

Water and Power Subcommittee Hearing

Tuesday, February 28, 2006

Chair, National Legislative Committee Mr. Richard Atwater

WateReuse Association

Testimony

The Bureau of Reclamation's Reuse and Recycling Program

(Title XVI of P.L. 102-575)

Submitted to:

Honorable Lisa Murkowski

Chairman

Subcommittee on Water & Power

Committee on Energy and Natural Resources

United States Senate

Presented by:

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On behalf of the

WateReuse Association

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2

Introduction

Madam Chairman and members of the Subcommittee, the WateReuse Association is pleased to have the opportunity to present this testimony on the importance and role of the Bureau of Reclamation's Reuse and Recycling Program (Title XVI) in ensuring an adequate water supply for the nation in the 21st century. I am Richard Atwater, Chairman of the WateReuse Association's National Legislative Committee, and I am representing the Association today.

As a way of introduction, the WateReuse Association (WateReuse) is a non-profit organization whose mission is to advance the beneficial and efficient use of water resources through education, sound science, and technology using reclamation, recycling, reuse, and desalination for the benefit of our members, the public, and the environment. Across the United States and the world, communities are facing water supply challenges due to increasing demand, drought, and dependence on a single source of supply. WateReuse address these challenges by working with local agencies to implement water reuse and desalination projects that resolve water resource issues and create value for communities. The vision of WateReuse is to be the leading voice for reclamation, recycling, reuse, and desalination in the development and utilization of new sources of high quality water.

I am also Chief Executive Officer of Inland Empire Utilities Agency (IEUA), located in Chino, California. By implementing aggressive conservation programs and using innovative recycling and desalting technologies to reuse our water supplies, we have reduced our potable water demand by 20% over the past five years. IEUA is a municipal water district that distributes imported water from the Metropolitan Water

District of Southern California and provides municipal/industrial wastewater collection and treatment services to more than 800,000 people within a 242 square mile area in the western portion of San Bernardino County. The Inland Empire region is the "economic engine" of California and among the top 10 job creating regions in the US.

The IEUA service area population is expected to double during the next 20 years. About 7000 new homes each year are being built in the IEUA service area. Inland Empire is not depending on new imported supplies from the Colorado River or northern California through the CALFED Bay-Delta Program to meet our future water supply needs. Instead, we have developed an integrated water resources plan that will develop 95,000 acre-feet of new recycled water, desalinate over 50,000 acre-feet of brackish groundwater supplies, and, with the Metropolitan Water District of Southern California, develop 150,000 acre-feet of conjunctive use in the Chino groundwater basin. These will be the primary new water supplies to meet the rapidly growing needs of the Inland Empire region of Southern California.

3

A critical partner in making these new local water supplies available in our region is the Federal government. Pending in Congress are Title XVI bills that would authorize a \$20 million grant to provide a 10% Federal cost-share for the IEUA regional water recycling project of 95,000 acre-feet (total cost is \$200 million). Without a doubt this cost-sharing arrangement to develop a critical new supply for a rapidly growing region without asking for more supplies from the Colorado River or northern California (CALFED) is incredibly cost-effective when compared to the other supply options available in the CALFED Bay-Delta Program.

On behalf of the Association's Board of Directors, I want to commend you, Madam Chairman, for convening this hearing. The hearing is especially timely, given the increasing number of challenges facing local agencies in their continuing quest to ensure adequate water supplies in the future. It is our understanding that you would like our thoughts on the United States Bureau of Reclamation's (USBR) Title XVI Program. WateReuse is pleased to provide its views on this important and valuable program. We would also like to expand our comments beyond Title XVI and recommend some specific actions that the Federal government could take to address the nation's future water supply needs. Clearly if the U.S. is to address its future water supply needs in an effective manner, the Federal government must play a leadership role.

The Bureau of Reclamation's Title XVI Reuse and Recycling Program

In your invitation letter, Madam Chairman, you requested that the Association address three specific topics: 1) our experiences with Title XVI; 2) the potential project benefits; and 3) suggestions for reshaping and improving the program. Let me address each of these topics.

Experiences with the Title XVI Program and Program Benefits

My personal history with Title XVI can be traced all the way back to the enactment of the legislation. As the General Manager of the West and Central Basin Water Management Districts at the time of the passage of the Title XVI legislation in 1992, I was strongly supportive of the legislation. Once the legislation was enacted, West Basin was fortunate to be one of the first recipients of grant funding. This grant funding had numerous benefits for West Basin as well as the approximately 30 other local agencies that have received grant funding over the past 13 years, including the Orange

County Water District (OCWD), represented here today by Virginia Grebbien, OCWD's General Manager.

The Association and its members have a long-standing and productive working relationship with the USBR and its Title XVI program. The Title XVI program has

4 benefited many communities in the West by providing grant funds that made these projects more affordable. The Federal cost share – although a relatively small portion of the overall project cost – often makes the difference in determining whether a project qualifies for financing. In addition, the Federal funding and the imprimatur of the United States government typically results in a reduced cost of capital.

The Association believes that the Title XVI program is an unqualified success and represents a sound investment in the future of the West by the Federal government. Through FY 2004, the Federal investment of \$272.5 million has been leveraged by a factor of approximately 5:1. According to a recently completed study by the Council on Environmental Quality (CEQ), the non-Federal investment to date during this same period amounted to \$1.085 billion.

In enumerating specific project benefits, we must not forget the intangible benefits that exist when this critical new water supply is brought on line in addition to the financial value of such projects. These include the following:

- ?? Environmental benefits realized through the conversion of treated wastewater into a valuable new water supply;
- ?? Reduction of the quantity of treated wastewater discharged to sensitive or impaired surface waters.
- ?? Avoidance of construction impacts of new supply development (e.g., new dams and other expensive importation aqueducts);
- ?? Reduced dependence on the Colorado River and on the CALFED Bay-Delta System, especially during drought years when conflicts on both of these water systems are particularly intense.
- ?? Creation of a dependable and controllable local source of supply for cities in arid and semi-arid climates such as El Paso, Phoenix, and Las Vegas; and
- ?? Reduced demand on existing potable supplies.
- ?? Energy benefits, including reduced energy demand and transmission line constraints during peak use periods, realized by the replacement of more energyintensive water supplies such as pumped imported water with less energyintensive water sources like recycled water.

A fundamental question is “why would we want to use valuable, high quality water from the Bureau of Reclamation's Shasta Reservoir in northern California or Lake Powell in Utah and pump and transport it over 500 miles to irrigate a park or golf course in the Los Angeles or San Diego metropolitan areas?” Also remember that the replacement of that imported water with local recycled water will save enough energy from reduced pumping equivalent to a 500 megawatt power plant! Obviously the energy and water policy issues facing the arid West clearly justify a “strategically” small grant program to

5 use recycled water as a means to continue to support the economic vitality of the major metropolitan areas throughout the Colorado and Rio Grande River basins.

In its FY 2004 review of the Bureau's Title XVI program, the Office of Management and Budget (OMB) rated the program “moderately effective.” OMB noted that “these water

reuse and recycling projects help expand water supplies in areas that routinely face severe water shortages, and are especially important in helping to shift California from its dependence on Colorado River water.” OMB was also complimentary of Bureau staff, noting that staff “generally work[s] very closely and effectively with local sponsors in project development and planning and are efficient in supplying grant funds and technical assistance.” The Association concurs with OMB on both of these findings; our experience in working with the Bureau has been a very positive one. We would only add that, when compared to traditional Bureau of Reclamation multiple purpose water supply projects, Title XVI is very cost-effective and minimizes the need for future additional Federal obligations to solve interstate water problems.

Suggestions for Improvement of the Title XVI Program

The Association strongly supports the continuation of Title XVI funding. Unfortunately, communities in the East do not qualify for Title XVI funds. Hence, WateReuse supports the establishment of a national competitive grants program that would provide Federal grant funding for which communities in all 50 states would be eligible.

Water reuse and recycling is now practiced all over the country, not just in the 17 western states. In addition to California, Texas, Arizona, and Florida, the states of New Mexico, Washington, Colorado, Nevada, Virginia, and New Jersey have growing water reuse programs. Water reuse is growing at a 15% compound annual growth rate as shown in Appendix A (Figure 1). Current planned reuse is estimated at 3.6 billion gallons per day and is projected to grow to 12 billion gallons per day by the year 2015. Substantial growth potential remains, however. According to EPA’s most recent Needs Survey, 34.9 billion gallons per day of wastewater were generated in 2000. This means that only about 10% is being beneficially reclaimed and reused (see Figure 2).

Statistics on actual use in California, Florida, Texas, and Arizona – which account for approximately 90% of all water reuse in the U.S. – are shown in Appendix A (Figure 3). As the Subcommittee considers actions to make the Title XVI program stronger and more effective, we recommend that consideration be given to the following:

- 1) Creation of a competitive grants program;
- 2) Expansion of eligibility to include communities in all 50 states; and
- 3) Provision of an annual authorization of funding of \$200 million/year.

6

A policy and Federal leadership commitment with this relatively modest level of federal investment would mean that the nation would begin to respond to the demands placed on current limited water supplies and would address municipal, industrial and commercial demands as well as natural resources needs as documented in the Department of the Interior’s Water 2025 assessment in 2002.

The current Title XVI program allows a Federal contribution of the lesser of \$20 million or 25% of the total project costs. To allow more communities to participate in this valuable program, the Association would support a reduction in Federal cost sharing to the lesser of \$20 million or 20% of total project costs. We think that, when compared to all other Bureau of Reclamation authorized projects, the Title XVI “targeted low cost share grant program” has the greatest benefits for solving regional water problems and at the lowest Federal investment cost.

Finally, the Association recommends that the Congress appropriate funds to conduct a national survey of water reuse and recycling needs. A national survey would serve a number of purposes, including 1) documentation of national, regional, and local water

reuse and recycling needs, 2) documentation of willingness of local agencies to expend funds on water reuse projects if they could obtain some level of Federal support, and 3) a quantification of benefits – both financial and social -- of existing Title XVI projects and future planned projects.

The Federal Role in Water Reuse and Desalination

In the opinion of our Association, the Federal government should take a leadership role in promoting water reclamation and reuse, desalination, groundwater recharge technology, and water use efficiency/conservation innovation. If the appropriate Federal role is identified now and appropriate actions are taken, our nation will be well positioned to meet the water supply challenges of the future.

There are numerous ways in which the leadership role of the Federal government could manifest itself. Federal subsidies for local water reuse projects and targeted investment through demonstration grants could be used to promote reuse practices. The Federal government could promote increased use of recycled water at Federal facilities (e.g., military bases and new GSA buildings); these could be examples of good stewards of water efficiency and water reuse.

We also believe it is critically important for the Federal government to provide adequate funding for research. If this country is to have the wherewithal to provide cost-effective water supply facilities, we must be able to reduce the costs of production and to increase greater public acceptance and reliance on alternative water supplies.

7

One of the many issues faced by water researchers is to understand the meaning and potential health and ecological impacts of thousands of organic compounds that have been identified at trace levels in wastewater and other alternative supplies. The challenge is that analytical methods, which allow identification of emerging chemical contaminants for both drinking water and wastewater, are ahead of the science that allows us to understand what these emerging contaminants mean in terms of protection of public health and the environment, and ultimately what treatment technologies are needed to ensure safe and appropriate alternative supply development. The same challenge is true for microbial contaminants. This is not only a water reuse challenge, but also one that also applies to every municipality whose source of water supply is a major river or whose groundwater is impacted by impaired water sources. Only through conducting substantial research can local, state, and Federal governments provide proper assurance to the public that both drinking water and reclaimed water are safe.

WaterReuse is also strongly supportive of additional Federal funding for water reuse and desalination projects. Although the President's budget typically includes less than \$20 million for USBR's Title XVI program (note: the FY 2007 budget includes only \$10 million), we have consistently encouraged the Congress to support this worthwhile program with an appropriate level of funding (i.e., \$100 million/year or more).

Recommendations

In summary, we believe that alternative water supplies, including water reuse and desalination, will be a critical component of the nation's water supply in the 21st century.

To ensure that this important resource is fully utilized and that appropriate actions are taken now in order to avoid a future water crisis, the Federal government needs to play a leadership role. Some of the specific actions that should be taken by the Subcommittee include the following:

- Support additional research, technology demonstrations and technology

transfer of water reuse that is essential to developing answers to questions on environmental pollutants of concerns, gaining public acceptance. and reducing the costs of production;

- Support increased funding for the Title XVI program;
- Support the enactment of legislation that would establish a competitive grants program for which local water agencies in all 50 states would be eligible that would provide funding for much needed water reuse and desalination projects. The Subcommittee should advocate an authorization of \$100

8 million/year for water reuse projects and \$100 million for desalination over at least a five year period.

- Increase Federal “venture capital” (i.e., seed capital assistance through innovative financing tools and targeted grants (e.g., Title XVI) to assist communities in developing innovative and new demonstrations of reuse and desalination technology.

Conclusion

Once again, the WateReuse Association wants to thank you, Madam Chairman, for convening this hearing. We would be pleased to work with you in addressing critical issues related to water reuse and recycling, desalination, and water use efficiency. We are strongly supportive of the Subcommittee’s efforts to ensure adequate and safe supplies of water in the future for the entire country.