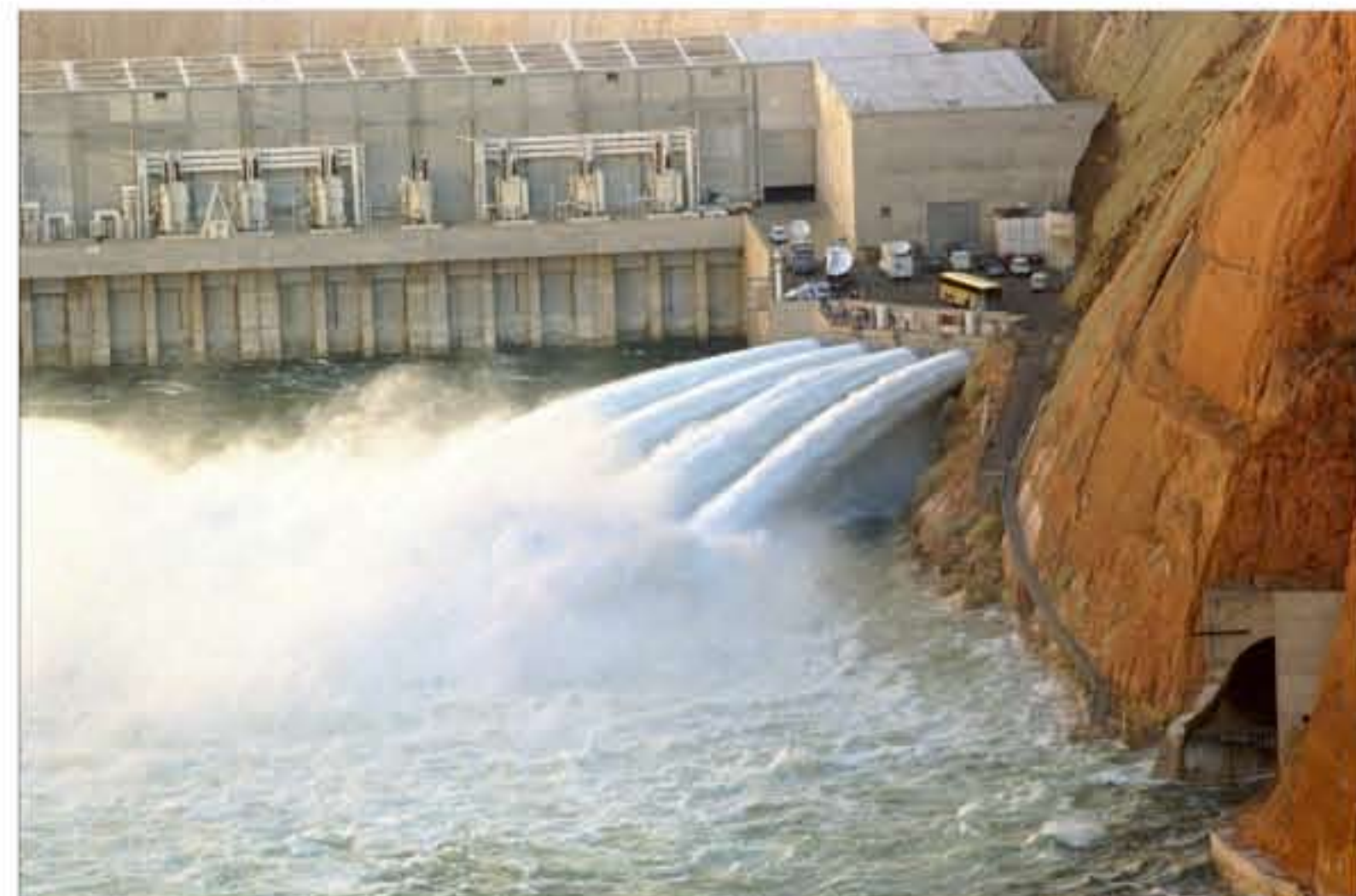


ENVIRONMENT

Cool Head in a Hot Seat

New Head of the U.S. Bureau of Reclamation Pledges Attention to the Energy-Water Nexus



SOURCE: AP/Jeff Robbins

Climate change knits energy and water policy together—a fact western states discover as reservoirs drop and rivers dwindle. The newly confirmed head of the Bureau, Michael Connor, steps into a job that no longer focuses on building dams, but now centers on river restoration and climate change adaptation.

By Sarah Bates | Wednesday, June 17th, 2009 | [Share This](#) | [Print](#)

On June 1, 2009, Secretary of the Interior Ken Salazar administered the oath of office to the new Commissioner of the U.S. Bureau of Reclamation, Michael Connor. The Bureau's 18th chief, Connor steps up to the front lines of the western water battlefield—perhaps the most persistent of our “long wars.” The Bureau works at the nexus of energy and water issues, as many methods of power generation consume considerable amounts of water, and moving water from its source to where it's used requires large amounts of electricity. The decisions this agency makes affect policy in both realms.

Consider a couple of high-profile western water conflicts in which the Bureau is entangled:

- The Bureau of Reclamation serves as the water manager for the Colorado River Basin, which has the improbable capacity to store four times the river's annual flow in Lake Powell, Lake Mead, and other storage facilities. Drought conditions over the past decade have dropped the two main reservoirs to about 50 percent of capacity, with annual river flows averaging about 66 percent of the normal levels, and [recent studies](#) project that such shortages will become the normal conditions as a result of climate change. Water scarcity combined with population growth have stressed the entire water delivery system and required the federal government to mediate [shortage-sharing agreements](#) among seven basin states (Arizona, California, Colorado, New Mexico, Nevada, Utah, and Wyoming). Water providers in Southern Nevada are in the process of building additional, deeper intake pipes to draw water from the shrinking Lake Mead.
- California's Sacramento-San Joaquin Delta, where the Bureau operates the enormous Central Valley Project to move water from the wet north part of the state to southern residents, has suffered catastrophic declines of native fish. Combined with low snowmelt in recent winters and accelerating demands for water exports, Delta water supplies have proven inadequate to meet all economic and environmental demands. In a report released earlier this year, an independent [review panel](#) concluded that federal water managers have consistently favored farmers over the needs of salmon in failing to implement the [Central Valley Project Improvement Act of 1992](#), a law intended to overhaul the state's water delivery system and improve the environment. The panel concluded that the Bureau has failed to embrace its mandate for water management (including recovery of anadromous fish) “with equal zeal to its core mission of water supply.” A [Biological Opinion](#) issued this month declared that water operations must be dramatically altered to protect the imperiled fish and the Delta ecosystem from imminent collapse.

The Bureau of Reclamation is one of the key water management agencies in the United States, created in 1902 to complete the vision of Manifest Destiny through water storage and delivery projects in the arid 17 states of the western United States. In the past century, the agency constructed more than 600 dams and reservoirs, including the iconic Hoover Dam on the Colorado River, as well as 58 hydroelectric powerplants associated with these projects. The Bureau is the largest wholesaler of water in the country and the second largest provider of hydroelectric power.

After decades focused on moving earth and pouring concrete, the ground shifted under the Bureau of Reclamation in the late 20th Century. Mounting environmental concerns brought down some projects, while others foundered on more rigorous cost-benefit analyses. By the mid-1980s, the Bureau announced its new mission as a “water management agency” rather than the nation's dam-builder.

As I described in a previous [Science Progress column](#), former Bureau of Reclamation Area Manager (and Assistant Secretary of the Interior for Water and Science) Elizabeth Rieke said this about the changing mandate for federal water projects: “We can build them, operate them, modify them, re-operate them, we can make them safe and secure, and we can take them down.” Indeed, the Bureau has most recently spent a great deal of time studying and implementing dam removal and reoperation practices, reflecting broad public concerns for living rivers reflected in federal legal mandates such as the Endangered Species Act and associated litigation.

Into this imbroglia steps Michael Connor, who most recently served as Counsel for the U.S. Senate Natural Resources and Energy Committee. In that position, he negotiated legislation to finalize Native American water settlements, provide incentives for energy and water efficiency, and support research into climate change impacts on water resources.

At his first public speech after being sworn in as Commissioner, Connor told an audience at the annual [Natural Resources Law Center](#) conference in Boulder, Colorado that the agency must take a lead role in climate adaptation, facing up to the dramatic challenges of reduced snowpack, earlier runoffs, and increased evaporation in a system largely dependent on large dams and reservoirs in arid western landscapes.

“Our water supply is going to be changing. The way that water comes to us is going to be changing. That's absolutely one of the key challenges that we need to be preparing for,” Connor [state, in a quote published in the Durango \(Colo.\) Herald](#) on June 5, 2009.

Prior to his confirmation, Connor participated in a discussion of the interaction between [federal policy and western water management](#), convened by the Carpe Diem Project in March, 2009. He emphasized the need to integrate energy and water, citing several efforts with which he was involved in the Senate. Connor repeated this theme in his Boulder speech, noting the enormous amount of energy consumed by pumping, moving, and treating water and the large water consumption of many electrical energy production practices. This relationship between water and energy use—nearly invisible to both policy makers and the public for decades of development—has finally started to receive the attention it deserves, thanks to recent publications by the [Natural Resources Defense Council](#) and [Western Resource Advocates](#).

It would be a laughable understatement to say that Commissioner Connor has his work cut out for him. A friend responded to my initial summary of Connor's Boulder speech with the observation that, “I would be puckered in that position.” Connor's reputation as a calm but persistent problem-solver, his experience with complex federal water disputes, and his ever-present sense of humor will serve him well as he assumes the reins of an agency beset by the sorts of “wicked” problems that call for solutions shaped around uncertain future conditions and require cooperation of parties bearing scars of historical battles.

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