

# CRS Report for Congress

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## Water Resource Issues in the 107th Congress

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### Summary

Growing population and changing values have increased pressure on existing water supplies, resulting in water use conflicts throughout the country. These conflicts are particularly evident in the West, where population is expected to increase by 30% in the next 20-25 years and where urban needs often conflict with agricultural needs, as well as with increased demand for water for endangered species, recreation, and scenic enjoyment. The 107<sup>th</sup> Congress may debate several water resource issues, including: appropriations for recently authorized projects (*e.g.*, Animas La Plata, and Garrison (Dakota Water Resources project)); privatization of federal facilities; and, agency policy/program changes (*e.g.* reoperation of federal projects and restoration efforts affecting the California Bay-Delta (CALFED), the Columbia/Snake river system, and the Missouri River system). The 107<sup>th</sup> Congress may also consider proposals to reform the way the U.S. Army Corps of Engineers evaluates its projects. Also at issue is the broader question of what the future role of traditional water resource agencies ought to be in an era of changing public demands, declining budgets, and integrated environmental/resource management. This product will be updated as legislative developments warrant. For more information on western water resource legislation, see CRS Issue Brief IB10019.

### Introduction

Water supply and management issues are becoming increasingly important as the demand on existing supplies continues to grow. Increasing populations in many areas, combined with increasing demand for water for recreation, scenic value, and fish and wildlife habitat, have resulted in conflicts throughout the country, especially in the arid West. Major water resource development projects (large dams and diversions) traditionally met much of the consumptive demand for water, especially for the largest categorical

user, irrigated agriculture; however, the financial and environmental costs of such projects have limited development for more than two decades. Additionally, development projects for consumptive use, power generation, and flood control have been criticized for degrading recreational opportunities and scenic values, and for limiting flows or altering stream temperatures and otherwise degrading water quality for fish and wildlife. Consequently, considerable public pressure has been focused on getting water resources agencies to alter project operations or to otherwise mitigate environmental impacts.

In the West, naturally scarce water supplies and increasing urban populations<sup>1</sup> have spawned new debates over water allocation — particularly over water for threatened or endangered species — and have increased federal-state tensions, since states generally have had primacy in intrastate water allocation. Water marketing and water trading are becoming increasingly accepted, but some federal and state laws limit this option. Some critics have called for more efficient use of agricultural water and even transfer of water from agricultural to urban uses. Yet, agricultural users argue that stable supplies of low-cost water contribute to production of the nation's food supply, and therefore provide widespread benefits. Further, any discussion of water allocation is complicated by the labyrinth of individual water rights, long-term water contracts, and decades of incremental state and federal law on water use and development. Nonetheless, urban water systems will likely make major demands and play a major role in future allocation or re-allocation decisions.

Nationwide, threatened and endangered species and general concern over the health of the nation's rivers and riparian areas have driven increased attention to river and watershed restoration efforts. The federal government is involved in several restoration initiatives ranging from the Florida Everglades to the San Francisco Bay-San Joaquin/Sacramento Rivers Delta. Yet, the demand for traditional or new water supply projects, navigational improvements, flood control projects, and beach and shoreline protection efforts continues. These issues have been and will continue to be debated during consideration of individual project authorizations, as well as during debate on water resource development legislation and during consideration of FY2002 appropriations for the Bureau of Reclamation and the U.S. Army Corps of Engineers (Energy and Water Development Appropriations). For more information on funding issues, see CRS Report RL30507, *Appropriations for FY2001: Energy and Water Development*.

Specific issues that may surface during the 107<sup>th</sup> Congress are discussed below. Other, general issues that may arise include federal reserved water rights in relation to federal lands, transfer of water across federal lands and through federal facilities, Indian water rights settlements, removal of some dams, and licensing of non-federal hydro power facilities (*i.e.*, facilities regulated by the Federal Energy Regulatory Commission (FERC)). Further, with a new incoming Administration, there could be broad-based Executive Branch initiatives affecting traditional institutional roles and policies, with or without congressional legislative action.

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<sup>1</sup> The population in the West is projected to increase by 30% in the next 20-25 years. (Western Water Policy Review Advisory Commission. *Water in the West: Challenge for the Next Century*. Denver, CO: June, 1998. p. xiii.)

## Water Resource Projects

Most of the large dams and water diversion structures in the United States were built by, or with the assistance of, the Bureau of Reclamation (Bureau) or the U.S. Army Corps of Engineers (Corps). Traditionally, Bureau projects were designed principally to provide reliable supplies of water for irrigation and some municipal and industrial uses; Corps projects were designed principally for flood control, navigation, and power generation. The Bureau currently manages nearly 350 storage reservoirs and approximately 250 diversion dams in 17 western states,<sup>2</sup> providing water to approximately 9 million acres of farmland and 31 million people. The Corps' operations are much more widespread and diverse, and include several thousand flood control and navigation projects throughout the country, including 25,000 miles of waterways (with 238 locks), 926 harbors, and 383 dam and reservoir projects (plus 75 hydroelectric plants).

Both the Corps and the Bureau have experienced budget declines over the past 20 years, particularly in "real dollar" amounts appropriated for construction. The Corps was appropriated \$4.5 billion for FY2001, including \$1.72 billion for construction. Reflecting its relatively smaller size and more narrow scope of activities, the Bureau received a total of \$0.79 billion for FY2001. Additionally, both agencies have been criticized by some appropriations and authorizing committees for shifting their focus from water resources development to water resources management and environmental mitigation. This represents a reversal, of sorts, of agency criticisms during the 1980s and early 1990s, and reflects the different and changing priorities inherent in executive and legislative programs and budgets. At the same time, the Corps has been publicly criticized for what some view as catering to development interests and attempting to "grow" the construction budget for traditional navigation and water infrastructure projects, despite the Clinton Administration's repeated budget requests reflecting lower than average historical construction levels. Relatedly, many non-water user groups outside Congress still view these agencies as largely water resource development agencies and have been critical of the Corps in particular for alleged bias in justifying new construction projects. (For more appropriations information see: CRS Report RL30207, *Appropriations for FY2000: Energy and Water Development*.)

**Corps of Engineers.** After nearly two decades of legislative-executive policy confrontations over cost-sharing and specific construction authorizations, the Congress passed major water project reform legislation known as the Water Resources Development Act of 1986 (WRDA '86, PL. 99-662) – re-establishing the tradition of a biennial omnibus authorization bill for Corps projects and programs. This Act fundamentally changed many of the policies governing Corps operations, especially increased cost-share formulas, which in turn provided broader distribution of funds and planning for additional navigational/harbor projects, as well as more cooperative federal-local initiatives for flood control or flood prevention.

Omnibus water project authorizations have now followed in 1988, 1990, 1992, 1996, 1999, and 2000. This traditionally biennial enactment of a Water Resources Development Act (WRDA) provides for policy oversight of Corps programs and a legislative vehicle for

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<sup>2</sup> Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, and Wyoming.

authorizing new projects and programs, as well as for adjusting financing and other aspects of water project planning and construction. The 1996 WRDA (P.L. 104-303) approved a grand total of \$5.4 billion (federal and local share), including funding for 44 future Corps projects and studies, and changed federal and non-federal cost sharing ratios for both flood control and dredge material disposal. The 105<sup>th</sup> Congress considered but did not pass a 1998 WRDA; however, the Water Resources Development Act of 1999 (PL. 106-53) was enacted during the first session of the 106<sup>th</sup> Congress.

The 1999 WRDA authorized a grand total of \$6.3 billion in project and program authorizations. The major new activities authorized for future appropriations included: 45 large flood control, navigation, and shore protection plans of which nine were harbor improvements (\$1.2 billion); several hundred million dollars of increased flood protection for the Sacramento area (doubling flood protection to a 135-year frequency level); a new 5-year/\$200 million Corps program aimed at non-structural flood mitigation and flood plain restoration (similar to the Clinton Administration's Challenge 21 proposal); numerous habitat, watershed, and ecosystem restoration activities in additional river basins; and more than 100 miscellaneous/environmental infrastructure projects including dozens to address combined sewer overflows and to develop water supply and wastewater infrastructure. The 1999 WRDA also increased local cost-sharing for shore protection/beach erosion with the local portion to be increased in phases from 35 to 50%.

**WRDA 2000 (P.L. 106-541).** The final WRDA 2000 bill “costed out” at \$7.3 billion and included authorizations for 24 new construction projects. Federal costs are approximately \$4.5 billion, which constitutes about two-thirds of total estimates for project and program authorizations. Initial funds for the Everglades total approximately \$1.4 billion – nearly \$700 million for the federal share. The major project authorized under the Corps’ traditional mission is a \$1.8 billion expansion of the New York-New Jersey Harbor, which now will benefit from the user-paid Harbor Maintenance Trust Fund along with \$700 million federal construction cost-share. At least 28 other large authorizations are made conditional on planning still in progress; they are mainly for flood control and shore protection projects contained in Title I of the bill.

Project-related issues discussed during debate on WRDA 2000 included the Everglades and other regional restoration projects, notably, a sediment/runoff study for the Upper Mississippi River Basin; aquatic and riparian habitat mitigation and restoration totaling \$100 million for the Illinois River and \$75 million for the upper Missouri River Basin; and sediment clean-up related to fisheries for the Great Lakes estimated at \$100 million.<sup>3</sup> Several dozen more traditional navigation and flood control project provisions are being rewritten with their own “restoration” features as offsets or mitigation for environmental effects—with the New England region broadly targeted to research \$60 million. Smaller projects and study provisions also reflect some attention to these fish, wildlife, and water quality values at this legislative stage. Nonetheless, given the large

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<sup>3</sup> These large-scale plans involve studies and pilot phases – \$1.4 billion of at least \$4 billion in federal construction for the Everglades if completed over two decades with matching state funds (if current estimates hold). (For more information on Everglades restoration, see CRS Report RS20702.) More limited watershed improvements are authorized for Lake Champlain lower Columbia area and Puget Sound, with initial funding of \$20 million and \$40 million respectively.

backlog of previously authorized plans eligible for future funding, the execution of WRDA 2000 will involve long-term choices among competing priorities, when it comes to appropriating funds for the growing list of project authorizations. Conferees dropped a large variety of infrastructure/water supply assistance provisions—subject to later separate consideration.

Other issues include Corps project planning and management procedures that have come under criticism, including allegations that the Corps consistently uses “unrealistic assumptions” in its economic analyses, particularly in the case of a report on navigation facilities in the Upper Mississippi and Illinois Rivers. Broader allegations are that the Corps is pursuing an effort to “grow” the agency’s construction program without explicit authorization. The WRDA bill for 2000 contains a Senate amendment directing the Corps to contract with the National Academy of Sciences to study the feasibility of an independent peer review of the Corps’ project feasibility reports (Section 216 of S. 2796, P.L. 106-541). Direct Corps institutional changes were addressed in H.R. 4879 and S. 2309 during the 106<sup>th</sup> Congress.

**Bureau of Reclamation.** Since the early 1900s, the Bureau has constructed and operated large, multi-purpose water supply projects in 17 western states. The first projects were principally for irrigation, with new purposes added over time. Construction authorizations slowed during the 1970s and 1980s due to several factors. Chief among these were the increasing environmental and financial costs of building large dams and diversion projects, as well as changing public attitudes toward such development. In 1987, the Bureau announced a new mission: instead of being largely a construction agency, it would focus on environmentally sensitive water resources management and on safety of existing projects. In the following decade, increased population, prolonged drought, fiscal constraints, and increased water demands for fish and wildlife, recreation, and scenic enjoyment resulted in increased pressure to alter operation of many Bureau projects. Such changes have been controversial, however, as water rights, contractual obligations, and the potential economic effects of altering project operations complicate any change in water allocation or project operations.

In contrast to the Corps, there is no tradition of a regularly scheduled authorization vehicle for Bureau projects. Instead, Bureau projects are generally considered individually.<sup>4</sup> Individual Bureau-related water project and management issues that may be considered during the 107<sup>th</sup> Congress include the following:

- ! transferring ownership of specific Bureau facilities to non-federal organizations or project users (title transfer);
- ! authorization of various rural water supply and water recycling projects;
- ! appropriations for the Animas-La Plata project in southern Colorado;
- ! appropriations for the Garrison Diversion Unit (Dakota Water Resources Project) in North Dakota;
- ! management of the lower Colorado River;

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<sup>4</sup> However, on occasion Congress has passed omnibus bills addressing key policy changes for the Bureau, as well as new or revised project and program authorizations (*e.g.*, the Reclamation Reform Act of 1982 (P.L. 97-293), and the Reclamation Projects Authorization and Adjustment Act of 1992 (P.L. 102-575)).

- ! oversight of the Central Valley [California] Project Improvement Act;
- ! reauthorization of appropriations for CALFED;
- ! Salton Sea [California] restoration activities;
- ! operations and management of Bureau and Corps facilities in the Columbia and Snake River Basins;
- ! dam safety; and
- ! Indian water rights settlements.

(For information on these, and other active legislative proposals affecting the Bureau of Reclamation, see CRS Issue Brief IB10019, *Western Water Resource Issues*, updated regularly.)

A broader issue that often receives attention from Congress is oversight of the Bureau's mission and its future role in western water supply and water resource management generally. As public demands and concerns have changed, so has legislation affecting the Bureau. Further, many in Congress have questioned the Bureau's shift in focus from a water resources development agency to a water resource management agency. Some have also questioned the increasing number of proposals to fund new rural water supply projects with high federal cost-share ratios and grants for reclaiming and reusing water — especially while overall funding for “traditional” reclamation projects is declining. Critical questions Congress may address include: What should be the future federal role in water resources development and management? Should (or to what extent should) the federal government develop or augment new supply systems designed primarily to serve communities/municipalities, or is this a local/regional responsibility? Who should pay, and how much? Should the Bureau be involved in environmental mitigation or is this best handled through new institutional arrangements (*e.g.*, CALFED, Everglades process) or other existing agencies (*e.g.*, Fish and Wildlife Service and/or the Environmental Protection Agency)? Should existing projects be revamped or re-operated to accommodate changing demands, and, if so, do new policies and institutions (state-federal roles) need to be addressed, and again, who should pay?

## **Conclusion**

Numerous water resource issues may be debated during the 107<sup>th</sup> Congress, including appropriations for the Animas-La Plata and Garrison Diversion (Dakota Water Resources) projects, authorizations for rural water supply, and water re-use and recycling projects, and reauthorization of appropriations for CALFED. Changes in agency policy (*e.g.*, increasing expenditures for environmental restoration and mitigation efforts) and oversight of agency activities (*e.g.*, Corps administrative procedures, Central Valley Project Improvement Act, Columbia River Basin activities, and Missouri River and lower Colorado River water management) may also be discussed.