

CRS Issue Brief for Congress

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Western Water Resource Issues

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CONTENTS

SUMMARY

MOST RECENT DEVELOPMENTS

BACKGROUND AND ANALYSIS

Legislative and Oversight Issues

- Security of Reclamation Facilities

- Klamath River Basin

- Title Transfer

- Project Construction

 - California Bay-Delta/CALFED

 - Rural Water Supply Projects

 - Title 16 Projects

- Salton Sea

LEGISLATION

- Title 16 Projects

- Water Supply and Conservation

- Miscellaneous

Western Water Resource Issues

SUMMARY

For more than a century, the federal government has constructed water resource projects for a variety of purposes, including flood control, navigation, power generation, and irrigation. While most municipal and industrial water supplies have been built by non-federal entities, most of the large, federal water supply projects in the West, including Hoover and Grand Coulee dams, were constructed by the Bureau of Reclamation (Department of the Interior) to provide water for irrigation.

Growing populations and changing values have increased demands on water supplies and river systems, resulting in water use and management conflicts throughout the country, particularly in the West, where the population is expected to increase 30% in the next 20-25 years. In many western states, agricultural needs are often in direct conflict with urban needs, as well as with water demand for threatened and endangered species, recreation, and scenic enjoyment.

Debate over western water resources revolves around the issue of how best to plan for and manage the use of this renewable, yet sometimes scarce and increasingly sought

after, resource. Some observers advocate enhancing water supplies, for example, by building new storage or diversion projects, expanding old ones, or funding water reclamation and reuse facilities. Others emphasize the need to manage existing supplies more efficiently — through conservation, revision of policies that encourage inefficient use of water, and establishment of market mechanisms to allocate water.

The 109th Congress is considering a number of bills on western water issues, including title transfer, water recycling, and rural water supply legislation and may also revisit drought legislation introduced in the 108th Congress. Oversight of CALFED — a joint federal and state program to restore fish and wildlife habitat and address California water supply/quality issues — and Klamath River Basin issues is also likely.

The 109th Congress may also consider Indian water rights settlement legislation; however, Indian settlement bills are not tracked in this issue brief.

MOST RECENT DEVELOPMENTS

Two new bills amending the Reclamation Wastewater and Groundwater Study and Facilities Act (Title 16 of Public Law 101-575) were introduced in November, bringing the total number of bills amending Title XVI in the 109th Congress to 19. A hearing on the Bureau of Reclamation's Reuse and Recycling Program was held February 28, 2006 by the Senate Subcommittee on Water and Power.

Recent news reports of food chain and fisheries declines in the Sacramento and San Joaquin Rivers confluence with San Francisco Bay (Bay-Delta), combined with fiscal issues at both the state and federal levels, have raised questions about the implementation and viability of the CALFED Program — a federal and state effort to coordinate water management and ecosystem restoration activities within and around the Bay-Delta. On February 27, 2006, an oversight field hearing on the Bay-Delta fisheries was held by the House Resources Committee to learn about scientific data on the fisheries, potential areas of concern, and plans for restoring the fisheries. The Administration's FY2007 request for the Bureau of Reclamation's CALFED program account is \$38.6 million. The FY2007 request also contains a budget crosscut report as required by P.L. 108-361. This crosscut reports federal funding for programs directly and indirectly related to CALFED objectives. The final appropriation for the CALFED program for FY2006 (P.L. 109-103) is \$37 million, nearly a third of which is for storage studies and planning.

Following the events of Hurricane Katrina, concern has heightened over the vulnerability of Bay-Delta levees and their capability to withstand earthquakes or flooding. The Administration's FY2007 request contains no funds specifically for Bay-Delta levees.

On October 18, the U.S. 9th Circuit Court of Appeals reversed a decision of a lower court, which had denied a challenge to the Bureau of Reclamation's (Bureau) 10-year operation plan for the Klamath Project. The 9th Circuit Court concluded the reasonable and prudent alternative selected in the Biological Opinion on the Bureau of Reclamation's 10-year operation plan was "arbitrary and capricious" because the National Marine Fisheries Service failed to analyze in eight of ten years the effects of project operations on coho salmon, a species that has a three-year life cycle. It is not yet clear what effect the decision will have on Klamath project operations in 2006.

BACKGROUND AND ANALYSIS

For more than a century, the federal government has been involved in developing water projects for a variety of purposes, including flood control, navigation, power generation, and irrigation. Most major water projects, such as large dams and diversions, were constructed by either the Bureau of Reclamation (Bureau), in the Department of the Interior, or the U.S. Army Corps of Engineers (Corps), in the Department of Defense. Traditionally, the Corps has built and maintained projects designed primarily for flood control, navigation, and power generation, whereas Bureau projects were designed primarily to facilitate settlement of the West by storing and providing reliable supplies of water for irrigation and "reclamation" of arid lands. While both agencies supply water for some municipal and industrial uses, they do so largely as a secondary responsibility in connection with larger multipurpose projects.

Most of the nation's public municipal water systems have been built by local communities under prevailing state water laws.

Today, the Bureau operates nearly 350 storage reservoirs and approximately 250 diversion dams — including some of the largest dams in the world, such as Hoover Dam on the Colorado River and Grand Coulee Dam on the Columbia River. In total, the Bureau's projects provide water to approximately 9 million acres of farmland and nearly 31 million people in 17 western states. The Bureau also operates 58 power plants. Because of the strategic importance of its largest facilities, the Bureau has heightened security at all key facilities to protect projects in the wake of the terrorist attacks on September 11, 2001.

Most Bureau water supply projects were built under authority granted to the Secretary of the Interior in the Reclamation Act of 1902, or through individual project authorizations. The original intent of the Reclamation Act was to encourage families to settle and farm lands in the arid and semi-arid West, where precipitation is typically 30% to 50% of what it is in the East. Construction of reclamation projects expanded greatly during the 1930s and 1940s, and continued rapidly until the late 1960s and early 1970s. By the late 1960s, a combination of changing national priorities and local needs, increasing construction costs, and the prior development of most prime locations for water works contributed to a decline in new construction of major water works nationwide. Water supply for traditional off-stream uses — including municipal, industrial, and agricultural uses — was increasingly in direct competition with a growing interest in allocating water to maintain or enhance in-stream uses, such as recreation, scenic enjoyment, and fisheries and wildlife habitat.

During the 1970s, construction of new projects slowed to a handful of major works, culminating in the completion of the Tellico dam project in Tennessee and the Tennessee Tombigbee waterway through Alabama and Mississippi. These projects pitted conservation and environmental groups, as well as some fiscal conservatives, against the traditional water resources development community. New on the scene was the National Environmental Policy Act of 1970 (NEPA), which for the first time required an assessment of the environmental effects of federal projects, and provided for more public scrutiny of such projects. In 1978, President Carter announced that future federal water policy would focus on improving water resources management, constructing only projects that were economically viable, cooperating with state and local entities, and sustaining environmental quality. The Reagan Administration continued to oppose large projects, contending they were fiscally unsound. New construction of federally financed water projects virtually stopped until Congress passed the Water Resources Development Act (WRDA) of 1986, which addressed Corps projects and policies. Federal water research and planning activities were also reduced during the early years of the Reagan Administration, which felt that states should have a greater role in carrying out such activities. Consistent with this outlook, President Reagan abolished the Water Resources Council, an umbrella agency established in 1968 to coordinate federal water policy and to assess the status of the nation's water resource and development needs.

Congress subsequently scaled back several remaining authorized projects, changed repayment and cost-share structures, and passed laws that altered project operations and water delivery programs. For example, in 1982 Congress passed the Reclamation Reform Act, which altered the Bureau's water pricing policies for some users. The act revised acreage limitation requirements and charges for water received to irrigate leased lands.

Congress soon increased local entities' share in construction costs for Corps water resource projects with passage of the 1986 WRDA.

Over the last decade, both the Corps and the Bureau have undertaken projects or programs aimed at mitigating or preventing environmental degradation due in part to the construction and operation of large water projects, while at the same time expanding water supply facilities. The agencies have pursued these actions through administrative efforts and congressional mandates, as well as in response to court actions. Currently, the federal government is involved in several restoration initiatives including the Florida Everglades, the California Bay-Delta, and the Columbia and Snake River basins in the Pacific Northwest. These initiatives have been quite controversial. Each involves many stakeholders at the local and regional level (water users, landowners, farmers, commercial and sports fishermen, urban water suppliers and users, navigational interests, hydropower customers and providers, recreationists, and environmentalists) and has been years in the making. At the same time, demand for traditional or new water resource projects continues — particularly for ways to augment local water supplies, maintain or improve navigation, and control or prevent floods and shoreline erosion. In addition, demand continues from some sectors for new or previously authorized large water supply projects (e.g., Auburn and Temperance Flats dams, and Sites Reservoir in California). For both the Everglades and CALFED, water supply facilities are included in proposals for restoration.

Legislative and Oversight Issues

The 109th Congress is considering several water resource issues in legislation ranging from transferring title of federal facilities to local project users, to individual project authorizations and agency policy changes (e.g., re-operation of water project facilities in the Central Valley of California and in the Colorado and Columbia River Basins). Oversight of ongoing agency activities, such as water management in the Klamath River Basin, Salton Sea restoration, allocation of Colorado River water supplies (particularly within California), and a program to carry out activities affecting the delta confluence of the San Joaquin and Sacramento Rivers at the San Francisco Bay (CALFED) may also be discussed. The broader topic of whether to review federal water activities or establish a national water policy commission was discussed during the 108th Congress, and is also being addressed in the 109th. For example, H.R. 135, which would establish a National Water Commission, passed the House and has been referred to the Senate Environment and Public Works Committee. Funding and policy direction through the annual Energy and Water appropriations bill also influences the construction and operation of projects. (See CRS Report RL32852, *Energy and Water Development: FY2006 Appropriations*, coordinated by Carl E. Behrens.)

Security of Reclamation Facilities

Security remains heightened at Bureau facilities in the wake of terrorist attacks in New York and Washington D.C. on September 11, 2001. The Bureau initially closed visitor facilities and cancelled tours at all facilities. While most visitor facilities have reopened, facilities may close or reopen depending on security alert levels and site-specific concerns at any time. For example, the Bureau heightened security at many facilities during recent code orange alerts and is expected to do so in the future. Further, in February 2004, the Bureau closed the road over Folsom Dam (CA), largely because of security concerns.

Because Bureau facilities were not directly affected by September 11 events, it did not receive funding in the first two releases of emergency supplemental appropriations following the attack. However, the agency received \$30.3 million for security at Bureau facilities as part of the third cluster of emergency supplemental funding included in Division B, Chapter 5, of the FY2002 Defense Appropriations bill (H.R. 3338, P.L. 107-117). The Bureau received \$28.6 million for site security for FY2004; \$43.2 million in FY2005; and \$40 million for FY2006. The Bureau is directed to delineate planned reimbursements by project, and report to the House and Senate Appropriations committees by mid-January, 2006. For FY2007, \$39.6 million is requested by the Administration.

Klamath River Basin

The Klamath River Basin — an area on the California-Oregon border — has become a focal point for local and national discussions on water management and water scarcity. These issues were brought to the forefront in 2001 when severe drought prompted the Bureau to curtail irrigation water deliveries to approximately 200,000 acres of farm and pasture lands within the roughly 235,000-acre Klamath Project service area. The cutback was made to make water available for three fish species under federal Endangered Species Act (ESA) protection (two endangered sucker species, and a threatened coho salmon population). Tensions were also high in 2002 when water temperatures and atypically low flows in the lower Klamath corresponded with the death of at least 33,000 adult salmon.

The Klamath Project has been part of increasingly complex water management issues involving several tribes, fishermen, farmers, environmentalists, hydropower producers, and recreationists. Upstream farmers are generally pitted against fishermen, Native American interests, and other downstream users, and many sides have policy concerns involving valuable sectors of the local and regional economy. Farmers point to their contractual rights to water deliveries from the federal Klamath Project and to hardships for their families if water is cut off; others assert that the salmon fishery is also economically valuable and that farmers could be provided temporary economic assistance, while salmon extinction would be permanent. Still others assert that there are ways to serve all interests, or that the science underlying the determinations of the relevant agencies is simply wrong.

The key issue is how to operate the Bureau's project facilities to meet irrigation contract obligations without jeopardizing the three listed fish. To address this issue, the Bureau issued a 10-year operations plan in February 2002 and a biological assessment (necessary under the ESA) for operating its Klamath Project. However, subsequent biological opinions found the Bureau's 10-year operations plan would likely jeopardize the continued existence of the listed suckers and coho salmon, as well as adversely modify proposed critical habitat. Although biological opinions issued on May 31, 2002, by the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS, also referred to as NOAA Fisheries) both included "reasonable and prudent alternatives" (RPAs) the Bureau formally rejected both final biological opinions and opted to operate under a one-year plan that it asserts complies with the opinions. While met with enthusiasm from area farmers, the Bureau's decision drew much criticism and concern from environmentalists, fishermen, tribes, and others. On April 10, 2003, the Bureau issued its Klamath Project 2003 operations plan and noted that planning for multi year operations of the project is ongoing; the Bureau issued its 2005 operating plan in April 2005. In 2003, 2004, and 2005, the Bureau stated that the current year plan was consistent with the 2002 biological opinions. The ESA agencies

(FWS and NMFS) have not issued a biological opinion on the one-year operations plans and hence the 2002 biological opinions (and RPAs), govern project operations. In the meantime, however, the 2002 NMFS RPA for the coho salmon was found to be “arbitrary and capricious by the U.S. 9th Circuit Court of Appeals. The Court concluded the reasonable and prudent alternative selected in the Biological Opinion on the Bureau of Reclamation’s 10-year operation plan was “arbitrary and capricious” because NMFS failed to analyze in eight of ten years the effects of project operations on coho salmon, a species that has a three-year life cycle. It is not yet clear what effect the decision will have on Klamath project operations in 2006.

Because of the controversy in 2001, the Secretary of the Interior asked the National Research Council (NRC) to evaluate the federal biological opinions that had been used to prevent the Bureau from delivering water to farmers in 2001. The NRC released an interim report in February 2002 and a final report in October 2003; both concluded there was neither sound scientific basis for maintaining Upper Klamath Lake levels and increased river flows as recommended in the 2001 biological opinions, nor sufficient basis for supporting the lower flows in the Bureau’s original operations plan for 2001. Further, the NRC concluded that recovery of endangered suckers and threatened coho salmon in the Klamath Basin might best be achieved by broadly addressing land and water management concerns (including the Klamath dams). NRC also concluded that operation of the Klamath Project (as opposed to operation of other basin projects such as that on the Trinity River) was not the cause of a 2002 lower basin fish kill, and changes in Klamath project operations would not have prevented the fish kill. On October 13, 2004, the Secretary of the Interior announced the signing of a Klamath Watershed Coordination Agreement among four cabinet-level federal agencies. The agreement was initiated to address the fractured resource management specifically noted by the NRC and others.

Legislation pertaining to the Klamath Basin has not been proposed in the 109th Congress. However, the 108th Congress passed §132 of P.L. 108-137, the Energy and Water Development Appropriations for 2004. This section provides authority for the Secretary of the Army to provide “environmental assistance” (design and construction assistance to improve water use efficiency) to non-federal interests in the Upper Klamath River Basin. The Klamath Project under the BOR received \$20.8 million for FY2006; for FY2007, \$24.7 million was requested.

Title Transfer

Congress more and more is considering legislation that would transfer the ownership (title) of individual Bureau of Reclamation water supply projects to current water users. These “title transfer” bills vary depending on the circumstances of each project; however, some general issues apply. Transfer issues range from questions regarding a project’s worth and valuation to legal and policy questions regarding the transfer’s affect on other area water users, fish and wildlife, future project operations, and future management of lands associated with the project.

The Administration first actively negotiated title transfer on a voluntary basis with interested water/irrigation districts beginning in 1995 when it announced a policy “framework” to establish a process for negotiating title transfers. While some districts pursued the Administration’s framework process, others sought direct legislative authority

for transfers. In general, Congress must authorize transfer of title to reclamation facilities (32 Stat. 389; 43 U.S.C. 498), regardless of the process used to get to a transfer agreement.

A central issue with title transfer legislation is whether the transfers should be mandated or just authorized. Some argue that the transfers are “minor land transactions” and advocate that Congress direct they take place within a certain time period. Others strongly disagree. Debate mostly centers on the role the National Environmental Policy Act (NEPA) would and should play prior to a project’s transfer. Environmentalists generally fear that a directed transfer with or without specific NEPA language would effectively allow the Bureau and project transfer proponents to avoid assessing and/or mitigating environmental effects of the proposed transfers. Conversely, project proponents have pursued directed transfers to avoid what they see as unnecessary delays and to ensure transfers take place. For example, some title transfer legislation directs the transfer to occur “in accordance with all applicable law,” while other legislation directs it to take place pursuant to an agreement already negotiated with project water users. Some laws authorize the transfers (e.g., P.L. 106-220 and P.L. 106-221), whereas others direct the transfer (e.g., P.L. 106-249, P.L. 106-377, and P.L. 106-512).

Other discussions center on the role the Endangered Species Act (ESA) might play on project operations after the transfer. One of the main concerns for environmentalists appears to be that once the project is out of federal ownership there will no longer be a legal obligation for the district to consult with other federal entities on the impact of project operations on threatened or endangered species, as is now required of the Bureau under Section 7 of the ESA. Additionally, environmentalists and others fear that once out of federal hands there will be little if any public scrutiny of project operations. Conversely, project proponents are likely to favor private operations.

Controversies regarding the application of NEPA and ESA to project title transfers, as well as the question of whether to direct or authorize the transfers, are likely to remain at issue. Other issues involve concerns about the overall costs of the transfers, who should pay for costs associated with the transfer, effects on third parties, liability, the valuation of project facilities and lands (and treatment of mineral or other receipts), and financial compensation for the projects. Related to many of the issues outlined above is the question of how these projects might be operated in the future. Although the House Resources Committee has noted that it contemplates that facilities would be maintained and managed without significant changes, and in some cases bill language states that the projects shall be managed for the purposes for which the project was authorized, transfer bills approved by the committees have been silent on enforcement issues and in describing what might occur if the new owners change operations (other than they must comply with all applicable laws at that time). Little has been said, for example, about what might occur if new project owners decided to partition project lands for new homes and convert irrigation water to domestic use.

To date, identical bills to transfer irrigation works have been introduced in the 109th Congress: H.R. 3443 and S. 1498, which would transfer title to certain Reclamation distribution facilities to the Northern Colorado Water Conservancy District. Another set of title transfer bills (H.R. 1564 and S. 1965) have also been introduced; however, these bills would transfer buildings and lands only to the Yakima-Tieton Irrigation District, and do not involve transfer of irrigation works.

Project Construction

California Bay-Delta/CALFED. On October 25, 2004, the President signed into law P.L. 108-361 (H.R. 2828), a bill to authorize implementation of the CALFED Bay-Delta Program. Authorization for federal funding for the CALFED Program expired at the end of FY2000, although some activities supporting the program were funded. P.L. 108-361 authorizes \$389 million for the federal share of costs for activities authorized under the act for FY2005-FY2010. The Administration's FY2007 request for the Bureau of Reclamation's CALFED program account is \$38.6 million; of which \$10.9 million is for the Environmental Water Account, \$11.3 million for water storage activities, and \$1.9 million for ecosystem restoration. The final Energy and Water Development Appropriations Act for FY2006 (P.L. 109-103) includes \$37 million for CALFED, approximately \$11 million of which is for storage project studies and planning, and \$0.5 million is to be used to study levee stability and reconstruction.

The authorization of an annual appropriation of \$143 million for implementing portions of an ecosystem protection plan and long-term restoration projects for the San Francisco Bay/San Joaquin and Sacramento Rivers Delta (Bay-Delta, also known as the CALFED program) expired September 30, 2000. The initial authorization for CALFED funding (P.L. 104-208, Division E) came on the heels of a 1994 agreement among state and federal agencies, urban, agricultural, and environmental interests to protect the Bay-Delta while satisfying key needs of various involved interests. A Record of Decision (ROD) for the current CALFED Program was issued by a consortium of state and federal agencies in August 2000. The process was initiated to address critical water quality, water supply, and fish and wildlife habitat issues in the 738,000 acre Bay-Delta estuary and has grown into a comprehensive effort to address long-term water supply/quality issues for most of the state.

On October 25, 2004, the President signed into law P.L. 108-361 (H.R. 2828) — a bill to authorize implementation of the CALFED Bay-Delta Program. P.L. 108-361 approves the ROD as a framework for addressing the CALFED Bay-Delta Program and authorizes, under existing and new authorizations, several activities and projects related to the components of CALFED. This law also authorizes \$389 million for the federal share of costs for activities authorized under the act for FY2005-FY2010. For more information on the status of the CALFED Program, see CRS Report RL31975, *CALFED Bay-Delta Program: Overview of Institutional and Water Use Issues*, by Pervaze A. Sheikh and Betsy A. Cody.

Recent reports of food chain and fisheries declines in the Bay-Delta, combined with fiscal issues at both the state and federal levels, and governance issues, have raised questions about the implementation and viability of the CALFED Program. In the Bay-Delta, the Delta smelt and striped bass fisheries are at record lows and longfin smelt and threadfin smelt populations are declining. Scientists are investigating potential causes and solutions. A new governing structure for CALFED has been proposed. The program would be housed under the Secretary of Resources for California and contain three new entities, a executive leadership council, state public advisory committee, and an independent oversight body. The California Bay-Delta Authority Board will be eliminated. These proposals and others are included in the CALFED 10-year Action Plan (draft) at [<http://calwater.ca.gov/>], accessed March 1, 2006.

Oversight issues during the 109th Congress are expected to include project financing, water storage project programs, and implementation of the Operations Criteria and Plan and South Delta Improvements Plan. However, recent news reports of food chain and fisheries declines in the Sacramento and San Joaquin Rivers confluence with San Francisco Bay (Bay-Delta), combined with fiscal issues at both the state and federal levels, have raised questions about the implementation and viability of the CALFED Program.

Another issue receiving heightened attention in the wake of Hurricane Katrina is the vulnerability to natural disasters (i.e. earthquakes and floods) of the Bay-Delta levee system. Approximately 22 million people rely on the Delta for drinking water, and most of the water used to grow crops in the Central Valley south of the Delta flows through the Delta. No specific funds were requested for Delta levee maintenance and repair in the Administration's budget request for FY2007.

Rural Water Supply Projects. Beginning with authorization of the WEB Rural Water Supply Act in 1980 (P.L. 96-355), Congress has authorized the Bureau to fund the construction of several "rural water supply" projects and oversee construction of another, with funding coming from the Department of Agriculture. These projects have individual authorizations, but all are generally aimed at providing water for municipal and industrial (M&I) uses in rural areas — a departure from the historical mission of providing water for irrigation, with M&I use as an incidental project purpose. The most recent project to be approved is for Espanola New Mexico (P.L. 108-354). This legislation also includes authorization for a feasibility study for a Chimayo water supply system.

These projects have been somewhat controversial, largely due to the relatively large share of federal construction costs proposed. Typically, the Bureau requires that people benefitting from a reclamation project repay 100% of the construction costs (plus interest) attributed to M&I project purposes. For example, if a project's purpose is 50% irrigation, 30% flood control, and 20% M&I, M&I water users would pay (reimburse the federal government) for 100% of their 20% of construction costs of the project, plus interest (the federal cost share would be 0% of the 20% cost allocated to M&I purposes). In contrast, the federal cost share (non-reimbursable component) for the Bureau's "rural water supply" projects typically ranges from 75% to 85%. Some have raised concerns that these projects have the potential to overwhelm the Bureau's budget. For example, the federal contribution to the Lewis and Clark project is estimated at \$214 million. For perspective, the Bureau's budget ranges in the neighborhood of approximately \$800 million (net current authority) annually. Prior to the recent authorizations, the Bureau had approximately 60 authorized projects in various stages of construction with projected construction costs for completion of \$4.9 billion. Outstanding construction authorizations now total approximately \$7 billion (excluding "deferred" projects such as Auburn Dam).

Some also fear that these projects are outside the realm of those historically constructed by the Bureau and believe they would be better handled via other existing federal water quality or water supply programs, such as the USDA's Rural Utility Service or the EPA's state revolving loan fund. However, as designed, the projects do not fit EPA or USDA criteria, and thus project proponents have looked to the Bureau for funding. An additional concern with the Lewis and Clark legislation was that it authorized projects outside of the Bureau of Reclamation's historic service area (outside the 17 western states). (For

information on other federal water supply programs, see CRS Report RL30478, *Federally Supported Water Supply and Wastewater Treatment Programs*.)

On May 11, 2005, the Senate Energy and Natural Resources Committee held a hearing on S. 895, a bill to establish a new rural water supply program to be administered by the Bureau of Reclamation, Department of the Interior. The bill combines elements of three bills introduced in the 108th Congress: S. 1085 (Bingaman), S. 1732 (Domenici, by request), and S. 2218 (Domenici). S. 895, as amended, passed the Senate by unanimous consent November 16, 2005 and waits House action.

Title 16 Projects. Title 16 of P.L. 102-575 directs the Secretary of the Interior to develop a program to “investigate and identify” opportunities to reclaim and reuse wastewater and naturally impaired ground and surface water. The original act authorized construction of five reclamation wastewater projects and six wastewater and groundwater recycling/reclamation studies. The act was amended in 1996 (P.L. 104-206) to authorize another 18 construction projects and an additional study, and again in 1998 (P.L. 105-321) and 2000 (P.L. 106-554, Division B, Section 106) to authorize two more construction projects. Since then, several individual project authorizations amending the Reclamation and Wastewater and Groundwater Study and Facilities Act have been passed, including three during the 108th Congress: P.L. 108-233, Irvine, CA; P.L. 108-7, North Las Vegas, NV (originally authorized in P.L. 104-206); and P.L. 108-361, Williamson County, Texas. Nineteen Title 16 bills (including companion bills) have been introduced (see “Legislation,” below) in the 109th Congress, 17 active bills remain pending after the enactment of P.L. 109-70.

The general purpose of Title 16 projects is to provide supplemental water supplies by recycling/reusing agricultural drainage water, wastewater, brackish surface and groundwater, and other sources of contaminated water. Water reclaimed via Title 16 projects may be used for M&I water supply (non-potable purposes only), irrigation supply, groundwater recharge, fish and wildlife enhancement, or outdoor recreation. Projects may be permanent or for demonstration purposes. Project construction costs are shared by a local project sponsor or sponsors and the federal government. The federal share is generally limited to a maximum of 25% of total project costs and in most cases the federal share is non-reimbursable, resulting in a *de facto* grant to the local project sponsor(s). Congress limited the federal share of individual projects to \$20 million beginning in 1996 (P.L. 104-266). The federal share of feasibility studies is limited to 50% of the total, except in cases of “financial hardship”; however, the federal share must be reimbursed. The Secretary may also accept in-kind services that are determined to positively contribute to the study.

The Bureau’s water reclamation and wastewater recycling program is limited to projects and studies in the 17 western states authorized in the Reclamation Act of 1902, as amended (32 Stat. 388), unless specifically authorized by Congress.¹ Authorized recipients of program assistance include “legally organized non-federal entities” (e.g., irrigation districts, water districts, and municipalities). Construction funding is generally limited to projects where (1)

¹ Section 103(a)(4) of P.L. 106-566 directs the Secretary of the Interior to study recycling, reclamation, and reuse of water and wastewater for agricultural and non-agricultural uses in the state of Hawaii.

an appraisal investigation and feasibility study have been completed and approved by the Secretary; (2) the Secretary has determined the project sponsor is capable of funding the non-federal share of project costs; and (3) the local sponsor has entered a cost-share agreement committing to funding its share.

Total funding for Title 16 projects was \$28.4 million for FY2004, \$23.0 million for FY2005, and \$25.6 million for FY2006. For FY2007, \$10.1 million is requested for Title 16 projects.

Salton Sea

In pending legislation, S. 728, the Water Resources Development Act of 2005, the U.S. Army Corps of Engineers would be authorized to conduct a study of pilot projects identified in the preferred restoration concept plan approved by the Salton Sea Authority. This study would determine that the pilot projects are economically justifiable, technically sound, environmentally acceptable, and meet the objectives of restoring the Salton Sea. Under S. 728, a total cost of \$26.0 million would be authorized, of which \$16.9 million would be the federal cost, and \$9.1 million the non-federal cost.

Federal and state agencies, and regional organizations, are currently working to determine the best alternative for restoring the Salton Sea. In P.L. 108-361, which reauthorized the CALFED Program, a provision was included stating that not later than December 2006, the Secretary of the Interior in coordination with the state of California and the Salton Sea Authority shall determine the best alternative for restoring the Salton Sea. Some restoration proposals have been suggested and alternatives for restoring the sea are tentatively expected to be selected by June 2005.

The Salton Sea is a large, inland water body in California that is saline-rich and is sustained by agricultural run-off from farmlands in nearby Imperial and Coachella valleys. It provides permanent and temporary habitat for many species of plants and animals, including several endangered species.² It also serves as an important recreational area for the region. The Salton Sea has been altered by increasing salinity caused by a steadily decreasing water table. High salinity levels have changed habitats and stressed several populations of plants and animals. The scope and costs of efforts to restore the Salton Sea was reported in a study done by the Department of the Interior in 2003.³

Several proposals have been floated to address Salton Sea issues. In July 2004, the Salton Sea Authority endorsed a restoration plan for the Salton Sea that calls for the construction of a causeway across the center of the sea. This would separate the sea into two basins, an 85,000-acre North Basin that would reach salinity levels similar to the ocean, and a southern section that would consist of wetlands areas as well as numerous recreational lakes ranging from freshwater to hyper-saline. The estimated cost of this project is between \$650 and \$730 million. This plan is now under review by the California Department of Water Resources. Funding for restoring the Salton Sea is expected to come from a

² The Salton Sea is considered an important stopover for birds on the Pacific flyway.

³ U.S. Department of the Interior, Bureau of Reclamation, *Salton Sea Study: Status Report*, January 2003.

restoration fund that will receive money from fees collected from water sales in the region. This fund was developed from a set of three bills enacted by the state of California on September 12, 2003, and is expected to generate up to \$300 million for restoring the Salton Sea. As proposals for restoring the Salton Sea and related Colorado River issues continue to be negotiated during the 109th Congress, congressional oversight is expected to continue.

LEGISLATION

Title 16 Projects⁴

P.L. 109-70 (S. 264, Akaka, H.R. 843, Abercrombie). To amend the Reclamation Wastewater and Groundwater Study and Facilities Act to authorize certain projects in the **State of Hawaii** and to amend the Hawaii Water Resources Act of 2000; to modify the water resources study. Introduced Feb. 2, 2005; reported without amendment by the Senate Committee on Energy and Natural Resources (S.Rept. 109-33) March 10, 2005. Passed the Senate July 26; referred to Committee on House Resources, July 27. Passed the House under suspension of the rules Sept. 13, 2005. Became public law No. 109-70 Sept. 21, 2005.

H.R. 122 (Issa). To amend the Reclamation Wastewater and Groundwater Study and Facilities Act to authorize the Secretary of the Interior to participate in the **Eastern Municipal Water District** Recycled Water System Pressurization and Expansion Project. Introduced Jan. 4, 2005; referred to House Committee on Resources (Subcommittee on Water and Power); hearing held Oct. 6, 2005.

H.R. 177 (Miller, Gary). To amend the Reclamation Wastewater and Groundwater Study and Facilities Act to authorize the Secretary of the Interior to participate in the **Prado Basin** Natural Treatment System Project, to authorize the Secretary to carry out a program to assist agencies in projects to construct regional brine lines in California, to authorize the Secretary to participate in the **Lower Chino** Dairy Area desalination demonstration and reclamation project, and for other purposes. Introduced on Jan. 4, 2005; referred to House Committee on Resources (Subcommittee on Water and Power); considered under suspension of the rules and passed, as amended, on Oct. 18, 2005; referred to Senate Committee on Energy and Natural Resources. See also related bill S. 2106 (Feinstein).

H.R. 540 (Gibbons). To authorize the Secretary of the Interior to convey the Newlands Project Headquarters and Maintenance Yard Facility to the Truckee-Carson Irrigation District (Titles II, III, VII, and VIII of this bill would amend the Reclamation Wastewater and Groundwater Study and Facilities Act for projects in **Inland Empire**, CA and **Rancho Cucamonga**, CA; **Yucaipa** CA and **Corona**, CA; **Brownsville**, TX; and **El Paso**, TX, respectively). Introduced Feb. 2, 2005; referred to House Committee on Resources; considered and passed (amended) under suspension of the rules on May 16, 2005; referred to Senate Committee on Energy and Natural Resources. See also H.R. 1008 (Calvert), section II.

⁴ Listed below are bills that have been the subject of hearings or other legislative action beyond introduction. Other bills introduced are listed in a summary paragraph following the list of legislation.

H.R. 2334 (Capps). To amend the Reclamation Wastewater and Groundwater Study and Facilities Act to authorize the Secretary of the Interior to participate in the design, planning, and construction of permanent facilities for the GREAT project to reclaim, reuse, and treat impaired waters in the area of **Oxnard**, California. Introduced May 12, 2005; referred to the House Committee on Resources (Subcommittee on Water and Power). Subcommittee hearings held Dec. 7, 2005.

H.R. 2341 (Doggett). To amend the Reclamation Wastewater and Groundwater Study and Facilities Act to authorize the Secretary of the Interior to participate in the design, planning, and construction of a project to reclaim and reuse wastewater within and outside of the **City of Austin** Water and Wastewater Utility area, Texas. Introduced May 12, 2005; referred to the House Committee on Resources (Subcommittee on Water and Power). Subcommittee hearings held Oct. 6, 2005.

H.R. 3418 (Edwards, Chet). To amend the Reclamation Wastewater and Groundwater Study and Facilities Act to authorize the Secretary of the Interior to participate in the **Central Texas** Water Recycling and Reuse Project, and for other purposes. Introduced July 25, 2005; referred to the House Committee on Resources (Subcommittee on Water and Power). Subcommittee hearings held Oct. 6, 2005.

The following Title 16 bills have also been introduced: H.R. 123 (Issa); H.R. 497 (Sanchez); H.R. 802 (Dreier) and related bill S. 746 (Feinstein); H.R. 855 (Ortiz); H.R. 863 (Reyes); H.R. 4270 (Grijalva); H.R. 4271 (Grijalva); H.R. 4545 (Sanchez).

Water Supply and Conservation

P.L. 109-48 (H.R. 1046, Cubin; see also S. 99 (Enzi)). To authorize the Secretary of the Interior to contract with the city of Cheyenne, Wyoming, for the storage of the city's water in the Kendrick Project, Wyoming. Introduced March 2, 2005; referred to the House Committee on Resources (Subcommittee on Water and Power); considered and passed under suspension of the rules on May 16, 2005; reported without amendment by Senate Committee on Energy and Natural Resources (S Rpt. 109-27) on March 10, 2005; presented to President on July 27, 2005; signed by President on August 2, 2005.

H.R. 125 (Issa). To authorize the Secretary of the Interior to construct facilities to provide water for irrigation, municipal, domestic, military, and other uses from the Santa Margarita River, California, and for other purposes. Introduced Jan. 4, 2005; referred to House Committee on Resources (Subcommittee on Water and Power) and House Armed Services (Subcommittee on Readiness); mark-up session held May 18, 2005; ordered to be reported in the nature of a substitute (amended) by unanimous consent by the House Resources Committee on May 18, 2005; reported (Amended) by the Committee on Resources (H.Rept. 109-297, Part I) on Nov. 16, 2005; considered and passed under suspension of the rules on Dec. 13, 2005; referred to Senate Committee on Environment and Public Works.

H.R. 135 (Linder). To establish the "Twenty-First Century Water Commission" to study and develop recommendations for a comprehensive water strategy to address future water needs. Introduced Jan. 4, 2005; referred to House Committee on Resources (Subcommittee on Water and Power) and House Transportation and Infrastructure

(Subcommittee on Water Resources and Environment); considered and passed under suspension of the rules on April 12, 2005; referred to Senate Committee on Environment and Public Works.

H.R. 2563 (Otter). To authorize the Secretary of the Interior to conduct feasibility studies to address certain water shortages within the Snake, Boise, and Payette River systems in Idaho, and for other purposes. Introduced May 24, 2005; referred to House Committee on Resources (Subcommittee on Water and Power); subcommittee hearings held Nov. 3, 2005.

H.R. 3897 (Radanovich). To authorize the Secretary of the Interior, acting through the Bureau of Reclamation to enter into a cooperative agreement with the Madera Irrigation District for purposes of supporting the Madera Water Supply and Groundwater Enhancement Project. Introduced Sept. 27, 2005; referred to the House Committee on Resources. Markup session held Nov. 16, 2005; reported (amended) by unanimous consent on Nov. 16, 2005 (H.Rept. 109-368); placed on union calendar (no. 197).

S. 178 (Domenici), H.R. 1711 (Wilson). A bill to provide assistance to the State of New Mexico for the development of comprehensive State water plans, and for other purposes. Introduced January 26, 2005; referred to the Senate Committee on Energy and Natural Resources; mark-up session held Feb. 9, 2005; reported favorably without amendment by Senate Committee on Energy and Natural Resources on March 7, 2005 (S.Rept. 109-16); passed Senate without amendment by unanimous consent on July 26, 2005; referred to House Committee on Resources (Subcommittee on Water and Power).

S. 247 (Smith, Gordon). A bill to authorize the Secretary of the Interior to assist in the planning, design, and construction of the Tumalo Irrigation District Water Conservation Project in Deschutes County, Oregon. Introduced Feb. 1, 2005; referred to Senate Committee on Energy and Natural Resources (Subcommittee on Water and Power); hearing held July 12, 2005 (S. Hrg. 109-138).

S. 251 (Smith, Gordon). A bill to authorize the Secretary of the Interior, acting through the Bureau of Reclamation, to conduct a water resource feasibility study for the Little Butte/Bear Creek Sub-basins in Oregon. Introduced Feb. 1, 2005; referred to Senate Committee on Energy and Natural Resources; hearings held April 19, 2005 (S.Hrg. 109-96); reported with amendments (S.Rept. 109-165); passed Senate with amendments by unanimous consent on Nov. 16, 2005; referred to House Committee on Resources (Subcommittee on Water and Power).

S. 519 (Hutchison), H.R. 386 (Hinojosa). To amend the Lower Rio Grande Valley Water Resources Conservation and Improvement Act of 2000 to authorize additional projects and activities under that act, and for other purposes. Introduced March 3, 2005; referred to Senate Committee on Energy and Natural Resources (Subcommittee on Water and Power) and House Committee on Resources (Subcommittee on Water and Power); hearing held by Senate Committee on Energy and Natural Resources (Subcommittee on Water and Power) on April 19, 2005 (S. Hrg. 109-96).

S. 895 (Domenici). To direct the Secretary of the Interior to establish a rural water supply program in the Reclamation States to provide a clean, safe, affordable, and reliable

water supply to rural residents. Introduced April 25, 2005; referred to Senate Committee on Energy and Natural Resources; hearings held May 11, 2005 (S.Hrg. 109-105); reported with an amendment in the nature of a substitute (S.Rept. 109-148) on Oct. 19, 2005; passed Senate with an amendment by unanimous consent on Nov. 16, 2005; referred to House Committee on Resources (Subcommittee on Water and Power). See also related bill H.R. 4418 (Pearce).

The following water supply and conservation bills have also been introduced: H.R. 123 (Issa); H.R. 497 (Sanchez); H.R. 802 (Dreier) and related bill S. 746 (Feinstein); H.R. 855 (Ortiz); H.R. 863 (Reyes); H.R. 2587 (Cunningham); H.R. 4270 (Grijalva); H.R. 4271 (Grijalva); H.R. 4545 (Sanchez); H.R. 524 (Berkley); H.R. 1008 (Calvert); H.R. 1326 (Thompson); H.R. 3691 (Nunes); S. 353 (Conrad).

Miscellaneous

P.L. 109-138 (H.R. 4195, Walden). To authorize early repayment of obligations to the Bureau of Reclamation within Rogue River Valley Irrigation District or within Medford Irrigation District. Introduced Nov. 1, 2005; referred to House Committee on Resources (Subcommittee on Water and Power); subcommittee hearings held Nov. 9, 2005; mark-up session held Nov. 16, 2005; reported by unanimous consent Dec. 6, 2005 (H.Rept. 109-323); passed House under suspension of the rules; referred to Senate Committee on Energy and Natural Resources; passed Senate without amendment by unanimous consent. Became public law 109-137 on Dec. 22, 2005. See also related bills: H.R. 3618, S. 1576, S. 1760

H.R. 2720 (Pearce). To further the purposes of the Reclamation Projects Authorization and Adjustment Act of 1992 by directing the Secretary of the Interior, acting through the Commissioner of Reclamation, to carry out an assessment and demonstration program to control salt cedar and Russian olive, and for other purposes. Introduced May 25, 2005; referred to the House Committee on Resources (Subcommittee on Water and Power and Subcommittee on Forests and Forest Health; subcommittee hearings held July 14, 2005; mark-up session held Nov. 16, 2005; report by unanimous consent on Dec. 13, 2005 (H.Rept. 109-341, Part I.); placed on union calendar (no. 190). See also related bill S. 177 (Domenici).

H.R. 2925 (Hinojosa), S. 648 (Smith, Gordon). To amend the Reclamation States Emergency Drought Relief Act of 1991 to extend the authority for drought assistance. Introduced June 15, 2005; referred to House Committee on Resources (Subcommittee on Water and Power); subcommittee hearings held Sept. 27, 2005.

H.R. 3153 (Cubin). To reauthorize the Upper Colorado and San Juan River Basin endangered fish recovery implementation programs. Introduced June 30, 2005; referred to House Committee on Resources (Subcommittee on Water and Power); reported by unanimous consent on Dec. 13, 2005 (H.Rept. 109-340); placed on union calendar (no. 189). See also related bill: S. 1578 (Allard).

H.R. 3443 (Musgrave), S. 1498 (Allard). To direct the Secretary of the Interior to convey certain water distribution facilities to the Northern Colorado Water Conservancy District. Introduced July 26, 2005; referred to the House Committee on Resources (Subcommittee on Water and Power); subcommittee hearings held Sept. 27, 2005; reported

by unanimous consent (H.Rept. 109-290); passed (amended) under suspension of the rules on Dec. 13, 2005; referred to Senate Committee on Energy and Natural Resources.

H.R. 3626 (Bishop), S. 1811 (Hatch). To authorize the Secretary of the Interior to study the feasibility of enlarging the Arthur V. Watkins Dam Weber Basin Project, Utah, to provide additional water for the Weber Basin Project to fulfill the purposes for which that project was authorized. Introduced July 29, 2005; referred to House Committee on Resources. Committees (Subcommittee on Water and Power); reported (amended) by unanimous consent on Dec. 13, 2005 (H.Rept. 109-339); placed on union calendar (188).

H.R. 3812 (Pombo). To authorize the Secretary of the Interior to prepare a feasibility study with respect to the Mokelumne River, and for other purposes. Introduced Sept. 15, 2005; referred to House Committee on Resources (Subcommittee on Water and Power); considered and passed (amended) under suspension of the rules; referred to Senate Committee on Energy and Natural Resources.

H.R. 3929 (Calvert). To amend the Water Desalination Act of 1996 to authorize the Secretary of the Interior to assist in research and development, environmental and feasibility studies, and preliminary engineering for the Municipal Water District of Orange County, California, Dana Point Desalination Project located at Dana Point, California. Introduced September 28, 2005; referred to House Committee on Resources (Subcommittee on Water and Power) and House Committee on Science; subcommittee hearings held Oct. 6, 2005; mark-up session held Nov. 16, 2005; reported (amended) by unanimous consent on Dec. 12, 2005 (H.Rept. 109-335, Part I); placed on union calendar (no. 185).

H.R. 4013 (Cannon). To amend the Reclamation Projects Authorization and Adjustment Act of 1992 to provide for conjunctive use of surface and groundwater in Juab County, Utah. Introduced Oct. 7, 2005; referred to House Committee on Resources (Subcommittee on Water and Power); subcommittee hearing held Feb. 8, 2006. See also related bill S. 1812 (Hatch).

S. 166 (Smith, Gordon). A bill to amend the Oregon Resource Conservation Act of 1996 to reauthorize the participation of the Bureau of Reclamation in the Deschutes River Conservancy, and for other purposes. Introduced Jan. 25, 2005; referred to Senate Committee on Energy and Natural Resources; hearings held April 19, 2005 (S. Hrg. 109-96); reported without amendment (S. Rpt. 109-164); passed Senate without amendment by unanimous consent Nov. 16, 2005.

S. 231 (Smith, Gordon). A bill to authorize the Bureau of Reclamation to participate in the rehabilitation of the Wallowa Lake Dam in Oregon, and for other purposes. Introduced Feb. 1, 2005. Mark-up session held Feb. 9, 2005; reported favorably without amendment by Senate Committee on Energy and Natural Resources on March 10, 2005 (S. Rpt. 109-30); passed Senate without amendment by unanimous consent on July 26, 2005; referred to House Committee on Resources (Subcommittee on Water and Power).

S. 232 (Smith, Gordon). A bill to authorize the Secretary of the Interior, acting through the Bureau of Reclamation, to assist in the implementation of fish passage and screening facilities at non-Federal water projects, and for other purposes. Introduced Feb. 1, 2005. Mark-up session held Feb. 9, 2005; reported by Senate Committee on Energy and

Natural Resources on March 10, 2005 (S.Rept. 109-31); passed Senate without amendment by unanimous consent on July 26, 2005; referred to House Committee on Resources (Subcommittee on Water and Power and Subcommittee on Fisheries and Oceans).

S. 819 (Johnson, Tim), H.R. 3967 (Herseth). To authorize the Secretary of the Interior to reallocate costs of the Pactola Dam and Reservoir, South Dakota, to reflect increased demands for municipal, industrial, and fish and wildlife purposes. Introduced April 15, 2005; Referred to Senate Committee on Energy and Natural Resources (Subcommittee on Water and Power); hearing held July 12, 2005 (S. Hrg. 109-138); reported without amendment (S.Rept. 109-168); passed Senate by unanimous consent Nov. 16, 2005; referred to House Committee on Resources (Subcommittee on Water and Power).

S. 1017 (Chafee). To reauthorize grants from the water resources research and technology institutes established under the Water Resources Research Act of 1984. Introduced May 12, 2005; referred to Senate Committee on Environment and Public Works; reported with amendments (S. Rpt 109-90); placed on Senate Legislative Calender (No. 139) on June 27, 2005; passed Senate with amendments by unanimous consent on Sept. 27, 2005; referred to House Committee on Resources (Subcommittee on Water and Power).

S. 1338 (Murkowski). A bill to require the Secretary of the Interior, acting through the Bureau of Reclamation and the United States Geological Survey, to conduct a study on groundwater resources in the state of Alaska, and for other purposes. Introduced June 29, 2005; referred to Senate Committee on Energy and Natural Resources (Subcommittee on Water and Power). Hearing held July 12, 2005 (S. Hrg. 109-138); reported with an amendment favorably on Sept. 27, 2005 (S.Rept. 109-170); passed Senate with an amendment by unanimous consent on Nov. 16, 2005; referred to House Committee on Resources (Subcommittee on Water and Power).

S. 1578 (Allard). Upper Colorado and San Juan River Basin Endangered Fish Recovery Programs re-authorization Act of 2005. Introduced July 29, 2005; referred to Senate Committee on Energy and Natural Resources (Subcommittee on Water and Power); hearings held Oct. 6, 2005; mark-up session held Nov. 16, 2005; reported without amendment on Dec. 8, 2005 (S.Rept. 109-196); passed by unanimous consent on Dec. 16, 2005. See also related bill H.R. 3153 (Cubin).

S. 1760 (Smith, Gordon). A bill to authorize early repayment of obligations to the Bureau of Reclamation within Rogue River Valley Irrigation District or within Medford Irrigation District. Introduced September 22, 2005; referred to the Senate Committee on Energy and Natural Resources (Subcommittee on Water and Power); hearing held Oct. 6, 2005; mark-up session held Nov. 16, 2005; reported without amendment on Dec. 8, 2005; placed on legislative calender (no. 315). See also related bills: H.R. 3618, H.R. 4195, S. 1576.

The following western water bills have also been introduced: H.R. 487 (Pearce); H.R. 2555 (Musgrave) and related bill S. 1106 (Allard); H.R. 3182 (Pombo); H.R. 3521 (Beauprez) and related bill S. 1202 (Allard).