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The Future of Western Water Developments

John Keys

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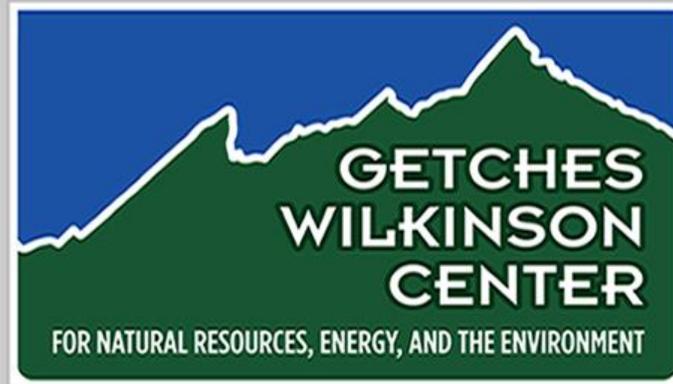
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THE FUTURE OF WESTERN WATER DEVELOPMENTS

John Keys
Pacific Northwest Regional Director
Bureau of Reclamation

Dams: Water and Power in the New West

June 2 - 4, 1997

Natural Resource Law Center
University of Colorado School of Law
Boulder, Colorado

The Future Of Western Water Developments¹

Where We've Been

The Bureau of Reclamation was founded in 1902 as a western civil works construction agency. We were builders, technicians, engineers. Hoover Dam on the Arizona/Nevada border and Grand Coulee Dam in Washington are just two testaments to our abundant engineering and construction accomplishments.

Our traditional role was to store water for use in the 17 arid Western states. The results of our work has made us America's largest wholesale water supplier, delivering 10 trillion gallons of water to 31 million people a year. The 140,000 farmers receiving water from us produce 60% of the nation's vegetables and 25% of the fruits and nuts. The 58 hydroelectric powerplants produce 42 billion kilowatt-hours a year.

Reclamation's shift from constructing water projects to managing water was a natural one, responding to a changing West. We are learning how to most effectively manage the West's water through a variety of innovative techniques. We're working to improve water resource management, including water reuse and efficiency, in an effort to ensure secure water supplies for the future. We want to be certain that there is water available to meet all the needs of a growing West, including agriculture, municipal and industrial use, fish and wildlife, Native American needs, and recreational users. And, we want to be certain that we retain our technical expertise to ensure that our facilities are well-operated and safety is guaranteed.

Where We Are

Yet we must do all this in an era of heightened environmental awareness, budget constraints, and a fiercer competition for water supplies. To help combat these stringent realities, we've had to become more creative. This Administration has developed a new model for addressing competing natural resource demands, a model of regional cooperation and consensus

¹ This paper is a draft. Final remarks specific to the Pacific Northwest Region will be included at the conference.

among stakeholders, a model styled on bringing all interested parties together. We seek the flexibility to reconcile sometimes conflicting regulatory requirements and to achieve consensus.

Partnership Efforts

The Department of the Interior has had many successes with this type of inclusive problem solving, such as last year's spike flows at Glen Canyon Dam. The results were the culmination of the work of many partners, including federal, state, and local entities, Indian tribes, river runners, power users, and environmentalists.

The seven-day simulated spring flood had a number of positive environmental impacts on the Grand Canyon. The experiment worked largely as scientists had predicted, helping to restore the natural Grand Canyon environment by restoring beach and species habitat. Sand bar volumes increased an average of 53 percent along with a 20 percent increase in backwater habitats for endangered fish. There were 34 separate specific scientific studies conducted on the spike flows.

We are thrilled with the restorative results on the Colorado River and plan to continue to champion environmental achievements along America's riverways. The revised Glen Canyon Dam operations demonstrates that we can operate large dams for environmental purposes as well as water capture and power generation.

The management of Glen Canyon Dam and that of the entire infrastructure of the Colorado River system in the Southwest has changed following this completion of the Operation of Glen Canyon Dam Environmental Impact Statement and the 1996 signing of the Record of Decision implementing the EIS. When coupled with additional management changes on the system related to endangered species recovery actions and other environmental concerns supported by changing public values, one can see that the role and function of the operation of large dams in not only the Colorado River system, but across America, is under transition.

One interesting aspect of the flood was the extraordinarily positive public reaction to it. Non-use value economic studies conducted during the development of the Glen Canyon Environmental Impact Statement clearly indicates that the public supports management practices on large dams that protect the environment and provide for restoration.

Another successful partnership currently being worked on by Reclamation is the historic San Francisco Bay-Delta agreement. The depletion of water in the Bay area cried out for an effort to coordinate and adapt water quality and Endangered Species Act requirements to meet the needs of all stakeholders and to get the parties talking to each other.

Federal agencies such as Reclamation and the Environmental Protection Agency initiated a consensus-based stakeholder process, and, in conjunction with the State of California, all of the interested parties thoroughly, diligently worked through the issues. (In fact, the founder of Club Fed, as it's sometimes called, former Water and Science Assistant Secretary Betsy Rieke, is of course here today). Water quality standards have been set and Endangered Species Act compliance occurred. But Bay-Delta is still a work in progress -- much remains to be done. Nonetheless, this agreement helped set the tone for future partnerships which are taking place all across the West.

One very recent partnership breakthrough was last month's signing of a Joint Partnership Agreement by four Interior agencies, state entities in California, Arizona, and Nevada, and Indian Tribes in the lower Colorado River Basin to cost-share the protection of threatened and endangered species. The implementation of this Multi-Species Conservation Program in the lower basin will skke to protect more than 100 species on the lower Colorado River through conservation while accommodating current water diversions and power production and optimizing opportunities for future water and power development.

These consensus-based partnerships are the future of water resources management. Reclamation is working hard to balance economic achievement with environmental stewardship through partnership efforts, and also through innovation and technology.

Water Resource Management -- Using Technology and Innovation

We've had just such a success with this month's dedication of the newest state-of-the-art Temperature Control Device in California's Central Valley Project, a vital ecosystem with a series of canals, dams, and riverways. Measuring 250 feet wide and 300 feet high, this device, along with other modifications to the Central Valley Project, is aimed at providing sufficient control

over water temperatures to maintain optimum river condition for salmon recovery while generating power in the 578,000 kilowatt-capacity powerplant at Shasta Dam.

In that vein, significant testing of new operational criteria is under way throughout the Colorado River system. For example, at Flaming Gorge Dam along the Utah/Wyoming border, Reclamation has been testing seasonally adjusted steady flows the past five years to benefit endangered fish species.

At Navajo Dam along the New Mexico/Colorado border, Reclamation recently concluded a four-month test of very low winter flows to conserve water in storage to support high spring flows that mimic the historic, predam condition for the fish. The goal for such operations is to be able to protect and recover the endangered fish while providing a means for water conservation and development.

As you know, the Colorado River system helps sustain the economy and environment of seven states. Its waters are apportioned among the states by the means of the Colorado River Compact of 1922. It is also the source of serious unresolved controversies among the various states, agricultural and urban water users, and developers and environmental interests. The Secretary of the Interior and the seven basin states are actively attempting to seek solutions that will support the needs of individual states while protecting the other states.

While these now primarily involve so-called "soft solutions" in the West -- not construction of dams and other water storage projects -- Reclamation's dam building era is not totally over. We still actively maintain, repair, and upgrade our dams.

Our budget has been steadily declining for years. That, along with changing public values and environmental concerns, has helped us move away from our former mission of dam construction. The biggest bulk of our budget is not R&D but rather O&M. But we strongly feel our new mission as a federal water resource manager is just as if not more important. Our water resource system is for the most part in place. Now it's up to all of us to ensure that system provides water for all who need it, from fish to farmers, from Indians to industry.

We all realize there is a limited supply of water available. As competition for this supply continues to increase, the legal and cultural issues and values associated with its use and

distribution will also multiply. Pressures to transfer water rights to new locations and uses further complicates matters.

For instance, the appropriation doctrine of water rights does not always encourage transfers of conserved water. Another important legal issue involves recognition of beneficial use, which may vary from state to state. Further, the authorities and processes for accomplishing water transfers also vary from state to state. Uses and transfers can also be exacerbated when there is a drought, or over appropriation makes competition for water even more keen.

Other factors include the need to address Native Americans water rights and meeting the water delivery requirements of International Treaties and Interstate Compacts.

Let's face it -- water supply is an issue that will just continue to grow as our finite water supply is stretched further and further. But we are confronting these challenges head-on with a number of innovative water management activities.

Water conservation is one such activity. Revised rules and regulations for implementing the Reclamation Reform Act of 1982 were published last December. (An additional rule making is anticipated in the near future which will address the issue of trusts.) Included with this activity is a water conservation effort. Reclamation has developed an incentive-based "Water Conservation Field Services Program." Through this program, Reclamation will be working with water users to assist in water conservation planning and implementation, providing each of the 26 Area Offices with a water conservation specialist.

Another ongoing initiative is title transfer. The National Performance Review, chaired by Vice President Gore, calls for a government that works better and costs less. Reclamation has been developing policy to meet NPR goals for the last couple of years, including title transfer. We currently have a number of projects in transfer negotiations, including the Collbran project in western Colorado and the Contra Costa portion of the Central Valley Project in California. The intent is to transfer to willing partners and beneficiaries uncomplicated projects or facilities within projects that are limited in scope, such as canals and conveyance facilities. We are not considering complicated projects or facilities that serve multiple purposes and/or where there are many parties interested in the facilities.

The first two successful title transfers occurred in New Mexico and west Texas and included the Vermejo and portions of the Rio Grande projects. These transfers were not easy to accomplish, taking several years to complete. Of particular interest was transferring the irrigation and drainage facilities of the Rio Grande project. Close cooperation with state and Federal agencies, recreation and fish and wildlife interests, and other interested parties was essential to the completion. NEPA compliance--including public-scoping, studies of biological and cultural resources, and evaluation of other impacts were all necessary to protect public interests and the environment. The transfer, authorized by Public Law 102-575, provided for transferring 141 miles of canals, 462 miles of laterals, and 457 miles of drains. The U.S. continues to retain title to Elephant Butte and Caballo dams and the project diversion dams.

Water recycling, as authorized by Public Law 102-575, is another initiative which helps us meet the demands of a new era. Currently, we have projects in California under construction based on this authority. A new bill passed in 1996 broadened our authority to participate in planning and constructing an additional 16 water recycling projects and participate in the planning, design, and construction of two desalination projects in California and Nevada.

And Reclamation Commissioner Eluid Martinez, newly appointed in 1995, had barely found his office before he requested an independent, comprehensive study of Reclamation's safety of dams program. Our highest obligation is to maintain public safety and since we are responsible for 475 major structures across America's West that impound huge amounts of water, it is our responsibility to ensure those facilities are adequate and secure.

The report found that we have an effective dam safety program overseen by highly competent staff using state-of-the-art technical standards and expertise. The report recommended two new officers that report directly to the Commissioner on safety and security. We have just hired an Independent Dam Safety Officer and are advertising for a Facilities Security Officer. Dam safety and security are ongoing, crucial issues which we are dedicated to staying on top of.

To maintain the integrity of our structures, we have been working to ensure all of our dams are in full repair. Last year we rededicated Roosevelt Dam in Arizona to provide additional precautions in the event of a flood. This kind of work continues on other dams, including the modification of Twin Buttes Dam in Texas.

Regarding one unresolved water storage project, Animas-La Plata, let me tell you that Reclamation has completed a Final Supplement to the Final EIS for the Animas-La Plata Project, which was filed with the EPA in April 1996. Construction activities have been postponed pending resolution of unresolved environmental issues and completion of the Record of Decision. Reclamation is committed to complying with the Endangered Species Act, Clean Water Act, National Environmental Policy Act, and satisfying the needs of the Colorado Ute Indian Tribes. We will work within the law to reach an agreement that is satisfactory to all parties.

Where We're Going

In the space of a few years, Reclamation has evolved from narrowly focused project development and facilities operations to the broadest aspects of contemporary water and related resources management and protection. So, where do we go from here?

Secretary Babbitt has been leading the Department of the Interior using three guiding principles that are extremely relevant to water resource challenges.

- ▶ First, we can best solve our problems by looking not just at individual symptoms, but on a landscape-wide scale.
- ▶ Second, we must look across, and beyond agency boundaries and include states, local and tribal governments, industry, non-profit groups, and concerned citizens in our decision making process.
- ▶ And third, we need to work in such a way as to ensure the ecological and economic health of our communities.

Abraham Lincoln once said, "The best thing about the future is that it comes only one day at a time." We can handle all the water challenges that face the West one day at a time, taking small steps that soon add up to great strides. We need to continue to find innovative ways to restore landscapes and achieve consensus among all stakeholders through the use of partnership efforts, today's technology, and sound science.

I believe we, all of us, you, me, and everyone else who cares about what we do with our water, can effectively manage it while achieving environmental and economic harmony.

