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December 18, 2007

The Honorable Nick J. Rahall, II
Chairman
Committee on Natural Resources
House of Representatives

The Honorable Grace F. Napolitano
Chairwoman
Subcommittee on Water and Power
Committee on Natural Resources
House of Representatives

The Honorable George Miller
House of Representatives

Subject: Bureau of Reclamation: Reimbursement of California's Central Valley Project Capital Construction Costs by San Luis Unit Irrigation Water Districts

In 1960, Congress authorized the construction of the San Luis Unit of the Central Valley Project (CVP) in California. The CVP is a network of dams, canals, pumps, and other facilities providing water for multiple uses. Located south of the Sacramento–San Joaquin Delta, the San Luis Unit is a component of the CVP and was built jointly by the Department of the Interior's Bureau of Reclamation (Reclamation) and the state of California. The San Luis Unit stores and delivers water that is used for various purposes, including agriculture, municipal and industrial uses, and fish and wildlife needs. Four irrigation water districts in the San Luis Unit currently receive water from the CVP. Westlands is the largest of these districts, covering about three-quarters of the land in the San Luis Unit. The three smaller districts are Pacheco, Panoche, and San Luis. Reclamation has a water service contract with each irrigation water district to deliver CVP water to the district's farmers and other water users at a set rate per acre-foot. Existing water service contracts may be renewed for a period of no more than 25 years.

The San Luis Unit includes water storage and delivery facilities, such as dams, canals, and pumps, as well as the San Luis Drain. This drain was designed to return used irrigation water to the delta, but it was never completed. Drainage is needed for about 400,000 acres of the San Luis Unit's approximately 700,000 acres because a layer of clay prevents natural drainage, trapping salt and water in the root zone of crops and reducing the land's agricultural productivity. Construction of the San Luis Drain was halted in the mid-1970s, in part because of environmental concerns, including harmful effects on wildlife, caused by the drainage water. It was later determined that

selenium was being leached out of the soil by the drainage water and accumulating in the Kesterson National Wildlife Refuge, where it was linked to deaths and deformities in waterfowl. In response to litigation by Westlands farmers, a federal court held in 2000 that Reclamation, while not necessarily required to complete the San Luis Drain, must provide a drainage solution for the San Luis Unit.

Reclamation is considering two options to provide drainage for the San Luis Unit. The first option, which would be implemented by Reclamation, would include land retirement, evaporation ponds, and treatment methods to remove salt and selenium from the water. Reclamation has completed its preliminary planning for this option, including an environmental impact statement and a record of decision.¹

Reclamation's preliminary estimate of the cost of implementing this option is \$2.7 billion. The second option would transfer responsibility for providing a drainage solution to the four San Luis Unit irrigation water districts. In exchange for assuming this responsibility, the irrigation water districts have proposed that they receive, among other things, (1) forgiveness of their obligation to repay their portion of total CVP capital construction costs (2) transfer of title to certain federally owned irrigation facilities in the San Luis Unit to the irrigation water districts, and (3) approval of 60-year water service contracts.²

To assist you in evaluating the proposed drainage solutions, you asked us to determine (1) how much the federal government has spent to construct the CVP, including the San Luis Unit irrigation and drainage facilities, and what amount is reimbursable by water users, and (2) how much of the reimbursable CVP construction cost has been allocated to San Luis Unit irrigation water districts and how much they have repaid.

On November 7, 2007, we briefed your staff on the results of our work. This report summarizes the information presented in that briefing and officially transmits the slides used during the briefing. This report also provides additional information that your staff requested during the briefing on (1) the extent to which the San Luis Unit irrigation water districts have received "ability-to-pay" financial assistance, (2) the extent to which the districts have repaid the cost of the Kesterson Cleanup Program, and (3) how the districts are paying for drainage service and how Reclamation is handling the payments.

Summary

Reclamation's total capital cost to construct the CVP as of September 30, 2006, is about \$3.4 billion. Construction of the San Luis Unit portion of the CVP, including land, land rights, and buildings, cost \$778 million—about \$722.5 million for construction of 28 storage, conveyance, and pumping facilities and \$55.5 million for the San Luis Drain. Reclamation has determined that about \$2.9 billion of the total

¹*San Luis Drainage Feature Re-evaluation: Final Environmental Impact Statement*, U.S. Department of the Interior, Bureau of Reclamation, May 2006, and *San Luis Drainage Feature Re-evaluation: Record of Decision*, U.S. Department of the Interior, Bureau of Reclamation, March 2007. The record of decision identifies the alternative plans considered by Reclamation, the plan selected for implementation, and the basis for the selection.

²Negotiations are ongoing, and this proposal may not represent the water districts' final position.

CVP capital construction cost, or 84 percent, is reimbursable. The reimbursable amount is distributed to various water users, including irrigation water districts, which benefit from one or more of the project's purposes, such as water supply and power generation. Reclamation has determined that, according to the various benefits they receive from the CVP, irrigation water districts are responsible for repaying about \$1.6 billion, or 55 percent, of the reimbursable CVP construction costs. Reimbursement of the remaining \$1.3 billion is provided by other users, such as municipal and industrial water users.

Of the \$1.6 billion CVP-wide capital construction costs reimbursable by irrigation water districts, as of September 30, 2005, \$523 million had been allocated to five San Luis Unit districts: Broadview, Pacheco, Panoche, San Luis, and Westlands, for repayment based on the terms of their water service contracts.³ As of that date, the San Luis Unit irrigation water districts had paid about \$74 million of their portion of CVP-wide capital construction costs, leaving about \$449 million to be repaid by 2030. (See enclosure, briefing slide 13, for a detailed breakout of the amounts owed, repaid, and remaining for each irrigation water district.) In general, CVP water users are not responsible for reimbursing the capital costs of constructing specific facilities within their unit. Instead, water users are responsible for reimbursing a portion of total CVP costs. Most of the San Luis Unit capital construction costs—with certain exceptions—are pooled for reimbursement with the costs of constructing the rest of the CVP. In addition to their share of the CVP capital costs that are pooled, irrigation water districts reimburse the federal government for certain specific project costs they benefit from. For example, the cost of the San Luis Drain is being reimbursed solely by the Panoche, San Luis, and Westlands irrigation water districts; the costs of specific pumps are also paid solely by the irrigation water districts that benefit from them. In addition, according to Reclamation, Westlands alone is responsible for repaying the cost of the district's water distribution system—about \$179 million—under a separate repayment contract. As of September 30, 2006, Westlands had paid \$131 million, leaving \$48 million to be repaid. Thus, the combined total CVP capital construction costs remaining to be repaid by San Luis Unit irrigation water districts under water service contracts and repayment contracts amount to about \$497 million.

In addition, we determined that

- According to Reclamation officials, San Luis Unit irrigation water districts have never received ability-to-pay irrigation assistance to reduce their capital repayment obligations. Such assistance can be provided to irrigation water districts when Reclamation determines that they do not have the ability to repay their share of capital costs.
- The total capital cost of the Kesterson Cleanup Program was about \$26.6 million, according to Reclamation. The reimbursable capital cost of about \$19.8 million was allocated entirely to the Westlands water district and is included in the total CVP capital costs of about \$437.6 million allocated to Westlands for reimbursement.

³Data as of September 30, 2005, is the most current available from Reclamation. Effective March 1, 2007, Broadview was annexed by Westlands and has assigned all of its CVP water to Westlands.

- A specific amount of the water rates paid by the Panoche, San Luis, and Westlands irrigation water districts—depending on the terms of their water service contracts—is for drainage. According to Reclamation officials, the original water service contracts for all three districts required a fixed rate of 50 cents per acre-foot for drainage. These contracts have been amended over the years so that the districts pay either (1) an annually adjusted rate for all of their water, which in 2007 included a rate of \$1.30 per acre-foot for drainage, or (2) the fixed rate for part of their water and the adjustable rate for the remainder. Although the water rates paid by the three irrigation water districts include an amount for drainage, Reclamation does not credit these payments specifically toward paying back the capital costs of the San Luis Drain. Rather, as mentioned above, Reclamation applies the payments to the portion of the total CVP costs that each irrigation water district is responsible for.

Agency Comments

We obtained comments from Reclamation on our draft briefing slides and on the additional information provided in this report. Reclamation officials concurred with our findings and provided us with technical comments, which we have incorporated as appropriate.

Scope and Methodology

To determine the CVP capital construction costs and the amount allocated to and reimbursed by irrigation water districts in the San Luis Unit, we analyzed Reclamation's CVP financial statements and cost allocation tables. We relied on the independent audit report issued by the public accounting firm KPMG for Reclamation's fiscal year 2006 financial statements for assurance of data reliability. We interviewed and collected documentation from management and financial staff in Reclamation's Mid-Pacific region and Fresno area offices, and we visited the San Luis Unit facilities. To obtain stakeholder views on Reclamation's cost and allocation information, we interviewed and, when applicable, collected documentation from entities such as the California Department of Water Resources, State Water Resources Control Board, Westlands Water District, and the Natural Resources Defense Council. The dollar amounts provided are the actual costs of construction, unadjusted for inflation. We conducted our audit work from June through October 2007, in accordance with generally accepted government auditing standards.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies of this report to the Secretary of the Interior and appropriate congressional committees. We will also make copies available to others upon request. In addition, the report will be available at no charge on the GAO Web site at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-3841 or mittala@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Major

contributors to this report were Stephen D. Secrist, Assistant Director; Ellen W. Chu; Brad Dobbins; Cindy Gilbert; Wyatt R. Hundrup; Richard Johnson; and Mehrzad Nadji.

A handwritten signature in black ink that reads "Anu K. Mittal". The signature is written in a cursive, flowing style.

Anu K. Mittal
Director, Natural Resources and Environment

Enclosure



California's Central Valley Project

Reimbursement of Capital Construction Costs for the San Luis Unit

November 7, 2007

Background

- The Central Valley Project (CVP) in California is a network of dams, canals, pumps, and other facilities providing water for agriculture and other uses.
- The CVP includes the San Luis Unit, a primarily agricultural area approximately 700,000 acres in size south of the Sacramento–San Joaquin Delta (see attachment 1 for map).
- Authorized by Congress in 1960, the San Luis Unit was constructed by the Bureau of Reclamation (Reclamation) and the state of California to include water storage, conveyance, and pumping facilities, as well as the San Luis Drain, which was designed to return used irrigation water to the Sacramento–San Joaquin Delta.

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Background

- Drainage of used irrigation water is needed for about 400,000 acres in the San Luis Unit because a layer of clay prevents natural drainage, trapping salt and water in the root zone of crops and making these lands less productive.
 - Begun in 1968, construction of the San Luis Drain was halted in the mid-1970s before completion, in part because of environmental concerns, including harmful effects on wildlife, caused by the drainage water.
 - In 2000, a federal court held that Reclamation was not necessarily required to construct a drain—i.e., to complete the San Luis Drain—but was obligated to provide a solution for draining the irrigated lands in the San Luis Unit.
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Background

- Four irrigation water districts in the San Luis Unit currently receive water from the CVP. Westlands is the largest, covering over three-quarters of the land in the San Luis Unit. The three smaller districts are Pacheco, Panoche, and San Luis.
- Each irrigation water district contracts with Reclamation to deliver CVP water to the district's farmers at a district-specific cost per acre-foot. Contracts are generally for a 25-year term. Farmers who receive CVP water pay their water district.
- In addition to irrigation water districts, CVP water is also used by others such as municipal and industrial entities, commercial power generators, and the state of California.

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Background

Reclamation is considering two options to provide drainage for the San Luis Unit:

- an option to be implemented by Reclamation, which includes land retirement, evaporation ponds, and other methods; and
- an option that would transfer drainage responsibility to the four San Luis Unit irrigation water districts, which would provide drainage in exchange for Reclamation's:
 - forgiving the irrigation water districts' obligations to repay their portion of total CVP capital construction costs,
 - transferring title to certain facilities in the San Luis Unit to the irrigation water districts, and
 - approving 60-year water supply contracts.

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Objectives

1. How much has the federal government spent to construct the CVP, including the San Luis Unit irrigation and drainage facilities, and what amount is reimbursable by water users?
2. How much of the reimbursable CVP construction cost has been allocated to San Luis Unit irrigation water districts, and how much have they repaid?

Scope and Methodology

- To determine the CVP capital construction costs and the amount allocated to and reimbursed by irrigation water districts in the San Luis Unit, we analyzed Reclamation's CVP financial statements and cost allocation tables.
- We visited the San Luis Unit, met with Reclamation's Mid-Pacific region and Fresno area office management and financial staff, and we interviewed state and local stakeholders.
- We relied on the independent audit report issued by the public accounting firm KPMG for Reclamation's fiscal year 2006 financial statements for assurance of data reliability.
- The dollar amounts provided are the actual costs of construction, unadjusted for inflation.

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Objective 1: CVP Capital Construction Costs and Reimbursable Amounts

- The total capital cost to construct the CVP as of September 30, 2006, is about \$3.4 billion.
- Reclamation calculates how much of the capital construction cost is reimbursable under law. The costs assigned to the purposes of flood control, navigation, and water quality, and the majority of those assigned to fish and wildlife needs and recreation are not considered reimbursable.
- Reclamation then divides the total reimbursable construction costs among the various purposes of the CVP, such as supplying water to agriculture and cities and generating power.

Objective 1: CVP Capital Construction Costs and Reimbursable Amounts

- Overall, Reclamation has determined that about \$2.9 billion, or 84 percent of the \$3.4 billion total CVP capital construction cost, is reimbursable.
 - The reimbursable amount is distributed to various water users, such as irrigation water districts, which benefit from one or more of the purposes of the project. For example, irrigation water districts benefit primarily from water supply and power generation.
 - Reclamation has determined that, according to the various benefits they receive from CVP, irrigation water districts are responsible for repaying about \$1.6 billion, or 55 percent, of the reimbursable construction costs. Reimbursement of the remaining \$1.3 billion is provided by others, such as municipal and industrial water users.
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Objective 1: San Luis Unit Capital Construction Costs

- The total capital cost of constructing the San Luis Unit portion of the CVP, including land, land rights, and buildings, is \$778 million, of which \$722.5 million is for the unit's 28 storage, conveyance, and pumping facilities, and \$55.5 million is for the San Luis Drain.
- Attachment 2 lists the San Luis Unit facilities and their individual costs.

Objective 2: San Luis Unit Construction Costs Are Pooled With CVP Construction Costs

- CVP water users are not specifically responsible for reimbursing the costs of constructing the facilities in their unit. Instead, water users are responsible for reimbursing a portion of the overall CVP costs through the water rates they pay.
- Therefore, most of the San Luis Unit construction costs—with certain exceptions—are pooled for reimbursement with the costs of constructing the rest of the CVP.
- Certain construction costs are not pooled, such as the cost of the San Luis Drain, which is reimbursed solely by the Panoche, San Luis, and Westlands irrigation water districts; the costs of certain pumps are also paid solely by the districts they benefit.

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Objective 2: CVP Capital Construction Costs Allocated to San Luis Unit Irrigators

- Of the \$1.6 billion CVP-wide construction costs reimbursable by all CVP irrigation water districts, as of September 30, 2005, \$523 million had been allocated to five San Luis Unit irrigation water districts: Broadview, Pacheco, Panoche, San Luis, and Westlands.
- As of September 30, 2005, the San Luis Unit irrigation water districts had paid about \$74 million for their portion of CVP-wide capital construction costs, leaving about \$449 million to be repaid by 2030.
- In addition, Westlands is solely responsible for repaying the cost of the district's water distribution system—\$179 million of the \$1.6 billion CVP-wide costs. As of September 30, 2006, Westlands had paid \$131 million, leaving \$48 million to be repaid.

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Objective 2: Allocated Costs Repaid and Remaining for San Luis Unit Water Districts

Water districts	Total CVP cost allocated	Amount repaid	Remaining reimbursement
Broadview ^a	\$6,320,674	\$1,383,979	\$4,936,695
Pacheco	2,705,562	1,298,282	1,407,280
Panoche	27,876,409	4,065,084	23,811,325
San Luis	48,792,775	2,212,196	46,580,579
Westlands	437,589,835	65,512,869	372,076,966
Total	\$523,285,255	\$74,472,410	\$448,812,845

Source: GAO analysis of Reclamation information.

Note: Data in the table are as of September 30, 2005, which is the most current available data from Reclamation.

^aEffective March 1, 2007, Broadview was annexed by Westlands and has assigned all of its CVP water to Westlands.

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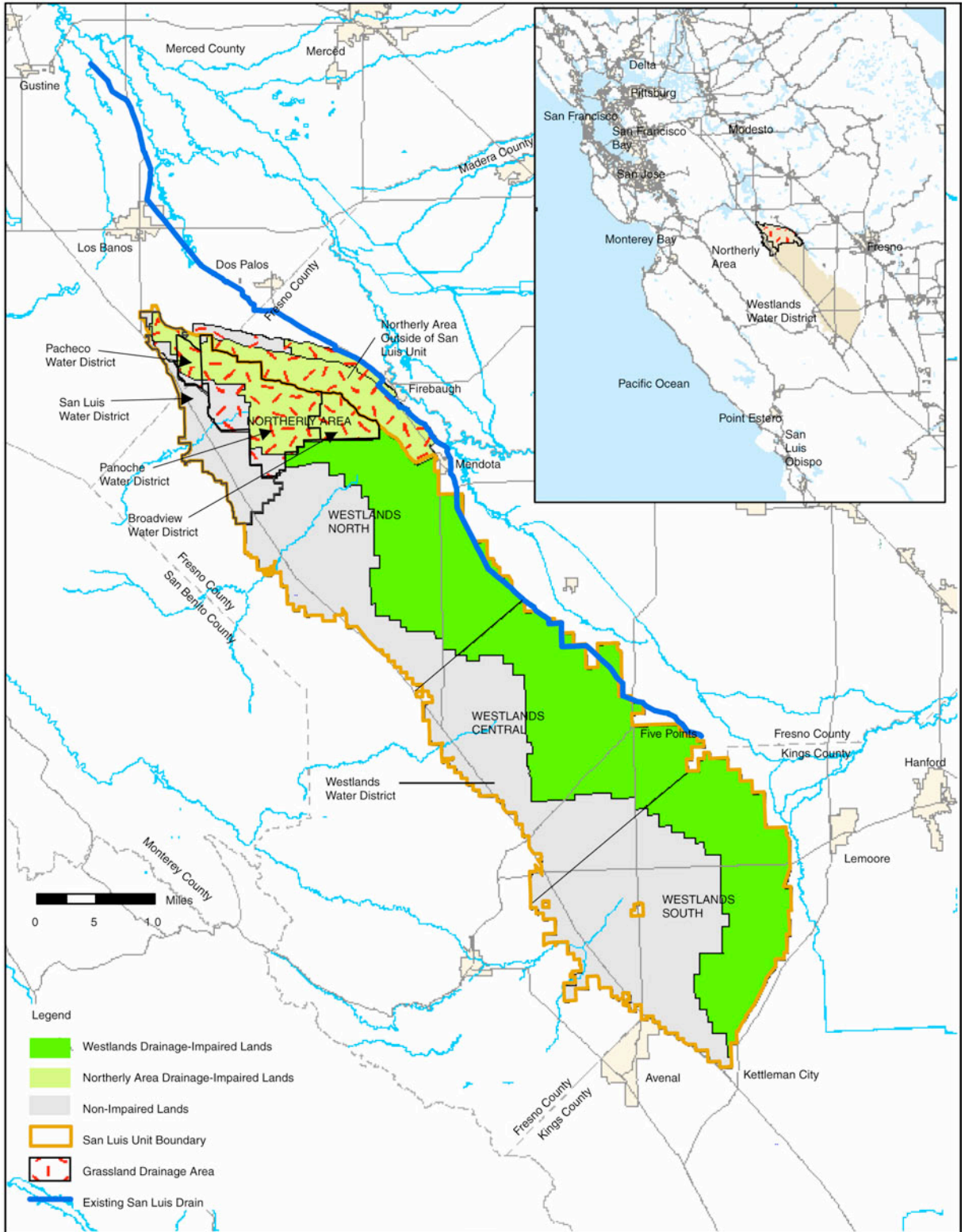
Drainage Option Costs

- Drainage option to be implemented by Reclamation:
 - According to Reclamation's preliminary estimate, the cost of providing drainage would total approximately \$2.7 billion.
 - Drainage option to be implemented by the San Luis Unit water districts—costs to the federal government may include:
 - forgiveness of the irrigation water districts' responsibilities to repay their share of CVP capital construction costs: about \$449 million;
 - forgiveness of certain loan, interest, and operations and maintenance obligations: \$48 million for Westlands' distribution system, and other costs unknown; and
 - transferring title to certain facilities: value unknown.
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Attachment 1: Map of the San Luis Unit and Drainage-Impaired Lands



Source: Bureau of Reclamation.

Attachment 2: San Luis Unit Facility Plant, Land, and Building Costs as of September 30, 2006

Plant	Cost
Westlands Water District Distribution System	\$174,913,748
San Luis Canal	174,240,391
San Luis (Sisk) Dam and Reservoir	92,625,645
W.R. Gianelli Pump-Generating Plant	69,192,444
San Luis Drain	55,522,650
San Luis Relift Pumping Plant (Westlands Water District)	36,813,152
Dos Amigos Pumping Plant	28,401,287
San Luis Canal Turnout	18,237,587
O'Neill Dam, Forebay and Wasteway	17,229,108
O'Neill Pumping Plant	11,045,732
Pleasant Valley Pumping Plant	9,605,828
Permanent Operating Facilities	8,693,160
Coalinga Canal	7,887,618
Los Banos Creek Detention Dam and Reservoir	4,704,733
O'Neill Forebay and Wasteway—Recreation	3,621,984
San Luis Reservoir—Recreation	3,469,879
Little Panoche Creek Detention Dam and Reservoir	3,279,302
O'Neill Pumping Plant Intake Channel	1,457,253
San Luis Relift Pumping Plant (Pleasant Valley Water District)	1,362,467
Lemoore Naval Air Station—Municipal and Industrial	1,139,037
San Luis Switchyard	1,056,316
Dos Amigos Switchyard	594,700
Los Banos Substation—70kv Breaker	447,408
Permanent Operating Facilities—San Luis	230,708
O'Neill Pumping Plant Switchyard	212,474
City of Huron Distribution System—Municipal and Industrial	77,560
Fish and Wildlife Facility	48,900
Los Banos Reservoir—Recreation	17,074
San Luis Canal—Recreation	561
Total facility plant cost	\$726,128,705
Land and rights	\$51,567,636
Buildings	\$337,365
Total costs	\$778,033,707

Source: GAO analysis of Bureau of Reclamation data.

Notes: Construction in progress on the San Luis Canal and the O'Neill Pumping Plant totals \$1,052,745. The dollar amounts provided are the actual costs of construction, unadjusted for inflation. Totals may not add due to rounding. The facility plant costs presented do not include the associated land and land rights costs. Therefore, the total cost of Westlands' distribution system to be repaid by the district is \$179 million; \$175 million for plant, and \$4 million for land and land rights.

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