Federally Supported Water Supply and Wastewater Treatment Programs

Claudia Copeland, Coordinator
Specialist in Resources and Environmental Policy

Betsy A. Cody
Specialist in Natural Resources Policy

Mary Tiemann
Specialist in Environmental Policy

Nicole T. Carter
Specialist in Natural Resources Policy

Megan Stubbs
Analyst in Agricultural Conservation and Natural Resources Policy

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Summary

Although the federal government has played a significant role in developing water quality regulations and standards for municipal and industrial (M&I) water use, it historically has provided a relatively small percentage of the funding for construction of water supply and treatment facilities for M&I uses. Yet, several programs exist to *assist* communities with development of water supply and treatment projects, and it appears that Congress is more frequently being asked to authorize direct financial and technical assistance for developing or treating water supplies for M&I use.

This report provides background information on the types of water supply and wastewater treatment *projects* traditionally funded by the federal government and the several existing *programs* to assist communities with water supply and wastewater recycling and treatment. These projects and programs are found primarily within the Department of Agriculture (USDA), Department of Commerce, Department of Defense (DOD), Department of Housing and Urban Development (HUD), Department of the Interior (DOI), and the Environmental Protection Agency (EPA).

The focus of some programs has been enlarged over the years. The Department of the Interior's Bureau of Reclamation was established to implement the Reclamation Act of 1902, which authorized the construction of water works to provide water for irrigation in arid western states. Congress subsequently authorized other uses of project water, including M&I use. Even so, the emphasis of Reclamation's operations was to provide water for irrigation. Similarly, the U.S. Army Corps of Engineers (Department of Defense) constructed large reservoirs primarily for flood control, but was authorized in 1958 to allocate water for M&I purposes. Over the past 30-plus years, Congress has authorized and refined several programs to assist local communities in addressing other water supply and wastewater problems. These programs serve generally different purposes and have different financing mechanisms; however, there is some overlap.

Federal funding for the programs and projects discussed in this report varies greatly. For example, Congress provided $1.4 billion in FY2010 appropriations for grants to states under EPA's State Revolving Fund (SRF) loan program for drinking water facilities and $2.1 billion for EPA's SRF program for wastewater facilities; funds appropriated for the USDA's rural water and waste disposal grant and loan programs are $551 million for FY2010; HUD Community Development Block Grant (CDBG) funds (used partly but not exclusively for water and wastewater projects) are $3.95 billion for FY2010. Congress also provided $140 million for municipal wastewater and drinking water treatment environmental infrastructure projects of the U.S. Army Corps of Engineers. In contrast, Reclamation's Title 16 reclamation/recycling program received a total of $13.6 million for FY2010.

For each of the projects and programs discussed, this report describes project or program purposes, financing mechanisms, eligibility requirements, recent funding, and the Administration's FY2011 budget request.

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Introduction

Although the federal government has played a significant role in developing water quality regulations and standards for municipal and industrial (M&I) water use, it historically has provided a relatively small percentage of the funding for construction of water supply and treatment facilities for M&I uses. Yet, several programs exist to *assist* communities with development of water supply and treatment projects, and it appears that Congress is being asked more frequently to authorize direct financial and technical assistance for developing or treating water supplies for M&I use. Recent proposals include "rural water supply projects" to be built and funded by the Bureau of Reclamation in the Department of the Interior (hereafter referred to as Reclamation), water recycling projects built and partially funded by Reclamation, and programs for water supply and wastewater treatment projects to be largely funded by the U.S. Army Corps of Engineers (Corps). Interest also has been growing in expanding the size and scope of the State Revolving Fund loan programs under the Clean Water Act and the Safe Drinking Water Act, as well as support for individual wastewater and drinking water projects through congressionally earmarked grants in appropriations legislation.

This report provides background information on the types of water supply and wastewater treatment *projects* traditionally funded by the federal government and the several existing *programs* to assist communities with water supply and wastewater treatment. Projects developed by Reclamation and the Corps typically require direct, individual project authorizations from Congress. In contrast, projects funded by other agencies are funded through standing program authorizations. These programs are found primarily within the Department of Agriculture (USDA), Department of Commerce, Department of Housing and Urban Development (HUD), and the Environmental Protection Agency (EPA). The key practical difference is that with the individual *project* authorizations there is no predictable assistance, or even guarantee of funding after a project is authorized, because funding must be secured each year in the congressional appropriations process. The *programs*, on the other hand, have set program criteria, are generally funded from year to year, and provide a process under which project sponsors compete for funding.

For each of the projects and programs discussed, this report describes purposes, financing mechanisms, eligibility requirements, and recent funding. The report does not address special projects and programs aimed specifically at assisting Indian Tribes, Alaskan Native Villages, and *Colonias*,[1] or other regional programs such as those associated with the Appalachian Region or U.S. Territories.

Background

The federal government has built hundreds of water projects over the years, primarily dams and reservoirs for irrigation development and flood control, with M&I use as an incidental project purpose. Most of the nation's public municipal water systems have been built by local communities under prevailing state water laws.

[1] *Colonias* typically are rural, unincorporated communities or housing developments near the U.S.-Mexico border that lack some or all basic infrastructure, including plumbing and public water and sewer.

The Bureau of Reclamation (Reclamation) was established to implement the Reclamation Act of 1902, which authorized the construction of water works to provide water for irrigation in arid western states. Congress subsequently authorized other uses of project water, including M&I use. Even so, the emphasis of Reclamation's operations has been to provide water for irrigation. This emphasis is evidenced in part in the different payment mechanisms that evolved to finance projects (described below). Similarly, the U.S. Army Corps of Engineers (Corps) constructed large reservoirs primarily for flood control, but was authorized in 1958 (Water Supply Act of 1958, 72 Stat. 320; 43 U.S.C. § 390b) to allocate water for M&I purposes. In this act, Congress emphasized the primacy of non-federal interests:

> It is declared to be the policy of the Congress to recognize the primary responsibilities of the States and local interests in developing water supplies for domestic, municipal, industrial, and other purposes and that the Federal Government should participate and cooperate with States and local interests in developing such water supplies in connection with the construction, maintenance, and operation of Federal navigation, flood control, irrigation, or multiple purpose projects. (43 U.S.C. § 390(b))

Over the past 30-plus years, Congress has authorized and refined several programs to assist local communities in addressing other water supply and wastewater problems. The agencies that administer these programs differ in scope and mission. For example, the primary responsibilities of the Corps of Engineers are to maintain inland navigation, provide for flood and storm damage reduction and restore aquatic ecosystems, while EPA's mission relates to protecting public health and safeguarding the national environment. Others, such as HUD and the Department of Commerce, focus on community and economic development. Likewise, the specific programs discussed in this report—while all address water supply and wastewater treatment—differ in important respects. Some are national in scope (those of USDA, EPA, and the Department of Commerce, for example), while others are regionally focused (Reclamation's programs and projects). Some focus primarily on urban areas (HUD), others on rural areas (USDA), and others do not distinguish based on community size (e.g., EPA, the Corps). In addition, these programs serve generally different purposes and have different financing mechanisms (some provide grants, others authorize loans); however, there is some overlap. For example, the rural water and waste disposal program of the USDA typically authorizes "water delivery" assistance to improve community water systems and water quality, while EPA's drinking water infrastructure program is driven primarily by "end of the pipe" water quality requirements of the Safe Drinking Water Act (SDWA). Similarly, while the Clean Water Act sets performance standards for discharges of municipally treated sewage, it also provides financial assistance to municipalities for constructing and improving treatment facilities in order to comply with the law.

Federal funding for the programs and projects discussed in this report varies greatly. For example, for FY2010, Congress provided $1.4 billion in appropriations for grants to states under EPA's State Revolving Fund (SRF) loan program for drinking water facilities and $2.1 billion for EPA's SRF loan program for wastewater treatment facilities; funds appropriated for the USDA's core rural utilities programs total $551 million for FY2010; HUD Community Development Block Grant funds (used partly but not exclusively for water and wastewater projects) are $3.95 billion for FY2010. Congress also provided $140 million for wastewater and drinking water treatment environmental infrastructure projects of the U.S. Army Corps of Engineers. In contrast, Reclamation's Title 16 reclamation/recycling program received approximately $13.6 million for FY2010—funding for all of Reclamation was $1.1 billion for FY2010. Collectively, congressional funding for these programs in recent years has been somewhat eroded by overall competition among the many programs that are supported by discretionary spending, despite the continuing pressure from stakeholders and others for increased funding. However, each also

received FY2009 supplemental appropriations in the American Recovery and Reinvestment Act (ARRA, P.L. 111-5),[2] and higher funding levels in FY2010, as shown in **Table 1**.

It is also important to note that state and local contributions are a significant source of total funds available to local communities for drinking water and wastewater improvements. For example, from FY1991 through FY2000, states contributed about $10.1 billion to match $18.0 billion in EPA capitalization grants for drinking water and wastewater SRFs and made about $13.5 billion available for these activities under state-sponsored grant and loan programs and by selling general obligation and revenue bonds.[3]

The following table summarizes financial and other key elements of the projects and program activities discussed in this report.

Table 1. Federal Water Supply Program/Project Financing

Agency and Projects or Program	Project/ Program Purposes	Type of Financial Assistance	Federal/ Non-Federal Cost Share	Average Amount of Assistance	FY2010 Funding	FY2011 Funding Request
USDOI Bureau of Reclamation	Multi-purpose projects, which may include M&I[a]	*De facto* loan	0%/100%, with interest for M&I uses[b]	Not applicable	Not readily available (Total agency approps. are $1.1 billion)	(Total agency approps. request is $1.0 billion)
USDOI Bureau of Reclamation (Title 16 of P.L. 102-575)	Wastewater reclamation and reuse[a]	*De facto* grant (see discussion on pages 5-9)	Up to 25%/75%; dollar limits may apply	$2.1 million	$13.6 million (includes $3 million in Title 16 funds for another Reclamation program, CALFED)	$29.0 million
USDOI Bureau of Reclamation	Indian and non-Indian rural water supply[a]	*De facto* grant (see discussion on pages 5-9), plus loan	Non-Indian projects: average of 64%/26% ; Indian projects: average of 100%/0%	$15.0 million	$121.3 million	$62.0 million
US Army Corps of Engineers (general)	Multi-purpose water projects, which may include M&I[a]	Loans	0%/100%, with interest[b]	Not applicable	$5.0 million	$4.0 million

[2] For information, see CRS Report R40216, *Water Infrastructure Funding in the American Recovery and Reinvestment Act of 2009.*

[3] U.S. General Accounting Office (now Government Accountability Office), *Water Infrastructure: Information on Federal and State Financial Assistance*, November 2001, GAO-02-134, p. 18. Hereinafter, GAO Water Infrastructure.

Agency and Projects or Program	Project/ Program Purposes	Type of Financial Assistance	Federal/ Non-Federal Cost Share	Average Amount of Assistance	FY2010 Funding	FY2011 Funding Request
U.S. Army Corps of Engineers (multiple sections of WRDAs and select Energy and Water Development Approps. acts)	"Environmental infrastructure"[a]	Technical/ planning and design services or grants; design and construction services or grants	75%/25%	Planning and design: $0.5 million to $25 million; design and construction: $0.2 million to $180 million	$140 million	None in FY2011
USDA Rural Utilities Service, Water and Waste Disposal Program	Municipal water supply and waste disposal	Loans and grants	0%/100% for loans Up to 75%/25% for grants	Grants: $702,000 Direct loans: $1.424 million (FY2008 average)	$551 million	$535 million
USDA Small Watershed Program	Multiple activities, but generally must include flood control measures	Project grants and technical advisory services	0%/100% Varies according to purpose of improvement activity	Average authorized federal assistance for new FY2009 projects: $2.3 million	$70.2 million ($30 million for Watershed and Flood Prevention Operations and $40.2 million for rehabilitation projects)	$40.5 million total, all for rehabilitation projects
EPA, Clean Water State Revolving Fund (SRF) Loan Program	Municipal wastewater treatment, nonpoint pollution management, National Estuary Program implementation	Grants to states to capitalize loan funds SRF loans to local project sponsors	80%/20% for grants to states to capitalize SRFs 0%/100% (Project loans are repaid 100% to states)	Average capitalization grant to state: $26 million Average assistance from SRF: $2.87 million (FY2008)	$2.1 billion	$2.0 billion
EPA, Drinking Water State Revolving Fund (SRF) Loan Program	Public water supply: projects needed to meet federal drinking water standards and to address serious health risks	Grants to states to capitalize loan funds SRF loans to local project sponsors	80%/20% for grants to states to capitalize SRFs 0%/100% (Project loans are repaid 100%)	Average capitalization grant to state: $16.1 million (FY2009[c]) Average assistance from SRF: $2.27 million (FY2006)	$1.387 billion	$1.287 billion

Agency and Projects or Program	Project/ Program Purposes	Type of Financial Assistance	Federal/ Non-Federal Cost Share	Average Amount of Assistance	FY2010 Funding	FY2011 Funding Request
HUD, Community Development Block Grant Program	Multi-purpose community development projects, which may include water and waste disposal	Grants, 70% of which are reserved for urban areas	100%/0%	Not readily available	$3.95 billion	$3.94 billion
EDA, Public Works and Economic Development Program	Multi-purpose economic development projects, which can include non-rural, non-residential water and sewer	Project grants	Generally 50%/50%	Average grant $1.32 million (FY2008)	$158.3 million	$67.8 million

a. These projects generally must be authorized by Congress prior to construction.

b. Although the ultimate federal cost-share may be 0%, unless otherwise stated, the federal government may provide 100% of initial construction costs allocated to M&I use, to be repaid over the life of the loan via repayment contracts (typically 40-50 years).

c. Excludes FY2009 supplemental appropriations under the American Recovery and Reinvestment Act (ARRA, P.L. 111-5).

Department of the Interior

Bureau of Reclamation

The Bureau of Reclamation (Reclamation) was established to implement the Reclamation Act of 1902, which authorized the construction of water works to provide water for irrigation in arid western states. Reclamation generally manages numerous municipal and industrial water supply facilities as part of larger, multi-purpose reclamation projects serving irrigation, flood control, power supply, and recreation purposes. Overall, these facilities serve approximately 31 million people, delivering a total of approximately 28.5 million acre-feet of water (an acre-foot is enough to cover one acre of land one foot deep, or 325,851 gallons). Reclamation-funded municipal and industrial water deliveries total approximately 2.8 million acre-feet and have more than doubled since 1970. Reclamation is authorized to construct projects only in the 17 western states, unless otherwise directed by Congress.

Reclamation M&I water deliveries are generally incidental to larger project purposes. However, since 1980, Congress has individually authorized construction of several "rural water supply" projects and more than 40 reclamation wastewater and reuse/recycling projects (at least one recycling project has been undertaken pursuant to general authorities). The recycling projects, discussed below, are known as Title 16 projects because they were first authorized in 1992 under Title 16 of P.L. 102-575. Title 16, the Reclamation Wastewater and Groundwater Studies and

Facilities Act, also authorized Reclamation to undertake specific and general feasibility studies for reclamation wastewater and reuse projects and to research, construct, and operate demonstration projects.

Historically, Reclamation constructed projects with federal funds, then established a repayment schedule based on the amount of total construction costs allocated to specific project purposes. Reclamation project authorizations typically require 100% repayment, with interest, for M&I water supply facilities; irrigation facilities are generally repaid without interest. In some cases, Congress has authorized other reimbursement terms. For example, for the non-Indian portion of some Reclamation rural water supply projects, Congress has authorized 15%-25% repayment levels (85% and 75% federal cost-share, respectively), and in at least one case (the Perkins County Rural Water Supply System), a grant of 75% of total project costs. The federal share of costs for the Indian portion of Reclamation rural water projects is typically 100%. The federal share of costs for Title 16 projects is generally much lower than non-Indian and Indian rural water projects; it is limited to a maximum of 25% of total project costs or, for projects authorized since 1996, a maximum of $20 million. The federal share for Title 16 projects is non-reimbursable, resulting in a de facto grant to local project sponsors.

Traditional Multi-purpose and Rural Water Supply Projects

Unlike many other programs described in this report, Reclamation undertakes projects largely at the explicit direction of Congress. Local project sponsors may approach Reclamation or the Congress with proposals for project construction and funding; however, a project must be authorized by Congress before construction may begin. Because there is no "program" per se, there are no clear and concise eligibility or program criteria. Two exceptions to this generality are (1) the statutory authority for the Title 16 projects (Title 16 of P.L. 102-575; see discussion below), which outlines items to be considered during development of feasibility studies, and (2) statutory authority for creation of a rural water supply program (P.L. 109-451) and an interim final rule establishing criteria for the program. Yet, even for these projects, Congress must authorize construction before it is to begin.

Project Purposes

Individual authorization statutes establish project purposes. Generally, M&I projects are part of larger, multi-purpose projects such as those built for irrigation water supply, flood control, and hydro power. This is not necessarily so for rural water supply projects, although nearly half of the rural water supply projects authorized to date are somehow connected to previously authorized irrigation facilities under the Pick-Sloan Missouri Basin Program (PSMBP), or otherwise related to water service anticipated but not received under earlier PSMBP authorizations.

Financing Mechanism

Projects are financed and constructed up front by the federal government, and costs for M&I portions of such projects are generally repaid 100%, with interest, via "repayment contracts." Congress generally has authorized more favorable repayment terms for rural water supply projects. The federal cost-share for these projects has averaged 64%, but ranges from 15% to 80% for non-Indian rural water supply projects.

Eligibility Requirements

Generally, local governments and organizations such as irrigation, water, or conservation districts may approach Reclamation and/or Congress for project support. All construction project funding must be appropriated by Congress. As noted earlier, Reclamation only works on projects located in the 17 western states (32 Stat. 388; 43 U.S.C. §391 et seq.), unless specifically authorized. Reclamation published an interim final rule, which establishes criteria for developing new rural supply projects.[4] The rule does not apply to previously authorized projects.

Funding

Funding information for the M&I portions of multi-purpose projects is not readily available. Total regular Reclamation appropriations for FY2010 were $1.1 billion (P.L. 111-85). The total FY2011 appropriations request for Reclamation was $1.0 billion. Funding for rural water supply projects in FY2010 was $121.3 million; the Administration requested $62 million for these projects for FY2011. The Administration developed its FY2011 request for rural water supply projects by prioritizing operations and maintenance (O&M) needs first and then prioritizing construction funding for projects serving tribal needs and those nearing completion. The average funding allocated for rural water supply projects in FY2010 was $15.0 million (ranging from $1.0 million to $57.0 million); however, funding under the American Recovery and Reinvestment Act of 2009 was $200 million. Requested project funding for FY2011, to be divided among seven projects, was $62.0 million.

Statutory and Regulatory Authority

Reclamation carries out its water supply activities in 17 western states as authorized by the Reclamation Act of 1902, as amended (32 Stat. 388; 43 U.S.C. §391 et seq.). The rural water supply program is authorized by the Rural Water Supply Act of 2006 (P.L. 109-451, Title I; 120 Stat. 3345; 43 U.S.C. 2401 note).

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 (e.g., desalination of brackish groundwater). The original act authorized construction of 5 reclamation wastewater projects and 6 wastewater and groundwater recycling/reclamation studies. The act was amended in 1996 (P.L. 104-266) to authorize another 18 construction projects and an additional study, and has been amended several times since, resulting in a total of more than 50 projects authorized for construction. Water reclaimed via Title 16 projects may be used for M&I water supply (non-potable and indirect potable purposes only), irrigation supply, groundwater recharge, fish and wildlife enhancement, or outdoor recreation.

[4] For information, see http://edocket.access.gpo.gov/2008/pdf/E8-26584.pdf.

Project Purposes

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. Projects may be permanent or for demonstration purposes.

Financing Mechanism

Partial grants. Project construction costs are shared by the federal government and a local project sponsor or sponsors. The federal share is generally limited to a maximum of 25% of total project costs and is non-reimbursable, resulting in a de facto grant to the local project sponsor(s). In 1996, Congress limited the federal share of individual projects to $20 million in 1996 dollars (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.

Eligibility Requirements

Reclamation carries out water supply activities in 17 western states as authorized by the Reclamation Act of 1902, as amended (32 Stat. 388; 43 U.S.C. §391). Hence, the water reclamation and wastewater recycling program is limited to projects and studies in the 17 western states unless otherwise specified. Authorized recipients of program assistance include "legally organized non-federal entities," such as irrigation districts, water districts, and municipalities. Construction funding is generally limited to projects where (1) 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 into a cost-share agreement with Reclamation.

Unlike other water supply or wastewater treatment programs administered by the EPA, USDA, or HUD (discussed below), Reclamation's Title 16 projects are statutorily authorized construction projects. While Reclamation has the authority to undertake general appraisal investigations and feasibility studies, it generally has interpreted the Title 16 language as requiring specific congressional authorization for the construction of new projects.

During the 108th and 109th Congresses, several oversight hearings were held on the Title 16 program; however, no legislation updating the overall program authorization has been enacted since the 1996 amendments. Reclamation issued an internal "Directives and Standards" document (October 2007) to increase the consistency and effectiveness of the program. The Directives and Standards did not establish a mechanism for prioritizing authorized projects; however, the agency has drafted new criteria for use in allocating Title 16 funding in the future.

Funding

The total regular appropriation for the Title 16 program in FY2010 was $13.6 million (P.L. 111-85). The Administration's FY2011 request was $29.0 million. Prior year program funding ranged from a high of $47.2 million in FY1998 to a low of $12.6 million in FY2007. Projects authorized prior to the 1996 amendments ranged in size from $152 million ($38 million for Reclamation's share), to $690 million ($172 million for Reclamation's share). Post-1996 project authorizations

have been much smaller in size, ranging from $10 million ($2 million for Reclamation's share) to $280 million ($20 million for Reclamation's share).

Statutory and Regulatory Authority

The statutory authority for the reclamation wastewater and reuse program is the Reclamation Wastewater and Groundwater Study and Facilities Act, Title 16 of P.L. 102-575, as amended (43 U.S.C. 390h et. seq.); the Reclamation Recycling and Water Conservation Act of 1996 (P.L. 104-266); the Oregon Public Land Transfer and Protection Act of 1998 (P.L. 105-321); the 1999 Water Resources Development Act (P.L. 106-53, Section 595); the Consolidated Appropriations Act for FY2001 (P.L. 106-554, Division B, section 106); a bill amending the Reclamation Wastewater and Groundwater Study and Facilities Act (P.L. 107-344); the Consolidated Appropriations Act for FY2003 (P.L. 108-7, Division D, section 211); the Emergency Wartime Supplementals Act of 2003 (P.L. 108-11); the Irvine Basin Surface and Groundwater Improvement Act of 2003 (P.L. 108-233); a bill amending the Reclamation Wastewater and Groundwater Study and Facilities Act (P.L. 108-316); the Hawaii Water Resources Act of 2005 (P.L. 109-70); the Consolidated Natural Resources Act of 2009 (P.L. 110-229); the Consolidated Appropriations Act, 2008 (P.L. 110-161); and the Omnibus Public Land Management Act of 2009 (P.L. 111-11; Title IX, Subtitle B). Reclamation published program guidelines in December 1998 and internal Directives and Standards for the program's feasibility study review process in October 2007; formal regulations have not been promulgated.[5]

[This section prepared by Betsy A. Cody and Nicole T. Carter, Specialists in Natural Resources Policy, Resources, Science, and Industry Division (707-7229) and (707-0854), respectively.]

Department of Defense

Army Corps of Engineers (Civil Works Program)

Under its civil works program, the U.S. Army Corps of Engineers (Corps, Department of Defense) operates water resources projects throughout the country to meet the agency's three principle missions—navigation, flood damage reduction, and aquatic ecosystem restoration. Many Corps activities also provide other benefits, such as municipal and industrial (M&I) water supply, hydroelectric generation, benefits for fish and wildlife, and recreation.

Congress has given the Corps limited authority for M&I water supply. The Water Supply Act of 1958 (Title 3 of P.L. 85-500) authorized the Corps to recommend economically justified M&I water supply storage space in new or existing reservoirs. More than 153 Corps reservoirs store 9.5 million acre-feet of M&I water. M&I water supplied from Corps reservoirs generally is incidental to the reservoir's primary purposes. The provision of M&I water from Corps reservoirs is subject to availability, and the associated costs are 100% a local, nonfederal responsibility. Otherwise, the Corps' general direct involvement in providing water supplies is limited to emergency/disaster relief, including during drought conditions or following natural disasters.

[5] For information, see http://www.usbr.gov/pmts/writing/guidelines/ and http://www.usbr.gov/recman/DandS.html. New program criteria have also been drafted and can be found at http://www.usbr.gov/WaterSMART/title.htm.

Additionally since 1992, Congress has enacted more than 400 authorizations allowing the Corps to provide designated communities, counties, and states with design and construction assistance for drinking water and wastewater infrastructure and source water protection and development. As with Reclamation's rural water supply and Title 16 projects, implementing these authorizations has the potential to create a new mission for the Corps.

Project Purposes

As previously noted, in the Water Supply Act of 1958 Congress authorized the Corps to use its multi-purpose reservoirs to allocate storage at Corps reservoirs to local governments or organizations for municipal and industrial use. The act neither authorized the Corps to significantly modify its projects in order to provide for M&I water supply, nor did it authorize the Corps to sell or allocate quantities of water. Instead, Corps M&I contracts are for space in a reservoir and provide no guarantee of a fixed quantity of water to be delivered in a given year. The Corps delivers water if it is available in the storage space and if delivery does not significantly affect the other authorized purposes of the Corps project.[6]

Financing Mechanism

Projects are financed up front by the federal government, and costs for M&I project purposes are repaid 100%, with interest, via long-term (typically 30-50 years) repayment contracts.

Eligibility Requirements

Existing law and agency policy require that (1) water supply benefits and costs be equitably allocated among multiple purposes; (2) repayment by state or local interests be agreed to before construction; (3) the water supply allocation for anticipated demand at any project not exceed 30% of the total estimated cost; (4) repayment shall be either during construction (without interest), or over 30 years (with adjustable interest rates); and (5) users reimburse the Corps annually for all operation and maintenance or replacement costs. Occasional exceptions to the Corps' general authority have been enacted by the Congress. Some short-term sales of "surplus" storage, as well as seasonal water storage (conservation) can be made adjunct to normal project operating procedures.

Funding

The Corps' water supply expenses are largely funded via repayments, with annual appropriations requests generally around $5 million and enacted appropriations generally less than $25 million. For FY2010, Congress appropriated $5 million (P.L. 111-85). For FY2011, the President's budget requested $4 million.

[6] For issues related to reallocations of water storage to M&I use under the 1958 authority, see CRS Report R41092, *Use of Federal Water Projects for Municipal and Industrial Water Supply: Current Legal and Policy Issues Related to the Water Supply Act of 1958 (WSA; 43 U.S.C. § 390b)*, coordinated by Cynthia Brougher.

Statutory Authority

Water Supply Act of 1958 (Title III of P.L. 85-500, as amended, 72 Stat. 320; 43 U.S.C. § 390b).[7]

Environmental Infrastructure

Project Purpose

Federal policy generally is that community water supply is largely a local responsibility. However, communities, particularly rural and small communities, increasingly have sought federal water supply assistance. Congress since 1992 has used the Corps to assist a number of these communities with design and construction of drinking water and wastewater infrastructure (including treatment, and distribution/collection facilities) and surface water protection and development projects. At the Corps, these projects are broadly labeled "environmental infrastructure" and are generally considered outside the agency's main missions.

Financing Mechanism

Under most Corps environmental infrastructure authorizations, financing is typically 75% federal and 25% nonfederal. The federal portion typically is provided by Congress to the Corps in annual Energy and Water Development Act appropriations legislation. How the Corps and nonfederal financing is managed varies according to the specifics of the authorization. Sometimes the Corps is responsible and uses the funds to perform the work or contract out the work; under other authorizations, the Corps uses appropriated funds to reimburse nonfederal sponsors for their work.

Eligibility Requirements

Because environmental infrastructure activities are not part of a national Corps program per se, there are no clear and/or consistent general eligibility criteria. Because the activities are not traditional water resources projects, they are not subject to the planning requirements of most Corps projects (e.g., a benefit-cost analysis is not performed).

Typically Congress has authorized the Corps to assist either an environmental infrastructure project in a specific location (e.g., a small city), or created a program for a defined geographic area (e.g., a county or a state). Consequently, an activity's eligibility is evaluated by identifying whether there is an authorization for the geographic area of the activity, and whether the type of activity is eligible under that authorization.

Funding

Appropriations have not kept pace with Corps environmental infrastructure authorizations; only a subset of authorized Corps environmental infrastructure projects receive appropriations annually. The Clinton, George W. Bush, and Obama Administrations left environmental infrastructure projects out of their Corps budget requests. However since 1992, Congress has provided the

[7] For information on the Corps' civil works program, see http://www.usace.army.mil/Services/Pages/Services.aspx.

Corps roughly $2 billion in funds for environmental infrastructure. The Energy and Water Appropriations Act of FY2010 (P.L. 111-85) included $140.0 million for Corps environmental infrastructure projects. The Administration requested no funding for these projects in the FY2011 budget.

Statutory Authority

Prior to 1992, the Corps generally was not involved with municipal drinking water treatment and distribution and wastewater collection and treatment; the agency is now authorized to contribute to more than 400 environmental infrastructure projects and programs. A Water Resources Development Act (WRDA) is the typical legislative vehicle for Corps authorizations. Beginning with Sections 219 and 313 of WRDA 1992 (P.L. 102-580), Congress has authorized the Corps to assist local interests with technical planning and design and design and construction assistance for environmental infrastructure projects. Subsequent WRDAs authorized new environmental infrastructure projects, and raised the funding ceilings for many of the projects previously authorized. Congress also has authorized Corps environmental infrastructure activities in appropriations legislation.

[This section prepared by Nicole T. Carter, Specialist in Natural Resources Policy, Resources, Science and Industry Division (707-0854).]

Department of Agriculture

Rural Utilities Service (Water and Waste Disposal Programs)

The USDA administers grant and loan programs for water and wastewater projects in low-income rural communities whose residents face significant health risks because they do not have access to water supply systems or waste disposal facilities. Eligibility is limited to communities of 10,000 or less. These programs are administered at the national level by the Rural Utilities Service (RUS) at USDA. RUS allocates program funds to the Rural Economic and Community Development (RECD) state offices through an allocation formula based on rural population, poverty, and unemployment. District RECD offices actually administer the programs locally. In recent years, approximately 65% of loan funds and 57% of grant funds have been obligated to water projects; the remainder have been obligated to waste disposal projects.

Prior to enactment of the 1996 farm bill (P.L. 104-127), these grants and loans, as well as other USDA rural development assistance, were authorized as separate programs. In P.L. 104-127, Congress consolidated 14 existing rural development grant and loan programs into three categories for better coordination and greater local involvement. This program is called the Rural Community Advancement Program (RCAP). The three components are the Rural Utilities Service (RUS, which includes water and waste disposal activities), Rural Community Facilities, and Rural Business and Cooperative Development programs.[8]

[8] RCAP is designed to give RECD state offices flexibility in targeting financial assistance to community and regional needs. Thus, within the three components of RCAP, up to 25% of funds can be transferred between programs within any state, as long as transfers do not result in changes in the national funding stream of more than 10%.

There is heavy demand for water and waste disposal funds. At the end of FY2007, USDA reported a $2.4 billion backlog of requests for 928 water and wastewater projects. In addition to this, EPA's 2007 drinking water infrastructure needs survey showed over $59 billion needed by small water systems serving 3,300 or fewer people over the next 20 years to install, upgrade, or replace infrastructure to ensure safe drinking water. The 2004 EPA wastewater needs survey reported that small communities (those with a population under 10,000) need to spend $17 billion for their wastewater facilities to meet water quality objectives of the Clean Water Act.

Program Purpose

The purpose of these programs is to provide basic human amenities, alleviate health hazards, and promote the orderly growth of the nation's rural areas by meeting the need for new and improved rural water and waste disposal facilities. Funds may be used for installation, repair, improvement, or expansion of rural water facilities, including costs of distribution lines and well-pumping facilities.

Financing Mechanism

USDA provides grants and loans for water and waste disposal projects. USDA prefers making loans; grants are made only when necessary to reduce average annual user charges to a reasonable level. The split between loans and grants is about 70-30; the ratio of drinking water to sewer projects has been about 60-40 in recent years. There is no statutory distribution formula. Funds are allocated to states based upon rural population, number of households in poverty, and unemployment. There are no matching requirements for states.

Water and Waste Disposal Loans. The Rural Development Act of 1972 authorized establishment of the Rural Development Insurance Fund under the Consolidated Farm and Rural Development Act. Among other activities, this fund is used for loans (direct and guaranteed) to develop storage, treatment, purification, or distribution of water or collection, treatment, or disposal of waste in low-income rural areas. Loans are repayable in not more than 40 years or the useful life of the facilities, whichever is less. USDA makes either direct loans to applicants or guarantees up to 90% of loans made by third-party lenders such as banks and savings and loan associations.

Loan interest rates are based on the community's economic and health environment and are designated poverty, market, or intermediate. Poverty interest rate loans are made in areas where the median household income (MHI) falls below the higher of 80% of the statewide nonurban MHI, or the poverty level, and the project is needed to meet health or sanitary standards; by law, this rate is set at 60% of the market rate. The market rate is adjusted quarterly and is set using the average of a specified 11-bond index. It applies to loans to applicants where the MHI of the service area exceeds the statewide nonurban MHI. The intermediate rate applies to loans that do not meet the criteria for the poverty rate and which do not have to pay the market rate; by law, this rate is set at 80% of the market rate.[9] Interest rates on guaranteed loans are negotiated between the borrower and the lender.

Water and Waste Disposal Grants. Grants for the development costs of water supply and waste disposal projects in rural areas also are authorized under the Consolidated Farm and Rural

[9] For current interest rates, see http://www.usda.gov/rus/water/int-rate.htm.

Development Act. Only communities with poverty and intermediate rate incomes qualify for USDA grants. An eligible project must serve a rural area that is not likely to decline in population below the level for which the project was designed and constructed so that adequate capacity will or can be made available to serve the reasonably foreseeable growth needs of the area.

Grant funds may be available for up to 75% of the development cost of a project and should only be used to reduce user costs to a reasonable level. Grants are only made after a determination of the maximum amount of loan that a community can afford and still have reasonable user rates. Grants, which typically provide 35%-45% of project costs, may be used to supplement other funds borrowed or furnished by applicants for project costs, and may be combined with USDA loans when the applicant is able to repay part, but not all, of the project costs. Priority is given to projects serving populations of less than 5,500.

Emergency and Imminent Community Water Assistance Grants. RUS also is authorized to help rural residents where a significant decline in quantity or quality of drinking water exists or is imminent and funds are needed to obtain adequate quantities of water that meet standards of the Safe Drinking Water Act or the Clean Water Act. Grants, ranging from $10,000 to a maximum of $500,000, are provided for projects to serve a rural area with a population of 10,000 or less that has a median household income not in excess of the statewide nonmetropolitan median household income. Grants for repairs, partial replacement, or significant maintenance of an established system cannot exceed $150,000. Communities use the funds for new systems, waterline extensions, construction of water source and treatment facilities, and repairs or renovation of existing systems and may be awarded for 100% of project cost. Applicants compete on a national basis for available funding. The 2008 farm bill (P.L. 110-246) authorized $35 million per year through FY2012 for this program. Funding for it is mandatory through reservation of 3% to 5% of appropriated water and waste disposal grant funds. Amounts provided through this program have been quite variable over time, depending on need. In FY2008, $6.8 million was distributed to projects in 12 states; in FY2009, $4.5 million was distributed in 10 states.

Eligibility Requirements

Eligible entities are municipalities, counties, and other political subdivisions of a state; associations, cooperatives,[10] and organizations operated on a not-for-profit basis; Indian tribes on federal and state reservations; and other federally recognized tribes. USDA's loan and grant programs are limited to community service areas (including areas in cities or towns) with population of 10,000 or less. To be eligible for assistance, communities must have been denied credit through normal commercial channels. Also, communities must be below certain income levels. Loans and grants are made for projects needed to meet health or sanitary standards, including Clean Water Act and Safe Drinking Water Act standards and requirements. The 2008 farm bill (P.L. 110-246) authorized $10 million per year through FY2012 for USDA to make grants to private nonprofit organizations for the purpose of providing loans to eligible individuals for construction, refurbishing, and servicing of individually owned household water well systems. Loans are limited to $11,000 per water well system. P.L. 110-246 also authorized $30 million

[10] Rural electric cooperatives are private entities that build and manage rural utility systems. The 1990 farm bill (P.L. 101-624) authorized rural coops to expand from their traditional electricity and telephone services. An estimated 80 to 90 rural electric coops (less than 10% of the total number of coops nationwide) currently are involved in some aspect of drinking water or wastewater management, with the majority dealing with drinking water management.

annually through FY2012 in grants to nonprofit organizations to capitalize revolving loans for water and waste disposal facilities.

Funding

Beginning with USDA's FY1996 appropriation (P.L. 104-37), Congress consolidated the water and waste disposal grant and loan appropriations in a single Rural Community Assistance Program. Funds available through FY2010 appropriations for water and waste disposal grants and loans are $551 million (P.L. 111-80). For FY2011, the President's budget requested $535 million in appropriations for these programs. According to the budget justification, this proposal will support $1.6 billion in program activity, counting both appropriations and activities resulting from direct and guaranteed loans. Out of the total FY2010 funds, USDA has available $993,000 for grants to provide loans for individually owned water well systems and $497,000 to capitalize revolving loans for water and waste disposal systems. The FY2011 budget requested the same level of funding for these assistance activities.

Statutory and Regulatory Authority

Statutory authority for the water and waste disposal loan and grant programs is the Consolidated Farm and Rural Development Act, as amended, Section 306, 7 U.S.C. 1926. Regulations for these programs are codified at 7 CFR Parts 1778-1780.[11]

[This section prepared by Claudia Copeland, Specialist in Resources and Environmental Policy, Resources, Science and Industry Division (707-7227).]

Natural Resources Conservation Service (Small Watershed Program)

The United States Department of Agriculture (USDA) Watershed and Flood Prevention Operations Program (often referred to as the Small Watershed Program) authorizes activities under four closely related authorities that are administered by the Natural Resources Conservation Service (NRCS). Two of these authorities, known as P.L. 566 and P.L. 534, authorize NRCS to provide technical and financial assistance to state and local organizations to plan and install measures to prevent erosion, sedimentation, and flood damage and to conserve, develop, and utilize land and water resources. The other authorities are an emergency program and a newer rehabilitation authority, enacted in 2000, that is discussed at the end of this section.

This set of activities is often referred to as the Small Watershed Program because the vast majority of the projects have been built under the authority of P.L. 83-566, the Watershed Prevention and Flood Protection Act of 1954. This act encourages smaller projects which are authorized by the Chief of the NRCS. Larger projects must be approved by Congress. P.L. 566 is called the Small Watershed Program because no project may exceed 250,000 acres, and no structure may exceed more than 12,500 acre-feet of floodwater detention capacity, or 25,000 acre-

[11] For additional information on RUS water and environmental programs, see http://www.usda.gov/rus/water/index.htm. For program information and contacts, see https://www.cfda.gov/index?s=program&mode=form&tab=step1&id=b7e858e64236703b5b63ecd136a83b95.

feet of total capacity. The Senate and House Agriculture Committees must approve projects that need an estimated federal contribution of more than $5 million for construction or include a storage structure with a capacity in excess of 2,500 acre feet; and if the storage structure has a capacity in excess of 4,000 acre feet, approval is also required from the Senate Environment and Public Works Committee and the House Transportation and Infrastructure Committee.

Under P.L. 566, 1,750 projects had been authorized through FY2009. Of that total, 1,063 have been completed, while 297 others are active. Also, 158 were subsequently deauthorized, 190 are inactive, and 42 have reached the end of their project life. The number of projects grew slightly in FY2009 with the addition of six new authorized projects. These are the first new authorized projects since FY2005. The backlog of authorized projects awaiting funding remains substantial, and is estimated to be $1.25 billion currently. The funding backlog decreased slightly because of additional FY2009 funding appropriated in the American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5), which provided an additional $145 million above the annual appropriation.

Each P.L. 566 project is initiated by a local project sponsor. Project sponsors provide assistance in preparing plans and installing whatever measures are needed to implement those plans. NRCS works with the project sponsor to develop the plan, provides the necessary technical assistance, and may assist in all aspects of planning and construction. Either NRCS or the local organization may administer construction contracts.

The 11 projects that were specifically authorized under P.L. 78-534, the Flood Control Act of 1944, are much larger and more expensive then P.L. 566 projects. These projects, which encompass a total of almost 37.9 million acres, an area slightly larger than Iowa, are divided into component projects in sub watersheds. NRCS reports that 397 work plans for sub-watersheds encompassing almost 30 million acres have been completed. With the exception of the two smallest projects, the estimated federal costs for each of these projects range from more than $40 million to more than $330 million. Three of the projects have been completed, and work on the remainder continues in one or more sub-watersheds.

Both P.L. 566 and P.L. 534 have similar objectives and are implemented following similar procedures. Both programs fund land treatment, and nonstructural and structural facilities for flood prevention, erosion reduction, agricultural water management, public recreation development, fish and wildlife habitat development, and municipal or industrial water supplies. Structural measures can include dams, levees, canals, pumping plants, and the like. Local sponsors agree to operate and maintain completed projects. USDA estimates that benefits for both agricultural and non-agricultural flood protection totaled almost $750 million in FY2009. Agricultural and non-agricultural benefits not related to flood control totaled almost $1.3 billion.

As part of its lending responsibilities, the Rural Utilities Service (RUS) at USDA (see discussion above) makes loans to local organizations to finance the local share of the cost of installing, repairing, or improving facilities, purchasing sites and easements, and related costs for projects authorized under both laws. Loans are limited to $10 million; they must be repaid within 50 years; and the cost-share assistance may not exceed the rate of assistance for similar projects under other USDA conservation programs. NRCS and the local organization must also agree on a plan of work before a loan is obligated. In 2009, an estimated 58 borrowers had loans with a total outstanding value of $13.7 million. Congress did not appropriate funds for new loans in FY2009. Over the life of the program, 495 RUS loans have been made at a value of almost $176 million.

Some of the oldest Small Watershed projects that have exceeded their design life (the design life is 50 years, and dams were constructed starting in 1948) need rehabilitation work to continue to protect public health and safety by reducing any possibility of dam failure, and to meet changing resource needs. In 2009 alone, 1,344 dams reached the conclusion of their design life. That number will continue to grow each year, and by 2015 will total more than 4,300. In response to that concern, Congress passed a new rehabilitation program in Section 313 of the Grain Standards and Warehouse Improvement Act of 2000 (P.L. 106-472) as an amendment to the P.L. 566 law. It appropriated $5 million in FY2001, increasing each year to $40.2 million in FY2010, to make structural improvements to meet safety and performance standards and extend the life of the project. NRCS may provide 65% of the total rehabilitation costs but no more than 100% of the actual construction cost, and are prohibited from funding operation and maintenance expense. Rehabilitation projects also provide an opportunity to modify projects to provide additional benefits, including municipal water supplies.

Since FY2000, Congress has appropriated more than $325 million for rehabilitation projects, including an additional $50 million in FY2009 through ARRA. By September 30, 2009, 200 rehabilitation projects had been funded, and 86 dams in 14 states had been completely rehabilitated. In addition, project sponsors requested a total of $19.4 million to restore 82 high priority dams in 21 states in FY2009. NRCS calculated the benefits of the 86 completed projects to total more than $8.2 million in reduced monetary losses. It identified more than 205,000 individuals and more than 6,000 homes and businesses and 500 farms and ranches that benefit in some way from the projects.

In 2002, Congress amended the dam rehabilitation program in Section 2505 of the 2002 farm bill (P.L. 107-171) to provide increasing levels of discretionary funding up $85 million through FY2007. Discretionary funding authority was sustained at $85 million annually through FY2012 under Section 2803 of the 2008 farm bill (P.L. 110-246). The 2002 farm bill amendment also included mandatory funding for the program for the first time. The 2008 farm bill included an additional $100 million in mandatory funding for FY2009 only. A total of $375 million in mandatory funding has been authorized for the program between FY2003 and FY2009. Annual appropriations acts have not allowed any mandatory funding to be spent.

Program Purpose

The purpose of the program is to provide technical and financial assistance to states and local organizations to plan for, install, and rehabilitate watershed projects. Project purposes may include watershed protection, flood prevention and control, water quality improvements, soil erosion reduction, rural municipal and industrial water supply, fish and wildlife habitat enhancement, and water conservation. Almost all projects address flood prevention and control.

Financing Mechanism

Partial project grants, plus provision of technical advisory services. Financing for water projects under the small watershed program varies depending on project purposes. The federal government pays all costs related to construction for flood control purposes only. Costs for non-agricultural water supply must be repaid by local organizations; however, up to 50% of costs for land, easements, and rights-of-way allocated to public fish and wildlife and recreational developments may be paid with program funds. Additionally, sponsors may apply for USDA

Rural Utilities Service (RUS) Water and Waste Program loans to finance the local share of project costs. Participating state and local organizations pay all operating and maintenance costs.

Eligibility Requirements

State agencies and qualified local organizations can apply to participate in this program and sponsor or cosponsor an application. Qualified organizations include soil and water conservation districts; municipalities; counties; watershed, flood-control, conservancy, drainage, irrigation, or other special purpose districts; Indian tribal organizations, irrigation and reservoir companies, water users associations, or similar organizations not operated for profit. Other organizations can endorse project applications. To be eligible for funding, a proposed project must meet several criteria, including (1) having an approved watershed plan, (2) having environmental, economic, and social benefits that exceed project costs; and (3) having no critical environmental issues.

There are no population or community income-level limits on applications for the Small Watershed Program; however, all projects must have flood control as one of their purposes and must be located within small watersheds (250,000 acres or less).

Funding

The budget request for FY2011 sought no funding for Watershed and Flood Prevention Operations and sought $40.5 million for the rehabilitation program—$336,000 above the FY2010 request. The FY2011 request was a decrease from FY2010 funding contained in P.L. 111-80, which provided $30 million for Watershed and Flood Prevention Operations and $40.2 million for Watershed Rehabilitation. In previous years, the Watershed and Flood Prevention Operations appropriation had included numerous instances of congressionally designated funds for specified projects; sometimes the total value of these designated grants approached the total appropriation. In FY2010, $22.1 million of the $30 million (74%) appropriated for Watershed and Flood Prevention Operations was congressionally designated for specified projects. Also in previous years, limits had been placed on how funding could be spent by limiting the amount available for technical assistance. In FY2010, appropriations language limited technical assistance to $12 million of the $30 million total.

In recent years, the Administration (regardless of which party has control of the White House) has requested significant funding reductions that Congress has rejected. FY2006 was the first time, at least in many years, that the Administration called for no funding of Watershed and Flood Prevention Operations, and it has done so each year since then, including the FY2011 request. In prior years, Congress had always responded by appropriating funds for these activities, usually in amounts similar to the preceding year. In the late 1980s and early 1990s, for example, annual appropriations averaged around $160 million, although the President's budget often requested lower amounts.

Historically, overall watershed funding ultimately has varied a great deal from year to year. Much of this variation is the result of appropriations for the emergency component, which is enacted in emergency supplemental appropriations and varies widely from year to year. Some consider the overall watershed program to be a public works effort that supports local employment and economic development (and therefore might support additional funding in the current economic setting), while others consider it to be a "pork barrel" program that provides support to projects that are frequently of limited merit.

Statutory and Regulatory Authorities

The Flood Control Act of 1944, P.L. 78-534, as amended, 58 Stat. 907 (33 U.S.C. 701b-1); Watershed Protection and Flood Prevention Act of 1954, P.L. 83-566, as amended, 68 Stat. 666 (16 U.S.C. 1001-1006). Regulations are codified at 7 CFR Part 622 (Watershed and Flood Prevention Operations) and 7 CFR 624 (Emergency Watershed Protection).[12]

[This section prepared by Megan Stubbs, Analyst in Agricultural Conservation and Natural Resources Policy, Resources, Science and Industry Division (707-8707).]

Environmental Protection Agency

Clean Water State Revolving Fund Loan Program

The Clean Water Act prescribes performance levels to be attained by municipal sewage treatment plants in order to prevent the discharge of harmful wastes into surface waters. The act also provides financial assistance, so that communities can construct treatment facilities in compliance with the law, which has the overall objective of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters.

In historic terms, funding under the Clean Water Act has been the largest federal program for wastewater treatment assistance. Since 1973, Congress has appropriated $85 billion in program grants. Funds are distributed to states under a statutory allocation formula and are used to assist qualified projects on priority lists that are determined by individual states. These funds are used to assist states and localities in meeting wastewater infrastructure needs most recently estimated by EPA and states at $236.4 billion nationally for all categories of projects eligible for federal assistance under the law.

In 1987 Congress amended the Clean Water Act (P.L. 100-4) and initiated a new program of federal capitalization grants to support State Water Pollution Control Revolving Funds (SRFs). Prior to 1989 (when the SRF program became effective), states used their allotments to make grants to cities and other eligible recipients. Since 1989, federal funds (grants of appropriated funds) have been used to capitalize state loan programs, or SRFs, with states providing matching funds equal to 20% of the federal funds to capitalize the SRF. All 50 states, plus Puerto Rico, participate in the clean water SRF program. Over the long term, the loan programs are intended to be sustained through repayment of loans to states, thus creating a continuing source of assistance for other communities. Rural and non-rural communities compete for funding; rural areas and other small communities have no special priority, nor are states required to reserve any specific percentage for projects in rural areas. Nevertheless, rural areas are not shut out of the program. EPA data indicate that since 1989, nationally, 63% of all loans and other assistance (comprising 23% of all assistance) have gone to assist communities with 10,000 people or fewer.

[12] For information, see http://www.nrcs.usda.gov/programs/watershed/index.html.

Program Purpose

The clean water SRF program provides assistance in constructing publicly owned municipal wastewater treatment plants, implementing nonpoint pollution management programs, and developing and implementing management plans under the National Estuary Program.

Financing Mechanism

Clean water SRFs may provide seven general types of financial assistance: making loans; buying or refinancing existing local debt obligations; guaranteeing or purchasing insurance for local debt obligations; guaranteeing SRF debt obligations (i.e., to be used as security for leveraging the assets in the SRF); providing loan guarantees for sub-state revolving funds; earning interest on fund accounts; and supporting reasonable costs of administering the SRF. States may not provide grants from an SRF. Loans are made at or below market interest rates, including zero interest loans, as determined by the state in negotiation with the applicant. All principal and interest payments on loans must be credited directly to the SRF.

Eligibility Requirements

Eligible loan recipients for SRF assistance are any municipality, intermunicipal, interstate, or state agency.

Projects or activities eligible for funding are, initially, those needed for constructing or upgrading publicly owned municipal wastewater treatment plans. As defined in Clean Water Act section 212, devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage are eligible. These include construction or upgrading of secondary or advanced treatment plants; construction of new collector sewers, interceptor sewers or storm sewers; and projects to correct existing problems of sewer system rehabilitation, infiltration/inflow of sewer lines, and combined sewer overflows. Operation and maintenance is not an eligible activity. All funds in the clean water SRF resulting from federal capitalization grants are first to be used to assure maintenance of progress toward compliance with enforceable deadlines, goals, and requirements of the act, including municipal compliance. Following compliance with the "first use" requirement, funds may be used to implement nonpoint source management programs and estuary activities in approved State Nonpoint Management Programs and estuarine Comprehensive Conservation and Management Plans, respectively. Since the clean water SRF program was established in 1989, $2.6 billion has been used to assist 8,654 nonpoint management projects; none has gone to estuary management plan activities.

Hardship Grants Program for Rural Communities

EPA also administers a small grant program to help small, disadvantaged rural communities with fewer than 3,000 people address their wastewater treatment needs. A community can qualify for hardship assistance if it meets certain criteria: it lacks access to centralized wastewater treatment or collection systems or needs improvements to on-site treatment systems; a proposed project will improve public health or reduce environmental risk; the community's per capita income is less than 80% of the national average; and its unemployment rate exceeds the national average by 1 percentage point or more. The hardship grants program is intended to complement the clean water SRF program, because states assist eligible rural communities by supplementing an SRF loan with hardship grant assistance. States have flexibility in how they manage the hardship grants

program and are responsible for selecting projects. For example, in addition to construction projects, states may use hardship assistance to provide training, technical assistance, and education programs on the operation and maintenance of wastewater treatment systems. The program began with a $50 million appropriation in FY1996 (P.L. 104-134), and funds remain available until expended. Through June 2008, $54 million in EPA rural hardship grants and state matching funds had been awarded to 120 projects nationwide (no new EPA grants have been awarded since FY2004). States also have awarded $69 million in SRF loan assistance to 82 projects, in combination with rural hardship grants.

"Wet Weather" Projects

In 2000, Congress authorized separate Clean Water Act grant funding for projects to address overflows from municipal combined sewer systems and from municipal separate sanitary sewers. Overflows from these portions of municipal sewerage systems can occur especially during rainfall or other wet weather events and can result in discharges of untreated sewage into local waterways. This program, contained in the FY2001 Consolidated Appropriations Act (P.L. 106-554, Division B, section 112), authorized $750 million per year in FY2002 and FY2003. The funds would only be available for appropriation if Congress also appropriated at least $1.35 billion in each of the years for the clean water SRF program. Under the program, grants to a municipality or municipal entity could be used for planning, design, and construction of treatment works to intercept, transport, control, or treat municipal combined and separate sewer overflows. However, no funds were appropriated for this program either in FY2002 or FY2003; thus, wet weather projects continue to compete with other water infrastructure projects for available Clean Water Act funds.

Funding

Since the first appropriations for the clean water SRF program in FY1989, Congress has provided $33 billion in grants to capitalize SRFs. For each of FY2008 and FY2009, Congress provided $689 million through regular appropriations acts. The American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5) included an additional $4 billion, for total FY2009 funding of $4.689 billion. Through June 2008, federal funds, together with state matching contributions, repaid loans, and other funds, have been used for $68.8 billion in SRF assistance to support 22,717 SRF loans and debt refinance activity. Most recently, Congress appropriated $2.1 billion in appropriations for FY2010 (P.L. 111-88). For FY2011, the President's budget requested $2.0 billion for clean water SRF capitalization grants.

Statutory and Regulatory Authority

Statutory authority for the clean water SRF program is the Clean Water Act, as amended, Sections 601-607, 33 U.S.C. §§ 1381-1387. Regulations are codified at 40 CFR §35.3100.[13]

[This section prepared by Claudia Copeland, Specialist in Resources and Environmental Policy, Resources, Science and Industry Division (707-7227).]

[13] For additional information, see https://www.cfda.gov/index?s=program&mode=form&tab=step1&id=312e4abeea3cc908bc55deb5e07ec37f.

Drinking Water State Revolving Fund Loan Program

The Safe Drinking Water Act (SDWA) requires public water systems to comply with federal drinking water regulations promulgated by EPA. Through these regulations, EPA has set standards to control the levels of approximately 90 contaminants in drinking water, and more regulations are under development. To help communities meet these federal mandates, Congress amended the SDWA in 1996 to establish a drinking water state revolving fund (DWSRF) loan program. The program is patterned closely after the clean water SRF, and authorizes EPA to make grants to states to capitalize drinking water state revolving loan funds. States use their DWSRFs to provide assistance to public water systems for drinking water projects.

States must match 20% of the federal capitalization grant and develop annual intended use plans that indicate how allotted funds will be used (including a project priority list). The law generally directs states to give funding priority to projects that (1) address the most serous health risks; (2) are needed to ensure compliance with SDWA regulations; and (3) assist systems most in need on a per household basis, according to state affordability criteria. Additionally, states must make available at least 15% of their annual allotment to public water systems that serve 10,000 or fewer persons (to the extent the funds can be obligated to eligible projects). In recent years, roughly 72% of DWSRF assistance agreements and 37% of funds have gone to these smaller systems.

Capitalization grants are allotted among the states according to the results of the most recent quadrennial survey of the capital improvements needs of eligible water systems. Needs surveys are prepared by EPA and the states, and the most recent survey (2007) estimated that public water systems need to invest a minimum of $334.8 billion over 20-years to ensure the provision of safe drinking water and compliance with federal standards.

Program Purpose

This state-administered program provides assistance for infrastructure projects and other expenditures that facilitate compliance with federal drinking water regulations or that promote public health protection. The SDWA directs states to give funding priority to infrastructure projects that are needed to achieve or maintain compliance with SDWA requirements, protect public health, and assist systems with economic need. States may use a portion of the capitalization grant for specified purposes, including programs for protecting sources of drinking water and improving the managerial and technical capacity of water systems. Capitalization grants are also available to each state under the American Recovery and Reinvestment Act (ARRA) of 2009. This act requires that a portion of funding be targeted toward projects for green infrastructure, water or energy efficiency improvements, or other environmentally innovative activities.[14]

Financing Mechanism

States may use the DWSRF to make low- or zero-interest loans to public water systems, and loan recipients generally must repay the entire loan plus any interest. DWSRFs may also be used to buy or refinance local debt obligations, to guarantee or purchase insurance for a local obligation,

[14] For information, see CRS Report R40216, *Water Infrastructure Funding in the American Recovery and Reinvestment Act of 2009*, by Claudia Copeland et al.

as a source of revenue or security for payment of principal and interest on state revenue or general obligation bonds if the proceeds of the sale of the bonds are deposited into the DWSRF, and to earn interest on DWSRF accounts. States also may use up to 30% of their annual DWSRF grant to provide additional subsidies (e.g., principal forgiveness and negative interest rate loans) to help economically disadvantaged communities of any size. (A disadvantaged community is one in which the service area of a public water system meets state-established affordability criteria.)

Eligibility Requirements

Drinking water systems that are eligible to receive DWSRF assistance include community water systems, whether publicly or privately owned, and not-for-profit noncommunity water systems. Federally owned systems are not eligible to receive assistance from this program.

Projects eligible for DWSRF assistance include (1) capital investments to upgrade or replace infrastructure in order to continue providing the public with safe drinking water; (2) projects needed to address violations of SDWA regulations; and (3) projects to replace aging infrastructure (e.g., source water improvement projects and treatment facilities, storage facilities, transmission and distribution pipes, and consolidation with other systems). Assistance may also be available for land acquisition, project design and planning, and for a range of security measures, including vulnerability assessments and infrastructure improvements. Also eligible for assistance are projects to consolidate water supplies (for example, in cases where individual homes or other public water supplies have a water supply that is contaminated, or a system is unable to maintain compliance for financial or managerial reasons).

Projects and activities not eligible for funding include projects primarily intended to serve future growth or to provide fire protection, construction of dams or reservoirs (except reservoirs for finished (treated) water), monitoring, and operation and maintenance. Ineligible systems include those that lack the financial, technical or managerial capacity to maintain SDWA compliance and systems in significant noncompliance with any SDWA regulation (unless the project is likely to ensure compliance).

Funding

The act authorized appropriations for DWSRF capitalization grants at a level of $599 million for FY1994 and $1 billion annually for FY1995 through FY2003, for a total appropriations authority of $9.6 billion. For each of FY2008 and FY2009, Congress provided $829.0 million through regular appropriations acts. The American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5) included an additional $2 billion to be provided through the DWSRF program, for a total FY2009 funding of roughly $2.83 billion. For FY2010, Congress approved $1.39 billion (P.L. 111-88), bringing cumulative program appropriations to approximately $14.5 billion. For FY2011, the President requested $1.29 billion.

Through June 2009, the EPA had awarded $10.6 billion in capitalization grants, which, when combined with the 20% state match, bond proceeds, loan principal repayments, and other funds, amounted to $18.7 billion in DWSRF funds available for loans and other assistance. Through June 2009, 6,905 projects had received assistance, 4,567 of which had been completed; total assistance provided by the program reached $16.2 billion.

Statutory and Regulatory Authority

The statutory authority for the DWSRF program is the Safe Drinking Water Act Amendments of 1996 (P.L. 104-182, Section 1452, 42 U.S.C. 300j-12). EPA promulgated an interim final rule for the program on August 7, 2000 (65 FR 48285), and adopted it as final on January 12, 2001 (66 FR 2823). Regulations are codified at 40 CFR §35.3500.[15]

[This section prepared by Mary Tiemann, Specialist in Environmental Policy, Resources, Science and Industry Division (707-5937).]

Department of Housing and Urban Development

Community Development Block Grants

The Department of Housing and Urban Development (HUD) administers assistance primarily under the Community Development Block Grant (CDBG) program. The program's primary objective is to develop viable urban communities by providing decent housing and a suitable living environment, and by expanding economic opportunities, principally for persons of low and moderate income. CDBG funds are used by localities for a broad range of activities intended to result in decent housing in a suitable living environment. Water and waste disposal needs compete with many other public activities for this assistance, including historic preservation, energy conservation, housing construction, lead-based paint abatement, urban renewal projects, recreation facilities, home ownership assistance, and others. Program policy requires that at least 70% of funds must benefit low- and moderate-income persons. The use of CDBG funds is intended to reflect a balance between local flexibility and national targeting to low- and moderate-income persons.

After subtracting amounts specified in appropriations acts for special-purpose activities, 70% of CDBG funds are allocated by formula to approximately 1,175 entitlement communities nationwide, defined as central cities of metropolitan areas, metropolitan cities with populations of 50,000 or more, and statutorily defined urban counties (the entitlement program). These funds are not available for projects in rural communities. The remaining 30% of CDBG funds is allocated by formula to the states for distribution to non-entitlement, smaller communities (the state program) for use in areas that are not part of a metropolitan city or urban county, and these funds may be available for rural community water projects. The 70/30 split and allocation formulas are provided for in law. According to data from HUD, in recent years (2001-2007), water and sewer improvement projects accounted for 9-10% of all CDBG funds disbursed nationally.[16] From FY1991 through FY2000, HUD provided over $4 billion in block grants, plus $39.9 million for projects specified in appropriations laws, for drinking water and wastewater projects.[17]

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[15] DWSRF program information, regulations, facts and statistics are available at http://www.epa.gov/safewater/dwsrf.html. For further information and contacts, see https://www.cfda.gov/index?s=program&mode=form&tab=step1&id=1fa58ab3aad3cbec5929ec0f5e88362b.

[16] U.S. Department of Housing and Urban Development, "Use of CDBG Funds by All Grantees." See http://www.hud.gov/offices/cpd/communitydevelopment/budget/disbursementreports/profiles/National_Expenditure_FY07.xls.

[17] GAO Water Infrastructure, pp. 11-13.

Program Purpose

The primary goal of this program is the development of viable communities by providing decent housing, a suitable living environment, and expanding economic opportunities, principally for low- and moderate-income persons.

Financing Mechanism

The entitlement communities and states receive a basic grant allocation each year and know in advance the approximate amount of federal funds that they will receive annually. Grantees access their CDBG funding through a consolidated plan process in which states and localities establish their local priorities and specify how they will measure their performance. In the CDBG program for smaller communities, grants are distributed out of state allocations to units of general local government which implement approved activities. States may retain a percentage of funds to cover the costs of administering the program and providing technical assistance to local governments and nonprofit organizations.

Eligibility Requirements

Eligible CDBG grant recipients include states, local governments, the District of Columbia, Puerto Rico, Guam, the Virgin Islands, American Samoa, and the Commonwealth of the Northern Marianas. Eligible activities include a wide range of projects such as public facilities and improvements, housing, public services, economic development, and brownfields redevelopment. State grantees must ensure that each activity meets one of the program's three national objectives: benefitting low- and moderate-income persons (the primary objective), aiding in the prevention or elimination of slums or blight, or assisting other community development needs that present a serious and immediate threat to the health or welfare of the community. Under the state program which assists smaller communities, states develop their own program and funding priorities and have considerable latitude to define community eligibility and criteria, within general criteria in law and regulations. According to HUD, between 2003 and 2008, state governments collectively committed 31.1% of CDBG allocations to water and sewer system projects, the largest major category of funded public improvements.

Funding

For FY2010 appropriations (Consolidated Appropriations Act, 2010, P.L. 111-117), Congress provided $3.95 billion for CDBG entitlement/non-entitlement formula funds, of which approximately $1.2 billion is available for smaller communities under the state non-entitlement program. For FY2011, the President's budget requested $3.94 billion for this program, nearly the same as for the previous year. The FY2011 budget declared that full funding for the CDBG program is a top Presidential Priority for 2011, and it characterized CDBG as the largest and most flexible community development program in the federal portfolio.

Statutory and Regulatory Authority

Statutory authority for the CDBG program is Title I of the Housing and Community Development Act of 1974, as amended (42 U.S.C. 5301 et seq.). Regulations are codified at 24 CFR Part 570.

Regulations covering the CDBG state program for non-entitlement communities are codified at 24 CFR Part 570, Subpart I (§570.480).[18]

[This section prepared by Claudia Copeland, Specialist in Resources and Environmental Policy, Resources, Science and Industry Division. For additional CDBG program information, contact Eugene Boyd, Government and Finance Division (707-8689).]

Department of Commerce

Economic Development Administration (Public Works and Economic Development Program)

The Economic Development Administration (EDA), Department of Commerce, is authorized to provide development assistance to areas experiencing substantial economic distress. Economic development grants for community water and sewer projects are available through the Public Works and Economic Development Program.

Under this federally administered program, public works grants are made to eligible applicants to revitalize, expand, and upgrade their physical infrastructure. These investments are intended to enable communities to attract new industry, encourage business expansion, diversify local economies, and generate or retain long-term jobs in the private sector through improvements needed for establishing or expanding industrial or commercial enterprises in distressed regions. Grants may be used for a wide range of purposes, but frequently have a sewer or water supply element. EDA's FY2010 budget justification noted the linkage between water and sewer systems and economic development and redevelopment:

> Basic infrastructure in the downtown regions, particularly water and sewer systems, is often over a century old. This infrastructure is not adequate to support the needs of growing businesses. In rural regions, water management and coordinated planning and implementation of water/wastewater infrastructure is key to unlocking economic sustainability The inadequacy of basic public water and sewer infrastructure has proven to be a significant impediment to the growth of new businesses.[19]

Types of projects funded include industrial parks, expansion of port and harbor facilities, redevelopment of brownfields, and water and wastewater facilities primarily serving industry and commerce. According to GAO, from FY1991 through FY2000, EDA provided $1.1 billion in grants to local communities for drinking water and wastewater projects.[20] Federal law requires that units of government retain ownership of EDA-funded projects. Because EDA grants must directly encourage employment generation, these grants generally are not available for rural *residential* sewer and water supply development.

[18] For more program information on CDBG entitlements grants, see https://www.cfda.gov/index?s=program&mode=form&tab=step1&id=75c19bc34eb650c446c2c4a078500ba5. For information on the CDBG state program, see https://www.cfda.gov/index?s=program&mode=form&tab=step1&id=8ebaec7fffe34667744cf0b8b70b4251.

[19] U.S. Department of Commerce, Economic Development Administration, *Fiscal Year 2010 Congressional Budget Request*, p. EDA-41.

[20] GAO Water Infrastructure, pp. 13-14.

Program Purpose

The purpose of the program is to promote long-term economic development and assist in the construction of public works and development facilities needed to initiate and support the creation or retention of permanent jobs in the private sector in areas experiencing substantial economic distress.

Financing Mechanism

EDA provides grants directly to approved applicants. Generally, EDA investment assistance may not exceed 50% of the project cost. Projects may receive an additional amount, not to exceed 30%, based on the relative needs of the region in which the project will be located, as determined by EDA. In the case of certain Indian Tribes, non-profit organizations that have exhausted their effective borrowing capacity, or a state or political subdivision of a state that has exhausted its effective taxing and borrowing capacity, grants totaling 100% may be awarded. On average, EDA grants fund 50% of project costs. Credit may be given toward the non-federal share for in-kind contributions, including contributions of space, equipment, and services. No minimum or maximum project amount is specified in law.

Eligibility Requirements

Public works grants may be made to states, cities, counties and other political subdivisions of states, an institution of higher education or a consortium of such institutions, and private or public not-for-profit organizations acting in cooperation with officials of a political subdivision of a state. Under this program, the term "state" includes the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau. For-profit, private sector entities do not qualify.

Qualified projects must fill a pressing need of the area and: must (1) be intended to improve the opportunities for the successful establishment of businesses, (2) assist in the creation of additional long-term employment, and (3) benefit long-term unemployed or underemployed persons and low-income families. Projects must also fulfill a pressing need and be consistent with the comprehensive economic development plan for the area, and have an adequate share of local funds. In addition, eligible projects must be located in areas that meet at least one of the following criteria: low per-capita income, unemployment above the national average, or an actual or anticipated abrupt rise in unemployment.

Funding

For FY2010, Congress provided appropriations totaling $158.3 million for EDA's Public Works and Economic Development (public works) grant program (Consolidated Appropriations Act, 2010, P.L. 111-117). For FY2011, the President's budget requested $67.8 million for EDA's public works grant program, a $90.5 million decrease from FY2010. However, the budget indicated that the reduction would be balanced by a commensurate $90 million increase for EDA's Economic Adjustment Assistance Program, which funds similar projects and has greater flexibility, particularly in speeding assistance to communities suffering sudden and severe economic dislocations, such as those associated with natural disasters and recession, according to

the budget justification. The Administration made a similar request for FY2010, which Congress did not adopt.

Statutory and Regulatory Authority

The statutory authority for the Public Works and Economic Development Program is the Public Works and Economic Development Act of 1965, as amended, P.L. 89-136 (42 U.S.C. 3131, 3132, 3135, 3171), and Title II, P.L. 105-393 (42 U.S.C. 3211). Regulations are codified at 13 CFR Chapter III, Part 302, 305, 316, and 317.[21]

[This section prepared by Claudia Copeland, Specialist in Resources and Environmental Policy, Resources, Science and Industry Division. For additional EDA program information, contact Oscar R. Gonzalez, Government and Finance Division (707-0764).]

Author Contact Information

Claudia Copeland, Coordinator
Specialist in Resources and Environmental Policy
ccopeland@crs.loc.gov, 7-7227

Betsy A. Cody
Specialist in Natural Resources Policy
bcody@crs.loc.gov, 7-7229

Mary Tiemann
Specialist in Environmental Policy
mtiemann@crs.loc.gov, 7-5937

Nicole T. Carter
Specialist in Natural Resources Policy
ncarter@crs.loc.gov, 7-0854

Megan Stubbs
Analyst in Agricultural Conservation and Natural Resources Policy
mstubbs@crs.loc.gov, 7-8707

[21] For more program information, see https://www.cfda.gov/index?s=program&mode=form&tab=step1&id=5f149ff4e539aca8dc81b7f7fe57b118http://12.46.245.173/pls/portal30/SYSTEM.PROGRAM_TEXT_RPT.SHOW?p_arg_names=prog_nbr&p_arg_values=11.300.