it."

The astonished Ingebretsen asked Dominy to sign and date the napkin. "Nobody will believe this," he said. Dominy signed.

Of course, it will take more than a souvenir napkin to return the nation's great rivers to their full wildness and health. Too much of our economic infrastructure depends on those 75,000 dams for anyone to believe that large numbers of river blockers, no matter how obsolete, will succumb to the blow of Bruce Babbitt's hammer anytime soon. For one thing, Babbitt himself is hardly in a position to be the savior of the rivers. Swept up in the troubles of a lame-duck administration and his own nagging legal problems (last spring Attorney General Janet Reno appointed an independent counsel to look into his role in an alleged Indian casino–campaign finance imbroglio), this interior secretary is not likely to fulfill his dream of bringing down a really big dam. But a like-minded successor just might. It will take a president committed and powerful enough to sway both Congress and the public, but it could come to pass.

Maybe Glen Canyon Dam and the four Snake River dams won't come out in my lifetime, but others will. And as more rivers return to life, we'll take a new census of emancipated streams: We freed the Neuse, the Kennebec, the Allier, the Rogue, the Elwha, and even the Tuolumne. We freed the White Salmon and the Souradabscook, the Ocklawaha and the Genesee. They will be untidy and unpredictable, they will flood and recede, they will do what they were meant to do: run wild to the sea.

Bruce Barcott is the author of The Measure of a Mountain: Beauty and Terror on Mount Rainier *(Sasquatch, 1997). Reprinted by permission from* Outside *(Feb. 1999). Subscriptions: $18/yr. (12 issues) from Box 54729, Boulder, CO 80328-4729.*

Los Angeles Times

Babbitt Predicts Truce in Water Feud

By TONY PERRY
TIMES STAFF WRITER

Interior Secretary Bruce Babbitt, in a speech Tuesday to a meeting of Western water officials in Colorado, expressed optimism that the angry dispute that has prevented large-scale water sales between Imperial Valley and San Diego may soon be resolved.

"We are now within closing distance of this, the largest water transfer in Western history," Babbitt told a gathering at the University of Colorado at Boulder. "And when it is accomplished, it should put to rest the skeptics' claim that water transfers are unworkable."

Last December, Babbitt said he wanted the deal consummated by mid-June. But within weeks, that deadline seemed virtually unattainable when the Metropolitan Water District of Southern California balked at the use of its Colorado Aqueduct.

David Hayes, acting deputy Interior secretary, and Tom Hannigan, state water director, have tried to cobble together an agreement between the MWD, the San Diego County Water Authority and two desert water agencies that get the lion's share of California's allocation from the Colorado River: the Imperial Irrigation District and the Coachella Valley Water District.

In hopes of meeting Babbitt's deadline, closed-door negotiations are planned for Friday, Saturday and Monday at MWD headquarters in Los Angeles.

Officials of the desert agencies say that one suggestion being floated by Hayes would provide additional water for the MWD in exchange for use of its aqueduct to bring part of Imperial Valley's share of the Colorado River to thirsty San Diego.

"There are still substantial issues yet to be resolved," said Tom Levy, general manager of the Coachella district, when asked to comment on Babbitt's optimism.

Babbitt's speech also signaled his intent to use the final months of the Clinton administration to continue redirecting water toward environmental uses rather than increased residential growth and agricultural irrigation. "The big task of the coming century will be to restore rivers, wetlands and fisheries," he said.

Still, possibly as an inducement to the MWD to accept the San Diego-Imperial transfer, Babbitt suggested that changes may be possible in the operation of Lake Mead, the huge reservoir behind Hoover Dam. The MWD has long advocated changes such as increased ground water storage.

Babbitt reminded his audience of one of the oddities of the water business: More than 1 million acre-feet of water a year evaporates from Lake Mead. Other states that depend on the Colorado River have resisted changes in Lake Mead for fear that Southern California will siphon the lake dry.

While Babbitt praised the MWD for its successful efforts to reduce water consumption in its six-county region, he had words of criticism for other cities for not curbing water use.

"Many communities, including Reno, Sacramento and Fresno, still do not use water meters, thereby perpetuating the notion that water is so plentiful as to be virtually a free commodity," Babbitt said.

In 1992, Fresno voters banned residential water meters. In Sacramento, residential water meters are not permitted under the City Charter.

"It's been a near religious issue for many years," said Jim Sequeira, director of utilities in Sacramento. "No politicians want to get near it."

NEWS SUMMARY

U.S. Department of the Interior Office of Communications

PICK-UP IN ROOM 1063 WEDNESDAY, JUNE 9, 1999

Babbitt takes a greener turn

Wants balance between reclamation, wildlife

By Shaun McKinnon
The Arizona Republic
June 9, 1999

The Arizona Republic

Bruce Babbitt

No more rivers should be sucked dry, Interior Secretary Bruce Babbitt told a gathering of Western water officials Tuesday.

Sounding more like an environmentalist than the steward of the nation's vast network of dams and waterways, Babbitt proposed setting minimum water levels necessary to keep natural river systems healthy.

At the same time, Babbitt described a three-pronged plan to enable the West's rapidly increasing human populations to continue growing.

Babbitt said water supply problems are related to allocation and distribution, and he told water officials that those problems can be solved with better conservation, with better development of water markets and with underground water storage -- all of which are being pioneered in Arizona.

"It is time to acknowledge that the natural values of river systems can no longer be treated as table scraps, left over after every conceivable consumptive appetite has been fully satisfied," he said during a speech at the Natural Resource Law Center in Boulder, Colo.

A river is a living resource, entitled to at least parity with consumptive uses," the former Arizona governor said.

Babbitt's new proposal to guarantee river flows, were it to become policy, would mark a dramatic shift in the way the federal government manages rivers in the West, where water rights are prized more than gold.

For decades, Western water law has been based on the bedrock doctrine that the only beneficial use of water is consumptive use, and any water left in a stream is wasted.

It's a philosophy that environmentalists say has severely damaged river systems. In Arizona, a century of such practice has eliminated flowing water from many of the state's rivers, including major stretches of the Salt, the Gila and the Santa Cruz.

Babbitt conceded that past policies have not encouraged conservation of water for the sake of wildlife and river ecosystems.

In what Babbitt's aides characterized as the most important water speech of his tenure, the secretary said the federal government must be willing to change its course, as a river sometimes does.

"The big task of the coming century will be to restore rivers, wetlands and fisheries," he said.

Reactions to Babbitt's remarks were mixed.

Mary Orton, Southwest director for the American Rivers conservation group, said Babbitt did not sound like a typical Interior secretary when he talked about finding a balance in the management of rivers.

"If he's talking about an assessment, river by river, of what's best for that river's restoration, balanced with needs of people, that's very exciting," she said.

"I think balance is the key. We're certainly not anti-development and not anti-dam. But if we ignore the state of our rivers, development will be a moot point because we won't have water to develop," Orton added.

Dave Hogan, desert rivers coordinator for the Tucson-based Southwest Center for Biological Diversity, was far less impressed, saying Babbitt's words belie his policies.

It's certainly good news Babbitt is speaking in favor of these concepts. But the reality is Interior is not implementing them," Hogan said. "Under Babbitt's Interior, conservation gets the lowest or no priority in river management."

Babbitt speaks the language of environmentalists, Hogan said, but does nothing to back up his words. Tuesday's speech "sounds like greenwash to me," he added.

Environmental groups long have pleaded with federal and state water managers to set aside water to help preserve and restore river systems. Low flows in the Colorado River, for example, have destroyed entire ecosystems because so little water from the Colorado actually reaches the Gulf of California.

In Arizona, conservationists are fighting with the U.S. Army and fast-growing Sierra Vista to slow the withdrawal of groundwater near the San Pedro River, which runs low enough now to endanger its natural system.

In his speech, Babbitt said water managers must learn to see how systems like the San Pedro are related.

"In the coming century, water policy must be made in the context of the entire watershed," he said. "Water is a natural resource with no fixed address, and any water use inevitably affect many other uses, both upstream and downstream."

Water supply should not be the issue that prevents water conservation, Babbitt insisted, in spite of the rhetoric coming from states along the Colorado River.

"The water supplies that have been developed over the past century of reclamation are truly impressive, and they should be sufficient for the next century," he said. "Our challenge is not to build more dams, but to operate them in a more river-friendly way."

And much more can be done, Babbitt said.

In Phoenix, Los Angeles and other Western cities, he said, as much as 40 percent of the water supply is slurped up for watering lawns and landscaping.

"Conservation should begin by recognizing that Western cities were not meant to resemble Brazilian rain forests or suburbs of Minneapolis," Babbitt said. "If a city wants more growth, it already has the water at hand by moving toward sustainable, desert-friendly landscaping."

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NEWS SUMMARY

U.S. Department of the Interior — Office of Communications

PICK-UP IN ROOM 1063 — THURSDAY, MARCH 18, 1999

Babbitt Delivers Water Warning
California agencies have 30 days to put end to squabbling

Thursday, March 18, 1999

San Francisco Chronicle

CHRONICLE SECTIONS

Robert B. Gunnison, Chronicle Sacramento Bureau

U.S. Secretary of Interior Bruce Babbitt gave a stern warning to battling California water agencies yesterday: End your squabbling or face a cut in water supplies from the Colorado River.

"It is past time for California to get suited up, out of the locker room and into the game," Babbitt told a legislative hearing in Sacramento. "I can't wait any longer."

Babbitt's remarks were directed at stalled talks between the Metropolitan Water District, which serves nearly half the state's population, and two other Southern California districts involved in a complex water transfer deal.

Failure to resolve the dispute could affect Northern California, because it is the only likely alternative source of water for the more populous southern section of the state.

"I know where the MWD is going to start looking, and I don't want them looking in my back yard," said Assemblyman Mike Machado, D- Stockton, who represents much of the Sacramento-San Joaquin River Delta.

By law, California is allowed to take 4.4 million acre-feet of water each year from the Colorado River. But for many years, it has been taking about 5.2 million acre-feet.

Babbitt has urged the state repeatedly to find a way to eliminate the extra 800,000 acre-feet of water it takes from the Colorado River, which is shared by six states and Mexico. One of those states is Arizona, Babbitt's home.

The Metropolitan Water District, the Imperial Irrigation District and the San Diego County Water Agency made a deal in which the Imperial district would transfer 200,000 acre-feet of water to San Diego. But the Metropolitan Water District now opposes parts of the deal.

"Unless we can get together on the terms of this contract, the whole thing will collapse," Babbitt said. "You'll be sitting on the bench."

Babbitt, who exercises broad powers over Western water issues, said he would take steps within 30 days that could lead to new regulations allocating Colorado River water.

The rules "will be less favorable to California unless a transfer plan is approved," he said.

After Babbitt left the hearing to catch a plane, the raw emotions generated by the water battle were exposed as representatives of the squabbling agencies testified.

Timothy Quinn, acting general manager of the Metropolitan Water District, said his agency objects to the agreement because the Imperial district "is out of step with this new water-use efficiency ethic."

He said the district, which serves 500,000 acres of irrigated desert farmland in the Imperial Valley, had increased water use by 400,000 acre-feet a year.

"This dramatic increase has taken place despite Metropolitan's $160 million investment to help IID conserve more than 100,000 acre-feet per year," Quinn said. "In an era of increasingly scarce supplies, no technical explanation can justify such an increase."

Jesse Silva, the Imperial district's general manager, said the increased water use went to irrigate crops that are grown year-round.

State Senator Steve Peace, D- Chula Vista, one of the Legislature's most combative members, attacked Quinn repeatedly and at one point even turned on the committee chairman, state Senator Jim Costa, D-Fresno.

When Quinn made the remark about a "water-use efficiency ethic," Peace said it was "the first time I've ever heard the words Met and ethics in the same sentence."

"Let me tell the truth," Quinn said a moment later.

"That would be refreshing," said Peace.

NEWS SUMMARY

U.S. Department of the Interior — Office of Communications

PICK-UP IN ROOM 1063 — FRIDAY, JANUARY 22, 1999

Babbitt Deals Setback to Water District

■ **Resource:** Interior secretary discounts MWD's request to scrap 1931 allocation formula from the Colorado River, which gives farmers the largest share.

Los Angeles Times

By TONY PERRY
TIMES STAFF WRITER

Hoping to avert a water fight pitting cities against farmers, Interior Secretary Bruce Babbitt has rejected a request from the Metropolitan Water District of Southern California that he change the 1931 agreement that gives farmers the biggest share of the Colorado River.

Babbitt, who came to Southern California this week after the conflict broke out, said Thursday that he disagrees with the MWD's contention that he can change the allocation formula under which farmers in sparsely populated desert regions receive three-quarters of the state's annual share of the Colorado River.

"I don't buy that," Babbitt said, "because these agreements and contracts (known collectively as the Law of the River) talk about *permanent* water service."

Babbitt spoke to a small group of MWD directors in a closed-door meeting Thursday in Los Angeles after meeting Wednesday with the Imperial Irrigation District board and the Coachella Valley Water District board.

In the Imperial Valley, where water rights are considered an unquestioned legacy handed down from the early pioneers, Babbitt's comments were cause for rejoicing.

But at the MWD, officials were left to ponder their next move and whether to continue pressing their concerns about alleged inequities in the 1931 agreement as part of the negotiations set for next month in Washington.

The talks concern a sticking point in the historic agreement reached last year that calls for the Imperial Valley to sell water to San Diego, a deal considered key to the state's water future.

After the Babbitt meeting, the MWD issued a tersely worded statement that its board "is standing firm behind its policy statement" of last week, which said that Babbitt has not been showing enough attention to the water needs of coastal Southern California.

"Metropolitan has conveyed to the secretary our goal to raise questions concerning the waste of Colorado River water [by farmers] and the fair allocation of Colorado River water in California," said an MWD spokesman, adding that more discussions are planned with Babbitt.

The MWD's challenge to the fairness and legality of the 1931 allocation formula has brought angry denunciations from the Imperial Irrigation District, the state Farm Bureau and other agricultural interests.

Associated Press

Interior Secretary Bruce Babbitt

Passions are particularly high in the Imperial Valley, where farmers were diverting the Colorado River for three decades before the federal government tamed the river with Hoover Dam and began distributing its water to seven Western states.

"We're sitting here with the strongest, oldest water rights in the Southwest because our forefathers had the foresight to obtain those rights," said Lauren Grizzle, executive director of the Imperial Valley Farm Bureau. "We're not surprised Metropolitan would like to steal our water, but we will never let it happen."

MWD asserts that the 1931 agreement is outmoded because the state's urban and suburban population has mushroomed and the percentage formula is at odds with the philosophy behind the agreement: to provide water for the "highest and most beneficial use."

Under the 1931 allocation, four agricultural districts with 200,000 residents and 600,000 acres of farmland have traditionally received 75% of the state's water allocation from the Colorado River. The MWD, which serves 16 million people in six counties, gets about 25%.

In all three of his meetings, Babbitt urged that negotiations continue toward completing the Imperial Valley-San Diego deal. Rather than attempt to reduce water allocations to farmers, Babbitt prefers that agricultural agencies be encouraged to sell some to cities.

Still, even as he assured the Imperial Valley that he does not plan to tinker with its allocation of Colorado River water, Babbitt warned that if the 1931 agreement is challenged in court, there are no assurances it would be upheld, particularly in the face of political pressure.

"There are some risks out there," he said. "What appears to be solid at one time may not be, particularly when public pressure mounts, particularly when there's a perception . . . of being unfair in the eyes of an audience of 40 million to 45 million people."

San Francisco Chronicle

Demolish Outdated Dams That Endanger Fish

SWINGING a sledge hammer, Interior Secretary Bruce Babbitt whacked a hole in a 50-year-old dam on Butte Creek in the baking heat of the Sacramento Valley. In Maine, demolition workers clambered across the pre-Civil War Edwards Dam while a backhoe dug away at a shoulder of the cement structure.

Coast to coast, a once-radical notion is taking hold. Dams that helped tame the American landscape to provide power, irrigation, flood control and recreation are coming down.

The demolitions are still rare exceptions in a country dotted with 75,000 dams. But the "decommissioning" represents a major turnabout in official thinking about refashioning nature. Plentiful water and cheap power can come with a hidden price tag: a decline in wildlife, steep government subsidies and legal challenges.

Driving the change in attitude are scientists and environmentalists who claim the cement walls have hurt historic runs of migrating salmon, which are all but blocked from reaching spawning streams. Under such prodding, government authorities such as Babbitt have pushed to remove dams.

"The focus of the environmental movement in the 20th century has been fencing off and preserving the back 20," Babbitt said last year. "But the real action now is on landscapes and watersheds. It is about restoration writ large."

It's a dramatic shift. While environmentalists cheer the demolitions, farmers and power companies are often opposed. Take away a dam and croplands, power grids and summertime marinas and campgrounds can feel the difference.

It's a step to be used sparingly. "The whole economy of San Francisco is based on the Hetch Hetchy system," said Mary-Ann Summerdam, director of natural resources for the California Farm Bureau. Though some environmentalists have argued for tearing out a key dam to restore a breathtaking river valley, such an idea would have huge consequences for water supplies, power and irrigation.

In California, relatively few dams have come down. One example is Battle Creek, a tributary of the Sacramento River near Redding. Pacific Gas & Electric has agreed to tear down five of seven small dams to enable salmon and steelhead to reach spawning areas.

Utility Vice President Leslie H. Everett emphasized that the decision was "unique" and reached only after a raft of federal and state agencies agreed the fish-rearing conditions on the stream were worth the $50 million cost of dam removal.

The biggest fight nationally concerns a string of four dams on the Snake River, which flows into the Columbia River in Washington state. A consortium of fishing groups, Native-American tribes and environmentalists are pushing the federal operators to acknowledge that decimated fish runs can only be restored by demolition of the dams built in the 1960s.

These structures typify the general debate. Turbines crank out enough power to light Seattle. Grain from eastern Washington is barged downriver at low cost through locks in the dams. The economic life of the region is linked to dams.

But the barriers are fish-killers. Salmon struggle to find fish ladders designed to lead migrations around the dams. Water temperatures rise in the stopped-up lakes, killing young smolts. Turbine blades chew up fish headed to sea. Removing the dams would give several imperiled runs of fish a clear path to stream beds and lakes where eggs are laid.

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Money is found on both sides of the arguments. Fishing groups claim restored runs will lead to more jobs in their ranks. In addition, the dams amount to a giant subsidy to a relative few – farmers, power companies and barge operators.

But, dam supporters counter that there will be higher prices elsewhere. It will cost more to ship grain by rail or truck, irrigation water may go up in price and electric rates could rise too. A consumer walking into this debate can be confused by the dueling numbers.

The change that dam-busting brings has provoked a political deadlock with senators and congressional leaders in Oregon, Washington and California largely opposed to demolition because of the unforeseeable change it will mean.

Though the Clinton administration would dearly love a compromise and to avoid a hard choice, it may not have that luxury. A court-ordered study is under way and expected to answer by year's end whether other methods short of dam destruction can save the salmon runs. Hatcheries, expanded fish ladders and even a system of trucks to carry fish around the killing turbines have fallen short.

If society has the ability to avert the extinction of endangered fish, it should make every effort to avoid that catastrophe, even if it means knocking down dams.

Some of these dams have outlived their usefulness. Demolition, in these cases, can be the first step towards saving the rivers that once flowed freely.

JUL 16 '96

Oregon dam is knocked down — Washington could see action next

By JOEL CONNELLY
PI NATIONAL CORRESPONDENT

MEDFORD, Ore. — U.S. Interior Secretary Bruce Babbitt yesterday swung a sledgehammer to begin demolishing an outdated Oregon irrigation dam, while signaling he is ready to deal with critics on the tricky issue of removing dams from Washington rivers.

Babbitt praised what he called "steady and inexorable" progress toward removing two aging dams from the Elwha River, and restoring 70 miles of spawning habitat that was once home to the largest salmon runs of the Olympic Peninsula.

But in a clear peace signal toward Senate Republicans, Babbitt said in an interview that he would take no action toward modifying or taking down federal dams on the Columbia River system without the assent of Congress.

The federal government is studying the future of four Army Corps of Engineers dams on the Snake River in Eastern Washington. Since the dams were built in the late 1960s and early 1970s, salmon runs on the river have plummeted to the verge of extinction.

"I, of course, do not speak for the administration — I am just the secretary of the Interior," Babbitt said with a smile. "It is, however, my view that under existing law Congress' approval would be needed for any significant alterations or removal of dams from the Columbia and Snake rivers ... I acknowledge it would take action by Congress."

Babbitt has been engaged in an intricate, yearlong negotiation with Sen. Slade Gorton, R-Wash., chairman of the Senate Interior appropriations subcommittee and holder of his department's purse strings.

A critic of Elwha dam removal, Gorton has moved toward putting up money for the federal government to buy both dams and tear down the lower dam. As a price, however, he has insisted that no action be taken toward removing dams on the Snake River. Gorton has demanded that the prohibition be written into law.

Babbitt has embarked on an examination of the nation's 75,000 large dams to identify those that are obsolete, expensive, unsafe and environmentally destructive.

On Tuesday, he joined local water districts near Chico, Calif., to begin removing McPherrin Dam on a key tributary of the Sacramento River. The breaching of the dam will open about 25 miles of Butte Creek to fish. The creek is one of only four Sacramento River tributaries with remaining populations of spring chinook salmon.

Yesterday, the Interior secretary was swinging the sledgehammer again. He put a notch in the Bear Creek Dam in downtown Medford. The dam is being replaced as part of a program of civic beautification and environmental improvement.

> "Our home sits one foot from a 100-year flood plain. If these regulations are approved, I will need a federal license to put gravel on my road."
>
> — **Richard Gierah of Yreka, Calif.**

The ceremony, under a hot sun, drew hundreds of people and reflected water fights going on around the West.

"Let the river flow!" chanted a large contingent of environmentalist demonstrators who cheered as Babbitt knocked away the first few chunks of the dam.

Other signs, however, proclaimed "Protect Our Property Rights," and the property rights contingent chanted "Don't Let Babbitt Have It" as he attacked the dam.

They were protesting a critical habitat plan for endangered coho salmon in southwest Oregon and California's north coast that would protect 300-foot-wide zones along river banks.

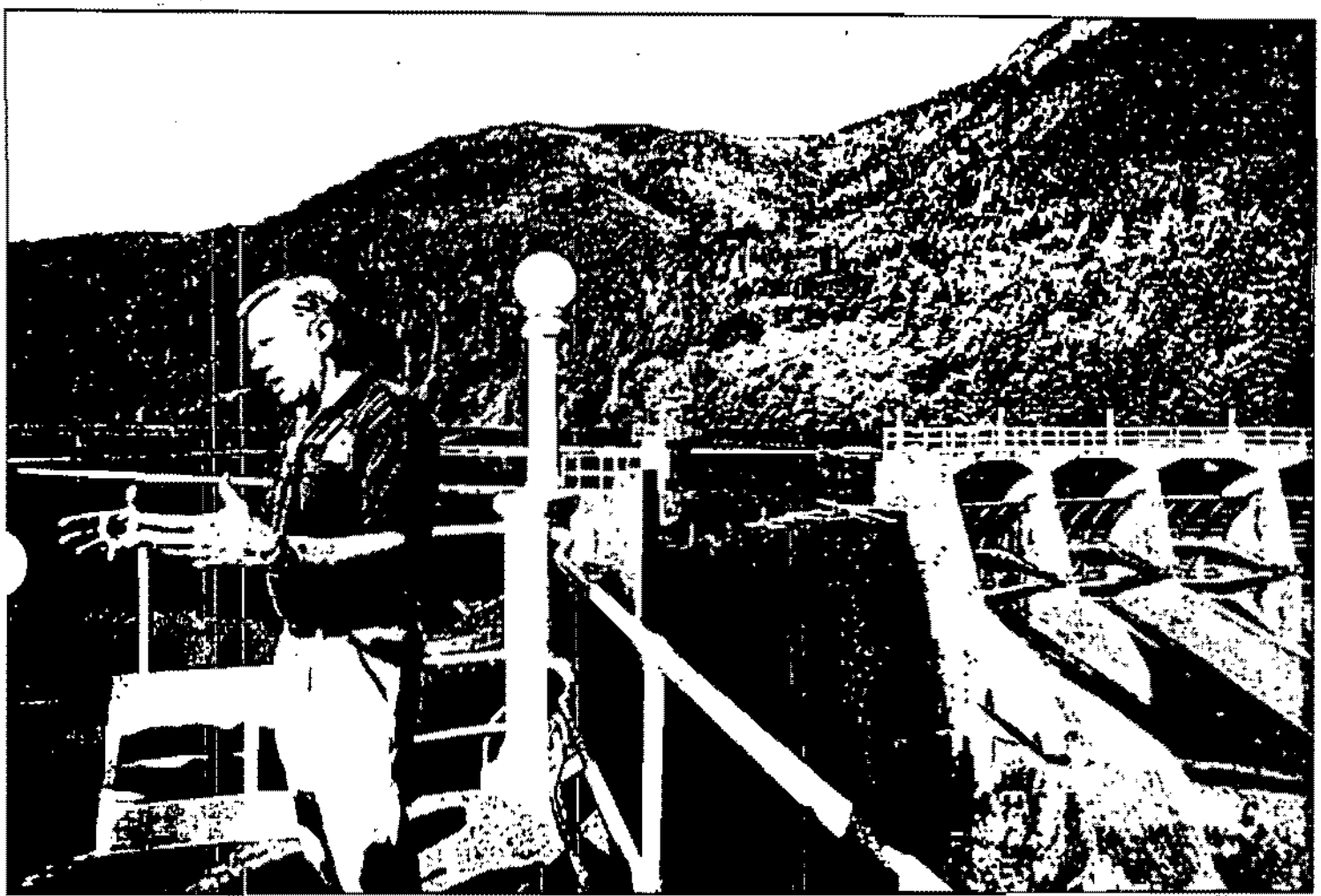
"Our home sits one foot from a 100-year flood plain. If these regulations are approved, I will need a federal license to put gravel on my road," said Richard Gierah of Yreka, Calif., one of the property rights advocates.

Babbitt, though, was preaching peace. He cited the restoration of Bear Creek, in which irrigators, Medford civic leaders and local fisheries groups all approved a restoration plan.

"What you are doing sends a big, big message to Oregon, the West and the United States," he said. "We don't have to continue the confrontational traditions we grew up with."

During a 1993 tour of the Olympic Peninsula, Babbitt mused about pushing the plunger that would blow up one of the dams. Since then, he has continued to focus on the Elwha River, where department studies predict that runs of 250,000 salmon a year can be restored if the dams are removed.

"We have been moving, slower than I would have wanted, toward a consensus goal of getting those dam off that river," he said. "We have to keep the process moving and it will happen."



THE ASSOCIATED PRESS / 1997

During a visit last summer, Bruce Babbitt speaks to Olympic National Park employees and Lower Elwha S'Klallam tribal members about the proposed removal of the Glines Canyon Dam on the Elwha River.

NEWS
U.S. DEPARTMENT OF THE INTERIOR

BABBITT SUPPORTS FEDERAL ENERGY REGULATORY COMMISSION EFFORTS TO BROADEN DEBATE OVER RELICENSING 250 HYDRODAMS DURING DECADE AHEAD

Noting three recent landmark settlements of FERC dam relicensings, Interior Secretary calls for more and earlier cooperation between federal agencies; strongly opposes Congressional attempts to cut back river habitat protection

Office of the Secretary
For release: July 8, 1998
Contact: James Workman
(202) 208-6416

Text:

Dams Are Instruments, Not Monuments:
We evaluate them by the health of the watersheds to which they belong
Remarks of Interior Secretary Bruce Babbitt
FERC Distinguished Speakers Series, Washington, DC, July 8, 1998
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Last November 25 the Federal Energy Regulatory Commission made history. After careful deliberation, and consideration of hundreds of documents from dozens of interested parties, FERC decided that the 917-foot long, 19-foot high Edwards Dam must be removed from the Kennebec River. It was denied a license to operate, against the wishes of the owner. Instead, the dam must to make way for the stocks of shad, sturgeon, sea bass and salmon it had locked out of fertile spawning grounds for 161 years.

That decision attracted attention beyond Augusta and New England. With roughly 75,000 large dams, and 2 million small dams blocking America's waterways, everyone wondered: Is this just the beginning?

In one respect, it may be. Over the next decade, the operating licenses for 250 hydro dams, built in the 1930s and '40s, will expire. In the West alone, that's approximately two-thirds of nonfederal hydropower capacity. As operators approach FERC to renew their long term licenses, they find that Americans don't look at dams simply as engineering marvels as we did in the heyday of the New Deal.

A nationwide debate is underway, asking: What should we consider when relicensing dams? What should be measured, along with kilowatt hours?

Modern conservation science reveals more about the environmental costs of dams, how they exact a toll from rivers both upstream and down. Fifty years ago, no one foresaw how drastically dams might alter the natural cycle of rivers from the headwaters to the estuaries. Now we do. Few then ever saw dams as disrupting the spawning runs of anadromous fish up from the Pacific and Atlantic Oceans. Now we all

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do. No laws back then required protection of aquatic habitat for rare or declining species. Now they do.

Moreover, now we increasingly see the issue not merely in terms of a single dam, but an entire river. We see that river as part of a whole watershed. And the fate of a watershed involves all the people who live in it, and from it, and who share responsibility in deciding the future of their river.

Yet even as we come to this greater understanding, there are proposals in Congress to "simplify" the hydro dam relicensing process. Some want to narrow the participation, weaken voices outside the hydropower industry, and downgrade the status of the U.S. Fish and Wildlife Service, the National Marine Fisheries Service and other conservation agencies who work with FERC toward balanced solutions.

That "simplification" would be a mistake. It would exacerbate conflict and make compromise and consensus virtually impossible.

Is the FERC relicensing process -- as critics claim -- rather slow? Complex? Sometimes frustrating? Yes. But it is also democratic, and producing good results. Like democracy, it is often messy, cumbersome, and far better than any other process around.

Most important, a progressive new approach to relicensing is emerging which holds great promise. Strongly supported by this Administration, it invites federal agencies, states, businesses, sporting groups and conservationists to come together and participate in a negotiated river restoration plan as part of the relicensing process.

I have seen this new process work out on the landscape. I have seen, first hand, how this process unites those who in the past would usually have met face to face only in adjudication. I have seen it pull states closer together. Stakeholder negotiations, however difficult and contentious, can often yield consensus. Edwards Dam in Augusta exemplifies this.

Virtually every interest in Maine and New England, from conservation groups to Governor Angus King, had come to support removal. The potential for fisheries restoration was so great, the electricity generated so minimal, that the consensus for removal was almost inevitable. After your landmark decision was announced, the dam operator first promised a long, drawn out fight. But your FERC decision was so persuasive that major parties in the watershed -- including other dam operators upstream, a Maine shipbuilder and environmentalists -- eventually agreed to jointly fund the costs of removal.

The age, location, high environmental costs and low generation at Edwards set it at one end of the hydrodam spectrum. Most cases you face are more complex, especially as we move west towards larger, more modern projects. But here, too, FERC has seized opportunities for constructive change.

Six months before Edwards became national news, and several hundred miles due west of Augusta, FERC endorsed stakeholder consensus that overhauled operations of not one but eleven dams, three of which would be removed for fish passage. A looming FERC relicensing was the catalyst as the Wisconsin Electric Power Company, state and federal officials, and conservation groups all came together to restore a more natural flow in three watersheds, replenish 160 river miles, and protect more than 22,000 acres of pristine lands in the Menominee River Basin of Wisconsin and Michigan.

That landmark settlement represents perhaps the first time in America that a utility, public officials and environmentalists have negotiated a cooperative agreement *prior to* the start of the relicensing process. It was a watershed agreement in all meanings of the term. For stakeholders, and ultimately FERC, began looking at the entire Menominee basin, took into account all current and future needs of the stakeholders who live in it, and even included dams that were not yet up for relicensing.

The settlement will allow Wiseonsin Electric, serving many thousands of customers, to continue profitable, low-cost energy production. And by restoring the watershed for brook trout, lake sturgeon, smallmouth bass and walleye, as well as for hunting and rafting throughout the area, the agreement will boost and broaden the diverse, renewable recreation-driven economy.

Moving farther west to Nebraska, Kingsley Dam impounds the Platte River. The original licenses, issued in 1937, authorized retention of up to 1.8 million acre feet to supply electricity and water for half a million acres of productive farmland. Yet decades of experience made clear that Kingsley's operations, along with other upstream water developments, were threatening wildlife in the "mile wide, inch deep" river below. Whooping cranes, sandhill cranes, in total some 9 million waterfowl gather along the river each spring to breed and fatten up for the long migration north. The fate of nine endangered species, from piping plover to the pallid sturgeon, hung in the balance.

For 20 years, people pointed fingers. Nothing changed. Tensions grew. It took the formal FERC relicensing process to bring Interior, Nebraska, Colorado, Wyoming, the EPA, environmental organizations and over 50 other parties together to hammer out a solution which would restore river habitat for wildlife. Once again, on a scale unprecedented in conservation history, the FERC process was the catalyst to end the stalemate.

What is emerging in each of these cases is an entirely new style of regulation. Your process is moving beyond the narrow confines of a quasi-judicial process, encouraging all stakeholders to work out their differences and to find inventive new ways to share and maximize the water resource for all. A key ingredient in these successes is FERC's willingness to consider, where the facts warrant it, denial of relicensing, and decommissioning of dams.

Can the process be improved? Absolutely. We are, together, on a steep learning curve. Speaking for Interior's agencies with a significant statutory role in this process, we can work faster, closer, and earlier to get our positions focused and up front. We can all be more efficient with practice and time. And in fact our agencies have begun a promising dialogue with FERC staff to achieve these goals.

But we must be clear: The process is complex for good reasons. It involves new thinking and new scientific insights. The licenses that FERC issues last many decades, affecting our grandchildren. Economic concerns remain front and center, but not to the exclusion of larger values and broader constituencies.

Let us remember that dams are not, in the end, monuments to mankind. They are simply instruments that serve the needs of the people who build them. Those needs change, often quite rapidly, over the course of a generation. Our challenge is to find the measured balance appropriate to the values of this age, which evaluates dams by the health of the watersheds to which they belong.

That's a tough challenge. Yet as long as the process remains inclusive, as long as the decision is based on science and diverse perspectives, I am confident we can, working together, transform what had been a narrow licensing event into a broad consideration of how we live with our landscape, our rivers, our heritage. Thank you.

NEWS

U.S. DEPARTMENT OF THE INTERIOR

OFFICE OF THE SECRETARY

FOR IMMEDIATE RELEASE
May 26, 1998

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INTERIOR SECRETARY SIGNS LANDMARK CONSERVATION AGREEMENT TO REMOVE EDWARDS DAM

AT EDWARDS, BABBITT PUTS DAM OWNERS ON NOTICE

Secretary of the Interior Bruce Babbitt today signed papers with state and private officials and a coalition of conservation organizations clearing the way for the removal of the 917-foot Edwards Dam, spanning the Kennebec River in the city of Augusta, Maine.

When it comes out within a year, the dam - which has blocked 17 miles of prime fish-spawning habitat for 160 years - will be the first hydrodam removed in the United States. It also marks the first time that the Federal Energy Regulatory Commission (which licenses about 2,000 other dams) refused to relicense a dam.

"Today, with the power of our pens, we are dismantling several myths: that hydrodams provide clean pollution-free energy; that hydropower is the main source of our electricity; that dams should last as long as the pyramids; and that making them friendlier for fisheries is expensive and time consuming," Secretary Babbitt said.

"There are 75,000 large dams in this country, most built a long, long time ago," he said. "Many are useful but some are obsolete, expensive and unsafe. They were built with no consideration of the environmental costs. We must now examine those costs and act accordingly."

"This is not a call to remove all, most, or even many dams," he continued. "But this is a challenge to dam owners and operators to defend themselves - to demonstrate by hard facts, not by sentiment or myth, that the continued operation of a dam is in the public interest, economically and environmentally. Often the outcome will mean more environmentally friendly operating regimes, perhaps achieved through the installation of fish passages or other technological fixes. In some cases, like the one we are here to highlight today, it will mean actual removal."

(more)

NEWS SUMMARY

U.S. Department of the Interior — Office of Communications

PICK-UP IN ROOM 1063 — MONDAY, MAY 11, 1998

Reno Gazette-Journal
5-18-98

Cutthroat trout lead restoration of ecosystem

BRUCE
BABBITT

Thank you, Reno.

Thank you, Pyramid Lake.

Thank you for the gift of a day in the desert and the treasure of a 24-inch Lahontan cutthroat trout.

The fishing was spectacular. But in the three weeks since my visit, I have come to realize Handed something more than trophy trout in western Nevada. I reeled in a bit of the New West. What I saw, in the Technicolor swirl of that Lahontan cutthroat, was a deepening iridescence, the strengthening pulse of a Great Basin ecosystem on the mend.

A century ago, in trying to make the Nevada desert bloom, we made a mistake. We took too much for ourselves, left too little for nature. Today, thanks to the Pyramid Lake Paiutes, the Truckee River Operating Agreement, the Nevada Department of Wildlife, the U.S. Fish and Wildlife Service and volunteer groups like Trout Unlimited, we are painting Pyramid Lake and the Truckee River watershed a little brighter. I am proud to be a part of it.

How fitting that your state fish — the Lahontan cutthroat trout — should lead they way.

Like Nevada, the Lahontan is a survivor — able to live in places that would turn other trout belly up. Nevada has a flashy side. So does the Lahontan. It seems to say to the brown desert: "Look here! See my silver sequins, my pink pinstripes! Try to top that!" Nevada is a big state. The Lahontan is a

With hatchery programs, we have planted a seed — restored a great fish to a magnificent lake. Now is the time to nourish the aquatic landscape a bit more and bring back self-sustaining runs of Lahontan cutthroat trout to the Truckee River.

It is not so wild a dream. We are the richest, most technologically sophisticated nation on Earth. Surely, we can find a way to allow migrating Lahontan cutthroat trout safe passage around an aging concrete plug called Derby Dam. Surely, we can restore their aquatic highway — the Truckee River — to their ancestral spawning grounds near Lake Tahoe. The choice is not economy vs. the environment.

Increasingly, we're finding the economy *is* the environment. That was the message of the Lake Tahoe Presidential Forum last summer. It is the message for Reno and Pyramid Lake today. Already, Lahontan cutthroat bring more than $10 million a year to western Nevada. Imagine what a spawning run of wild Lahontans, through Wadsworth, Sparks, Reno and up to Lake Tahoe, would bring. You don't need to imagine. Look what wild salmon do for Alaska.

There would be an environmental trickle-down effect, too. As cash registers ring with angling dollars in Reno, cottonwoods near Wadsworth grow a little taller. As restaurants in Sparks seat more trout fishermen, the spawning run of cui-ui fish past Nixon grows stronger. All are linked by the magic of water.

As our nation grows, it grows more hungry for the outdoors. Nevada — you have a great and colorful mining history. Your Truckee River, your Pyramid Lake are ore bodies, too — only better. Take care of them and they will never be exhausted. They will pay dividends — economic and environmental — for generations to come.

Bruce Babbitt is U.S. Secretary of the Interior, Washington, D.C.

Water wars ebb away in the west

Washington's interior secretary has helped to turn the tide, writes Christopher Parkes

The water wars of the US west, which for most of this century have pitted town dwellers against farmers, cities against cities, and made rich men of successive generations of lawyers, are drawing to a close.

Under pressure from Washington, the keystones of an enduring and equitable peace are being crafted by California, long the biggest and greediest consumer, and its neighbours in the Lower Colorado Basin, Arizona and Nevada.

Imaginative plans for storage, sharing, a regional free market in water – and the repair of some of the worst environmental damage – have replaced the old profligacy, obduracy and neglect.

Milestones from the past few weeks alone include an agreement for parched San Diego to buy water from farmers in the Imperial Valley, the release of initial funding for a $2bn project to restore the bay and delta wetlands near San Francisco, and federal permission for interstate trade in Colorado River water.

December's acknowledgment by Los Angeles, after decades of denial, that it is responsible for and will pay to repair the environmental decay which started in 1913 when it appropriated the Owens River – 200 miles distant – exemplifies the conciliatory mood.

Although the details are not yet settled, the fact that LA after decades of litigation has admitted guilt and pledged to return water to the dried-up Owens Lake, which has become a health-threatening dust bowl, was hailed in the Los Angeles Times as an end to "feudal" arrogance.

Economic expansion, the cause of the conflicts in the first place, has now become the main argument for peace in the region, which is confronted by population growth 50 per cent and more above national levels.

Arizona has started storing water underground in aquifers, for use or sale, and California has heeded warnings that the state will be chronically short of water within 20 years without new policies, and is following suit.

A sense of common cause – nurtured by the belated recognition that water supplies are finite – is displacing petty jealousies.

Much of the momentum behind these shifts has come from Washington's liberal use of stick-and-carrot policies to enforce the federal authorities' determination to engineer the transfer of water from farm to urban use, and save the environment from further depredations.

Californian agriculture, a $20bn-a-year industry, uses 80 per cent of the water consumed in the state annually. As the founders of the economy, farmers have long enjoyed huge entitlements at heavily subsidised prices. A San Diego household, for example, pays 100 times the agricultural rate for its supplies.

The offer of federal funds for work on the San Francisco bay and delta – where dozens of species had disappeared and others such as the chinook salmon, steelhead trout and delta smelt are still threatened – was conditional on a water-sharing agreement between agriculture and urban users.

The reclamation work is one result of the Central Valley Project Improvement Act of 1992, which legalised the sale of water from the project's resources – in effect allowing cities to buy farm water for the first time – and set in train the process gathering pace today in the south of the state.

Recent advances in the south followed a warning a year ago from Bruce Babbitt, federal interior secretary, that he would impose limits if California did not abandon its long-term practice of drawing 20 per cent more than its allocation from the Colorado River.

Many expected further attacks on the state when he visited the region late last month, but by then his disapproval had moderated.

He was encouraged by progress, he said, as he unveiled a scheme for interstate water sales within the Lower Colorado River region. "If we work this well," he said, there would be water enough for all.

And he knows where much of it is to be found. Suspending his broad-based attack on Californian policies, he focused his fire on the farmers of Imperial Valley, the largest irrigation district in the world, which yearly consumes almost three-quarters of California's annual allocation from the Colorado River.

Together with two smaller irrigation areas nearby, the valley is entitled under rules introduced when the state was sparsely populated to 3.85m of the 4.4m acre-feet the entire state is allowed to take each year. An acre-foot is enough to supply two average families for a year.

Claiming for himself the title "Master of the River," Mr Babbitt said the time had come "for me to take a more active role".

Waving his familiar stick, he said that unless the area limited its use, he would block its plan to sell water to San Diego for 75 years, and deprive it of annual revenues of up to $50m.

Although he avoided any explicit accusations, his threat was founded on suspicions that rather than conserving the volumes earmarked for sale, the valley – notoriously profligate with water even though it has no rain at all in some years – would simply draw more water from the Colorado.

Waving the customary carrot, he said it was time for the federal government to help save the heavily polluted Salton Sea.

Situated on the valley's edge, the largest lake in California is slowly dying, taking its water-sport resort towns and local tourism services with it.

With 30 per cent unemployment, the local authorities have no economic assets to waste. Now they have every incentive to toe the line and fix their leaky water management practices.

Bruce Babbitt on a raft trip down the Colorado River

'Vest's water rules eased

Babbitt issues stern water usage warning to California

Colorado River transfers win federal clearance, but California gets a warning.

By TODD S. PURDUM
THE NEW YORK TIMES

LAS VEGAS — Opening the way for a new market in vital water for growing Western states, Interior [illegible]tary Bruce Babbitt on Thurs- [illegible]nounced a federal rule that for [illegible]st time would allow interstate sales of water from the Colorado River, even as he warned once more that California must work harder to reduce its dependence on the river.

In a speech to the annual meeting of the Colorado River Water Users Association here and in remarks to reporters afterward, Babbitt said the new rule, to be issued later this month and to take effect next year after a period for public comment, was an important step in enabling Western states to sort out their water needs in an orderly way, without resorting to bitter litigation.

"If we work this well, there's enough water," Babbitt said.

The short-term effect of the rule, which would apply only to the lower Colorado basin states — California, Arizona and Nevada — would be to allow Arizona, which has stored excess Colorado River water underground in aquifers, to sell it to fast-growing Nevada, which has new demands for it.

But in the longer term, the measure could be extended in the 21st century to allow states in the upper basin, like water-rich Utah, to sell [illegible] to more populous neighbors profit.

[illegible]en. Harry Reid, D-Nev., who also addressed the meeting Thurs-

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RESOURCES

Continued from Page A1

day, said that he strongly supported Babbitt's proposal and that "we in Nevada recognize that our long-term supply solutions" will depend on such measures, which, he added, "will cost us money."

Under the Colorado River Compact of 1922, which set rules for water use among California and the other six states the river serves, the lower basin states together are entitled to 7.5 million acre-feet a year, and the upper basin states — Colorado, Wyoming, Utah and New Mexico — also are allotted 7.5 million. An acre-foot is the amount needed to cover an acre of land a foot deep in water, about 326,000 gallons.

For most of the century, transfer of water between the states was not an issue, because they never exceeded their allocations. But in recent years the lower basin states have exceeded their limit, driven by California, which currently is running about 800,000 acre-feet above its 4.4-million-acre-foot allotment.

Depending on rainfall and reservoir conditions, the interior secretary determines whether annual surpluses are available to the states, and California has been living on such surpluses from year to year over the last decade or so.

That has long angered California's lower basin neighbors, Arizona and Nevada, which fear that whatever their own legal rights, it will prove politically difficult to wean California from using more than its share.

Earlier efforts by individual states to stockpile excess water for future use or sale foundered in disagreements over attempts to store such water at federal expense in reservoirs like Lake Mead. But Arizona's success in storing water underground paved the way for the proposal announced Thursday.

In a related effort, Babbitt has been pressuring California for well over a year to come up with a plan to live within its allocation. Thursday he said he would not establish detailed criteria for declaring surpluses in advance until California took further concrete steps to make do with what it is allotted, especially by curtailing waste of water in agricultural areas like the Imperial Valley and reallocating it to urban users.

As part of its plan, issued in draft form in October, California supports a proposed transfer agreement in which the San Diego County Water Authority would buy some 200,000 acre-feet a year from the Imperial Irrigation District. The agreement thus would meet the needs of a growing city without putting greater overall demands on the Colorado, which supplies 70 percent of Southern California's water.

After months of negotiations on this agreement, the parties announced the terms of an accord last week. But it has been held up over a dispute with the Los Angeles-based Metropolitan Water District, which controls the aqueduct through which the water would have to pass and wants to charge San Diego more than San Diego wants to pay.

The Legislature has threatened to impose a solution if there is no final agreement, but Thursday both MWD general manager John R. Wodraska and San Diego County Water Authority chairwoman Chris Frahm said they still hoped the issue could be resolved through negotiation. Both generally praised Babbitt's remarks, although Frahm warned that his "bottom-line message is that California will continue to be living on a year-to-year basis until we get this agreement done."

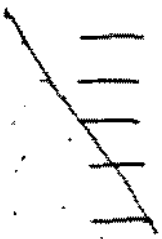
San Diego, which for years has been dependent on Los Angeles for water, has struggled in recent years to find an independent source, like the Imperial Valley deal or the interstate purchases that would be permitted by Babbitt's proposal.

"We see San Diego's future as being very much dependent on full utilization of Colorado River supplies," Frahm said, "and we believe that anything that helps markets develop is good."

While Babbitt said he strongly supported agricultural-to-urban transfers like the one San Diego is pursuing, he is determined to ensure that places like the Imperial Valley are not profiting by selling off water that would otherwise simply be wasted.

Accordingly, the Federal Bureau of Reclamation is studying whether the 3 million acre-feet of Colorado River water used by the Imperial Valley each year is being put to the "beneficial use" required by law — a subject that has been a point of sharp dispute between the government and the district in the past.

Babbitt said much work remained to be done, but added, "I think we're making progress."



NEWS
U.S. DEPARTMENT OF THE INTERIOR

Office of the Secretary
Contact: John Wright
202/208-6416

For Immediate Release: August 21, 1997

Interior Department Purchases CAP Water To Protect San Carlos Reservoir; San Carlos Tribe, Phelps-Dodge Also Contribute Funds

CAP water delivery to Gila River Indian Community and San Carlos Irrigation and Drainage District expected to begin Thursday afternoon, August 21

The Department of the Interior's Bureau of Reclamation today signed a contract with the Central Arizona Water Conservation District to purchase approximately 8,200 acre-feet of Central Arizona Project water to help maintain water in San Carlos Reservoir to protect the sport fishery and meet environmental needs.

The CAP water is being purchased with $300,000 in Bureau of Reclamation funds that were made available by Secretary of the Interior Bruce Babbitt last week. Babbitt released the maximum amount available under the Department's Drought Emergency Assistance funds after the Arizona Congressional delegation asked the Department help to rescue the shrinking lake by providing an alternate irrigation water supply for the Gila River Indian Community and San Carlos Irrigation and Drainage District, both of whom have the rights to use of water from San Carlos Reservoir.

In addition to the federal funds, the San Carlos Tribe and the Phelps-Dodge Corporation have each committed to provide $78,000 dollars to purchase additional water from the Central Arizona Project. The additional funding will add about 4,000 to 4,500 acre-feet of water to the 8,200 purchased by the Interior Department, for a total purchase of about 12,500 acre-feet. Although the amount of water needed to protect the fishery resources is not precisely known, fishery biologists have indicated that a larger pool would provide greater certainty that all of the fishery resource would be protected.

"Even though federal budgets are tight, we have released these funds to protect San Carlos Reservoir because of its importance to the San Carlos Tribe, its significance as a sport fishery, and its cultural and wildlife values," said Babbitt. "The San Carlos Tribe and Phelps-Dodge Corporation have also stepped forward to help, and we are hopeful the State of Arizona will do so as well."

As part of the purchase agreement, the SCIDD and the Gila River Indian Community have agreed to leave in the lake the same amount of water that is purchased from the CAP. That water is to remain in the lake until the lake fills and the water is released, or until it is deemed to have been lost through evaporation and seepage.

"Hopefully, this action will avert any immediate impacts to the lake fishery," said Babbitt. "It is very important that others will step forward with additional financial commitments so that this important resource for the State of Arizona can be protected."

- DOI -

NEWS

U.S. DEPARTMENT OF THE INTERIOR

OFFICE OF THE SECRETARY

For Immediate Release
July 30, 1997

Contact: Jamie Workman (202) 208-6416

BABBITT BACKS DECISION TO REMOVE MAINE HYDRODAM

Landmark plan restores salmon, shad, shortnose sturgeon to 17 miles of Kennebec River

Secretary of the Interior Bruce Babbitt endorsed the Federal Energy Regulatory Commission's (FERC) unprecedented recommendation to completely remove the 160-year-old Edwards Dam in Augusta, Maine in order to help restore spawning habitat of nine migratory fish in the Kennebec River.

In 1837 Nathanial Hawthorne, one of America's best known and earliest novelists (The Scarlet Letter) chronicled in American Journal the pristine conditions of the Kennebec River when he visited Augusta just as the dam was first being built. More than a century and a half later, those pristine conditions and abundant fisheries could quickly return.

"Today we are opening a new chapter in conservation history," said Babbitt. "The Commission made a difficult but brave decision: that a river is more than the sum of its kilowatt hours, that its potential energy goes far beyond any electricity it may generate. The Kennebec can once again stand as a model for the nation. Its true power will become self-evident in the many species of teeming anadromous fish that will soon swim and spawn there again, in the anglers who will inevitably seek them, and in the local sustainable sportfishing economy which will steadily grow up around those anglers and recreationists."

The Department of the Interior, the Department of Commerce, and the State of Maine were joined by several conservation groups including the Kennebec Coalition in support of dam removal.

FERC oversees the operations of hydroelectric dams in America. In 1986 Congress directed FERC to give as much consideration to environmental protection as it does to the availability and need for power. But this recommendation marks the first time in its history that FERC has denied relicensing of an operating hydroelectric dam.

In reaching its recommendation, FERC conducted an independent analysis of three options -- keeping the dam, keeping it but spending $10 million to build fish passage, and removal -- and chose the later as the "best" and least expensive approach as part of a comprehensive plan for improving and developing the Kennebec River Basin.

"WHEREVER LAND DIVIDES US, WATER UNITES US"

Remarks of Secretary of the Interior Bruce Babbitt

National Association of Counties

Baltimore, MD July 14, 1997

I appreciate the opportunity to talk with you this morning, and I want in particular to acknowledge your incoming president, Randy Johnson. In Wisconsin, he is sometimes called "the Republican Al Gore." If so, the comparison stretches beyond their mutual interest -- all right, their obsession -- to use technology on behalf of the environment. For I know Randy, I worked with him on the Federal Geographic Data Committee back in April, and I know what he, and you, and I all face, is a much larger challenge: how to share information and use technologies to improve the lives of our people.

I would like to begin my remarks with a basic issue: how to use and develop our land. Because every decision you make -- whether the issue is growth, housing, transportation, economic development, parks and recreation, placement of schools and churches -- is directly and inextricably linked to land use. Land use is at the very heart of your responsibilities as local elected officials. You understand the unique character of your landscape and your community: only you know exactly what is at stake, and for that reason, land use decisions are, and should be, made by you.

Yet as our communities continue to spread across the landscape, your counties increasingly confront complex questions that spill across lines on a zoning map and even beyondcounty boundaries.

For example, elected officials from Broward, Dade and Palm Beach County must analyze how, in the next few decades, two million thirsty new residents will impact the fragile waters of Everglades National Park, Biscayne Bay and the Florida Keys.

Wisconsin's rural Florence and Marinette Counties and Michigan's Iron, Dickenson and Menominee Counties all share a river, the Menominee, that for decades has been used to generate cheap hydropower. More recently, and in potential conflict with these dams, anglers, boaters and new residents are agitating to restore the natural river flows.

In the arid west, around Boise, Idaho, supervisors from six surrounding counties must now cope with new development in dangerously flammable wildlands and forests nearby, and take steps to reduce the threat of wildfire disasters.

In California, onrushing development in San Diego and Orange Counties has pushed the region's native songbird to the edge of extinction, prompting a joint state-county effort to preserve natural habitat and open space.

So now each of us here must ask, How do we develop in a way that ensures the long term health of our forests, soils, wildlife, rivers and groundwater on which our lives, our jobs and our spirits depend? It is an age old question. A century and a half ago, Thoreau warned "Our villagelife would stagnate if it were not for the unexplored forests and meadows which surround it."

Traditional land use decisions have not always dealt effectively with the balance between development and protection of our natural resources. Why not? Because development tends to be a reductive process: it subtracts land from the natural landscape, and then divides it into mutually exclusive uses -- roads, utility

corridors, industrial parks, commercial office space, parking lots. Not by coincidence do we call a residential housing are a "subdivision."

In contrast, the natural landscape -- with its complex living webs between forests, watersheds and wildlife -- is an integrated whole, each piece dependent upon the others. Perhaps the best examples of how everything is related, of how nature is more than the sum of its parts, is the rivers or streams flowing through your counties. As our population increases and subdivisions and shopping malls sprawl across the landscape, we cannot continue to use the land and its forests and rivers carelessly, as if the landscape were merely an assemblage of unrelated pieces, each to be used, removed, or substituted without regard to the others.

You are all well aware of this inevitable tension between development and preservation, for you deal with these issues every week and month of the year. Our task, as public officials, is not to advocate one to the exclusion of the other, but rather to seek a better balance, and to do so by looking at the entire landscape, even as you are called upon to make development decisions about specific parcels of land.

I would like this morning to highlight a new way of looking at the relationship between development and the natural landscape in your communities. It begins by looking, not just at the land but also at the water that flows through and across the land. Some call this process watershed analysis, and in many communities and watersheds there are new grassroots groups, called Watershed Councils, forming to use this approach.

And all across the country, these watershed councils are discovering how water connects us all. The waters reveal everything, right or wrong, that we do within the entire watershed. You give a downtown waterfront a facelift, only to see it diminished by careless activities upstream. For years, you could see the Lincoln Memorial or Washington Monument reflected in the Potomac River, but you couldn't get near the water itself. Your local constituents lose the economic draw of blue ribbon trout fishing because of a mining accident many miles away.

The flip side is that you may also have seen the rewards of a larger, integrated and all-inclusive approach. To restore salmon, for example, we must restore its entire watershed, encouraging farmers and loggers and developers to limit sediment that erodes downhill, choking the spawning beds in the stream.

It is these watershed councils that are bringing residents together to ask how we can develop in a way that maintains the biological integrity of the whole and how to preserve open space for the spiritual needs of their communities. They see that protecting our natural heritage is not about dividing the landscape, it is about re-connecting all the parts and making sure theyfunction within the totality of one integrated watershed.

Let me share some examples that I have personally observed in my travels:

Several months ago, I learned how this process began on the McKenzie River, a subbasin of the Willamette River Valley of central Oregon. The McKenzie watershed is growing rapidly, and citizens there have begun to worry about the impacts upon the unsurpassed fisheries which attracted them in the first place. To spawn, chinook salmon, steelhead, rainbow, cutthroat and bull trout all need clear gravel beds washed by cold, clean water. But those spawning beds are increasingly threatened with erosion, runoff, pollution and silt. Loss of the beds would undermine the county's economy and quality of life.

Rather than react bit by bit, losing parts of the whole, a group of citizens took a proactive approach to the watershed. Lane County officials, joined by state and federal land managers, groups like Trout Unlimited,

executives from the Eugene Water & Electric Board and timber companies like Weyerhaeuser all came together to restore wetlands and to develop a zoning plan that protects forested banks along the river. In the process they are showing that land use and watershed protection can work together for the benefit of the entire community.

Just last month I met with citizens from communities around Lake Tahoe who have formed groups to protect and restore the mountain watershed that binds Nevada and California, as well as nine nearby counties. What prompted them to act is the declining visibility and clarity of LakeTahoe; the region's most important economic resource.

These citizens know that snowmelt water is the lifeblood of the basin as well as the repository of our mistakes. That every mistake we make in development -- storm drain overflow, parking lot runoff, mine drainage, nutrient loading, over-irrigation, sewage backup or topsoil erosion from clear-cut forests -- will inevitably show up in the water in the form of toxic pollution, dead fish, sterile ponds, desiccated wetlands and dried up streams.

So they have decided to act before it happened to them. They are working to restore wetlands that filter and trap sediment that will otherwise cloud and degrade the lake. They are hoping to bring back runs of native Lahontan cutthroat trout, Nevada's official state fish, which suffocated -- mid-spawning run -- in mud when in the 1930s irrigators sucked the Truckee River dry. They are also working to restore the declining forests with a cooperative program of thinning and prescribed fire. In the process individual landowners are discovering that they have a direct stake -- their future property values as well as quality of life -- in cooperatively managing the entire basin.

In the upper Midwest, the Menominee River and its tributaries unite five counties and two states, Wisconsin and the Upper Peninsula of Michigan. As I mentioned earlier, for decades that river has generated electricity through more than 13 dams, but those same dams have disrupted fish migration and spawning runs up from Lake Michigan, degrading the river experience for white water enthusiasts and fishermen alike. The counties saw that the strength of their river was morethan the sum of its kilowatt hours; it drew tourists, and their wallets, to broaden and stabilize the tax base.

As the deadline for relicensing the dams approached, there could have been a bitter fight. Instead, citizens and elected officials came together to hammer out a landmark plan in advance, balancing the watershed values with electric generation. The result is an agreement to re-regulate the entire upper basin -- including the eventual removal of three dams -- to support flows through a wilder, more natural river.

Finally, just south of here is the densely populated Anacostia River watershed, a 170 square mile subbasin of the Potomac River. Over decades of agricultural and sprawling urban development, we've lost three quarters of our freshwater wetlands; from an original 2,600 acres of emergent tidal wetlands, less than 100 remain. The loss of those wetlands took away the most efficient means of filtering, absorbing and slowly releasing rainfall. Today, water quality at its mouth is the worst in Chesapeake Bay.

Why? Perhaps like in your counties, most of the water pollution here no longer comes from factories or processing plants. It comes from nonpoint sources after rain. When it pours, stream banks erode fertile, nutrient-rich topsoil from farms into streams, silting spawning beds so fish can't reproduce. With storms come flash floods; dissolved oxygen falls while pollutant levels rise 3 to 20 times higher, and sometimes raw sewage is discharged, untreated, into local streams.

Since the watershed involves two states and three local governments, no single sponsor or entity -- public, private or nonprofit -- can dominate the process. But without a larger, all-inclusive approach, it can also

mean gridlock, confusion, delay. Instead, local county and district governments and the Army Corps of Engineers formed the Anacostia Watershed Restoration Committee to replenish spawning range of anadromous fish to historical limits; boost the natural filtering capacity of the watershed by sharply increasing the acreage and quality of tidal and nontidal wetlands; expand forest cover throughout a contiguous corridor of forest along the margins of streams; and make the public aware of its role in the Anacostia cleanup and increasing public participation in restoration activities.

The Anacostia watershed committee did not have a surplus of funds, or power, or all-powerful regulatory mandate, any more than your counties do. It had to think in terms of 400 small-scale, incremental projects that would reduce nonpoint runoff without draining budgets. One simple project involves productive graffiti: spray paint stenciling pictures of fish and warnings on storm drains where people might dump their motor oil. Others involve more work and money, such as buying conservation easements for buffers along streams.

What all these diverse efforts have in common is that they look at the whole picture and ask the big question: How can we together manage a watershed to protect our natural heritage, to ensure a healthy and diverse landscape, and to plan the development of land in a way that best protects the whole of God's creation?

The examples that I have described are just a very few of the many groups -- Watershed Councils -- that are sprouting from the grassroots in every part of the country. Watershed Councils are as diverse as the people who live in them. Some, such as those in Massachusetts and Oregon, operate within a framework of state law. Most are entirely spontaneous and freewheeling. The most successful efforts, in my judgement, have two common features: Stakeholder involvement and the active support of local governments.

Watershed management issues, such as forest renewal, riparian management, the reregulation of dams, open space, and reduction of nonpoint source pollution, are usually not shaped on the front end by legislative process at either the state or the local level. The reason is that these issues cross many boundaries, and their solution requires buy-in from many different groups that have a stake in the outcome. That is why the process works best at a relatively informal, wide open, consensus and opinion building level. It is hard, if not pointless, to mandate the organization of a watershed council by fiat. All stakeholders must be involved.

Which leads to the second imperative feature of the watershed approach -- the encouragement and support of local officials. If it is hard to create a Watershed Council, it is nonetheless easy to recognize one and support it when it takes root in your vicinity. Their success at building consensus on watershed issues will play straight into the development and amendment of your comprehensive land use plans, assuring a better outcome for both the developers and the critters on the landscape.

When I encounter watershed groups out there on the landscape, I am usually asked, "What can Washington do to help?" My answer is usually, "We can leave you alone to do your work." The days of big federal grants are over. There are, however, some important ways that state and federal governments can help local efforts.

First, while there aren't many resources available directly from Washington, there are already a lot of federal resources in or near your communities that can be used to support your efforts. Watershed groups have proven very creative, and successful, at getting help from the sources they need.

On the McKenzie River, for example, the watershed coalition used the federal government's past and

current fish monitors, counts, and biological sampling to set benchmarks for replenishing salmonids. They used field personnel from the Bureau of Land Management and the Forest Service to launch a watershed survey to gather information about landscape needs.

In Tahoe, local watershed groups relied on air and water quality data provided by the Environmental Protection Agency; on forest health information provided by regional foresters, on erosion control from the Natural Resources Conservation Service and on current and historic fish research from the Fish and Wildlife Service. On the South shore of the lake, the fire chief can explain how he has used idle time, which is an inevitable part of urban fire protection, to train and deploy his force to fight fire with fire, using controlled burns as part of watershed and forest restoration.

Up on the Menominee River, the Fish and Wildlife Service showed how and where the most cost-effective fish barriers could be installed, protecting not only bass and northern pike, but the hydro projects themselves.

And in the Anacostia watershed, local governments drew heavily on current research gathered from local universities and the Geological Survey, and compiled by the federal agencies into a more complete inventory of flora and fauna and hydrology, geology, meteorology. The Army Corps of Engineers, who once worked so hard to drain the wetlands, is now actively engaged in their restoration.

In Southern California, where explosive growth pushed the native gnatcatcher to the brink of extinction, the Endangered Species Act was used to facilitate a local/state/federal partnership. Under it, the Fish and Wildlife Service provided the biological framework, then deferred to the state and Orange and San Diego Counties to draft a blueprint to protect habitat for all species. In place of nonstop development, these counties used the ESA as a tool to preserve 38,000 and 172,000 acres, respectively, of open space.

*

It is important to recognize and encourage these diverse efforts. Which is why President Clinton proposed in his state of the Union Address to designate in 1997 ten rivers and their watersheds as American Heritage Rivers. Heritage Rivers could refocus existing funding andprograms, although there won't be any new funding, and there won't be any new laws or regulations. What there will be is national support and recognition for truly outstanding efforts that can serve as models to guide and inspire other citizens. We invite you, and your community, and your watershed to consider highlighting your efforts in this manner.

I began my remarks by acknowledging your incoming President and his well known passion for Geographic Information Systems. I begin my acknowledgment that it is an interest that I share, and that together we are working to build an interactive state-local-national system of accessible geographic data in which, for the reasons that I have already discussed, counties will be our most important partners.

This is one group I don't need to lecture on the importance of geographic information systems as a planning, public information and decision-making tool. The data manipulation and information display will help anyone see the relevance of watershed planning -- any one of your pictures is worth a million words, and will, properly used, allow communities to see the way that everything is related on the landscape in a way that was never possible with paper maps or even the naked eye. What's more, it lets us bring the discussion right into homes, schools and work sites.

To that end, as a Department that monitors and develops information about the quantity and quality of our natural resources, it is our task to provide individuals, communities, counties and states with the data you need to make informed decisions. I have asked the GeologicalSurvey to look at the data they develop.

their Geographic Information Systems, and their monitoring programs, and to think about how watershed councils and counties can get and use that knowledge more effectively.

The Survey and ESRI of Redlands, California -- the group that makes the most commonly used geographic information system software --have just forged a partnership to develop and package this kind of information and provide it in an easily usable format. We want to provide the tools for informed decision making, an approach that Jefferson, and we, believe underlies American democracy.

One note of caution. It will always be tempting to speak of GIS and of information technology as a panacea for all county, state, national and even global conflicts, or to think of GIS as an ends rather than as a means. But we cannot become a cheerleader for a science that is disembodied from our human values. The accumulation of data is meaningless unless it is underlain by a clear definition of our goals as to about how we shall use and structure that science towards an informed decision making process.

I believe Leopold's land ethic -- that a thing is right when it tends to preserve and restore the integrity, stability and beauty of a given watershed -- provides us with the root values, attainable goals, and clear definition of what we must set out to do together. Thank you.

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NEWS

U.S. DEPARTMENT OF THE INTERIOR

Office of the Secretary
For Release: June 17, 1997

Contact: Jame Workman
202/208-6416

BABBITT ENDORSES PLAN TO OVERHAUL 11 HYDRO DAMS

Three dams to be removed under progressive, first of kind "watershed agreement" for fish

Standing before the Pine River Hydro Dam, which will be removed to bring back free flowing waters, Interior Secretary Bruce Babbitt endorsed an agreement today between the Wisconsin Electric Power Company, state and federal officials, and coonservation groups, to restore three entire watersheds, replenish 160 river miles, and protect more than 22,000 acres of pristine lands in the Menominee River Basin of Wisconsin and Michigan.

The 40-year, landmark settlement represents the first time in America that a utility, public officials and environmentalists have negotiated a cooperative agreement *prior to* the start of the relicensing process. Wisconsin Electric, serving thousands of customers, will continue profitable, low-cost energy production. By restoring the watershed for brook trout, lake sturgeon, smallmouth bass and walleye, as well as for hunting and rafting throughout the area, the agreement will boost and broaden the diverse, renewable recreation-driven economy.

"This is a watershed agreement in both meanings of the term" said Babbitt. "By looking at the .ntire natural Menominee basin, as well as all current and future needs of the stakeholders who live in it, we proved it was possible to save time, millions of dollars, and above all the fish and wildlife we care for as stewards of God's creation. As others approach the complex and contentious process of operating and relicencing dams, this stands as a model for the nation."

Specifically, the Wilderness Shores Settlement Agreement:

Hydro dam overhaul, fish benefits within entire basin

- Removes the Sturgeon Hydro Dam in Michigan and the Pine Hydro and Woods Creek Dams in Wisconsin to restore free flowing river habitat
- Stablizes flow down 70 miles of Menominee River from the Sturgeon Falls Dam to Green Bay
- Increases minimum flows in Paint and Michigamme River for fish, recreation
- Provides for run-of-river at Way Dam, Hemlock Falls Dam, and the Lower Paint Diversion Dam. Provides Run-of-rover at all dams during the spring spawning period for fish
- Installs fish barriers at all hydro project intakes to reduce fish loss from turbine mortality. Establishes a $3.4 million fish protection fund
- Provides fish passage upstream of several hydro projects when and where appropriate

Thousands of acres of land and water now open to public, wildlife management

- Protects 22,000 acres of pristine and riparian project land from development
- Conserves endangered and threatened species like gray wolf and bald eagle
- Develops a Canoe Trail with wilderness camp sites along the Menominee River, with signs to describe Voyager historical and cultural heritage in area

U.S. DEPARTMENT OF THE INTERIOR

OFFICE OF THE SECRETARY
For Immediate Release
May 22, 1996

Contact: Paul Bledsoe
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DATA FROM GRAND CANYON FLOOD POSITIVE MORE THAN 50 LARGE BEACHES CREATED

The U.S. Interior Department today released initial data from the controlled flooding of the Colorado River and Grand Canyon, describing formation of dozens of new sand beaches, reinvigorated fish habitat, and other indications of the experiment's success.

"By any standard, the flood experiment was a success," Assistant Interior Secretary for Water and Science Patricia J. Beneke said. "Secretary Babbitt's personal observations at the Grand Canyon have led him to believe the flood was a great success. These data back up that observation. We are extremely pleased with these initial results, which indicate a restorative effect on the Grand Canyon.

"These positive results are the culmination of the work not only of scientists, but of the many groups with strong interests in the dam and canyon. Indian tribes, river runners, power users, environmentalists--they all came together to help develop consensus."

Scientists from the U.S. Bureau of Reclamation and the U.S. Geological Survey will continue to gather data in the coming weeks. Throughout the summer, the beaches will be monitored to determine their stability and the process by which the river reshapes them. Other areas of study will include the flood's long-term effects on backwater channel habitat for endangered fish species and monitoring of the trout fishery and the trout's food base.

Researchers have also recommended that additional aerial photography be collected in the fall months to allow for evaluation of the response of the sediment deposits to summer operations of the dam. A draft report analyzing the full scientific data will be available at the end of September, with the final report due by the end of the year.

(more)

Prior to construction of the Glen Canyon Dam, the Colorado River was a dynamic, sediment-laden river, fluctuating according to the seasons, rainfall, snowmelt, and sediment inflow from side canyons. Construction of Glen Canyon Dam altered the natural dynamics of the river, specifically sediment flow and water quality.

The flood of the Colorado River from Glen Canyon Dam lasted two weeks, from March 22 to April 7. The peak of the flood, in which 45,000 cubic feet per second of water was passing through the dam, lasted one week, from March 26 to April 2. More than 110 billion gallons of water passed through the dam during the whole of the experiment.

The beach and habitat building flood is provided for in the Operation of Glen Canyon Dam Environmental Impact Statement which was completed in 1995. The flows also fit within the intent of the Grand Canyon Protection Act of 1992, which provides for operation of Glen Canyon Dam for environmental purposes in Glen and Grand canyons in addition to traditional water and power generation benefits.

To provide for the test, the 1996 Annual Operating Plan for the Colorado River, signed by Secretary Babbitt, contains terms and conditions for the releases. The Colorado River Basin States consulted with the Secretary, as did public and special interests as provided in the Grand Canyon Protection Act.

--DOI--

United States Department of the Interior

BUREAU OF RECLAMATION

Glen Canyon Environmental Studies
P.O. Box 22453
Flagstaff, Arizona 86002-2459

IN REPLY REFER TO:

Initial Scientific Data
Glen Canyon Beaches\Habitat-building Test Flow

* The creation of at least 55 large, new beaches in the Grand Canyon.

* Two-thirds of these new sand formations occurred in the first 61 miles of the Canyon, above the Little Colorado River, an area which has been particularly depleted of sediments since the completion of Glen Canyon Dam in 1963.

* More than half of the canyon beaches have increased in size due to the flood; 37% are approximately the same size; 10% lost small amounts of sediment.

* More than 80% of the aggradation of the beaches occurred in the first 20 to 48 hours.

* The flood caused scouring of clay and vegetation bases in backwaters and marshes which provide habitat for the humpback chub and other endangered fish species.

* At numerous backwater areas, the increased organic debris, (primarily non-native plant species growing very close to the banks of the river, which would not occur on the natural river and were purposely cleared by the flood) resulted in a nutrient surge in both back channels and the main river. This benefits fish species of all types.

* Downstream medal-winning trout fishery, which some had feared would be harmed by the flood, did not appear to be negatively impacted. Most trout remained on feed through the flood and thereafter.

* Lake Powell, formed by Glen Canyon Dam just above the Grand Canyon, dropped 3.5 feet during the flood flow. Bureau of Reclamation water managers anticipated the drop and no water deliveries to states or individuals will be impacted.