

Committee on Resources

Subcommittee on Water & Power

Witness Statement

**TESTIMONY
BEFORE THE WATER AND POWER SUBCOMMITTEE
OF THE
HOUSE RESOURCES COMMITTEE
IN SUPPORT OF
H.R. 2619**

October 21, 1999

A bill to amend the Colorado River Basin Salinity Control Act

I am Jack A. Barnett, the Executive Director of the Colorado River Basin Salinity Control Forum (Forum). The Forum membership consists of individuals appointed by the Governors of each of the seven Colorado River Basin states (Basin states). The membership and the Forum's address and phone number are provided on this letterhead.

The Forum supports the passage by the U.S. House of Representatives of H.R. 2619. The \$75 million authorized in 1995 has been used to demonstrate the great efficiencies effectuated by the 1995 amendments to the Salinity Control Act, and now the \$100 million to be authorized by this bill is needed for the program to move ahead into the next century. The Forum is required by the Clean Water Act to prepare a report every three years analyzing the salt reduction needed to meet water quality standards and, more specifically, to keep salinity levels below the numeric criteria that has been established for the Colorado River. Recently, the seven Basin states, in consultation with all involved federal agencies, determined the necessary Plan of Implementation and, at a Forum meeting, formally adopted the required triennial review report. A copy of that triennial review report has been provided to the Subcommittee.

In the triennial review, it was determined that by the year 2015, more than 750,000 tons of salt must be controlled annually from entering the Colorado River system to meet the numeric criteria. To accomplish this, very active programs to control point source discharges and reduce nonpoint source salt contributions must be undertaken by the Basin states and by federal agencies. A coordinated federal program identified in the Plan of Implementation involves the Bureau of Reclamation (Reclamation), the Department of Agriculture and the Bureau of Land Management.

In 1995, Congress amended the Colorado River Basin Salinity Control Act and gave to Reclamation new authorities. The new authorization was an experiment, so to speak, to see if a streamlined approach could be most cost effective. The amended law gave Reclamation the authority to seek proposals for salinity control projects from non-federal entities. In the past, Reclamation had, with authorization from Congress, constructed salinity control measures in specially authorized salinity control areas. This recent experiment has been most successful. Cost effectiveness is measured in dollars per ton of salt controlled. Prior to the new authority, Reclamation's efforts were costing between \$70 to more than \$100 for each ton of salt that

was controlled. Under the new authority, costs are around \$30 per ton.

In 1996, an additional amendment to the Salinity Control Act allowed the Basin states to cost-share up-front in the amount of 30% of the total construction or contract amounts. This means that for every \$100 spent by the federal government, an additional \$43 is spent by the Basin states. This cost sharing opportunity greatly increases the cost effectiveness of the federal dollars and the opportunity has been welcomed by the states. It also means that the states aggressively seek the most cost effective salinity control opportunities.

The Colorado River provides water for more than 23 million people and irrigation for more than four million acres of land in the United States. The river also serves about 2.3 million people and 500,000 irrigated acres in Mexico. Recent salinities in the lower portion of the Colorado River are typically about 700 mg/L, but in the future may range between 600 and 1,200 mg/L. Salinity damages in the United States portion of the Colorado River Basin range between \$500 million and \$750 million per year and could exceed \$1.5 billion per year if future increases in salinity are not controlled.

Although salinity impacts cannot be eliminated, the Basin states and federal government agreed to limit future damages through the adoption of salinity standards and the implementation of the agreed to plan. In June of 1974, Congress enacted the original Colorado River Basin Salinity Control Act. It provides authority to honor the Mexican Treaty with respect to water quality (Title I) and it provides authority for the salinity control program in the United States (Title II). In 1993, the Basin states, the Department of the Interior and the Inspector General concluded that the lengthy Congressional authorization process for Reclamation projects was impeding the implementation of cost-effective measures. In 1994, Reclamation conducted a public review of the program and in 1995, Congress authorized Reclamation to implement a competitive, basinwide approach for salinity control which has since become known as the Basinwide Program.

The Basin States, represented by the Forum, support this legislation because of the needed salinity control measures to protect water users in the United States from potential damages inflicted from high salinity in their water supply. It should be noted, however, that all salinity control measures implemented under Title II provided for better water quality in the water delivered to Mexico under Treaty. Although the United States has never violated the water quality provisions of the Treaty, currently Mexican water users and Mexican officials are urging the United States to take additional steps to improve the quality of water delivered across the border. Title II water quality efforts reduce the pressure for additional and often much more costly measures at the border.

Reclamation has now completed four rounds of solicitations (requests for proposals), ranked the proposals based on their cost effectiveness and has performed risk analysis on each proposal. Funds have been awarded to the highest ranked projects. The cost of salinity control has been cut in half by this new flexible and competitive process. Often proposers offer to put their funds into the effort so as to be competitive and in so doing they make it such that the state and local cost sharing is greater than the federal funds.

Past projects authorized in 1974 and later (Grand Valley, Paradox, Lower Gunnison and Dolores) by Congress have averaged \$76 per ton of salt controlled. For a number of reasons, the new projects in the Basinwide Program are much more cost effective. One can note the cost per ton shown on the table that is attached. The top six projects were authorized originally and salt was controlled, except for one project, at costs ranging from \$48/ton to \$150/ton. The sixteen projects at the bottom of the table range from \$12/ton to \$36/ton of salt controlled.

One of the great advantages of the new program comes from the integration of Reclamation's program with

the U.S. Department of Agriculture's program. Water conservation within irrigation projects on saline soils is the single most effective salinity control measure found in the past 30 years of investigations. By integrating the USDA's on-farm irrigation improvements with Reclamation's off-farm improvements, high efficiencies can be obtained. If the topography permits, pressure from piped delivery systems (laterals) may be used to drive sprinkler irrigation systems at improved irrigation efficiency rates which are far better than those now occurring with existing flood irrigation systems. This new authority allows Reclamation much greater flexibility (in both timing and funding) to work with the USDA to develop this type of project.

This new authority also allows Reclamation to respond to opportunities that are time-sensitive. Cost sharing partners (private organizations and states and federal agencies) often have funds available at specific times. Under the old method of planning, authorization, funding and construction, it would often take decades for Reclamation to be ready to proceed with a project. None of Reclamation's past projects were able to attract cost sharing because of this constraint. For example, the Ashley Project (a joint effort by the State of Utah, the EPA and Reclamation) will eliminate 9,000 tons of salt per year. Local and state funds were pledged. The salinity portion funded through Reclamation is a minor component of the project but an important part of the project (\$3 Million in a \$18 Million project). Once Reclamation had committed to fund its salinity portion of the project, funds were provided in the EPA's budget by Congress for that agency's contribution so that the partnership was completed.

Another significant advantage of the Basinwide Program is that projects are "owned" by the proponent of the project, not Reclamation. The proponent is responsible for performing under their proposal. Costs paid by Reclamation are controlled and limited by agreement. The Hammond Project in New Mexico is a good example of an early success. Their proposal was one of the first funded. They are now in their third year and costs and accomplishments are just as proposed. The effort is to line portions of the main delivery canal to prevent seepage into underlying saline sediments. The project is strongly supported by the local water users and, in fact, the construction efforts are accomplished under their direction.

Yet, sometimes unforeseen cost overruns do occur. In these cases, which do not occur often, the proponent has several options. The proposed project may be terminated at no cost to the federal government. The proponent may choose to cover the overruns with their own funds or borrow funds, such as from state loan programs. The proponent may also choose to reconfigure the project costs and recompete their project through the award process at the next opportunity. For example, pipeline bedding and materials costs for the Ferron Project in Utah were underestimated in the original proposal and the subsequent construction cooperative agreement. Reclamation denied the proponent permission to award materials contracts for the pipeline since the costs were beyond those contained in the agreement. After months of negotiations and analysis, the proponents chose to terminate the project, reconfigure it and recompete against other proposals the following year. Their revised project was found to be competitive and was allowed to proceed.

This past summer, Reclamation opened and reviewed proposals made again by the non-federal sector. These new proposals do not appear on the attached table as they are held with a degree of confidentiality until proposers are contacted and advised of the acceptance or rejection of their proposal. About a dozen most favorable proposals were received that offered salinity control at costs below \$30 per ton. Other proposals will be rejected. As these new proposals move through the review process and are awarded, all of the originally authorized \$75 million will have been committed, as well as the more than \$32 million in Basin states cost sharing funds.

Not all of the proposals included in the attached table will be fully funded and constructed, but an arithmetical addition of the required funds leads one to a quick understanding that the funding identified by

the best proposals will far exceed the original \$75 Million funding authorization. In fact, if all proposals were to be awarded and fully funded, Reclamation may find that until new funding from Congress has been authorized, no future requests for proposals could be advanced. This would be most damaging as the Plan of Implementation calls for a consistent level of new salinity control measures over the next 15 years. The Basinwide Program is well accepted by the water users of the area and has gained a very much desired momentum. Basin states' cost sharing funds are available. Now is the time for Congressional action!

The Senate has moved a bill, S. 1211, through committee and its passage by the Senate appears most probable. It is very similar to H.R. 2619. The Senate did, however, amend the bill during committee mark up to provide a requirement that the Bureau of Land Management report back to Congress its salinity control activities. The Forum supports the Senate amendment.

By stating that the Forum supports the passage of H.R. 2619, it is indicated that the seven Colorado Basin states, through their representatives appointed by their Governors, unanimously support this legislation. As a further showing of this broad support, I have with me today letters from all seven of the states and I would like to submit them for the record. The Forum appreciates this opportunity to present testimony and further appreciates the initiative taken by the Subcommittee in holding this hearing.

Jack A. Barnett

Executive Director

Bureau of Reclamation Salinity Control Unit Summary

Unit/Study	Implementation	Controls (tons/yr)	Reclamation Capital Cost	Cost per Ton
Original Authority Program				
Meeker Dome	1980-1983	48,000	\$3,100,000	\$5
Las Vegas Wash	1978-1985	3,800	\$1,757,000	\$48
Grand Valley	1980-1998	127,500	\$160,900,000	\$106
Paradox Valley	1988-1996	107,500	\$67,400,000	\$67
Dolores Project	1990-1996	23,000	\$44,700,000	\$150
Lower Gunnison	1991-1995	<u>41,380</u>	<u>\$24,000,000</u>	<u>\$55</u>
Subtotal		351,180	\$301,857,000	\$76
Basinwide Salinity Program (PL 104-20)				
Hammond	1996-2001	48,130	\$13,486,000	\$23
Navajo Well Plugging	1998-1999	500	\$71,000	\$12
Cottonwood	1998-1999	8,506	\$2,100,000	\$20
Wellington	1998-2002	14,532	\$3,935,400	\$22
Ashley	1999-2000	9,000	\$3,269,000	\$30
Duchesne County	1999-2004	20,417	\$9,127,000	\$36
Ferron	1998-2002	47,407	\$10,802,744	\$26
Paradox Nanofiltration	1999-2002	81,500	\$10,264,236	\$25
Allen Lateral	1999-2000	8,125	\$2,412,000	\$30
Uncompahgre Demo	1998-1999	2,295	\$889,600	\$32
Price (additional)	1999-2001	16,153	\$5,182,650	\$31

Brush Cr (Sunshine)	1999	2,764	\$858,000	\$31
North Carbon	1999-2000	10,245	\$3,499,908	\$31
Moffat	*	5,112	\$1,066,440	\$29
Highline	*	8,870	\$2,100,000	\$35
BIA - Ute Tribe	*	<u>53,344</u>	<u>\$19,788,373</u>	<u>\$30</u>
Basinwide Program Total		336,900	\$88,852,351	\$27

* Pending contract signing or waiting NEPA compliance

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