

**Statement of Michael Gabaldon, Director of Technical Resources
Bureau of Reclamation Denver Technical Center
U.S. Department of the Interior
before the
Water and Power Subcommittee
Committee on Natural Resources
U.S. House of Representatives**

*“Water for Our Future and Job Creation: Examining Regulatory and Bureaucratic Barriers to
New Surface Storage Infrastructure”*

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Chairman McClintock, members of the Subcommittee, I am Mike Gabaldon, Director of Technical Resources at the Bureau of Reclamation (Reclamation) in Denver. I am pleased to provide the views of the Department of the Interior (Department) on the role of new surface storage in Reclamation’s water resources planning.

Understanding what goes in to creating new Reclamation surface storage requires an understanding of Reclamation’s history. Reclamation was authorized with the signing of the Reclamation Act of 1902 by President Theodore Roosevelt. The Act’s first words created a source of funding within the U.S. Treasury, and declared its purpose to be “the examination and survey...and the construction and maintenance of irrigation works for the storage, diversion, and development of waters for the reclamation of arid and semiarid lands in the said States and Territories...”. With the enactment of the Reclamation Act, the United States set about the creation of dozens of projects that ultimately did far more than just provide water for irrigated agriculture. Power supplies, municipal water, new economies and eventually whole cities grew up around Reclamation projects in places like Boise, Idaho; Spokane, Washington; Las Vegas, Nevada; Casper, Wyoming; El Paso, Texas and many other places.

For decades during the early 20th century, Reclamation surveyors and engineers scoured the 17 western states for the best dam sites, working to bring water to as many farms as possible. Wide distribution of the public domain was a goal established earlier by the Homestead Act of 1862, which had offered virtually free land to families in parcels of 160 acres. The language of the Reclamation Act of 1902, before subsequent amendments, provided wide discretion to the executive branch to withdraw land, study and construct projects. With an emphasis on rapid growth and development, Reclamation labor and contractors built or modernized nearly half of our current dam portfolio in the first 38 years of Reclamation’s existence, with 231 dams complete or under construction by 1940.

In Reclamation’s early years, Congressional interest in projects was intense and development proceeded briskly. However, limitations in technical understanding and different societal

priorities at the time, resulted in little or no consideration being given to environmental impacts, or the rights of native Americans. As a result, many of the early Reclamation projects brought unintended consequences that would be mitigated and litigated for decades, continuing into the present day.

With enactment of the Federal Water Project Recreation Act in 1965 (Public Law 89-72), the process of authorizing and constructing large Reclamation dams changed dramatically. Section 8 of the Act stated, “Effective on and after July 1, 1966, neither the Secretary of the Interior nor any bureau nor any person acting under his authority shall engage in the preparation of any feasibility report under reclamation law with respect to any water resource project unless the preparation of such feasibility report has been specifically authorized by law...”. The rate of Reclamation projects authorized had ebbed and flowed over the years, but with enactment of PL 89-72, projects now required more Congressional action before proceeding. Some began to think that Reclamation’s heyday was over, and with the enactment of the Recreation Act, after 1966, all surface storage projects would require individual Congressional authorization before proceeding, a requirement that continues to remain in force.

Today, with more than 100 years of additional Congressional direction on top of the 1902 Act, the current mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public. Reclamation still studies, constructs and maintains large surface storage projects, when authorized by Congress, and in fiscal year 2012, Reclamation has a construction budget of more than \$180 million for a variety of projects. But surface storage in the construction budget has been joined by dam safety, and the modernization or repair of infrastructure built years ago. For many reasons – political, economic, social – the construction of traditional surface storage projects is undertaken on a much more limited basis than in decades past. And new societal priorities and advancements in scientific knowledge support increased focus on ecosystem restoration, adverse impact mitigation, efficient management, rural water, wastewater reclamation, and conservation. These priorities have become central parts of the Reclamation mission today, and some of them yield significant quantities of new water supply in a very cost efficient manner.

There are roughly three dozen Reclamation dam projectsⁱ, project features or other storage facilities across the West that were authorized by Congress but, for one reason or another, were never funded or constructed. The stories vary, but the most frequent reasons center around economics or an inadequate potential water market associated with the given facilities. In other cases, environmental, safety or geologic challenges came to light during a project’s development, and rendered its construction, completion or operation unfeasible. Political opposition often contributed, leaving the facilities “on the books” awaiting further action, but with external events and new priorities passing them by.

In Washington State, Reclamation and the Washington Department of Ecology studied the Black Rock Reservoir surface storage site for nearly five years during the 2000s, with the aim of securing existing irrigation supplies, improving fish habitat and meeting future municipal and industrial needs. In the end, construction costs approaching \$8 billion, a poor cost benefit ratio, and concerns about seepage that could mobilize contaminants at a nuclear waste facility rendered the Black Rock Reservoir site infeasible. Reclamation, in partnership with Washington State, continues to evaluate other water supply strategies, including surface water storage options, in the context of an integrated plan for the Yakima River basin.

In California, the Auburn Dam surface storage reservoir was studied and actually entered construction, but has never been completed. It was authorized in 1965 as a multi-purpose facility by Public Law 89-161, and after the completion of studies and design, Reclamation commenced construction in 1972. In 1975, a magnitude 5.7 earthquake occurred about 50 miles northwest of the dam site near the state of California's Oroville Dam. Reclamation halted construction and eventually concluded that while the Auburn facility could be re-designed to withstand likely seismic activity, the resulting costs exceeded the Congressional cost ceiling, and dramatically changed the project's economics. As of this date, Congress has not passed legislation to amend the project authorization or increase the cost ceiling. And the California State Water Resources Control Board cancelled Reclamation's water rights permits for the project in 2008.

As indicated, not every proposal for new surface storage pans out. Nevertheless, Reclamation has not abandoned surface storage proposals, or the role of surface storage in a diverse portfolio of water management solutions. We continue to study them in areas where conditions are viable, and Congressional authorization exists, and where the prospective environmental benefits outweigh the impacts.

In May of 2011, Reclamation's Mid-Pacific Region provided a briefing to staff of this Subcommittee regarding four surface storage studies underway in California which, as currently configured, could provide 3.75 million acre-feet of new storage if they are authorized, funded and constructed. They are a raise of the existing Shasta Dam; expanding the existing Los Vaqueros Reservoir; construction of a new off-stream facility north of the Delta (NODOS, known locally as Sites Reservoir); and the construction of a new on-stream facility on the Upper San Joaquin River. The studies, authorized under separate legislation, were funded historically as part of the joint state and federal CALFED Bay-Delta Surface Storage Investigations Program¹ and federally under the California Bay-Delta Restoration Program in the President's budget request for the past seven years. Work will continue in the current fiscal year to bring the studies closer to completion.

¹ <http://www.water.ca.gov/storage/CALFED%20Progress%20Report%202010/index.cfm>

Each of the California studies is taking place in an environment of relentless operational and environmental change, with new biological opinions, litigation of those biological opinions and court-ordered analysis under the National Environmental Policy Act, considerations about climate change, and widely varying hydrologic challenges inherent in California water. As of today, Contra Costa Water District has nearly completed a small expansion of Los Vaqueros Reservoir, and continues to study an even larger expansion for the future. In addition, the Mid Pacific Region has just released a Preliminary Draft Environmental Impact Statement and Draft Feasibility Study Report for enlarging Shasta Dam. Public draft reports for a new off-stream storage facility in Northern California are expected within the year. While complex and time consuming, Reclamation believes that the expertise it provides in these studies remain an extremely important contribution to California's long-term water future. We are committed to seeing the studies through to completion.

At the same time, Reclamation has underway 12 studies² of major river basins in the west under the WaterSMART Program, authorized by the SECURE Water Act in Public Law 111-11. All of these major Basin Studies will consider structural and non-structural options to supply adequate water in the future. This will include consideration of potential new surface storage needs, as directed in the Act at Section 9503(b)(4)(e).

New Reclamation surface storage has come on line in Colorado with the filling last year of Ridges Basin Dam/Lake Nighthorse, built pursuant to Public Laws 100-585 and 106-554. These laws adapted the overall Animas-La Plata (ALP) project, envisioned years prior, into a negotiated settlement of water rights claims by the Southern Ute Indian and Ute Mountain Ute Tribes in southwest Colorado. The ALP is designed to supply an average of more than 111,000 acre-feet of water to four user entities including the tribes in Colorado, and three more in New Mexico³ via a pipeline currently under construction that will supply water around Shiprock, NM. The capacity of Ridges Basin Dam/Lake Nighthorse is 120,000 acre feet.

New Reclamation surface storage is also online in southeastern California, with completion in 2010 of the Drop 2/Warren H. Brock surface storage reservoir about 30 miles east of El Centro. In 2005, in cooperation with Imperial Irrigation District, Coachella Valley Water District, San Diego County Water Authority and Metropolitan Water District of Southern California (MWDSC), Reclamation completed a study that identified several potential alternatives to improve system efficiency on the Lower Colorado River, and this project was the preferred option. In December 2006, Section 396 of Public Law 109-432 directed Reclamation to "design and provide for the construction, operation and maintenance of a regulated water storage facility ... at or near the All-American Canal."⁴ With funding provided by Southern Nevada Water

² <http://www.usbr.gov/WaterSMART/bsp/studies.html>

³ <http://www.usbr.gov/uc/progact/animas/faq.html>

⁴ <http://www.usbr.gov/lc/region/programs/drop2reservoir.html>

Authority, MWDSC, and Central Arizona Water Conservation District, in exchange for water credits, work began in 2008 and was finished on time and under budget. The 8,000 acre-foot facility conserves previously non-storable flows estimated to be 70,000 acre feet per year on average. In 2011 it beat expectations, conserving 121,000 acre feet.

Clearly, surface storage projects still happen, but many of the best sites have been built. And as explained above, they compete for funds with dozens of other Congressionally-mandated priorities. New storage projects proceed to completion on a more limited basis than in decades past. However, we believe that the diversity of 21st century water challenges in the West calls for a diversity of solutions, including surface storage projects, that are appropriate, environmentally and economically sound, and in the interest of the American public.

This concludes my written statement. I am pleased to answer questions at the appropriate time.

ⁱ Narrows Dam and Reservoir, Charleston Dam and Reservoir, East Mesa Flood Detention Dike, McDowell Mountain Tunnel, Orme Dam and Reservoir, Powerplant, Pumping-Generating Plant, and Canal, San Pedro Aqueduct, San Pedro Pumping Plant, Lower Colorado River Water Salvage Project, Moapa Valley-Muddy Creek Project, Virgin River Dam, Dikes, and Reservoir, Auburn Dam, Folsom South Canal (not fully completed), County Line Reservoir and Folsom-Malby Conduit not completed, Allen Camp Dam and Reservoir, Lookout Diversion Dam, Swifts Corral Dam and Reservoir, Paiute Dam and Reservoir, Paiute-Lead Lake Canal, Allerman Canal Enlargement and Extension, Watasheamu Dam, Reservoir, and Powerplant, Carson Canal, West Fork Dam and Reservoir, Palmer Lake, East High Canal with regulating Black Rock and Michigan Prairie Dikes, Crooked River Diversion Dam, Harper Dam and Reservoir, Yoder Dam and Reservoir, North Side Unit Pumping, Sexton Dam and Reservoir, Teton Dam and Power and Powerplant, Dayton Dam and Reservoir, Animas Mountain Dam and Reservoir, Loma Extension Division, Norwood Tunnel, Larrabee Dam and Reservoir.