Statement of John Keys, Commissioner
Bureau of Reclamation
U.S. Department of the Interior
Before the
Subcommittee on Water and Power
U.S. House of Representatives
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My name is John Keys, and I am the Commissioner for the U.S. Bureau of Reclamation. My testimony today will provide background on the agricultural drainage challenges in California's Central Valley and review the current status of our actions to address this matter, including an overview of the drainage service alternatives that are currently under review through the NEPA process.

The San Luis Unit of the Central Valley Project contains some of the most productive agricultural land in the nation. However, tight clay soil that underlies much of this land can cause water and salts to accumulate in the root zone. In the 1960 San Luis Unit authorizing legislation Congress decided that not only was a dependable irrigation water supply needed to realize the tremendous agricultural potential of these lands, but that a drainage system was needed to control the shallow water table under much of the land. The 1960 Act included a provision for an interceptor drain to carry this drainage water to the Sacramento-San Joaquin Delta.

In the 1970s, Reclamation constructed about 85 miles of the San Luis Drain as well as the first stage of Kesterson Reservoir. Some 42,000 acres of farmland in Westlands Water District and other San Luis Unit districts were connected to the Drain and subsurface drainage water flowed to Kesterson where it was impounded and evaporated. Within about five years, selenium (a naturally occurring element present in the drainage water) bioaccumulated in the food chain and caused reproductive impairment and deformities in wildlife at the Reservoir. Following a Nuisance and Abatement Order issued by the State Water Resources Control Board, the San Luis Drain and Kesterson Reservoir were closed.

Upon the discovery of the selenium issues at Kesterson Reservoir, the State of California and the Department of the Interior undertook a major investigation of the drainage problems and potential solutions for the entire San Joaquin Valley. In 1990 the investigators produced a report outlining a broad spectrum of recommendations for managing the drainage problems in the Valley without the need to export water and salts, at least for several decades.

In 1991, Reclamation developed a plan for drainage specific to the San Luis Unit based in large part on the recommendations of the San Joaquin Valley Drainage Program. Shortly thereafter, landowners in the Unit filed suit seeking, among other things, completion of the Drain to the Delta. In 1995, the Federal District Court found that the San Luis Act imposed a mandatory duty on the Secretary to provide drainage service to the Unit, that

failure to do so constitutes agency action unlawfully withheld, and ordered Reclamation to apply for a discharge permit in order to complete the Drain to the Delta. Upon appeal of that Order, the 9th Circuit affirmed that the Secretary has a mandatory duty to provide drainage service to the Unit, but held that the Secretary has discretion to provide that service other than through an interceptor drain to the Delta. Upon remand, the District Court modified its Order, directing the Secretary to, without delay, provide drainage service to the Unit, and to submit to the Court a plan describing the actions it would take to promptly provide drainage to the Unit. Reclamation submitted a Plan of Action to the Court which included preparation of an EIS.

Reclamation has met all its milestones to date that it laid out in the Plan of Action submitted to the Court. A Draft Environmental Impact Statement, published in May, is currently undergoing public review. We are continuing to develop feasibility level designs and cost estimates for alternatives. We are also continuing to field test reverse osmosis and selenium treatment systems in the San Luis Unit, and are working with local water districts to implement on-the-ground drainage projects that are consistent with elements included in our alternatives such as drainage reuse areas. A Record of Decision is scheduled to be completed by July 2006.

Alternatives

Upon issuance of the Appeals Court Opinion and subsequent revised District Court Order, Reclamation undertook to evaluate all reasonable alternatives for providing drainage service to the Unit. In identifying and formulating alternatives, we identified four related project objectives the alternatives should meet:

1. the drainage service alternative consist of measures and facilities to provide a complete drainage solution, from production through disposal, avoiding a partial solution or a solution with undefined components;
2. the drainage service alternative be based on technically proven and cost effective components;
3. drainage service be provided in a timely manner; and
4. the drainage alternative minimize adverse environmental effects and risks.

In formulating alternatives Reclamation determined the acreage of land that will require drainage service and has determined a reasonable future drainage output from the Unit. All of the action alternatives use the determined values of drainage output and drainwater quality in the design of project features and in the analysis of environmental effects. Reclamation determined that 298,000 acres in Westlands Water District, or almost half of the District, and about two-thirds, or 81,000 acres, of the northern San Luis Unit and adjacent lands (which is often referred to as the Grasslands Drainage Area) will require service. We estimate the average annual output of drainage from these 379,000 total acres to be 97,000 acre-feet per year.

Although the area is generally already highly efficient in its water use, all of the action alternatives include an estimate of additional reasonable, cost-effective measures that could and are expected to be taken at the farm and district level to reduce the drainage

output. We estimate that these measures would reduce drainage output from the 379,000 acres to 70,000 acre-feet per year.

Seven action alternatives are evaluated in the Draft EIS. The alternatives can be grouped by their final discharge location – Delta, ocean and in-valley evaporation. Four alternatives – Delta discharge at one of two potential locations, ocean discharge, and in-valley evaporation, provide drainage service to all 379,000 acres of land that require it. Three additional alternatives combine in-valley evaporation with varying levels of land retirement. Land retirement, defined as removal of lands from irrigated agricultural production, would reduce drainwater production and thus reduce the size of the in-valley treatment and disposal facilities. The alternatives would cease irrigation on 92,600, 194,000 and 308,000 acres respectively, reducing drainage production from 70,000 acre-feet per year to 61,000, 45,000 and 27,000 acre-feet respectively.

Reclamation found it cost effective in all alternatives to further reduce the volume of water requiring disposal through regional drainwater reuse areas. The collected drainage water would be transported to up to 16 regional reuse areas where the water would be applied to salt tolerant crops and forages. Drainage water from the reuse areas would then be treated as necessary and disposed of according to the alternative.

For the ocean disposal alternative, water from the reuse areas would be transported and discharged approximately 1.4 miles off the coast near Point Estero at a depth of about 200 feet.

For the delta disposal alternatives, water from the reuse areas would be processed through a biological selenium treatment plant prior to discharge at one of two locations; near Chipps Island and at Carquinez Straits.

For the In-Valley alternatives, water from the reuse areas would undergo reverse osmosis treatment producing about 50% clean reusable product water. The remaining 50% more concentrated water would undergo selenium treatment prior to disposal in evaporation ponds.

The estimated construction costs identified in the draft EIS of the alternatives range from $589 million to $918 million. On a present worth basis, which is the combined construction and annual operation, maintenance and rehabilitation costs presented as a one time cost, three full-service alternatives – Ocean Disposal, Delta –Chipps Island, and In-Valley Disposal are nearly identical at about $562 million. The In-Valley Disposal with Land Retirement alternatives range from $626 million up to $857 million on a present worth basis. All of the alternatives exceed the spending limit authorized under the San Luis Act.

The Draft EIS does not identify an agency preferred alternative. However, the document does indicate our current thinking that one of the In-Valley alternatives is likely to be the agency preferred alternative. All of the In-Valley alternatives allow for flexibility in implementation, including a phased approach for construction and mitigation and the

ability to evaluate and incorporate new technologies. The least net cost alternative is the In-Valley alternative that includes 308,000 acres of land retirement. The In-Valley alternative that includes retirement of 194,000 acres is most closely consistent with a locally developed alternative, the Westside Regional Drainage Plan (SJRECWA et al. 2003).

The Draft EIS discusses alternatives that have not undergone Administration review for technical feasibility, cost-benefit analysis, or budgetability. Additionally, decisions about drainage issues of the San Luis Unit cannot be undertaken in a vacuum, and will be evaluated in the broader context of other south-of-Delta actions, such as those carried out under the CALFED program, and other decisions regarding the management of irrigation water and return flows in the area.

I am pleased to answer any questions.