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TESTIMONY
OF
MR. JAMES D. HERBERG, P.E.

GENERAL MANAGER

ORANGE COUNTY SANITATION DISTRICT
FOUNTAIN VALLEY, CALIFORNIA

PRESENTED BEFORE

SUBCOMMITTEE ON WATER POWER AND OCEANS
COMMITTEE ON NATURAL RESOURCES
U.S. HOUSE OF REPRESENTATIVES

WASHINGTON, D.C. 20515

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Chairman Fleming, Ranking Member Huffman and members of the subcommittee,

I am Jim Herberg, General Manager of Orange County Sanitation District (OCSD).

I appear before you today as one half of a local partnership that developed and constructed an internationally acclaimed sustainable water supply project known as the Groundwater Replenishment System or GWRS. Our partner agency, the Orange County Water District (OCWD) operates GWRS and I want to acknowledge their leadership on this effort. I also want to acknowledge OCWD's First Vice President Denis Bilodeau, who is currently testifying before the Senate Committee on Environment and Public Works on the vital role that water recycling and other innovations can play in providing a sustainable water future.

The Orange County Sanitation District is a public agency located in Fountain Valley and Huntington Beach that provides wastewater collection, treatment, and recycling for approximately 2.5 million people in central and northwest Orange County. OCSD is a special district that is governed by a 25 member Board of Directors comprised of 20 cities, four special districts, and one representative from the Orange County Board of Supervisors. Orange County is the sixth largest county by population in America. This distinction is important as it drives our priority to find sustainable water supplies for our growing region.

OCSD is pleased to be part of today's hearing to highlight ways in which we can develop cost-effective water recycling solutions. Indeed, in California, we have taken steps with the help of the Federal Government to tap what former Secretary of the Interior Lujan termed the last great river, wastewater. Today's hearing is especially timely because we are entering an era of water resources needs that demands a new way of developing sustainable water supply projects. Similar to the digital revolution, the technology revolution in water is changing the way we develop projects to meet our municipal, agricultural and environmental water demand. OCSD would like to note the efforts to advance the nation's commitment to sustainable water practices through the activities and efforts of organizations including the California Association of Sanitation Agencies, National Association of Clean Water Agencies, Water Environment Federation, Association of California Water Agencies, WaterReuse, and its state chapter California WateReuse.

OCSD has always taken pride in advancing the treatment of wastewater through the use of innovative technologies. In fact, it was this dedication that led us to a decision to work with our water agency, OCWD, to design and construct a sustainable water supply to address a growing population and changes in precipitation patterns. This

commitment is demonstrated vividly by the expansion of the GWRS. The GWRS is the world's largest advanced water purification system for potable reuse. The project receives OCSD's treated wastewater that otherwise would be sent to the Pacific Ocean and purifies it using a three-step advanced process. I would like to express our gratitude for the Committee's past support that helped make GWRS a reality.

Today, I would like to address how OCSD and its partner OCWD have developed a meaningful response to the drought conditions and what policies need to be implemented for the future to assure that projects can be constructed to address our changing environment. I want to emphasize that the past winter's El Nino has only served to validate the value of federal programs and projects that we pursued. El Nino brought above average snowpack and almost brimming reservoirs to northern California. But in our region, the record rainfall we anticipated did not occur. Clearly, the new normal of rainfall and snowfall events along with accelerated evaporation and melting means that it is incumbent to develop and implement policy approaches to advance sustainable water supply. It has often been stated that California has always met challenges and succeeded, defying the conventional wisdom that our state is too big and the problems are too big to find a long-lasting solution. In our circumstance, OCSD and OCWD designed a solution and with the vital support of Congress and the U.S. Bureau of Reclamation, we constructed GWRS, a project that has won international acclaim and helped establish the U.S. as a leader in the field of sustainable water projects. This solution can be replicated throughout arid and semi-arid regions of our nation and the world.

In Orange County, our climate is becoming more arid. The base flow of the Santa Ana River, our main source of surface water, continues to decline. Imported water supplies from Northern California and Colorado River are restricted. We expect droughts to occur three out of every 10 years. Population growth within our region is expected to increase and so will water demands. There was and is a need to address these multiple matters.

In the late 1980's, it became apparent that to preserve our region's economic and social vitality, the challenges of our groundwater depletion, seawater intrusion and unreliable surface water supplies demanded an innovative solution. An aggressive program was implemented to develop a novel water treatment process with the GWRS.

Unlike traditional approaches to water treatment, our approach recognized that wastewater is a valuable resource. The ability to design a technological approach that would capture this resource, remove the impurities and recycle it back into the environment would address multiple needs ranging from supplementing water supply to protecting our natural resources.

The GWRS takes treated wastewater from OCSD that would otherwise be discharged into the Pacific Ocean. It implements a sophisticated process to purify this water. The process involves using a three-step advanced treatment system consisting of microfiltration, reverse osmosis, and ultraviolent light with hydrogen peroxide. This treatment and purification process produces high-quality water that exceeds all state and federal drinking water standards. Let me emphasize this point. OCWD is able to exceed public health standards in developing a sustainable water supply.

GWRS was achieved through a partnership with federal and state agencies that provided vital assistance in making this project a reality. The $20 million in assistance under Title XVI leveraged over $70 million in state and local funding to provide for the $481 million construction cost of the GWRS. Today, the partnership is responsible for delivering enough drinking water for 850,000 people with a production of 100 million gallons of water per day. When GWRS became operational it was a project that delivered on the promise of providing a safe and reliable water supply.

There is no one-size-fits-all solution to water reuse. The GWRS establishes a technology foundation to design and build individual approaches to sustainable water supply needs. Water needs of a specific community, water sources, public health regulations, costs, and the types of water infrastructure in place, such as distribution systems, man-made reservoirs or natural groundwater basins, determine if and how your reused water becomes part of the drinking water supply. And these factors are driving our belief that we need a new approach to funding promising water recycling projects.

As the state of California and the entire West faces severe drought conditions, increased attention must ultimately turn to locally developed projects and programs like GWRS that provide reliable water supplies. But the risks in developing projects require partnerships and the federal government is a vital partner. The support provided through federal assistance helps to reduce project costs through lower borrowing rates and public acceptance.

Today, the West faces challenges to our urban and rural economies that we never envisioned as drought conditions persist with greater frequency and extend for longer periods of time.

The changing hydrological conditions in the West demand a new model to spur on innovation that can lead to sustainable water supplies. OCSD and OCWD are currently in the process of taking on the challenge of finding new ways to develop the last river in the West. We recently completed a U.S. Bureau of Reclamation supported feasibility study to leverage our wastewater supply by reconfiguring and expanding our facilities to reuse nearly 100% of the wastewater generated by the 2.5 million residents of our service area. This final expansion would generate an additional 30 million gallons of water per day for groundwater recharge. When added to our current capacity, the total will be enough to serve a total population of 1.1 million. We are hopeful that the results of this study will position us to move forward with construction as our area continues to suffer the worst drought conditions since rainfall records have been recorded. I would also like to note that water agencies throughout California are currently generating approximately 750,000 acre-feet of water through reuse operations, and are planning for reuse projects that would more than double that total.

We seek to accelerate the development our project, however, the current Title XVI program imposes procedural delays on feasible projects at a time when expeditious project approvals would help us meet the water scarcity challenges that we face. Therefore, like changes in technology that have reformed and restructured the way in which we work, we need to reform and restructure the way in which the federal government supports the clear need for a meaningful partnership to develop water supply projects.

One approach that we believe offers a roadmap to restructure this partnership is the Water Recycling Acceleration Act of 2015 (H.R. 2993). Under H.R. 2993, the old approach of conducting a feasibility study and then requiring project sponsors to secure an authorization for a project deemed feasible would be reformed to accelerate construction of critical water infrastructure. If a project is deemed feasible, it would then be allowed to proceed to actual construction with federal assistance, if selected by the Secretary of the Interior assuming Congress approves the budget for such programs.

Any assistance must be targeted to achieve maximum benefits from federal assistance to reduce the adverse consequences from today's water scarcity impacts. H.R. 2993 would facilitate this objective by establishing a series of criteria that address the challenges of today and thus to allow a project to receive construction assistance.

These criteria include:

- Deliver a reliable water supply
- Protect, restore, and enhance ecosystems
- Improve water resource flexibility
- Regional in nature
- Multiple stakeholders
- Multiple benefits including groundwater management and water quality improvements

Each of these criteria would create an approval process through the U.S. Bureau of Reclamation's Title XVI program. It would enable project sponsors to develop projects that would guarantee multiple benefits to the greatest degree possible. The criteria would also ensure that when a project is selected to proceed to construction, Congress would be assured that the investment of federal resources would enjoy broad support from stakeholders and that the project has regional benefits.

Again, OCSD deeply appreciates the Subcommittee convening today's hearing on this important policy issue and specifically H.R. 2993. OCSD and our sister agency OCWD look forward to working with you to advance H.R. 2993 through the legislative process.