

TESTIMONY OF

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GENERAL MANAGER

ON BEHALF OF THE  
BOARD OF DIRECTORS

ORANGE COUNTY WATER DISTRICT  
FOUNTAIN VALLEY, CALIFORNIA

PRESENTED BEFORE

SUBCOMMITTEE ON WATER, OCEANS, AND WILDLIFE

COMMITTEE ON NATURAL RESOURCES  
U.S. HOUSE OF REPRESENTATIVES  
WASHINGTON, D.C. 20515

**MAY 25, 2021**

Good morning Chairman Huffman, Ranking Member Bentz and members of the subcommittee. It is a pleasure to provide testimony on behalf of Orange County Water District's Board of Directors. The Orange County Water District (OCWD) deeply appreciates the opportunity to submit recommendations on how Congress can support efforts to deliver safe and reliable water supplies that are under increasing stress due to persistent and intense drought conditions.

As background for new members of the subcommittee, OCWD is located in the city of Fountain Valley in Southern California. We manage a very large groundwater basin which provides 77% of the water supply to 13 cities, five retail water districts, and one investor-owned water utility which serve more than 2.5 million people. (They include the cities of Anaheim, Buena Park, Fountain Valley, Fullerton, Garden Grove, Huntington Beach, La Palma, Newport Beach, Orange, Santa Ana, Seal Beach, Tustin, Westminster, East Orange County Water District, Irvine Ranch Water District, Mesa Water District, Serrano Water District, Yorba Linda Water District, and Golden State Water Company.)

OCWD is pleased that the subcommittee is focusing on the western drought and the increased need for water availability solutions. We hope that today's hearing will help inform Congress on how to integrate innovative solutions to the ongoing drought conditions. Drought, competition among municipal, agriculture and ecosystem needs, pollution and other factors impacting water supplies threaten our quality of life and economic prosperity. If we lack a reliable and resilient supply of water, the impacts are dramatic, with reverberations to our local, regional, state, and national economies.

One example of a solution is the Groundwater Replenishment System (GWRS). With our partner, the Orange County Sanitation District, the GWRS was designed and constructed to create a locally controlled source of water that is independent of water imported from the Delta and Colorado River. When we inaugurated this project in 2008, it was revolutionary. The GWRS takes treated wastewater from the Orange County Sanitation District that otherwise would be discharged into the Pacific Ocean. We use a three-step advanced purification process that consists of microfiltration, reverse osmosis, and ultraviolet light with hydrogen peroxide. This purification process produces high-quality water that exceeds state and federal drinking water standards. It protects the groundwater basin from seawater intrusion and overdraft. As a national and international leader in water reuse, it is OCWD's mission to continue to research the purification process to spearhead advancements in water supply solutions that will help meet the challenges of delivering reliable water. A robust partnership with the federal government and the use of traditional and innovative approaches can effectively work to mitigate these challenges. Our innovative GWRS, the world's largest water reuse plant currently produces 100 million gallons of water per day. It is now an option that agencies across the western U.S. and other regions of the country can use to address constrained potable supplies. This is the payoff from the federal assistance through programs like Title XVI, Water Infrastructure for Improvements to the Nation (WIIN), State Revolving Fund (SRF), and Water Infrastructure Finance and Innovation Act (WIFIA).

Today, after an investment by our ratepayers and the state and federal government, through programs like SRF and WIFIA, the operation of the final phase of the GWRS project will deliver more than 130 million gallons of water per day to help drought proof our region and, no less important, reduce demand for imported water supplies. And we can produce this water for \$689 dollars per acre foot compared to Metropolitan Water District of Southern California's fully treated water at \$1,104 per acre foot, a savings of \$415 dollars per acre foot. This subcommittee is to be congratulated for its commitment to such programs.

This is why OCWD supported legislation last Congress like the FUTURE Act that has been reintroduced. We also support the Water Recycling Investment and Improvement Act that we understand is part of the reintroduced FUTURE Act.

We must also leverage investments in our existing technologies and infrastructure. For example, capturing more stormflow through Forecast Informed Reservoir Operations (FIRO), which relies on sophisticated meteorological forecasting, can secure an additional water supply. We are studying FIRO for operation at Prado Dam in Riverside County. In coordination with the Army Corps of Engineers (Corps) and working with Dr. Marty Ralph of the Scripps Institute of Oceanography at UC San Diego, we are developing a predictive model which could be used by the Corps in conjunction with their control manual to allow additional stormwater capture for recharge into our groundwater basin.

OCWD believes that the best defense to the drought is a strong offense of developing new water supplies to serve our constituents. In summary, this should include federal policies and programs that make maximizing new water supplies the number one priority. On our part, OCWD has done the following:

- **Enhanced Stormwater Capture at Prado Dam:** Under the leadership of OCWD President Steve Sheldon, the U.S. Army Corps of Engineers and the Orange County Water District recently entered into a landmark agreement to allow greater storm flow capture behind Prado Dam and restoration of 600 acres of ecosystem. In a typical winter storm, this water would have rushed down the Santa Ana River and been lost to the Pacific Ocean. Now, the Corp and OCWD will coordinate the timed releases during spring and summer so that the stored water flows downstream of the dam in the Santa Ana River and is then diverted into OCWD's groundwater aquifer for recharge. In April 2021, Lt. Gen. Scott Spellmon, the Corps' commanding general and 55th U.S. Army chief of engineers, signed the Chief of Engineer's Report for the Prado Basin Ecosystem Restoration and Water Conservation in partnership with the Orange County Water District. This critical action increases water storage and habitat restoration behind Prado Dam and will create an additional 6,000 to 12,000 acre-feet of water annually that can be stored in the Orange County Groundwater Basin. It is estimated that this project provides Orange County ratepayers with over \$4 million annually in economic benefits. OCWD is proud of our great working

relationship with the Corps and will strive to identify additional, new water supply programs.

- **Groundwater Protection:** The growing challenges from PFAS demand assistance to support water agencies in the effort to cleanup such threats. The costs of cleaning up and monitoring of PFAS contaminated groundwater can overwhelm a water agency's resources. For example, OCWD estimates it will spend \$280 million in capital costs for well head treatment needs based upon State of California standards and this cost may increase as more wells are tested. The total impact to OCWD's service area over the next 30 years solely from the remediation cost of PFAS is approximately \$1 billion. The contamination is not because of the water agency's activities. Congress must provide adequate financial assistance to water agencies and ensure that water agencies are not liable for any contamination impacts to public health or the environment.
- **Desalination:** Today's drought conditions show no signs of abating in the near term. We need to commit resources to advance the sustainable development of coastal and inland desalination projects. Examples including San Diego and Israel clearly demonstrate the benefits that such investments can bring when droughts take hold. OCWD is currently considering investing in a proposed seawater desalination facility in Huntington Beach, California and has executed a term sheet with Poseidon Resources who is developing the project. This is a great example of a possible Public Private Partnership Project. Our Board will have to consider the cost of the project and weigh that against the benefit of reliability and resiliency that such a project would bring. As the existing Carlsbad Desalination Plant has illustrated, there are solutions that can be put in place to protect the ratepayers and the environment. But it requires careful review and approvals for any proposed project and providing for robust research and technology development can help to offset any concerns with such projects. The Huntington Beach desal proposal is one example where the federal government can make a meaningful investment for a reliable, drought proof source of water.
- **Storage:** OCWD's GWRS has helped to provide our region with a reliable supply of water. However, we need to invest in additional surface storage, like SITES Reservoir, to ensure that we have the capability to capture and store water when available. As we address our water reliability, storage is a critical component of our water infrastructure portfolio.
- **Project Assistance:** As Congress develops water infrastructure assistance programs, the funding priority should be for those projects that will deliver cost effective and value driven benefits for communities on a regional basis. In short, we should prioritize the development of water supply projects that are effective in addressing the water needs for the most people given the resources and technology available.

- **Research and Technology Demonstration:** A robust federal grants program of assistance can help to reduce risks associated with the adoption and deployment of innovative technologies that can lead to improved management of water supplies and improved predictive monitoring capabilities of water quality and supply.
- **Natural Systems Improvements:** The ability to rely on natural infrastructure continues to offer sustainable solutions to water scarcity. The opportunity to treat water naturally in wetlands, for example, can enhance ecosystems and reduce conflict between environmental and municipal and industrial (M & I) needs.
- **Traditional Approaches to Funding Infrastructure:** We must have a robust federal program of assistance. SRF, Title XVI, and WIIN provide critical support to our effort to ensure safe and reliable water supply infrastructure.
- **Innovative Financing:** WIFIA provides innovative financing to agencies to develop large water supply projects. America's Water Infrastructure Act requires the Bureau of Reclamation to enter into an agreement with the U.S. Environmental Protection Agency (EPA) to develop a WIFIA like program. This needs to happen. OCWD was one of the original twelve recipients of an EPA WIFIA loan and is relying on this \$135 million loan to build the GWRS Final Expansion. The ability to use federal borrowing authority and provide public agencies with low-cost assistance is crucial.
- **Tax Exempt Financing:** Congress must at all costs preserve the use of tax-exempt financing of our water infrastructure.
- **Education:** A critical component of public acceptance of innovative water solutions is education. Future innovative solutions will depend on our citizens' understanding of the importance of innovation in securing our water future. This was clearly the situation when we successfully constructed GWRS.

Again, OCWD deeply appreciates the opportunity to appear before you today. We look forward to working with you to advance the effective solutions to address the drought and other impacts to our ability to provide a safe and reliable water supply. I would be happy to respond to any questions the subcommittee may have.

## **RECORD OF DECISION**

### **PRADO BASIN ECOSYSTEM RESTORATION AND WATER CONSERVATION STUDY SAN BERNARDINO, RIVERSIDE AND ORANGE COUNTIES, CALIFORNIA**

#### **WATER CONSERVATION RECOMMENDED PLAN**

The Final Integrated Feasibility Report and Environmental Impact Statement (IFR/EIS) dated February 2021, revised April 2021, for the Prado Basin Ecosystem Restoration and Water Conservation Study addresses opportunities and feasibility for ecosystem restoration and water conservation within Prado Basin and along the Santa Ana River downstream of Prado Basin, in San Bernardino, Riverside and Orange Counties, California. Based on this report, the reviews by other federal, state, and local agencies, Tribes, input of the public, and the review by my staff, I find the water conservation plan recommended by the District Engineer to be technically feasible, environmentally justified, cost effective, in accordance with environmental statutes, and in the public interest. The final recommendation for ecosystem restoration will be addressed in the Report of the Chief of Engineers.

The Final IFR/EIS, incorporated herein by reference, evaluated various alternatives for permanent changes to the Water Control Plan for Prado Dam to provide additional water conservation storage. The recommended plan for water conservation is the National Economic Development (NED) Plan and includes:

- Re-operation of Prado Dam to permit surface water elevation up to 505 ft. year-round to increase the effective yield of water from the Santa Ana River for diversion and infiltration at Orange County Water District's facilities located downstream of the dam
- Incidental removal of sediment, estimated to be once every 25 years, by the non-federal interest

In addition to a "no action" plan, three alternatives were evaluated. The alternatives include two plans for water conservation with consideration of sediment management with and without an accompanying plan for ecosystem restoration subject to separate approval: (1) water conservation with small-scale sediment removal, paired with the ecosystem restoration alternative that does not contain a sediment management system; and, (2) water conservation without additional sediment removal, paired with ecosystem restoration alternatives that contain a sediment management system. All plans are presented in detail in Section 3 of the IFR/EIS. Alternative three was identified as the environmentally preferable alternative and the recommended plan.

For all alternatives, the potential effects were evaluated, as appropriate. A summary assessment of the potential effects of the recommended plan are listed in Table 1:

**Table 1: Summary of Potential Effects of Recommended Plan**

	Significant adverse effect*	Insignificant effects due to mitigation**	Insignificant effects	Resource unaffected by action
Earth Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Air Quality and Greenhouse Gases	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Land Use and Recreation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Water Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Biological Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cultural Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Paleontological Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Traffic and Circulation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Noise	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Aesthetics	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Public Health and Safety, Hazardous, Toxic, Radioactive Waste	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Socioeconomics and Environmental Justice	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Utilities	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

All practicable means to avoid or minimize adverse environmental effects were analyzed and incorporated into the recommended plan. Environmental Commitments (ECs) for earth resources, air quality and greenhouse gases, land use, water resources, biological resources, cultural resources, paleontological resources, traffic and circulation, noise, aesthetics, hazards, as detailed in the IFR/EIS (Section 10) will be implemented to minimize impacts.

No compensatory mitigation is required as part of the recommended plan. Any impacts from additional inundation from water conservation operations would be addressed as a sole responsibility of the non-federal sponsor, Orange County Water District.

Public review of the draft IFR/EIS was completed on 27 March 2019. All comments submitted during the public comment period were responded to in Appendix R of the Final IFR/EIS. A 30-day waiting period and state and agency review of the Final IFR/EIS was completed on 29 March 2021.<sup>1</sup> As a result of state and agency review, the final IFR/EIS was revised through an errata sheet to address inconsistencies, outdated or missing language or make minor clarifications.

Pursuant to Section 7 of the Endangered Species Act of 1973, as amended, the U.S. Army Corps of Engineers (USACE) initiated formal consultation with the U.S. Fish and Wildlife Service (USFWS) on February 14, 2020. The USFWS issued a Biological Opinion (Appendix G) on August 17, 2020, concluding the recommended plan will not jeopardize the continued existence of the following federally listed species or adversely modify designated critical habitat: least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), California coastal gnatcatcher (*Polioptila californica californica*) and Santa Ana sucker (*Catostomus santaanae*). All terms and conditions and conservation measures resulting from this consultation will be implemented to minimize take of endangered species and avoid jeopardizing the species.



Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, the USACE and the State Historic Preservation Office in consultation with the Orange County Water District, Pechanga Band of Mission Indians, Rincon Band of Mission Indians, and the Gabrieleno Band of Mission Indians-Kizh Nation, have prepared and executed a Programmatic Agreement (PA) (Appendix I) dated 1 September 2020. The PA provides a process for the identification and evaluation of historic properties and the resolution of potential adverse effects. The USACE anticipates that adverse effects to historic properties can be avoided through implementation of the stipulations contained within the PA.

Pursuant to the Clean Water Act of 1972, as amended, all discharges of dredged or fill material associated with the recommended plan have been found to be compliant with the Section 404(b)(1) Guidelines (40 CFR 230). The Clean Water Act, Section 404(b)(1), Guidelines Evaluation, is found in Appendix B of the IFR/EIS. The non-federal sponsor, Orange County Water District, will obtain Clean Water Act, Section 404 permits as needed for discharges of dredged or fill material for incidental sediment removal for water conservation operations.


A water quality certification pursuant to Section 401 of the Clean Water Act will be obtained from the Santa Ana Regional Water Quality Control Board (SARWQCB) by the Orange County Water District prior to incidental sediment removal for water conservation. In a letter dated 11 June 2020, the SARWQCB stated that the recommended plan appears to meet the requirements of the water quality certification, pending confirmation based on information to be developed during the pre-construction engineering and design phase. All conditions of the water quality certification will be implemented to minimize adverse impacts to water quality. The recommended plan is the least environmentally damaging practicable alternative.

Pursuant to the Fish and Wildlife Coordination Act (16 U.S.C. Section 661 et seq.), the USFWS provided a Coordination Act Report on August 19, 2020. The Coordination Act Report and the responses of USACE to its recommendations are included in Appendix C of the IFR/EIS. All applicable environmental laws have been considered and coordination with appropriate agencies and officials has been completed.

Technical, environmental, economic, and cost effectiveness criteria used in the formulation of alternative plans were those specified in the Water Resources Council's 1983 Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies. All applicable laws, executive orders, regulations, and local government plans were considered in evaluation of alternatives. Based on the review of these evaluations, I find that benefits of the recommended plan outweigh the costs and any adverse effects. This Record of Decision completes the National Environmental Policy Act process.

22 April 2021

Date



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Paul E. Owen, P.E.  
Brigadier General, U.S. Army  
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