Order Code RS20569
Updated July 22, 2002

Water Resource Issues in the 107th Congress

Betsy A. Cody
Specialist in Natural Resources Policy
Resources, Science, and Industry Division

H. Steven Hughes
Analyst in Natural Resources Policy
Resources, Science, and Industry Division

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 107th Congress is considering numerous water resource bills, including: appropriations for the Bureau of Reclamation and U.S. Army Corps of Engineers for FY2003, a 2002 Water Resources Development Act, and various agency policy and program changes — *e.g.* operation of federal projects along the Klamath, Missouri, and Colorado Rivers, and restoration efforts affecting the California Bay-Delta (CALFED) and the Florida Everglades. 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.

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 use, 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, scenic values, and fish and wildlife habitat.

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[1] have spawned new debates over water allocation — particularly over water for threatened or endangered species — and have increased federal-state tensions, since states traditionally 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, municipal water demands will likely 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 (Bay-Delta). Yet, the demand for traditional or new water supply projects, navigational improvements, flood control projects, and beach and shoreline protection efforts continues. In fact, both the Everglades and Bay-Delta restoration efforts include significant water supply components. Controversy over how much water should be devoted to recovering threatened and endangered species, protecting water quality, and supplying farms, cities, and other uses has been on-going with both efforts. Further, widespread drought throughout the country has spurred new requests for support for developing and securing water supplies.

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 on the FY2003 appropriations for the Bureau of Reclamation and the U.S. Army Corps of Engineers (Energy and Water Development Appropriations). Specific issues that have surfaced during the 107th 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, and licensing of non-federal hydro power facilities (*i.e.,* facilities regulated by the Federal Energy Regulatory Commission (FERC)). Further, in light of events on September 11, 2001, Congress has increased appropriations for security of federal water resource infrastructure.

---

[1] 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,[1] 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 30 years, particularly in "real dollar" amounts appropriated for construction. The Corps was appropriated $4.6 billion for FY2002, including $1.72 billion for construction. Reflecting its relatively smaller size and narrower scope of activities, the Bureau received a total of $0.86 billion for FY2002. Both agencies received emergency supplemental funds for security activities for FY2002 — the Bureau received $30 million and the Corps received $139 million in emergency funding for activities related to terrorism in P.L. 107-117. The Bureau and the Corps are slated to receive, respectively, an additional $7 million and $108 million for FY2002 pursuant to the conference agreement on H.R. 4775 (FY2002 supplemental appropriations).

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 is a reversal of sorts from development criticisms during the 1980s and early 1990s, and reflects the different and changing priorities 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 current and past executive branch requests for lower than average historical construction levels. (For more information on funding issues, see CRS Report RL31307, *Appropriations for FY2003: Energy and Water Development*.) Many non-water user groups 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. (See CRS Report RL30928, *Army Corps of Engineers: Civil Works Reform Issues for the 107th Congress*.)

Corps of Engineers. In 1986, after nearly two decades of policy confrontations with the executive branch over cost-sharing and specific construction authorizations, Congress enacted major water project reform legislation known as the Water Resources Development Act (P.L. 99-662, 33 USC 2201). This Act, known as WRDA '86, reestablished the tradition of a biennial omnibus authorization bill for Corps projects and programs. It fundamentally changed many of the policies governing Corps operations, especially increased cost-share formulas, which in turn provided broader distribution of

---

[1] Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, and Wyoming.

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 (WRDA bills) followed in 1988, 1990, 1992, 1996, 1999, and 2000. This traditionally biennial enactment (except in 1994 and late for 1998) of a Water Resources Development Act provides for policy oversight of Corps programs and a legislative vehicle for 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 projects totaling $5.4 billion (federal and local share), including funding for 44 future Corps projects and studies, and changed federal and nonfederal cost sharing ratios for both flood control and dredge material disposal.

WRDA 1999 included $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, including 9 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 environmental and water quality infrastructure projects, including dozens to address municipal combined sewer overflows and to develop water supply and wastewater infrastructure. WRDA 1999 also increased local cost-sharing for shore protection and 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.[2] Federal costs are approximately $4.5 billion, about two-thirds of total project and program authorizations. Initial authorization of funds for Everglades restoration 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 a $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 issues discussed during WRDA 2000 debate 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.[3]

---

[2] With the passage of each WRDA , dozens of new projects are authorized; however, not all projects receive appropriations. The Corps current "backlog" of authorized but unfunded projects is estimated to be $40 billion.

[3] 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 ($20

(continued...)

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 receive $60 million. Smaller projects and study provisions also reflect some congressional interest in fish, wildlife, and water quality values. Nonetheless, given the large 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, some of which were subsequently included in another legislative vehicle.

Other WRDA 2000 issues included 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. WRDA 2000 contains a provision (§216) 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. A final report is expected by the end of Summer 2002.

WRDA 2002. Work in subcommittee has begun on a WRDA bill for 2002 (not yet introduced); however, renewed interest in"reforming" or changing the way the Corps operates may complicate passage of a WRDA bill this year. So far, several bills have been introduced in the 107th Congress which would address the way the Corps operates (*e.g.*, H.R. 1320, H.R. 2353, S. 646, and S. 1987 – with the latter expected to be reported in July 2002, based on June 18 hearings). Such changes are controversial and could delay agreement on a WRDA bill for 2002. Yet, at the same time, the pressure to authorize new projects and to authorize increased funding or continuation of existing projects is often intense.

Bureau of Reclamation. Since the early 1900s, the Bureau has constructed and operated large, multi-purpose water supply projects, primarily for irrigation. Construction authorizations slowed during the 1970s and 1980s due to several factors. In 1987, the Bureau announced a new mission: environmentally sensitive water resources management. 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

---

[3] (...continued)
million), lower Columbia area ($30 million), and Puget Sound ($40 million).

individually.[4] Bureau-related water project and management issues that are being considered during the 107th Congress include:

- management of the lower Colorado River;
- oversight of the Central Valley [California] Project Improvement Act;
- reauthorization of appropriations for CALFED (Bay-Delta restoration);
- oversight of the Klamath River Basin Project;
- Salton Sea [California] restoration activities;
- operations and management of Bureau and Corps facilities in the Columbia and Snake River Basins;
- transfer of ownership of specific Bureau facilities to non-federal organizations or project users (title transfer);
- authorization of rural water supply and water recycling projects; and
- reauthorization of the federal dam safety program;

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

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 processes) or other existing agencies (*e.g.,* U.S. 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?

---

[4] 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)).