Calendar No. 497

104TH CONGRESS
2d Session

SENATE

REPORT
104–322

WATER RECYCLING PROJECTS

JULY 16, 1996.—Ordered to be printed

Mr. MURKOWSKI, from the Committee on Energy and Natural Resources, submitted the following

REPORT

[To accompany S. 901]

The Committee on Energy and Natural Resources, to which was referred the bill (S. 901) to amend the Reclamation Projects Authorization and Adjustment Act of 1992 to authorize the Secretary of the Interior to participate in the design, planning, and construction of certain water reclamation and reuse projects and desalination research and development projects, and for other purposes, having considered the same, reports favorably thereon with amendments and recommends that the bill, as amended, do pass.

The amendments are as follows:

1. On page 4, after line 2, insert the following:

> (I) The City of West Jordan Water Reuse Project to recycle and reuse water in their service area from the South Valley Water Reclamation Facility Discharge Waters in Utah.
>
> (J) The Toole Wastewater Treatment and Reuse project to reclaim and reuse water in the service area of Toole City Sewer District, Toole, Utah.
>
> (K) The Central-East and West-South Water Recycling projects to reclaim and reuse water from the San Antonio Water system Leon Creek Wastewater Treatment Plant, San Antonio, Texas.

2. On page 4, line 5, delete "cost." and insert in lieu thereof "cost, except that the Secretary may provide up to 50 percent of the cost of any feasibility study."

3. At the end of the bill insert the following new section:

SEC. 3. LIMITATION ON FUNDING.

No funds may be appropriated for the construction of any project authorized under this Act until a feasibility study has been completed and the Secretary has determined that the nonfederal project sponsor is financially capable of funding the non-federal share of the project's costs. The Secretary shall notify the Committees on Resources and Appropriations of the House of Representatives and the Committees on Energy and Natural Resources and Appropriations of the Senate within 120 days of a request by the non-federal sponsor of a project for a determination of financial capability of his determination: *Provided,* That, failure to make such notification within 120 days shall be deemed to constitute a determination that the sponsor is financially capable.

PURPOSE OF THE BILL

The purpose of S. 901 is to authorize the Secretary of the Interior to participate in 12 water reclamation and reuse projects and 2 desalination projects.

BACKGROUND AND NEED

Title XVI of the Reclamation Projects Authorization and Adjustment Act of 1992 (P.L. 102–575, 106 Stat. 4006) authorized a program of wastewater reclamation and reuse feasibility and demonstration projects within the Reclamation States. The Federal share of the costs was limited to 50 percent. In addition, several individual studies were directed as well as 5 projects (San Jose, Phoenix, San Diego, Los Angeles, and San Gabriel Basin) for which funding was limited to 25 percent. The legislation was directed at reuse of existing supplies and did not address desalination although title XI did authorize a program to research and demonstrate methods for control of salinity at Salton Sea, California with 50 percent Federal cost-sharing.

The use of reclaimed water in the arid West is significant, especially in areas experiencing groundwater overdraft or facing reduced freshwater supplies. While municipal uses are the primary beneficiaries of the program, there can be significant indirect benefits to other consumptive uses, such as agriculture, and non-consumptive uses, such as augmenting in-stream flows or reducing depletions.

The projects proposed in the legislation are as follows:

North San Diego County Area Water Recycling Project

Participants: Leucadia County Water District, Leucadia, California; San Elijo Joint Powers Authority, Cardiff, California; Olivenhain Municipal Water District, California; City of Carlsbad, California.

The North San Diego County Area Water Recycling Project is a regional response to the water supply problems facing northern San Diego County, which is almost completely dependent upon imported water from northern California and the Colorado River. The 16,800 acre feet (AF) per year of recycled water produced by this

project will be used for landscaping, golf courses, schools, nurseries, agricultural irrigation, and industrial applications. The use of recycled water for these non-potable applications will greatly reduce the demands on scarce drinking water supplies, while also promising area businesses a more reliable water supply, especially in times of drought or earthquakes.

The total cost of constructing the North San Diego County Area Water Recycling Project is expected to be about $98 million. S. 901 will authorize the Secretary of the Interior to contribute up to 25 percent of this amount.

Calleguas Municipal Water District Recycling Project

Participants: Calleguas Municipal Water District, Thousand Oaks, California; City of Oxnard, California.

The Calleguas Municipal Water District Water Recycling Project, also referred to locally as the Oxnard Reclaimed Water Project, will recycle up to 15,000 AF of water per year. This water, which is currently discharged into the Pacific Ocean, will instead be used to recharge the groundwater aquifers of the Oxnard Plain Basin. The project will increase the reliability of water supply from the currently overdrafted Basin, while also creating a barrier to seawater intrusion, which is currently threatening the water quality in the Basin.

The total cost of constructing the Calleguas Municipal Water District Water Recycling Project is expected to be $80 million. S. 901 will authorize the Secretary of the Interior to contribute up to 25 percent of this amount.

Central Valley Water Recycling Project

Participants: Salt Lake County Water Conservancy District (SLCWCD), West Jordan, Utah; Central Valley Water Reclamation Facility (CVWRF), Salt Lake City, Utah; Central Utah Water Conservancy District (CUWCD), Orem, Utah.

The Central Valley Water Recycling Project will initially recycle up to 26,700 AF per year of effluent from the Central Valley Water Reclamation Facility. This treated effluent, normally discharged into Mill Creek/Jordan River, will instead receive additional treatment then be pumped to irrigation canals for agricultural use during the warm months, and for discharge into the Great Salt Lake during the winter. The use of this recycled water will reduce by an equal amount water normally acquired from Utah Lake, making 26,700 AF of water available for conservation purposes in the Utah Lake/Jordan River system. The conserved water will also result in relief for CUWCD and SLCWCD from Central Utah Project (CUP) debt repayments to the federal government.

The total cost of constructing the Central Valley Water Recycling Project is expected to be $35 million. S. 901 will authorize the Secretary of the Interior to contribute up to 25 percent of this amount.

St. George Area Water Recycling Project

Participants: City of St. George, Utah.

The St. George Area Water Recycling Project will initially recycle 6700 AF of water per year, with an expected capacity of over 15,000 AF per year as the supply of treated wastewater increase

along with the rapidly growing population of St. George. The recycling project will initially serve four golf courses, two schools, three city parks, and a city cemetery.

The total cost of the project is expected to be $10 million. S. 901 will authorize the Secretary of the Interior to contribute up to 25 percent of this total.

Watsonville Area Water Recycling Project

Participant: City of Watsonville, California.

The Watsonville Area Water Recycling Project will recycle up to 10,000 AF per year of effluent from the city's wastewater treatment plant to be used for golf courses, Caltrans applications and agriculture irrigation. Portions of the recycled water will also be used for groundwater recharge and to create a seawater intrusion barrier to protect the currently threatened agricultural economy of the region. This water recycling project will also serve to reduce current discharges into Monterey Bay, a National Marine Estuary.

The total cost of constructing the Watsonville Area Water Recycling Project will be $14 million. S. 901 will authorize the Secretary of the Interior to contribute 25 percent of that amount.

Southern Nevada Water Recycling Project

Participants: Clark County Sanitation District; Las Vegas Valley Water District.

Las Vegas Valley is one of the fastest growing areas in the United States. The recycling project would obtain lesser quality water from the Clark County Sanitation District's wastewater Treatment Plant to reduce the use of potable water supplies. The project consists of two parts each estimated at a total cost of $27.5 million. The Eastern project is estimated to provide 8.5 million gallons per day (mgd) of reclaimed water, while the Western Facility would provide 7.5 mgd.

The total cost for the two projects would be approximately $55 million with a Federal contribution of 25 percent.

Albuquerque Metropolitan Area Water Reclamation and Reuse Study

Participant: City of Albuquerque, New Mexico.

The city is working with two major semiconductor companies, Philips and Intel, to implement wastewater reuse programs. The Intel project would inject reclaimed wastewater into an aquifer and the Philips project will reuse wastewater for irrigation and industrial uses. The city is beginning a feasibility study in cooperation with Intel for the reinjection project and in the design phase with Philips for reuse by agricultural and industrial sectors. The total amount of wastewater reclaimed daily could be as much as 6 mgd.

The capital costs associated with the Intel project would be $37 million and $3 million for the 1 mgd Philips project. S. 901 would authorize the Secretary of the Interior to contribute up to 25 percent of these costs. Two additional projects raised at the Subcommittee hearing by the city are a demonstration project to reclaim water from a city well from naturally occurring arsenic that could cost about $3 million, and a full-scale municipal wastewater reclamation and aquifer reinjection to meet zero discharge stand-

ards imposed by EPA that could cost $700 million. The Federal share would be 25 percent.

El Paso Water Reclamation and Reuse Project

Participant: El Paso Water Utilities Public Service Board, El Paso, Texas

The El Paso Water Utilities Public Service Board recently began design of a five-phase reclaimed water distribution system for the Utilities' Northwest Wastewater Treatment Plant. It has a capacity of 17.5 mgd. Design work is being completed on the first two phases of the project to deliver treated and filtered wastewater from the Northwest plant to industry, parks, golf courses and school grounds on the west side of El Paso. Some of the potable water conserved by the project will be provided to colonias in the upper valley. The wastewater reuse plan for the northwest side of the city calls for dual piping to residential areas.

The total cost for the El Paso Water Reclamation and Reuse Project is expected to be $15 million. S. 901 would authorize the Secretary of the Interior to contribute up to 25 percent of this amount.

Long Beach Desalination Research and Development Project

Participants: Central Basin Municipal Water District; Southern California Edison Company; City of Long Beach Water Department; Metropolitan Water District of Southern California; Water Replenishment District of Southern California.

The proposed 5 mgd sea water desalination system will be sited at southern California Edison's Alamitos Generating Station in Long Beach. This cooperative demonstration project is aimed at testing new plant designs that will lead to cost-effective desalination technology.

The total cost of the Long Beach Desalination Research and Development Project is expected to be $27 million. S. 901 would authorize the Secretary of the Interior to contribute up to 50 percent of this total amount.

Las Vegas Area Shallow Aquifer Desalination Research and Development Project

Participants: Clark County Sanitation District; Las Vegas Valley Water District.

This project would address the potential to relieve the sewer system of shallow groundwater flows and identify ways to recover the saline groundwater for reuse purposes and reduce the salinity of effluent being discharged into Lake Mead. The reclaimed water is estimated to be suitable for groundwater recharge as well as direct reuse by industry and agriculture.

The total cost for the project is estimated at approximately $23 million with the Federal share authorized at 50 percent.

The Committee added four additional projects during consideration of this legislation (two of which are combined as the San Antonio project). Those projects are:

City of West Jordan Water Refuse Project

Participant: City of West Jordan, Utah.

This project would consist of the construction of the facilities to treat and distribute reclaimed water for the irrigation of public and, possibly, private properties. The project is estimated to cost approximately $6.24 million. The overall system would include piping, a main pump station, a booster pump station, a storage reservoir, and polishing filters. Reclaimed water could be pumped to the high end of the system throughout the day and night. During periods of irrigation, the overall demand would be met from both the reservoir and the pump stations. The main pipeline would connect the South Valley Water Reclamation Facility (a regional wastewater treatment facility) to a storage reservoir near Old Bingham Highway. The main pipeline would be located primarily in a railroad right-of-way and consist of 24″ diameter PVC pipe while lateral lines ranging from 6″ to 18″ diameter would connect the main pipeline to the irrigated areas.

The reuse project would reduce the City of West Jordan's need to obtain potable water from Salt Lake County Water Conservancy District, which currently provides almost half of West Jordan's supply, the balance coming from wells. The reuse project would permit West Jordan to use reclaimed water for non-potable needs, thereby reducing its dependence on additional acquisitions from Salt Lake County. S. 901 would authorize Federal sharing of 25 percent of the cost of the project.

Toole Wastewater Treatment and Reuse Project

Participant: City of Toole, Utah.

This project consists of a treatment facility, storage ponds for irrigation and pumping, interceptor, and other facilities. The major costs are associated with a new interceptor, oxidation ditches, sludge storage and dewatering, advanced treatment, and seasonal storage. The project sponsors believe the project is capable of serving as a regional facility should other nearby entities elect to participate in the future. The total cost for the project are estimated at slightly less than $15 million with a Federal share of 25 percent.

San Antonio Wastewater Reclamation and Reuse Project

Participant: San Antonio Water System, San Antonio, Texas.

Central-East Recycling Project

This project will recycle 13,000 acre feet of non-potable water per year for uses in the central and eastern areas of San Antonio. Of the 13,000 af/yr., 8,100 af/yr. (62 percent will be used for in-stream releases and 4,900 af/yr. (38 percent will be for consumptive uses. The water source will be from San Antonio Water System Leon Creek Wastewater Treatment Plant and will be conveyed by two 20 mgd. Pumping stations and twenty-four miles of large diameter pipeline. This project is currently under design with some construction activities. River releases will be the San Antonio River to replace water currently pumped from Edwards wells and the Salado Creek to enhance stream flow.

West-South Water Recycling Project

This project will recycle 13,000 to 20,000 acre feet of non-potable water for consumptive uses in the western and southern areas of

San Antonio. Kelly Air Force Base will receive priority for service as part of the privatizing of the facility operations. The water source will also be the Leon Creek Treatment Plant.

The total cost for the Central-East project is estimated to be $30 million while the estimated cost of the West-South project is $45 million with a federal share of 25 percent.

The Committee added an amendment that would authorize not to exceed 50 percent of the costs of feasibility studies for each of the projects, consistent with the funding scheme in title XVI of the 1992 Act.

The 1992 Act fully authorized certain projects while only authorizing feasibility studies on others. The third amendment adopted by the Committee requires that a feasibility study be undertaken and the Secretary make a determination of financial capability of the non-Federal sponsor prior to appropriation of any construction funds. This amendment is designed to address concerns that prior to construction, there should be feasibility studies.

At the time of the hearing on S. 901, the Committee also received testimony on S. 1169, legislation that would authorize a watewater reclamation project at McCall, Idaho. Unlike the projects considered in S. 901, the Bureau of Reclamation had identified the situation at Cascade Reservoir as an opportunity for wastewater reclamation under the existing authority of title XVI of the Reclamation Projects Authorization and Adjustment Act of 1992. The Department, in response to questions posed during the hearing, stated that the operation of Cascade Reservoir for salmon recovery, continued recreation, and compliance with the Clean Water Act were "compelling Federal interests". The Committee concurs in the assessment by the Department of the importance of reclamation at McCall and believes that the unique circumstances of Cascade Reservoir and the involvement of the Bureau in assessing alternatives for reuse at Cascade Reservoir qualify it as eligible for funding as a demonstration project under section 1605 of the 1992 Act.

LEGISLATIVE HISTORY

S. 901 was introduced by Senator Bennett on June 8, 1995 and the Subcommittee on Forests and Public Land Management conducted a hearing on it on December 13, 1995. The Committee considered and ordered H.R. 1823 favorably reported, with amendments, at its business meeting on June 19, 1996.

COMMITTEE RECOMMENDATION AND TABULATION OF VOTES

The Senate Committee on Energy and Natural Resources, in open business session on June 19, 1996, by a majority vote of a quorum present, a majority of the Members voting in favor of the measure, recommends that the Senate pass S. 901 as amended.

COMMITTEE AMENDMENTS

The Committee adopted amendments that would add projects for West Jordan and Toole, Utah and San Antonio, Texas to the legislation. The Committee also added an amendment conforming the cost-share for feasibility studies to the scheme previously enacted as part of title XVI of the 1992 Reclamation Projects Act, and an

amendment requiring a feasibility study and finding of financial capability prior to the appropriation of any funds for construction. These amendments are described in the Background section of the Report.

SECTION-BY-SECTION ANALYSIS

The measure is self explanatory.

COST AND BUDGETARY CONSIDERATIONS

The Congressional Budget Office estimate of the costs of this measure has been requested but was not received at the time the report was filed. When the report is available, the Chairman will request that it be printed in the Congressional Record for the advice of the Senate.

REGULATORY IMPACT EVALUATION

The bill is not a regulatory measure in the sense of imposing Government established standards or significant economic responsibilities on private individuals and businesses.

No personal information would be collected in administering the measure. Therefore, there would be no impact on personal privacy.

Little, if any, additional paperwork would result from the enactment of S. 901.

EXECUTIVE COMMUNICATIONS

On October 19, 1995, the Committee on Energy and Natural Resources requested legislative reports from the Department of the Interior and the Office of Management and Budget setting forth executive views on S. 901. These reports had not been received at the time the report on S. 901 was filed. When the reports become available, the Chairman will request that they be printed in the Congressional Record for the advice of the Senate. During the hearing by the Subcommittee, the Department of the Interior testified on S. 901. A copy of their prepared testimony follows:

STATEMENT OF NEIL STESSMAN, REGIONAL DIRECTOR, GREAT PLAINS REGION, BUREAU OF RECLAMATION, DEPARTMENT OF THE INTERIOR

Thank you for the opportunity to present the Administration's views on S. 901 and S. 1169, legislation to authorize the Secretary of the Interior to participate in the design, planning, and construction of certain water reclamation and reuse projects, and for other purposes.

The Administration strongly supports wastewater reclamation and reuse efforts, such as municipal, industrial, domestic, and agricultural wastewater reuse and recycling. By sharing its strong technical expertise and its knowledge of emerging critical technologies surrounding those efforts, the Bureau of Reclamation can assist States and local communities in solving contemporary water supply problems. In effecting its mission as a water resources management agency, Reclamation is charged with developing and imple-

menting innovative solutions, in cooperative arrangements with others, which "encourage conservation and improvements in the efficiency of use of already developed water and hydroelectric supplies."

S. 901 would expand the Secretary of the Interior's existing authority in Title XVI of Public Law 102–575 to undertake a reclamation wastewater program by directing him to participate in eight additional site-specific projects in California, Utah, Nevada, New Mexico, and Texas. The Federal government would contribute up to 25 percent of the design, planning and construction costs for each project. In addition, S. 901 authorizes the Secretary to fund as much as 50 percent of the design, planning and construction costs for desalination projects in Los Angeles and Clark Counties, in California and Nevada, respectively.

S. 1169 would authorize the Secretary to participate in the planning, design and construction of facilities to reclaim and reuse wastewater from the McCall Wastewater Treatment Plan in Idaho. The Federal share for the costs of the facilities may not exceed 50 percent of the total costs.

Although the Administration believes that wastewater reclamation and reuse projects should be part of the solution for many communities in the western United States, we are concerned about undertaking a new, major Federal funding commitment without a careful examination of the need for Federal funding of additional construction. Because S. 901 and S. 1169 would expand the Federal government's role in funding new construction, they could impede efforts by the Administration and the Congress to reduce the deficit.

As drafted, the Administration cannot support S. 901 and S. 1169. S. 901 would authorize the expenditures of hundreds of millions of Federal dollars for projects requiring multi-year funding commitments. Under S. 901, the Federal government would fund up to 50 percent of the costs of the two desalting plants and up to 25 percent of the costs of the eight recycling and reuse projects. There are no limits on the total costs of any of the projects. Given the current budget climate and competing demands within our reduced construction budget, the Department of the Interior and Bureau of Reclamation cannot justify authorizing funding for an expansion of the wastewater reclamation and reuse construction program within our reduced construction program without having been directly involved in the assessment of the need for, and alternatives to, the proposed projects.

S. 1169 directs the Secretary to fund up to 50 percent of the planning, design, and construction costs of the Idaho wastewater reclamation and reuse facility. Public Law 102–575 provided for Federal participation up to 25 percent of the total planning, designing and construction costs of the projects authorized in Title XVI. Again, the current

budgetary climate will not support an increase in the Federal cost share for any new construction of Title XVI projects.

To date, we have not completed construction of any of the wastewater reclamation and reuse projects authorized in Public Law 102–575. In fiscal year 1995, Reclamation spent $19 million to fund four construction projects authorized in Public Law 102–575—San Jose Area Water Reclamation and Reuse Program, San Diego Area Water Reclamation Program, Los Angeles Area Water Reclamation and Reuse Project and the San Gabriel Demonstration Project. We anticipate additional spending in fiscal years 1996 and 1997 for these projects.

Reclamation also has funded a number of studies authorized in Public Law 102–575. For example, Reclamation anticipates completion of the Southern California Comprehensive Water Reclamation and Reuse Study in fiscal year 1998. This study will outline a long-range water supply and reclaimed water management program for the southern California coastal and inland valley area. The study will focus on more efficiently using existing water resources, including the use of reclaimed water, to meet community water needs.

The San Francisco Area Water Reclamation Study is examining the feasibility of using reclaimed water produced in the San Francisco Bay area for export and reuse elsewhere in California. This study will be completed in fiscal year 1997. Reclamation also anticipates completing the Tucson/Phoenix Water Conservation and Exchange Study this fiscal year.

Because desalting technology is fairly well-established, future Federal investment in this technology is questionable. We believe the private sector or local governmental agencies should fund any additional desalting facilities.

Mr. Chairman, the Department believes that Title XVI of Public Law 102–575 gives the Secretary adequate authority to identify opportunities for water reclamation and reuse projects. The Federal government should be involved in the assessment of alternative approaches to resolving growing water demands, such as water reuse and recycling programs, where a compelling Federal interest has been identified. At this time we simply do not know which additional projects, if any, the Federal government should fund. At a minimum we urge Congress to amend S. 901 to authorize feasibility studies to determine whether these particular projects may warrant Federal funding, to develop objective criteria to establish Federal priorities among them, and to limit the scope of the proposed projects. Similarly, we would urge Congress to amend S. 1169 to cap the Federal contribution to the costs of planning, designing and constructing the wastewater reclamation and reuse facilities at 25 percent. Otherwise, given out severe budget constraints, we believe S. 901 and S. 1169, if enacted in their current form, may raise unrealis-

tic expectations on the part of State and local communities.

Thank you for the opportunity to testify. I am pleased to answer any of your questions.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill, S. 901, as ordered reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

[Public Law 102–575, 102d Congress]

AN ACT To authorize additional appropriations for the construction of the Buffalo Bill Dam and Reservoir, Shoshone Project, Pick-Sloan Missouri Basin Program, Wyoming.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Reclamation Projects Authorization and Adjustment Act of 1992".

SEC. 2. DEFINITION AND TABLE OF CONTENTS.

For purposes of this Act, the term "Secretary" means the Secretary of the Interior.

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TITLE XVI—RECLAMATION WASTEWATER AND GROUNDWATER STUDIES

SEC. 1601 SHORT TITLE.

This title may be referred to as the "Reclamation Wastewater and Groundwater Study and Facilities Act".

SEC. 1602. GENERAL AUTHORITY.

(a) The Secretary of the Interior (hereafter "Secretary"), acting pursuant to the Reclamation Act of 1902 (Act of June 17, 1902, 32 Stat. 388) and Acts mandatory thereof and supplementary thereto (hereafter "Federal reclamation laws"), is directed to undertake a program to investigate and identify opportunities for reclamation and reuse of municipal, industrial, domestic, and agricultural wastewater, and naturally impaired ground and surface waters, for the 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.

(b) Such program shall be limited to the States and areas referred to in section 1 of the Reclamation Act of 1902 (Act of June 17, 1902, 32 Stat. 388) as amended.

(c) The Secretary is authorized to enter into such agreements and promulgate such regulations as may be necessary to carry out the purposes and provisions of this title.

(d) The Secretary shall not investigate, promote or implement, pursuant to this title, any project intended to reclaim and reuse agricultural wastewater generated in the service area of the San Luis Unit of the Central Valley Project, California, except those measures recommended for action by the San Joaquin Valley Drainage Program in the report entitled "A Management Plan for Agricultural Subsurface Drainage and Related Problems on the Westside San Joaquin Valley" (September 1990).

(e) PARTICIPATION IN CERTAIN PROJECTS.—

(1) IN GENERAL.—The Secretary, in cooperation with the appropriate State and local authorities, is authorized to participate in the design, planning, and construction of the following water reclamation and reuse projects:

(A) The North San Diego County Area Water Recycling Project, consisting of projects to reclaim and reuse water in the service areas of the San Elijo Joint Powers Authority, the Leucadia County Water District, and the Olivenhain Municipal Water District, California.

(B) The Calleguas Municipal Water District Water Recycling Project to reclaim and reuse water in the service area of the Calleguas Municipal Water District in Ventura, California.

(C) The Central Valley Water Recycling Project to reclaim and reuse water in the service areas of the Central Valley Reclamation Facility and the Salt Lake County Water Conservancy District in Utah.

(D) The St. George Area Water Recycling Project to reclaim and reuse water in the service area of the Washington County Water Conservancy District in Utah.

(E) The Watsonville Area Water Recycling Project, in cooperation with the city of Watsonville, California, to reclaim and reuse water in the Pajaro Valley in Santa Cruz County, California.

(F) The Southern Nevada Water Recycling Project to reclaim and reuse water in the service area of the Southern Nevada Water Authority in Clark County, Nevada.

(G) The Albuquerque Metropolitan Area Water Reclamation and Reuse Study, in cooperation with the city of Albuquerque, New Mexico, to reclaim and reuse industrial and municipal wastewater and reclaim and use naturally impaired ground water in the Albuquerque metropolitan area.

(H) The El Paso Water Reclamation and Reuse Project to reclaim and reuse wastewater in the service area of the El Paso Water Utilities Public Service Board.

(I) The City of West Jordan Water Reuse Project to recycle and reuse water in their service area from the South Valley Water Reclamation Facility Discharge Waters in Utah.

(J) The Toole Wastewater Treatment and Reuse project to reclaim and reuse water in the service area of Toole City Sewer District, Toole, Utah.

(K) The Central-East and West-South Water Recycling projects to reclaim and reuse water from the San Antonio

Water system Leon Creek Wastewater Treatment Plant, San Antonio, Texas.

(2) FEDERAL SHARE.—The Federal share of the cost of a project described in paragraph (1) shall not exceed 25 percent of the total cost, except that the Secretary may provide up to 50 percent of the cost of any feasibility study.

(3) NO FUNDING FOR OPERATION AND MAINTENANCE.—The Secretary shall not provide funds for the operation or maintenance of a project described in paragraph (1).

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SEC. 1605. RESEARCH AND DEMONSTRATION PROJECTS.

[The Secretary] *(a) IN GENERAL.—The Secretary* is authorized to conduct research and to construct, operate, and maintain cooperative demonstration projects for the development and demonstration of appropriate treatment technologies for the reclamation of municipal, industrial, domestic, and agricultural wastewater, and naturally impaired ground and surface waters. The Federal share of the costs of demonstration projects shall not exceed 50 percent of the total cost including operation and maintenance. Rights to inventions developed pursuant to this section shall be governed by the provisions of the Stevenson-Wydler Technology Innovation Act of 1980 (Pub. L. 96–480) as amended by the Technology Transfer Act of 1986 (Pub. L. 99–502).

(b) LONG BEACH DESALINATION RESEARCH AND DEVELOPMENT PROJECT.—

(1) IN GENERAL.—The Secretary, in cooperation with the city of Long Beach, the Central Basin Municipal Water District, and the Metropolitan Water District of Southern California, may participate in the design, planning, and construction of the Long Beach Desalination Research and Development Project in Los Angeles County, California.

(2) FEDERAL SHARE.—The Federal share of the cost of the project described in paragraph (1) shall not exceed 50 percent of the total.

(3) NO FUNDING FOR OPERATION AND MAINTENANCE.—The Secretary shall not provide funds for the operation or maintenance of the project described in paragraph (1).

(c) LAS VEGAS AREA SHALLOW AQUIFER DESALINATION RESEARCH AND DEVELOPMENT PROJECT.—

(1) IN GENERAL.—The Secretary, in cooperation with the Southern Nevada Water Authority, may participate in the design, planning, and construction of the Las Vegas Area Shallow Aquifer Desalination Research and Development Project in Clark County, Nevada.

(2) FEDERAL SHARE.—The Federal share of the cost of the project described in paragraph (1) shall not exceed 50 percent of the total.

(3) NO FUNDING FOR OPERATION AND MAINTENANCE.—The Secretary shall not provide funds for the operation or maintenance of the project described in paragraph (1).

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