



# The Title XVI Water Reuse Program: Implementation and Legislative Issues

**name redacted**

Specialist in Natural Resources Policy

**name redacted**

Specialist in Natural Resources Policy

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## Summary

Congress authorized the Department of the Interior (DOI) to undertake a program to provide limited federal financing for water reuse (i.e., planned beneficial use of treated wastewater and impaired surface and groundwaters) in Title XVI of P.L. 102-575—the Reclamation Wastewater and Groundwater Studies Feasibility Act of 1992. Title XVI’s implementation by DOI’s Bureau of Reclamation has been contentious; many Members of Congress, particularly from water-scarce western states, support both the program and specific projects, but are frustrated by growing backlogs of projects seeking authorization or awaiting appropriations.

The Bush Administration has generally opposed authorizing additional projects, citing the backlogs and noting that the projects proposed for authorization generally do not meet Reclamation’s requirements for a feasibility study. At the same time, the Administration’s requests for appropriations for Title XVI have been relatively consistent for several years, with the FY2007 request at \$10.1 million, albeit nearly half of what Congress has appropriated in recent years. The resulting inertia in implementation has raised congressional interest in possible changes to the program. Options discussed range from clarifying the program’s criteria (e.g., focus on areas of most need), to changing the way projects are evaluated (e.g., replacing the requirement for a Reclamation feasibility study with an evaluation of technical and financial viability), to expanding and prioritizing Title XVI appropriations.

Views on how to proceed vary based on perspectives of the proper role of the federal government in water supply, the appropriate priority for the program in the current fiscal environment, the history and mission of the program, and the urgency and need for investment and promotion of water reuse technologies. Title XVI’s genesis includes helping Southern California reduce its reliance on Colorado River water. As authorizations for projects in other areas and with other purposes were added, the justification for federal involvement in these projects, which expand municipal water supply, and the long-term goals and planning for the program came under increasing scrutiny, particularly by the Administration. At the same time, the program was increasingly pursued by project sponsors as a route for federal assistance, which was then leveraged for additional support and financing. Several project sponsors have directly pursued congressional authorization outside the Title XVI feasibility study process. It is not clear if this is due to the Administration’s resistance to pursue Title XVI projects, or due to a combination of other factors.

In the face of decreasing support from the Administration and mounting dissatisfaction of project sponsors, the 109<sup>th</sup> Congress has engaged in oversight of the program and authorized only a limited set of additional Title XVI projects. The issue for Congress is whether and how to change the program. The challenge for Congress is that stakeholders’ perspectives on how to improve the program are fundamentally different. Project sponsors generally prefer a more streamlined project development process and expanded program appropriations, while the Administration supports a smaller, more focused program with long-term objectives tied to federal interests. This report will be updated as events warrant.

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## Introduction

Growing populations and changing values have increased demands on water supplies and river systems, resulting in water use and management conflicts throughout the country. These demands are particularly evident in the West, where population is rapidly increasing and where climate variability and water scarcity make managing water supplies especially challenging.<sup>1</sup> In many western states, agricultural and urban needs conflict, and these demands also compete with water demand for threatened and endangered species, recreation, and scenic enjoyment.

Debate over western water resources revolves around the issue of how best to plan for and manage the use of this renewable, yet limited resource. Some observers advocate enhancing water supplies, through such steps as building new storage or diversion projects, expanding old ones, and funding water reclamation and reuse facilities. Others emphasize conservation and policies that provide opportunities for more efficient use of existing supplies, such as using market mechanisms or providing better price signals, which theoretically would result in more efficient water use. In practice, all of these tools are used by western water managers to varying degrees, and all have been addressed by Congress, again to varying degrees.

To address growing challenges in western water management, Congress in 1992 directed the Secretary of the Interior to establish a federal water reclamation, recycling, and reuse program (Title XVI of P.L. 102-575, the Reclamation Wastewater and Groundwater Studies and Facilities Act; 43 U.S.C. §390h). The act directed the Secretary to “investigate and identify” opportunities for water reclamation and reuse in the West, for design and construction of “demonstration and permanent facilities to reclaim and reuse wastewater, and to conduct research, including desalting, for the reclamation of wastewater and naturally impaired ground and surface waters” (43 U.S.C. §390h(a)).

The Title XVI program appears to be at a crossroad. As reuse<sup>2</sup> and desalination have become more viable options for addressing a variety of water management issues, legislative proposals for authorizing Title XVI projects have increased. At the same time, Administration support for the program has changed from full support prior to enactment in 1992, to the Administration’s current position of generally not supporting projects proposed for authorization by project sponsors (primarily municipal water agencies) that have not gone through Reclamation’s feasibility process. For example, the Administration, when asked, has testified against every Title XVI bill in the 108<sup>th</sup> Congress and most of the pending bills in the 109<sup>th</sup> Congress, citing mostly budgetary and project feasibility concerns. Further, the Administration continues to request funding only for projects that have received funding in prior years. Also during this time, congressional authorization of new projects has been significantly less than demand. Since 1996, six projects have been authorized. Of approximately 13 project authorization bills introduced during the 108<sup>th</sup> Congress, two were enacted; as of August 2006, the 109<sup>th</sup> Congress has enacted one bill and has 16 individual project authorizations in pending legislation.

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<sup>1</sup> Five of the country’s fastest-growing states are among the 17 western “reclamation” states.

<sup>2</sup> For this report, *reuse* connotes planned beneficial use (e.g., landscape watering, agricultural irrigation, and industrial cooling) of treated municipal wastewater. *Reclamation* is treatment of wastewater or other impaired surface water (e.g., seawater) or groundwaters (e.g., groundwater with high levels of contaminants, such as arsenic, or salts) to make it usable or reusable. *Recycling* connotes the capture of wastewater and its redirection back into the same water scheme, such as the multiple reuse of water in a manufacturing facility.

This situation has created frustration and confusion over the existing program, its future, and to some degree, the future role of the Department of the Interior's Bureau of Reclamation (Reclamation) in the rapidly growing West. Frustration is especially apparent among project sponsors whose authorized projects remain without Title XVI funding or with limited funding, and sponsors of pending project proposals, resulting in increased pressure on Congress and the Administration to address program issues. In sum, the resulting backlog of sparsely funded and unfunded projects, and pent-up demand for federal assistance, have raised the question of the future of the Title XVI program.

Following is a Title XVI overview covering its genesis, implementation, and current status. This overview is followed by a brief discussion of a number of policy options for addressing issues associated with the Title XVI program. The **Appendix** provides details on the status of individual Title XVI projects and the overall program in **Table A-1**.

## Title XVI Overview

### Program Establishment

Title XVI authorized design and construction of demonstration and *permanent* facilities to reclaim and reuse wastewater, and provided authority to conduct research, including on desalting, for the reclamation of wastewater and naturally impaired ground and surface waters. Responsibility for undertaking the new program—commonly referred to as the Title XVI program—was assigned to Reclamation in the Department of the Interior (DOI). The original statute directed the Secretary to undertake appraisal investigations to identify opportunities for water reclamation and reuse, and provided authority to participate with other federal agencies, as well as state, regional, and local authorities in developing feasibility studies.

#### **Title XVI in a Nutshell**

**Authority.** Title XVI of P.L. 102-575, as amended (43 U.S.C. §390h).

**Projects.** Congress has authorized 33 Title XVI projects. Three have been completed. Water reclaimed by Title XVI projects may be used for municipal and industrial (M&I) water supply (non-potable or indirect potable uses), irrigation supply, groundwater recharge, fish and wildlife enhancement, or outdoor recreation.

**Project Purposes.** An original rationale for the program was to help Southern California reduce its reliance on Colorado River water; however, the act does not include a purposes section. The general purpose of Title XVI projects appears to be to supplement water supplies by reclaiming (including via desalination) or recycling/reusing agricultural drainage water, wastewater, brackish surface and groundwater, and other sources of contaminated or low quality water.

**Financing.** Federal financing (i.e., federal grants) is generally limited to 25% of total project costs. Federal financing for projects authorized after 1996 is limited to a maximum of \$20 million, or 25% of total project costs.

**Eligibility Requirements.** Title XVI is limited to projects in the 17 western states and Hawaii. Projects may be permanent or for demonstration purposes. Authorized recipients of Title XVI funds include "legally organized non-federal entities" (e.g., municipalities or irrigation districts). Construction funding is generally limited to projects for which (1) an appraisal investigation and feasibility study have been completed and approved by the Secretary; (2) the Secretary has determined that 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. The Administration has noted in recent budget justifications and hearing testimony that it will focus on Title XVI projects supported in prior fiscal year budget requests (i.e., it will not undertake new starts). Congress authorizes each Title XVI project individually.

The genesis for Reclamation's wastewater reclamation and reuse program was a six-year western drought in the late 1980s and early 1990s. In particular, the drought strongly affected California and the Southwest. It led to an intense debate in Congress over federal water supply policies, including how to address conflicts between the need and desire for continued operation of the federal Central Valley Project and the application of state and federal environmental laws that could potentially limit water deliveries in order to protect certain aquatic species or comply with water quality standards. The result of several years' effort in addressing this conflict was the Reclamation Projects Authorization and Adjustment Act of 1992 (P.L. 102-575). While much attention has been given to Title XXXIV of that act (the Central Valley Project Improvement Act), Title XVI authorized construction of five specific reclamation water reuse and recycling projects in Arizona and California and established the reuse program. Title XVI of the act also authorized a comprehensive reuse study for Southern California, including Colorado River hydrologic regions. The latter language provides specific statutory authority for activities that were underway in 1991 in response to then-Secretary of the Interior Manuel Lujan's announcement of a "Comprehensive Water Reuse Initiative" for Southern California which spoke to the federal interest in management of the Colorado River.<sup>3</sup>

In addition to increasing the water supplies available to the area [southern California], this program would also decrease the area's dependency on water imports from the Colorado River, California, and Los Angeles Aqueducts, help restore and protect the quality of existing ground-water reserves, and help meet environmental water needs. Lujan said ... "Reclaimed water—one of the most dependable, abundant and underutilized water supplies available—could provide as much as 2 million acre-feet of water each year for the area."<sup>4</sup>

The Southern California study and other reuse studies initiated under the Title XVI authority, however, became caught in an apparent policy shift to decrease Administration support for the Title XVI program, a shift that grew out of the preparation of the FY2004 Reclamation budget.<sup>5</sup> That FY2004 budget included an evaluation of the Title XVI's effectiveness by the Office of Management and Budget (OMB PART review process, discussed below). The policy shift resulted in an uncertain future for the studies underway, thus frustrating project sponsors. For example, the document produced from the Southern California study is a point of contention with a long history among Southern California stakeholders and Reclamation.<sup>6</sup>

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<sup>3</sup> U.S. Department of the Interior, *Interior Secretary Lujan Announces Comprehensive Water Reuse Initiative for Southern California*, news release, Office of the Secretary, Aug. 5, 1991.

<sup>4</sup> *Ibid.*, p. 1.

<sup>5</sup> See U.S. Department of the Interior, letter from the Secretary of the Interior, Gale A. Norton, and Deputy Secretary of the Interior, Steven Griles, to the Solicitor, Inspector General, Assistant Secretaries, and Heads of Bureaus and Offices, stamped Nov. 22, 2002. Subject: *Conclusion of the Fiscal Year 2004 Budget Formulation Process*. The letter thanks officials for their efforts in identifying activities that could be scaled back or eliminated and notes a Reclamation proposal to "devolve significant responsibilities in the Water Reclamation and Reuse (Title XVI) program" in order to conserve resources to "implement innovative, new approaches to address long-standing problems such as those relating to endangered species."

<sup>6</sup> Reclamation undertook the "Southern California Comprehensive Water Reclamation and Reuse Study," along with eight state and local agencies in 1992. By October 23, 1991 (prior to enactment of Title XVI), Reclamation had held its first pre-planning committee meeting for the Southern California Water Reclamation and Reuse Study. The effort was later broadened to include 70 Southern California water supply and wastewater treatment agencies. The study was largely completed by April 2001 and was published as a final report in July 2002 (2002 Report); however, the report was not officially submitted to Congress, as required under the act. (Section 1606(c) requires submission of the study within six years of the first appropriations for the title (by FY2000)). According to an October 2003 letter to relevant project managers, the Department of the Interior found the original report contained "more detail than desired for a submittal [*sic*] to Congress." The then-Assistant Secretary for Water and Science asked Reclamation to prepare a (continued...)

## Federal Reuse Activities

Reclamation's Title XVI program is the only *active* federal program providing localities with financial and technical assistance for the development and construction of water reclamation and reuse facilities. However, according to the U.S. Council on Environmental Quality (CEQ), "a broad range of federal agency program activities employ water reuse, recycling, and reclamation technologies to achieve conservation and other program objectives."<sup>7</sup> Although both the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency (EPA) have limited authorities to provide assistance to local entities for recycling projects (e.g., specific provisions for the Corps in 1992 and 1999 Water Resources Development Acts;<sup>8</sup> a pilot program by EPA under the Alternative Water Sources Act;<sup>9</sup> and general Clean Water Act water treatment and wastewater authorities), neither has an established, regularly funded program dedicated to such activities. Some of the authorized Corps reuse activities received funding for FY2003 in Title I of the Energy and Water Development Appropriation Act for FY2003 (P.L. 108-7; Division D). The Corps also has authority for design and construction of Everglades wastewater reuse technology (P.L. 106-541). In all, it appears \$110.5 million in assistance has been authorized for Corps water reuse activities, with approximately \$22.6 million appropriated as of FY2005.

According to the CEQ report (pp. 8 and 9), water reuse, recycling, and reclamation activities fall within larger EPA program areas of water treatment, wastewater management, or water resources management (33 U.S.C. §1376). Funding for water reuse, recycling, and reclamation projects may be accomplished via Clean Water Act and Safe Drinking Water Act State Revolving Fund programs (33 U.S.C. §1381 and 42 U.S.C. 300f-300j, respectively). Although funds are not specifically authorized by Congress or targeted by EPA for such purposes, Congress periodically earmarks funding for specific reuse projects. For example, according to CEQ, project-specific reuse funding appropriated to EPA for FY2005 totaled \$6.4 million.

## Status of the Title XVI Program and Projects

### Authorizations

Congress has authorized 33 Title XVI projects (see the **Appendix** for additional information). To date, Reclamation has undertaken planning, design, and/or engineering activities for 21 projects.

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"concise, to-the-point version of that Report." The *Southern California Comprehensive Water Reclamation and Reuse Study, Reclamation Compendium* was submitted to Congress February 20, 2004. However, the word "feasibility" was removed from the "compendium," raising the question of whether the submission complies with the directives of §1606 for feasibility studies.

<sup>7</sup> U.S. Executive Office of the President, Council on Environmental Quality, *Federal Agency Water Reuse Programs, A Report to Congress*, white paper published October 3, 2005, p. 3. This report confirms earlier findings of the Office of Management and Budget (OMB) regarding the scope of reclamation and reuse activities of federal agencies. Hereafter referred to as the CEQ report. (See also, U.S. Executive Office of the President, Office of Management and Budget, *Performance and Management Assessments. Budget of the U.S. Government, Fiscal Year 2004* (Washington, DC: U.S. Govt. Print. Off., Feb. 2003), p. 173. Hereafter referred to as OMB PART review. See also PART worksheets for the Department of the Interior's Title XVI water reclamation and reuse program at <http://www.whitehouse.gov/omb/budget/fy2004/pma.html>, p. 2.

<sup>8</sup> §217 of P.L. 102-580, and §502 of P.L. 106-53, respectively.

<sup>9</sup> Title VI of P.L. 106-457. The program was never funded and expired in 2004.

Nearly half of the 33 authorized projects are concentrated in Southern California. This concentration reflects the Southern California and Colorado River hydrologic region focus of the program as first authorized.

## **Program and Project Funding**

The Title XVI contribution is limited to 25% of total project costs. Amendments in 1996 (P.L. 104-266) authorized 18 new projects (of the current 33) and established new program guidance. The 1996 amendments retained the 25%/75% federal/non-federal cost share, but limited the federal Title XVI share to no more than \$20 million per project. Reclamation has completed its funding obligations for three projects.<sup>10</sup> Title XVI federal funding obligations are nearly complete (80% or more) for six other projects.<sup>11</sup>

Total federal Title XVI funding through 2006 is estimated by Reclamation to be \$324.5 million (see **Table A-1** in the **Appendix**). The remaining total federal contribution for all authorized projects is estimated to be \$354 million. Non-federal Title XVI investment as of September 30, 2004, is estimated to be \$1.1 billion.<sup>12</sup> Title XVI funding for FY2006 is \$25.6 million; the budget request for FY2007 is \$10.1 million for program administration and eight projects.<sup>13</sup> Congress typically includes funding for more projects (e.g., 21 projects in FY2006, and 18 projects in FY2005, compared with funding for eight projects requested by the Administration in FY2006, and five for FY2005).

## **Project Status and Characteristics**

Using color-coded markers, **Figure 1** depicts authorized Title XVI projects in the 17 traditional reclamation states.<sup>14</sup> These projects are overlain on DOI's "hot-spots" illustration, which shows areas where water conflicts are especially prevalent in the 17 reclamation states.<sup>15</sup> Thirty Title XVI projects have been authorized for construction in eight traditional reclamation states: Arizona, California, Nevada, New Mexico, Oregon, Texas, Utah, and Washington (and three more have been authorized in Hawaii, which is not depicted in **Figure 1**). The project states depicted in

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<sup>10</sup> The three projects are (1) the Los Angeles (CA) area water reclamation and reuse project; (2) the Tooele (UT) wastewater treatment and reuse project; and (3) the Port Hueneme (CA) Desalination project. The demonstration phase of a fourth project, Willow Creek (OR), is also complete; however, it was not included in the chart provided to CRS from Reclamation.

<sup>11</sup> Those projects are San Gabriel Demonstration (CA); North San Diego County (CA); Orange County Regional (CA); Mission Basin Desalination (CA); Albuquerque Metropolitan (NM); and the City of El Paso (TX). U.S. Department of the Interior, Bureau of Reclamation, *Title XVI Water Reclamation and Reuse Program Funding History, Reclaimed Water Deliveries and Project Status*, January, 2006. Revised Chart provided to CRS via e-mail February 1, 2006. (Hereafter referred to as 2006 Reclamation Reuse Chart.)

<sup>12</sup> U.S. Department of the Interior, Bureau of Reclamation, *Title XVI Project Costs and Investment as of Sept. 30, 2004*, chart provided to CRS February 2005.

<sup>13</sup> The eight projects in the FY2007 budget request were: (1) Calleguas (CA); (2) Long Beach Area (CA); (3) North San Diego County Area (CA); (4) Orange County (CA); (5) Phoenix (AZ); (6) San Diego Area (CA); (7) San Gabriel Basin (CA); and (8) San Jose (CA).

<sup>14</sup> To view **Figure 1** in color, congressional users can access the CRS website at <http://www.crs.gov/>.

<sup>15</sup> The DOI's hot spot illustration, titled "Potential Water Supply Crises by 2025," without the overlay is available at <http://www.doi.gov/water2025/images/supply-hi.jpg>.



**Figure 1** represent many of the states especially active in applying reuse technologies and practices, but not all; two active states, Florida and Colorado, do not have Title XVI projects.<sup>16</sup>

More than two-thirds of the 33 Title XVI projects have received some Title XVI funding. These projects are depicted in **Figure 1** by the darkest blue triangles (completed projects) and the grayish blue triangles (other projects receiving some Title XVI funding). The light blue triangles represent authorized projects that had not received Title XVI funding by the end of FY2005. Reclamation estimates a total maximum design capacity of Title XVI projects funded to date of 747,558 acre-feet of water annually.<sup>17</sup> More information on project status is available in the **Appendix**.

## **Program Performance Evaluation**

In 2002, during development of the FY2004 budget, OMB reviewed the Title XVI program using the Program Assessment Rating Tool (PART)—an analytic tool to assess program strengths and weaknesses. Although the Title XVI program fared reasonably well on most evaluation criteria, OMB found it weak in providing a clear link between federal funding and progress toward specific outcomes, and in long-term planning. OMB’s supporting documents for the FY2004 PART review describe the program as an “earmark-driven grant program for local projects” for which there is no competitive grant process.<sup>18</sup> These supporting documents state that the program helps Reclamation “meet its mission to manage and develop water and related resources in an economically and environmentally sound manner” (and specifically notes the program’s role in assisting Southern California reduce its reliance on Colorado River water); however, the summary of the PART review declares that the water reclamation and reuse activity is “not one of Reclamation’s core functions.” The Title XVI PART review concludes that the program should be scaled back because it serves a largely local function that should be a local responsibility.

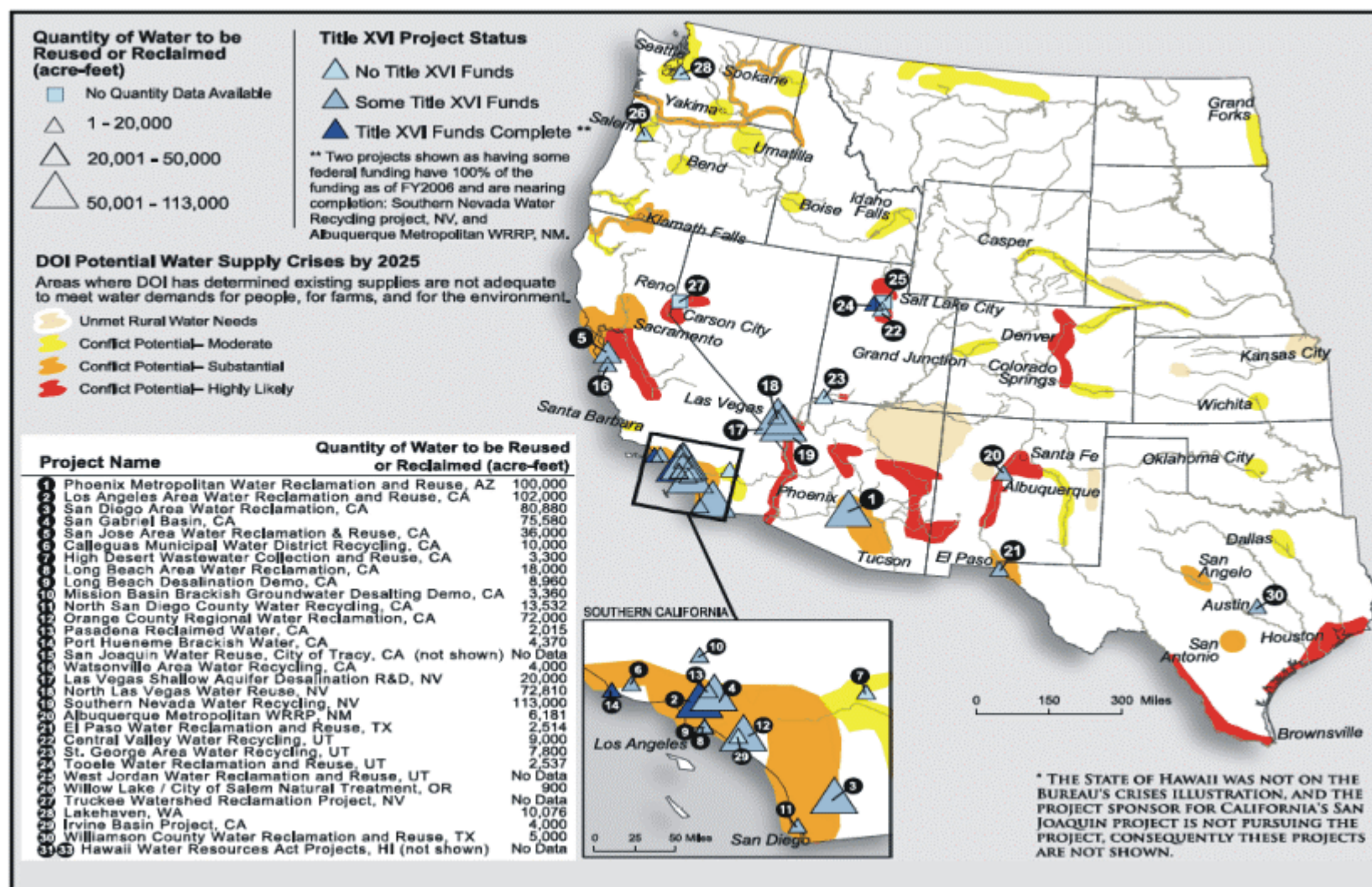
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<sup>16</sup> Florida is not eligible for Title XVI support; Florida is not designated as a “reclamation state,” as defined by the Reclamation Act of 1902, as amended (43 U.S.C. §391), nor has Congress authorized specific Title XVI activities in the state, as it has for Hawaii.

<sup>17</sup> 2006 Reclamation Reuse Chart. CRS estimates a total capacity of nearly 800,000 acre-feet of water annually from projects that have received Title XVI funding *and* those projects for which CRS was able to acquire data that have not received Title XVI funding (see **Table A-1** for more information).

<sup>18</sup> OMB PART review, p. 173. See also PART worksheets for the Department of the Interior’s Title XVI water reclamation and reuse program at <http://www.whitehouse.gov/omb/budget/fy2004/pma/waterreuse.pdf>, p. 2. See also Administration testimony on the Title XVI program and individual projects proposed for authorization in the 108<sup>th</sup> and 109<sup>th</sup> Congresses, such as the February 28, 2006, testimony by John W. Keys III, Commissioner of the Bureau of Reclamation before the Senate Energy and Natural Resources Subcommittee on Water and Power available at [http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=109\\_senate\\_hearings&docid=f:27706.pdf](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=109_senate_hearings&docid=f:27706.pdf).

Figure 1. Location of Title XVI Projects Relative to Areas of Potential Water Conflict



**Source:** U.S. Department of Interior, Bureau of Reclamation, Potential Water Supply Crisis by 2025 Illustration, May 2003 (water crisis illustration), and Title XVI Water Reclamation and Reuse Program Funding History, Reclamation Water Deliveries and Project Status, January 2006 (Title XVI projects and quantity of reclaimed water). Map prepared in part by the Congressional Cartography Program, Library of Congress, 2006.

Consistent with this conclusion, the Administration's budget request for FY2004 was \$12.6 million—65% less than the enacted level for FY2002 and 59% less than the enacted level for FY2003. Congress subsequently appropriated \$28.4 million for FY2004. The Administration requested \$11.5 million for FY2005 and \$10.2 million for FY2006. Congress appropriated \$23.0 million and \$25.6 million for those years, respectively. The Administration request of \$10.1 million for FY2007 is 40% of the enacted level for FY2006. Administration requests between FY2001 and FY2003 ranged from \$17.1 million to \$22 million.

## **Title XVI Issues for Congress**

OMB's PART review raises several specific policy issues not unique to Title XVI. First, it highlights the tension between congressional and Administration priorities. For example, while the PART review concludes congressional earmarks drive the Title XVI program, congressional supporters express frustration with the Administration's lack of participation in the program, and hence seek to fund the program in line with congressional priorities. Second, the PART review raises questions regarding the appropriate federal role in water supply development for municipal and industrial (M&I) uses. For example, is Congress redefining the federal government's role in M&I water supply and treatment as it authorizes new site-specific projects? To what degree should the federal government provide incentives for water supply development via new technologies, and what geographic, regional, or social factors should be considered? Third, is coordination or realignment of certain federal water activities needed to ensure efficient use of scarce federal resources?

In general, Title XVI policy issues fall into two categories: (1) broad policy issues and (2) issues specific to the program's implementation and structure.

### **Broad Policy Issues**

A broad policy issue central to discussions of the future of Title XVI is the debate over the appropriate federal role in water supply development, particularly for M&I purposes. Because Title XVI projects are municipal water development project and the most recent articulated congressional policy on these types of projects is nearly half a century old, there remains confusion over how to manage the differences of opinion over the appropriate federal role in water reuse projects that are raised between Congress and the Administration, and within Congress. At issue for Congress is the basic question of whether supporting Title XVI's municipal water development projects is an appropriate federal role.

Historically, federal water resource agencies' involvement in water supply was limited to developing irrigation projects and multiple use projects. Unlike other areas of water resources management in which the federal role is more prominent (e.g., irrigation water supply, flood damage reduction, and navigation; or supporting wastewater and drinking water treatment investments through revolving loan programs), the federal role in water supply *development* for M&I uses largely has been secondary to the primary role of state and local governments. Water supply development for M&I purposes generally has been incidental to the primary project

purposes of large, multi-purpose irrigation, flood reduction, hydro power, and navigation projects, pursuant to congressional policy established in the Water Supply Act of 1958.<sup>19</sup>

While as a general matter, local, regional, or state agencies have been responsible for water supply development, and wary of federal involvement in allocating water, Congress occasionally has deviated from this policy. For example, over the last two decades, Congress has increasingly, and incrementally, authorized the DOI to participate in construction of approximately 13 water supply projects for small and rural communities, as well as water reclamation and reuse projects under Title XVI. Although Congress has increasingly passed bills for site specific projects and established the Title XVI program, it has not re-articulated long-standing congressional policy regarding the federal role in M&I water supply development since the 1958 Water Supply Act.

## **Implementation Issues**

On the implementation front, what is at issue for Congress is whether the Title XVI program's current implementation inhibits the achievement of congressional interest in water reuse projects. Recent questions and concerns about the implementation of the Title XVI program appear to have increased in part because of the nature of project evaluation and authorization processes and the lack of a clear program funding process that is typical of federal water quality programs; this is demonstrated by OMB's PART review and the Administration's current positions on authorizing new projects and its budget requests.

Criticism of Title XVI implementation has spawned discussions of the future of the program, and comparisons to other federal programs. Other federal water assistance programs, such as state revolving loan funds for wastewater and drinking water administered by EPA, and rural water and wastewater disposal programs administered by the U.S. Department of Agriculture (USDA), have criteria, regulations, and competitive processes for projects and funding. Congress appropriates money annually for these programs; however, project funding is not appropriated by line item, as is the case for Reclamation projects. Instead, depending on the program, states or federal agencies allocate program funding based on program and project eligibility criteria. For more information on other federal water programs, see CRS Report RL30478, *Federally Supported Water Supply and Wastewater Treatment Programs*, coordinated by (name redacted).

Other overarching issues include the scope of the program and the degree to which project assistance should be targeted to certain types of projects or broadened to include more projects in more areas. Different stakeholder views on these overarching issues will ultimately affect specific decisions to address broad policy issues, as well as program criteria, project evaluation, and funding issues discussed below.

## **Program Criteria**

In contrast to several other federal water programs, there are no legislatively mandated or promulgated development criteria and no competitive grant processes for Title XVI projects.

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<sup>19</sup> "It is hereby 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" (Water Supply Act of 1958, 72 Stat. 320; 43 U.S.C. §390b, note).

Sections 1603 and 1604 of Title XVI establish a project evaluation process, which directs the Secretary to undertake appraisal investigations before preparation of feasibility studies on potential reuse measures and lists several “considerations” that must be addressed.<sup>20</sup> However, the act does not include clear evaluation or decision-making criteria, such as listing criteria that feasible projects must meet for a project to be recommended for construction authorization. Nor does the current authority include project ranking or eligibility criteria.

To implement the program, Reclamation developed guidelines for the development of Title XVI projects.<sup>21</sup> These guidelines provide more explicit evaluation and feasibility criteria than is provided in the statute; however, again, they are phrased as things that must be “considered” and as such do not function as eligibility or decision-making criteria. While OMB in the past has noted Reclamation’s Title XVI guidelines provide “solid criteria ... to evaluate potential projects prior to funding, and also to monitor and evaluate projects under construction,”<sup>22</sup> the guidelines provide little guidance on project ranking. Further, these guidelines have never been officially promulgated as official rules or regulations; nor do they appear to be binding.

### **Project Evaluation and Authorization**

Under the evaluation process established in Title XVI of P.L. 102-575 (as amended), Reclamation requires projects first to pass an appraisal phase, second to pass a feasibility phase, and third to receive a feasibility recommendation by the Secretary. Positive recommendations are forwarded to Congress for construction approval via a project-specific authorization. Authorized projects are then funded (or not) via the annual Energy and Water Development appropriations bill. However, in practice, many project authorizations and pending legislative proposals are for projects that have not gone through the project evaluation process outlined in Title XVI. The reasons for this are varied. First, it appears that Reclamation itself has initiated few Title XVI appraisal or feasibility studies in recent years. Second, some sponsors have engaged Reclamation in a feasibility study, but have found agency support lacking in recent years. Third, some contend feasibility studies are better suited to traditional, large, multi-purpose projects that Reclamation used to construct and that the process is ill-suited for smaller, primarily locally financed water reclamation and reuse projects. In other words, some view the feasibility process as too cumbersome and costly for the amount of federal assistance being sought.

It is not clear whether it is the feasibility (evaluation) process itself, funding levels, a change in Administration policy toward implementing the Title XVI program, or other reasons that have contributed to a lag in feasibility study recommendations. Regardless of the cause, it appears that in recent years, relatively few entities have successfully completed a feasibility process that met with Reclamation’s approval. Yet, Reclamation will not support legislative proposals for projects it has not reviewed or studied for feasibility. This situation has contributed to confusion and frustration over implementation of the Title XVI program.

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<sup>20</sup> 43 U.S.C. §390h-1(a)-(c) and 43 U.S.C. §390h-2(a)-(c).

<sup>21</sup> U.S. Department of the Interior, Bureau of Reclamation, *Guidelines for Preparing, Reviewing, and Processing Water Reclamation and Reuse Project Proposals Under Title XVI of Public Law 102-575, as Amended* (Washington DC: Bureau of Reclamation, 1998).

<sup>22</sup> PART worksheet for the Department of the Interior’s Title XVI water reclamation and reuse program at <http://www.whitehouse.gov/omb/budget/fy2004/pma.html>, p. 6.

## **Project Funding Issues**

Funding for Title XVI projects has been controversial in recent years because of differences in congressional and Administration priorities. For example, Reclamation has limited its budget request to projects that have received prior federal funding, while Congress has provided funding for more projects than have been requested by the Administration. The budget request for the last three years has been 40%-67% less than the enacted appropriation for each of the last three years. The Administration's request of \$10.1 million for Title XVI for FY2007 is 40% less than the FY2006 enacted appropriation of \$25.6 million.

While between \$1 million and \$3 million is devoted to program management annually, there is no overall *program* funding per se. Instead, each project receives appropriations via a separate line item in Reclamation's Water and Related Resources budget account. This process is consistent with most water resource project funding (e.g., Corps of Engineers project funding); however, it is markedly different from other federally supported water treatment programs, which receive program funding that is then dispersed by formula or other means by the administering agency (e.g., by EPA and USDA) or via state agencies. Further, lack of funding for already authorized projects has led some to oppose new project authorizations.

The above issues raise several questions:

- Is new or revised program guidance needed, via a formal rule-making process, congressional action, or both?
- Would new or revised guidance forestall the issue of projects being authorized by Congress prior to undergoing the Title XVI project evaluation process?
- Could the Title XVI program be designed to help alleviate funding issues and controversy over differing administrative and congressional budget priorities (e.g., by establishing ranking or prioritization criteria)?

## **Where to Go from Here?**

Growing pressure on water supplies in the West make it likely that the demand for Title XVI projects and requests for federal assistance, and hence pressure on Congress to approve more projects, will increase. At the same time, the potential for future requests to escalate and create an entirely new class of water supply assistance, appears to have increased congressional, Administration, and traditional Reclamation stakeholder concerns over the implementation and authorization of new Title XVI projects. Under the current process, the potential result is an ever-growing list of pending Title XVI legislative proposals, and for those gaining congressional approval, a growing list of projects competing for limited appropriations and Administration support. Currently, almost a third of the 33 authorized projects are unfunded—a “backlog” the Administration has repeatedly cited as a reason to oppose new authorizations—and an additional 16 project authorizations are in legislation pending before the 109<sup>th</sup> Congress. Some of these proposals have been pending for multiple Congresses.

Thus, the 109<sup>th</sup> Congress is faced with the question, what should be the future of the Title XVI program? Fundamental to deciding the future of the program are underlying questions related to the federal role in municipal water reclamation and reuse specifically, and perhaps municipal water supply more generally. How *urgent* is the problem of water scarcity in West? What are

other options to address the problem? How *important* is the problem? While the problem may be acute in some areas, it may be less so in others—should an adjustment to the program acknowledge such differences and focus federal resources in certain areas? Should it be a federal responsibility to promote reuse in the West? If so, why, or why not nationwide? How does reuse contribute to national well-being?

If Congress decides to affirm a federal role for water reuse in the West, a different set of questions arises:

- How does promoting or facilitating reuse in the West facilitate other federal goals, objectives, and legal obligations (e.g., protection of threatened and endangered species)?
- How does, or could, the Title XVI program mesh with other federal activities (e.g., Interior’s Water 2025 challenge grant initiative or CALFED water reuse and storage activities)?
- Should the program be tied to alleviating demand or reducing existing diversions where endangered species or other fish and wildlife, or water quality concerns are at issue?
- Should it be used to help communities drought-proof their supplies, or to slow pressure on agricultural water supplies, by possibly slowing conversion of “agriculture-to-urban” water transfers?
- Will promotion of water reclamation and reuse simply encourage more growth in already water scarce areas?
- Will growth or development come at the expense of federal investment in other economically depressed areas with plentiful water resources?

These questions are just a few that arise when discussing the future of Title XVI.

## Legislative Considerations

Oversight hearings have been held on the Title XVI program in both the 108<sup>th</sup> and 109<sup>th</sup> Congresses; however, only recently have comprehensive bills been introduced which would amend Title XVI. Stakeholders include local and regional proponents of new but unauthorized Title XVI projects, proponents of authorized yet unfunded Title XVI projects, the Administration, congressional sponsors and committees of jurisdiction, as well as traditional Reclamation stakeholders concerned about the programs’ potential to siphon funds away from non-Title XVI projects.

## Overview of Legislative Options

A wide range of options is available for addressing the Title XVI issues addressed above. One option currently being pursued focuses on evaluation issues. Two recently introduced bills, H.R. 5768 and S. 3639, would replace the existing appraisal and feasibility evaluation process with a more limited technical and financial viability and review process. The bills also address implementation issues such as the purpose of the program (to authorize both permanent and demonstration projects in western states and Hawaii), and clarify that desalination and recycling



are permitted Title XVI activities. The Administration testified that the proposed legislation would improve the program and make it easier for Reclamation to administer; however, the Administration supported adjustments to the legislation to “ensure that project assessment and authorization is prioritized to focus on areas of greatest need,” and to ensure projects are worthy of federal investment.<sup>23</sup> The Administration stated it could not support S. 3639 in its current form.

Another option would be to focus on program and project eligibility and ranking criteria. This direction is supported in the Administration’s testimony on S. 3639. The Administration specifically called for developing ranking criteria that would help Reclamation, Congress and the Administration prioritize projects. According to Reclamation, “such ranking criteria would address whether the project actually alleviates significant water conflict or shortage and whether it would add water supply in one of the likely crisis areas that we have focused on in efforts like the Water 2025 program.”<sup>24</sup> Under this option, other stakeholder priorities might also be addressed. These priorities range from assisting communities with drought resilience to focusing on projects with innovative and new technologies. While S. 3639 includes several factors that must be considered during review of project proposals, including how the project might serve an identified federal interest, these factors are not presented as decision-making or ranking criteria.

Another approach would be to evaluate programs using a funding focus. Funding issues could be addressed via economic or financial prioritization during the evaluation process, through new program eligibility and ranking criteria, or both. For example, in order to justify federal investment in local projects, many federal capital investment programs include requirements for some type of economic analysis of project alternatives. Federal water resource projects are generally evaluated using “Economic and Environmental Principles and Guidelines for Water Resource Projects” (P&Gs). The focus of the P&Gs is on National Economic Development (NED) benefits, although analysis of regional economic development (RED) is also included. Although using the P&Gs is typically a necessary component of Reclamation’s feasibility study process, Reclamation guidelines explicitly state that the P&Gs are not used for Title XVI projects because of the project’s local (not national) scope. Instead, the guidelines require an assessment of a project’s “economic feasibility” relative to other alternatives the local sponsor could pursue.

Many other federal agencies also require economic analyses of projects via alternatives analysis. For example, the Federal Transit Administration’s “New Starts” program requires evaluation of cost-effectiveness (via an alternatives analysis) as part of its overall financial and project justification evaluation process (§3011(a) of SAFETEA-LU; 49 U.S.C. §5309(d)). Also, although project-level decisions under the EPA’s Clean Water Act state revolving fund program are made by the states, the Clean Water Act directs the EPA Administrator to publish guidelines for evaluation methods, including cost-effectiveness (§212(2)(C) of P.L. 92-500, 33 U.S.C. §1292(2)(C)), such as the “identification and selection of cost effective alternatives to comply with the objective and goals” of the act (§217). Further, projects receiving federal financial assistance under the act must be the most economical and cost-effective (§218(a) and (b)). Relevant Clean Water Act state revolving fund guidelines are published at 40 CFR 35, Subpart E, **Appendix**.

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<sup>23</sup> Statement of Larry Todd, Deputy Commissioner, Bureau of Reclamation, before Senate Energy and Natural Resources Water and Power Subcommittee, July 27, 2006, pp. 1-2.

<sup>24</sup> Water 2025 is a relatively new Department of the Interior small grants program for “innovative” water resource projects.



These are just a few of the options to address identified Title XVI implementation issues. Other legislative options include dismantling or phasing out the Title XVI program, strengthening the program, or other less drastic adjustments, such as providing Reclamation with clearer direction on the purpose for it to carry out these activities. Options that could be pursued administratively include strengthening agency guidelines, and developing formal rules or regulations with specific program and project eligibility, funding, and ranking criteria.<sup>25</sup> While no option is likely to garner the support of all stakeholders, an examination of options may clarify perspectives on the appropriate federal role in reuse and define goals of federal participation in reuse.

## Conclusion

The Title XVI program is at a crossroad. Growing demands on water resources in the West and elsewhere make it likely that demand for assistance with water reclamation and reuse projects will continue to increase. Depending on one's perception of problems with the Title XVI program, different solutions to resolving program issues will be sought. Different stakeholders will have different opinions on the magnitude, importance, and scope of the broad policy, program criteria, project evaluation, and funding issues identified in this report. Congress and the Administration have several options to address Title XVI implementation issues. Resolution of these issues will depend on many factors, including whether or to what degree congressional and Administration priorities for the program can be articulated and balanced. For example, it appears from recent testimony that projects sponsors are generally interested in a more streamlined project development process and expanded program appropriations, while the Administration supports a more limited program with long-term objectives focused on federal interests. The challenge for Congress will be how to proceed in the face of divergent positions.

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<sup>25</sup> While the Administration developed guidelines for the Title XVI program in the mid-1990s, the guidelines have not been revised and were never formally promulgated as rules. Nor have other administrative options been actively pursued.

## Appendix. Title XVI Projects

Title XVI has been amended multiple times since 1992,<sup>26</sup> resulting in a total of 33 authorized projects (see **Table A-1**).<sup>27</sup> For accounting purposes, Reclamation has deemed the 12 authorized projects that have not yet received funding from Reclamation, or received minor amounts, as *inactive*. These projects are shown in italics in **Table A-1**. The other Title XVI projects are considered *active*.

### Active Projects

As noted earlier, Title XVI funding obligations for three projects are complete, and nearly complete for five additional projects. Title XVI projects were yielding an estimated 121,678 acre-feet of water annually as of September 20, 2005—nearly 25% of the 525,000 acre-feet of water reused in California in 2001—and they are expected to yield 163,243 acre-feet by the end of FY2006.<sup>28</sup> Because water yield figures are based on total design capacity, actual water yield will likely be slightly less.

### Inactive Projects

Except for the one Oregon project, the other inactive projects have received no Title XVI funding; however, some of the inactive projects have received funding from EPA, and in one case from the Bureau of Indian Affairs.

To determine the status of the 12 inactive projects, CRS contacted the project sponsors and determined that at least six inactive projects are moving forward in some manner with local funding. Of the 12 projects, CRS completed interviews with seven project managers and found that three projects have started construction. One of these is complete, and another is expected to be completed in 2006. The third involves two sub-projects, one of which is 10% complete. Three other projects have not yet started construction, but appear to be moving forward. These projects are in various stages of planning, pre-feasibility, and permitting/environmental analysis. The seventh project, for the City of Tracy (San Joaquin Area Water Reclamation and Reuse Project, CA), is no longer being pursued. Most project sponsors appear to be seeking alternative funding; some have been more successful than others. Most project managers expressed desire for

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<sup>26</sup> P.L. 104-266 (1996 amendments) authorized specific construction projects in California, Utah, New Mexico, Nevada, and Texas (see **Table A-1**); P.L. 105-321 (1998) authorized a project in Oregon (Willow Lake); P.L. 106-554 (2000) authorized an additional project in Nevada (Sparks); P.L. 106-566 (2000) extended the Secretary's research and planning authority to include project investigations in Hawaii; P.L. 107-344 (2002) authorized a project in Washington state (Lakehaven); P.L. 108-7 (2003) authorized an additional project in Nevada (North Las Vegas); P.L. 108-233 (2004) authorized an additional project in California (Irvine Basin); 108-316 (2004) authorized an additional project in Texas (Williamson County); and, P.L. 109-70 (2005) authorized three projects in Hawaii (Kalaheo (desalination), Kealahou, and Lahaina).

<sup>27</sup> CRS reports 33 projects have been authorized, while Reclamation reports 32 projects. The discrepancy can be explained by the way CRS and Reclamation count one project and one project authorization bill. CRS initially counted the Hawaii project authorization as one project, resulting in a total of 31 projects; however, the legislation authorizes 3 projects. Further, Reclamation does not include the Port Hueneme project in its list of congressionally authorized projects because it is authorized under standing authority. However, because Reclamation includes Port Hueneme (CA) in budget totals for project XVI funding, CRS includes the Port Hueneme project in its count.

<sup>28</sup> 2006 Reclamation Reuse Chart.

engagement with Reclamation and, not surprisingly, felt that their projects would be farther along with federal funding. Some had begun working with Reclamation in the early stages of the project (e.g., during the pre-feasibility/planning stage), but have not received assistance in recent years. All in all, it appears six of the seven projects for which CRS completed interviews are either moving or attempting to move forward with local funding. CRS was unable to secure information on all 12 projects.

### **Title XVI Federal Contribution**

Title XVI projects authorized prior to 1996 ranged in total costs from \$152 million (\$38 million for Reclamation's share), to \$690 million (\$172 million for Reclamation's share), with 25% of the total project costs eligible for Title XVI funding. In 1996, the program's authorization was amended to limit the federal share to no more than \$20 million per project. The three costliest Title XVI projects were authorized in 1992, before federal contributions were capped at \$20 million. Post-1996 projects have been smaller in scale, ranging from \$10 million (\$2 million for Reclamation's share) to \$280 million (\$20 million for Reclamation's share).

**Table A-1. Title XVI Projects by State: Federal Authorization, Funding, and Quantity of Reclaimed Water<sup>29</sup>**

Project Name and Authorization (Public Law Number)	Estimated Title XVI Contribution (\$ in thousands)	Title XVI Funding FY1994-FY2006 (\$ in thousands)	Title XVI Funding as a % Estimate Contribution	Estimated Project Completion Date	Reclaimed Water (acre-feet) (N/A=not available)	
					By 2006	Max. Project Capacity
Arizona						
Phoenix Metropolitan Water Reclamation and Reuse, AZ (P.L. 102-575; P.L. 106-53 repealed study cost-share limit)	\$20,000	1,260	6%	2010-2015	0	100,000
Subtotal Arizona	\$20,000	\$1,260			0	100,000
California						
Calleguas Municipal Water District Recycling, CA (P.L. 104-266)	20,000	8,853	44%	2010	9,500	10,000
High Desert Wastewater Collection and Reuse (Yucca Valley, CA) (P.L. 104-266)	N/A	0	N/A	N/A	0	1,100-5,500
Irvine Basin Project, CA (P.L. 108-233)	12,710	0	N/A	N/A	N/A	4,000
Long Beach Area Water Reclamation, CA (P.L. 104-266)	18,836	9,857	52%	2011	10,000	18,000
Long Beach Desalination Demo, CA (P.L. 104-266)	20,000	4,599	23%	2014	0	8,960
Los Angeles Area Water Reclamation and Reuse, CA (P.L. 102-575)	69,970	69,970	100%	Completed	35,640	102,000

<sup>29</sup> Projects in italics are considered “inactive” by Reclamation for budgeting purposes. According to Reclamation, projects are generally considered inactive if they are both incomplete and not currently receiving federal funding, or have received only minor federal funding (e.g., Willow Lake, OR, project) in prior years.

Project Name and Authorization (Public Law Number)	Estimated Title XVI Contribution (\$ in thousands)	Title XVI Funding FY1994-FY2006 (\$ in thousands)	Title XVI Funding as a % Estimate Contribution	Estimated Project Completion Date	Reclaimed Water (acre-feet) (N/A=not available)	
					By 2006	Max. Project Capacity
Mission Basin Brackish Groundwater Desalting Demo, CA (P.L. 104-266)	3,112	2,543	82%	2006	3,360	3,360
North San Diego County Water Recycling, CA (P.L. 104-266)	20,000	17,063	85%	2008	4,916	13,532
Orange County Regional Water Reclamation, CA (P.L. 104-266)	20,000	16,164	81%	2008	5,040	72,000
Pasadena Reclaimed Water, CA (P.L. 104-266)	5,760	345	6%	N/A	0	2,015
Port Hueneme Brackish Water, CA (P.L. 104-266)	4,000	4,000	100%	Completed	3,970	4,370
San Diego Area Water Reclamation, CA (P.L. 102-575)	172,590	80,437	47%	2012	23,050	80,880
San Gabriel Basin, CA(P.L. 102-575)	38,090	30,935	81%	2010	41,135	75,580
San Joaquin Area Water Reuse and Recycling, City of Tracy, CA (P.L. 104-266) <sup>30</sup>	N/A	0	N/A	N/A	0	0
San Jose Area Water Reclamation & Reuse, CA (P.L. 102-575)	109,959	27,080	25%	2011	7,537	36,000
Watsonville Area Water Recycling, CA (P.L. 104-266)	17,975	2,870	16%	2008	0	4,000
<i>Subtotal California</i>	<i>\$533,002</i>	<i>\$274,716</i>			<i>144,148</i>	<i>435,797</i>

<sup>30</sup> Sponsor indicated to CRS that the project is not currently being pursued.

Project Name and Authorization (Public Law Number)	Estimated Title XVI Contribution (\$ in thousands)	Title XVI Funding FY1994-FY2006 (\$ in thousands)	Title XVI Funding as a % Estimate Contribution	Estimated Project Completion Date	Reclaimed Water (acre-feet) (N/A=not available)		
					By 2006	Max. Project Capacity	
Hawaii (Hawaii Water Resources Act Projects)							
Kalaheo Desal, HI (P.L. 109-70)	N/A	0	N/A	N/A	N/A	N/A	
Kealahou Recycling, HI (P.L. 109-70)	N/A	0	N/A	N/A	N/A	N/A	
Lahaina Recycling, HI (P.L. 109-70)	N/A	0	N/A	N/A	N/A	N/A	
Subtotal Hawaii	N/A	0	N/A	N/A	N/A	N/A	
Nevada							
Las Vegas Shallow Aquifer Desalination R&D, NV (P.L. 104-266)	20,000	540	3%	N/A	0	20,000	
North Las Vegas Water Reuse, NV (P.L. 104-266; P.L. 108-7)	20,000	4,105	21%	N/A	0	72,810	
Southern Nevada Water Recycling, NV (P.L. 104-266)	20,000	20,000	100%	2006	9,391	113,000	
Truckee Watershed Reclamation Project (P.L. 106-554)	N/A	0	N/A	N/A	0	N/A	
Subtotal Nevada	\$60,000	\$24,645			9,391	205,810	
New Mexico							
Albuquerque Metropolitan WRRP, NM(P.L. 104-266; P.L. 105-62)	11,687	11,687	100%	2007	5,730	6,181	
Subtotal New Mexico	\$11,687	\$11,687			5,730	6,181	

Project Name and Authorization (Public Law Number)	Estimated Title XVI Contribution (\$ in thousands)	Title XVI Funding FY1994-FY2006 (\$ in thousands)	Title XVI Funding as a % Estimate Contribution	Estimated Project Completion Date	Reclaimed Water (acre-feet) (N/A=not available)	
					By 2006	Max. Project Capacity
Oregon						
Willow Lake / City of Salem Natural Treatment, OR (P.L. 105-321) <sup>31</sup>	950	0 <sup>32</sup>	N/A	2006 (demo phase)	112	600-1,200
Subtotal Oregon	\$950	0			112	600-1,200
Texas						
El Paso Water Reclamation and Reuse, TX (Northwest Area) (P.L. 104-266)	8,691	8,670	99.8%	N/A	2,474	2,514
Williamson County Water Reclamation and Reuse, TX (P.L. 108-361)	20,000	95	0.5%	N/A	N/A	5,000
Subtotal Texas	\$28,691	\$8,765			2,474	7,514
Utah						
Central Valley Water Recycling, UT (P.L. 104-266)	7,750	0	N/A	N/A	0	9,000
St. George Area Water Recycling, UT (P.L. 104-266)	3,000	0 <sup>33</sup>	N/A	N/A	N/A	3,900-11,700
Tooele Water Reclamation and Reuse, UT (P.L. 104-266)	3,409	3,409	100.00%	Completed	1,500	2,537

<sup>31</sup> This project is listed here as inactive because it is not listed as a financially active project in the 2006 Reclamation Chart. However, it may be counted by Reclamation in other lists of “active” projects, as it meets other “active” criteria.

<sup>32</sup> Actual funding for this project has been approximately \$270,000; however, it is not reported by Reclamation in funding tables provided to CRS because the project does not meet other “active” project budget criteria. In order to keep this column consistent with Reclamation estimates, we do not include the \$270,000 in actual funding totals.

<sup>33</sup> The project has not received Title XVI funding via Reclamation; however, it received \$5.5 million from DOI’s Bureau of Indian Affairs for the Shivwits Band portion of the project (to provide 200 acre-feet annually to the Tribe), as part of an Indian settlement agreement. EPA provided a grant of \$0.2 million via the State of Utah.

Project Name and Authorization (Public Law Number)	Estimated Title XVI Contribution (\$ in thousands)	Title XVI Funding FY1994-FY2006 (\$ in thousands)	Title XVI Funding as a % Estimate Contribution	Estimated Project Completion Date	Reclaimed Water (acre-feet) (N/A=not available)	
					By 2006	Max. Project Capacity
<i>West Jordan Water Reclamation and Reuse, UT (P.L. 104-266)</i>	N/A	0	N/A	N/A	0	N/A
<i>Subtotal Utah</i>	<i>\$14,159</i>	<i>\$3,409</i>			<i>1,500</i>	<i>15,437 - 23,237</i>
<b>Washington</b>						
<i>Lakehaven, WA (P.L. 107-344)</i>	9,500 <sup>34</sup>	0	N/A	N/A	0	6,717 - 13,435
<i>Subtotal Washington</i>	<i>\$9,500</i>				0	6,717 - 13,435 AF
<b>TOTAL</b>	<b>\$677,989</b>	<b>\$324,482<sup>35</sup></b>			<b>163,355<sup>36</sup></b>	<b>778,056 - 797,574</b>

**Sources:** Data supplied to CRS by Reclamation in January and February 2005; 2006 Reclamation Reuse Chart; and CRS interviews with project sponsors, November 2005 - January 2006. Subtotals and totals represent minimum estimated federal costs because some funds are not accounted for due to missing data. Water to be Reclaimed column represents maximum project design capacity (or range for multi-phase projects). Numbers are based on project design capacity upon completion; they may not correspond to eventual amounts reclaimed or sold, which will likely be less. Subtotals and totals for water to be reclaimed often indicate a lower bound estimate of water to be reclaimed, as water quantity information was not available for all projects.

<sup>34</sup> Based on estimated construction cost of \$38 million.

<sup>35</sup> Total shown here is slightly more than sum of the column listings due to rounding.

<sup>36</sup> Total reclaimed by end of FY2006 may be more than reported by Reclamation; this total includes estimates from interviews with project sponsors.



## **Author Contact Information**

(name redacted)  
Specialist in Natural Resources Policy  
[redacted]@crs.loc.gov, 7-....

(name redacted)  
Specialist in Natural Resources Policy  
[redacted]@crs.loc.gov, 7-....

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