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RECLAMATION LAW

Changes Needed Before Water  
Service Contracts Are Renewed

Statement of  
James Duffus III, Director  
Natural Resources Management Issues  
Resources, Community, and Economic  
Development Division



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Mr. Chairman and Members of the Subcommittee,

We are pleased to be here today to discuss our August 1991 report on changes needed before long-term water service contracts in the Bureau of Reclamation's Central Valley Project (CVP) are renewed.<sup>1</sup> The report discusses environmental and water use problems associated with irrigation practices carried out under these contracts, and their continuation for the duration of the contracts upon renewal. This hearing is especially timely, Mr. Chairman, because the Department of the Interior has begun to renew these contracts for up to 40 more years. To date, 11 contracts have been renewed, and Interior plans to renew over one-quarter of the remaining 227 contracts over the next 5 years.

In summary, significant environmental and water use problems associated with irrigation practices carried out under existing water service contracts have developed in the CVP: irrigation practices have contributed to selenium poisoning and increasing salinity in the CVP's San Joaquin Valley; some farmers use CVP water to produce crops that are also eligible for subsidies under USDA's commodity programs; and with 85 percent of the CVP water dedicated to irrigation under the contracts, the water supply available for wildlife habitat is inadequate.

Since the Secretary of the Interior currently is renewing CVP water service contracts for the same quantities of water and approximately the same duration as the existing contracts, contract renewal is likely to maintain current irrigation practices and associated problems, and irrigators will have little incentive to use water more efficiently. In addition, because the long-term contracts will commit water to irrigation, the increasing demands of California's growing population may not be met.

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<sup>1</sup>Reclamation Law: Changes Needed Before Water Service Contracts Are Renewed (GAO/RCED-91-175, August 22, 1991).

Interior believes long-term contract renewal for the same quantity of water is mandated by law; consequently it will not change contract terms regarding long-term duration and quantity. Contracts currently are renewed without a thorough analysis of the environmental, economic, and water use impacts of renewal and the alternatives. Absent such analysis, Interior cannot make an informed decision on whether to renew contracts under existing terms or whether alternative provisions would provide better water management.

We made recommendations to the Congress to provide the Department of the Interior with greater flexibility to manage Bureau water in the CVP in the most effective and efficient manner. We also made recommendations to the Secretary of the Interior to fully analyze the impacts of contract renewal and alternative contract provisions.

Before discussing our report in detail I would like to provide some background information on the CVP.

#### BACKGROUND

The CVP is located in California's Central Valley Basin, which includes the Sacramento River in the north, and the San Joaquin River in the south. These two river systems meet at the Sacramento-San Joaquin Delta and eventually flow out to the Pacific Ocean. Initially authorized by the Congress under the Rivers and Harbors Act of ~~1925~~, the CVP was constructed by the Department of the Interior's Bureau of Reclamation primarily to supply water for irrigation. Its other purposes include flood control, municipal and industrial use, electric power generation, and fish and wildlife conservation. About 85 percent of its water supply is used for irrigation.

The CVP's water is marketed under the Reclamation Project Act of 1939, which authorized the Secretary to enter into short or long-term contracts to supply subsidized water for irrigation. The water is referred to as subsidized because the rates do not cover all costs, such as interest on the federal government's investment in the irrigation component of water resource projects. The act of July 2, 1956, amends the Reclamation Project Act by requiring the Secretary to renew the long-term contracts if water districts so request. In a 1988 Opinion, Interior's Solicitor interpreted the act as requiring the Secretary to renew long-term contracts for the same quantities of water that are beneficially used by water districts, if so requested by a district. The 1956 act defined long-term contracts as those lasting from 10 to 40 years.

In 1989 Bureau records showed 238 long-term contracts for irrigation water in the CVP, with expiration dates from February 1989 through December 2026. All the 11 contracts renewed to date were renewed through the year 2029--40 years from the renewal date for the first contract renewed--and all were renewed for the same quantities of water provided in their original contracts. These contracts are in the CVP's Friant Unit.

PROBLEMS ASSOCIATED WITH IRRIGATION PRACTICES  
CARRIED OUT UNDER WATER SERVICE CONTRACTS

Significant problems associated with irrigation practices carried out under water service contracts in the CVP have developed. The problems fall into three areas.

First, environmental degradation is occurring. In the San Joaquin Valley, agricultural drainage has degraded the water supply and soil, poisoning wildlife and threatening agricultural productivity. In 1984 the U.S. Geological Survey documented the presence of selenium, a trace element that occurs naturally in the soil, in the Kesterson National Wildlife Refuge, and positively

linked the source of the selenium contamination to drain-water runoff from farms in the CVP's Westlands Water District. Researchers documented high selenium levels in waterfowl and the abnormalities associated with selenium poisoning, such as deformities and mortality in embryos, as well as weight loss and death in adult birds. High levels of selenium have also been detected in agricultural drainage entering the Grasslands Water District in the western San Joaquin Valley, where concentrations of selenium and other contaminants exceeded drinking water standards and criteria established for the protection of aquatic life or irrigated agriculture.

In addition, salinity levels in the San Joaquin Valley have become very high. Much of the west side of the Valley contains naturally saline soil with poor drainage. As a result, salty water stays on top of the underlying clay, eventually building up and saturating the root zone of crops until crop growth is no longer possible, or only salt-tolerant crops can be grown. In 1987, the Westlands Water District reported crop production losses due to salinity worth \$35 million.

Both the U.S. Geological Survey and the interagency San Joaquin Valley Drainage Program<sup>2</sup> reported that if current irrigation practices continue, the area in the San Joaquin Valley with drainage problems will enlarge. They indicated that this expansion can be slowed or stopped by increasing irrigation efficiency and reducing or eliminating irrigation.

Second, subsidized water is used to produce subsidized crops. Some CVP farmers use subsidized water to produce crops that are also eligible for subsidies under USDA's commodity programs. Based

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<sup>2</sup>The San Joaquin Valley Drainage Program is a federal-state interagency program established in 1984 that has studied agricultural drainage and drainage-related problems in the western San Joaquin Valley.

on Interior's figures, 46 percent of the acreage in the CVP that received Bureau water in 1985 was used to produce subsidized crops. Interior's Inspector General reported in September 1990 that two large farm operations producing primarily cotton in the San Luis Unit of the CVP received a total of \$5.5 million in federal irrigation and crop subsidies from 1986 through 1988.

Third, wildlife habitat needs are not being met. With 85 percent of the CVP's water dedicated to irrigation through water service contracts, the supply of water available for wildlife habitat is not adequate. The Bureau reported in 1989 that inadequate water supply is a major factor limiting the quantity and quality of Central Valley waterfowl habitat and a principal problem for 15 wildlife areas in the Valley. None of the areas receives, on a yearly basis, the quantity of water required to operate optimally, and 8 of the 15 areas have no existing dependable supply of water. A water supply of more than 500,000 acre-feet annually is needed for optimum management of all the Central Valley wetland wildlife refuges. However, average annual supplies totaled about 380,000 acre-feet, or 27 percent less than needed.

In addition, the California Advisory Committee on Salmon and Steelhead Trout stated in a 1988 report to the California legislature that dams have reduced numbers of these fish significantly by impeding upstream migration of adults to spawn and downstream migration of juveniles to the sea to mature. Storing and diverting river water for irrigation reduces the amount of water left in-stream for fish. The Advisory Committee estimated that 75 percent of California's in-stream salmon production and 50 percent of remaining steelhead trout are at risk because of inadequate streamflow in the Sacramento-San Joaquin Delta and the Trinity River. According to the San Joaquin Valley Drainage Program, in-stream flows in the San Joaquin River between the CVP's Friant Dam and the Merced River are also inadequate to sustain migration of salmon.

ENVIRONMENTAL AND WATER USE PROBLEMS  
MAY CONTINUE UNDER CONTRACT RENEWALS

Increased irrigation efficiency and conservation could reduce environmental degradation caused by agricultural runoff and drainage, while freeing up water currently diverted for irrigation for other uses. Irrigators who pay higher water rates generally tend to use less water per acre of cropland, either by shifting to crops that require less water, or by installing more efficient irrigation methods. However, Interior is renewing water service contracts for the same quantities of low-cost water for up to 40 years. In addition, water districts are required to pay for the full volume of water specified in their contracts, whether they use it or not, each year for the duration of the contracts. As a result, CVP farmers have little incentive to alter existing irrigation practices and invest in efficient irrigation technologies or shift cropping patterns to less water-intensive crops.

In addition, if water service contracts are renewed without change, water may not be available to meet changing water supply needs. As California's population continues to grow, additional demands for water, such as urban use, are expected to grow. However, under recently renewed long-term contracts the Bureau has no flexibility to redistribute, sell, or transfer irrigation water as competing demands emerge. The Bureau is contractually bound to provide districts with the same quantities of water provided for the past 40 years, for the long-term duration of the contracts. These contractual obligations will not change as California's water needs change, without agreement from both the Bureau and the irrigation districts.



Bureau Will Not Be Fully Addressing  
Current and Emerging Problems

The 1988 Solicitor's Opinion stated that since the Secretary has no discretion over renewing long-term contracts for the same quantities of water, environmental impact statements required under the National Environmental Policy Act (NEPA) for discretionary agency actions, need not be prepared for their renewal.

Although Interior's legal position has not changed, an attorney in Interior's Office of the Solicitor told us in May 1991 that as a matter of policy Interior intends to comply with NEPA before renewing contracts in other CVP units, and complete either environmental assessments<sup>3</sup> or environmental impact statements. However, the attorney told us that the contract provisions for long-term duration and quantity of water will not be changed as a result of the environmental impact statements.

Interior renewed the first 11 CVP water service contracts in the Friant Unit without completing an environmental impact statement. However, the Secretary has directed the Bureau to conduct a study to examine ways to mitigate the environmental impacts of water use in the San Joaquin Valley. According to Interior's attorneys, because of this effort, Interior has an obligation to prepare an environmental impact statement for contracts renewed within the Friant Unit and has begun that process.

Provisions in the already renewed Friant Unit contracts are subject to change pending the results of this impact statement. However, because Interior considers contract renewal provisions for

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<sup>3</sup>Environmental assessments are used to determine if environmental impacts are likely to be significant, and therefore whether environmental impact statements are necessary.

the long-term duration and quantity of water to be mandated by law, these particular provisions will not be changed as a result of the impact statement. Moreover, citing its legal obligation under the 1956 act, Interior intends to continue renewal of all of the 28 contracts within the Friant Unit even though the environmental impact statement has not been completed. By performing the impact statement analysis after renewing the contracts, Interior is not following NEPA regulations that require that environmental information be available before decisions are made and actions are taken.

Analysis Might Identify Better  
Water Management Practices

Without a thorough analysis of the environmental, economic, and water use impacts of contract renewal, the Bureau cannot make an informed decision on whether to renew contracts under existing terms, or whether alternative contract provisions would provide better water management. Contract provisions that provide incentives for conservation and more efficient water use could reduce environmental damage resulting from irrigation drainage and runoff while increasing water supply. Changes to consider include market mechanisms such as raising water prices and easing water transfers, as well as allowing water districts to pay only for water used. According to Interior, these provisions may be considered in its environmental impact statement.

However, such incentives may not fully address all problems. Given the existing and likely future competing demands for the CVP's water supply, a thorough impact analysis should consider, as a viable option, whether water currently guaranteed to irrigation districts could be better used for other purposes, and therefore whether the quantity of water provided to districts should be reduced. In addition, renewing contracts for shorter periods of

time would provide more opportunities to address new concerns and new water demands as they emerge.

We discussed these issues with Bureau officials. They stated that long-term renewal of contracts for the same quantity of water is necessary to ensure that farmers qualify for the long-term financing they require to continue operations. These officials also believe that the state is responsible for determining water use and that the Bureau is responsible for providing water for the state to use. We believe, however, that the problems we identified transcend state and local boundaries and now compromise other national interests such as environmental protection and wildlife conservation. This necessitates the federal government becoming an active participant in determining the use of the limited supply of water available. Any impact analysis needs to address the implications of changes to contract provisions on quantities of water and duration for farming operations.

#### CONCLUSIONS AND RECOMMENDATIONS

When the Congress directed in the 1956 act that the contracts be renewed, the CVP's environmental degradation, the cost to the government of producing subsidized crops with subsidized water, the threat posed to wildlife by a declining water supply, and the potential need to redistribute available water among growing competing demands were not yet apparent. While the purpose of the 1956 act is to ensure irrigators a long-term supply of water, it is our view that renewing the CVP's 238 contracts for the same quantities of water for up to 40 years could severely limit options for addressing existing and future problems. The Bureau should have greater flexibility to change contract provisions to address these problems.

To provide this flexibility, we recommended in our August 1991 report that the Congress

- place a moratorium on all CVP contract renewals, while temporarily extending existing contracts, and
- amend the 1956 act to explicitly allow contract renewals for lesser quantities of water and shorter periods of time.

We recommended that the Secretary of the Interior

- analyze the impacts of renewing CVP water service contracts for the same quantities of water, for long terms, including (1) whether the water supply could be more effectively used to reduce environmental degradation and meet wildlife habitat needs and other emerging water needs in the state, and (2) whether problems associated with contracts can be mitigated by changes in contract terms, including consideration of market mechanisms to promote more efficient water use, and
- incorporate into renewed contracts changes in contract terms identified as likely to mitigate problems associated with water service contracts.

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Mr. Chairman, this concludes my statement. We would be happy to respond to any questions you or the members of the Subcommittee may have.





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