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before the
US Senate Committee on Environment and Public Works

"Oversight Hearing on the Environmental Protection Agency's Implementation of the Safe Drinking Water Act's Unregulated Drinking Water Contaminants Program"

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Chairman Boxer, Ranking Member Inhofe, and Members of this Committee, it is an honor to be asked to testify today about West Valley Water District's success in removing perchlorate from groundwater as part of our mission to deliver safe and affordable drinking water to residents of the Rialto-Colton area. I am pleased to be able to share our experience with the Committee because we believe we have been part of the solution.

Before I introduce myself or explain what we've been doing, I would first like to communicate my profound thanks to Senator Boxer. Over the years, you and your staff have been key in helping secure federal funding for our remediation efforts and helping encourage the Environmental Protection Agency and the Department of Defense to aid in the treatment of contaminated water in the region. West Valley Water District's success is very much your success as well. Thank you.

By way of introduction, I have been employed by the District for the past 48 years. I worked my way up through the ranks to the position of General Manager nearly 16 years ago. In 2002, I became the lead member of the Inland Empire Perchlorate Task Force, which is responsible for coordinating the investigation and response to the serious perchlorate water contamination crisis impacting approximately 22 drinking water wells and 500,000 people in the Inland Empire.

Background on WVWD

When the predecessor to West Valley Water District started almost 60 years ago, it served a very rural area and few water customers. Today we serve almost 20,000 homes and businesses, and our service area encompasses more than 29 square miles. Despite the many changes, our staff and Board of Directors have maintained a constant dedication to protect, safeguard, and deliver water to our customers at the lowest, reasonable price. We serve as fiduciaries, for the public trust. We do so not only by sticking to the tried-and-true, but also by looking for new innovations – for example, we recently re-vamped our web site, developed a Facebook page and a started a Twitter feed to help ensure the very best service to our customers.

Perchlorate

The necessity to innovate was presented clearly by our need to remediate the effects of widespread perchlorate pollution, which affects the groundwater aquifers on which the West

Valley Water District, the Cities of Colton and Rialto and the Fontana Water Company rely to provide drinking water to the citizens of the Inland Empire. The source of that pollution is a 160-acre industrial site in northern Rialto that used to be a U.S. Army munitions depot. The State of California has set a limit for perchlorate of six parts per billion, but the plume migrating from this site has led to levels as high as 800 parts per billion. Perchlorate contamination has forced the West Valley Water District and other water providers in the region to shut down or otherwise restrict the use of at least 22 groundwater production wells in the area, representing more than half of the region's water supply. Additional groundwater production wells may need to be shut down in the near future as the pollution continues to migrate.

We have no choice other than to remediate. Groundwater is the main source of drinking water in the region, and the basin's water levels are approaching an historic low. Alternative sources such as the State Water Project are not reliable. The estimated cost of cleaning up the whole problem could be in the hundreds of millions of dollars and take up to 30 years. The necessity for remediation in the region poses a significant burden for ratepayers in one of the most economically disadvantaged regions in the nation.

ESTCP

Facing this crisis, and lacking the vast resources required to solve it, West Valley Water District has looked for innovative solutions. We were extremely fortunate to find the Department of Defense's Environmental Security Technology Certification Program (ESTCP) and its extremely capable executive director, Dr. Jeffrey Marqusee. ESTCP is DoD's environmental technology demonstration and validation program, which promotes innovative technologies. Under the leadership of Dr. Marqusee, the ESTCP program has succeeded in achieving its goal "to identify and demonstrate the most promising innovative and cost-effective technologies and methods that address DoD's high-priority environmental requirements." We work with ESTCP's Environmental Restoration Program, which has been a win-win partnership. The District and our customers benefit through cost-effective clean water, and the data collected helps the ESTCP's goal of advancing science and technology to provide the Department of Defense (DoD) with effective management and restoration of its contaminated assets. Dr. Marqusee has been a problem solver who has helped significantly in moving forward with solutions.

Remediation

The first stage of the District's perchlorate remediation efforts have utilized a technology known as ion exchange. We are currently running 5 ion-exchange systems, one of which is a cutting-edge design that was made possible by the ESTCP. Ion exchange systems work by trapping perchlorate in resin, and our experience has proven them to be safe and reliable.

With encouragement and support from ESTCP and the State of California, we have entered a second stage of remediation by breaking ground on the first bio treatment facility to utilize a naturally occurring biological treatment process to treat contaminated drinking water supplies. Bioremediation allows natural processes to breakdown perchlorate and other harmful chemicals in the water. After this natural process occurs, the water is sent through a traditional water treatment process before it enters the drinking water system. Bioremediation is proven safe and

effective, does not use harmful chemicals, and requires less annual maintenance than other methods.

The system under construction will utilize a fluidized-bed reactor, and we hope to combine it with an additional treatment system which will feature a fixed-bed reactor. Because the two systems will treat water from the same underground source, side by side, our partnership with the ESTCP will provide a unique opportunity to test the effectiveness, sustainability, and costs of each system – a tremendous benefit that will help future clean-up efforts throughout the country. In other words, our project will provide opportunities for the Department of Defense to save significant amounts of money at sites they may have liability for across the country. We're proud to be a part of the solution and to provide a venue for demonstrating this pioneering "green" technology.

I would be remiss if I did not acknowledge that these projects would not have gotten off the ground with out considerable help from others in addition to Senator Boxer and Dr. Marqusee. Senator Feinstein and Congressman Baca have been tremendous allies. The State of California has provided $10 million in grants, and the State Water Resources Control Board has also contributed crucial resources.

Future

It should not surprise you that West Valley Water District is not going to stop working towards the future now that the fluidized bed reactor construction is underway. As I just mentioned, we anticipate that this project will become a component of a much larger undertaking to fully restore the region's groundwater supplies. The District is currently working with the United States Environmental Protection Agency, the State of California and parties responsible for the contamination to develop plans for the final phase of groundwater cleanup. There is a lot of work yet to be done, and we are looking for more innovative solutions – just as we have been doing for the last 60 years.

Summary

The staff and Directors of West Valley Water District are fiduciaries for the public trust, dedicated to serving our 20,000 households clean water through efficient service. We are focused on the future and we're looking for innovative solutions to the challenges that confront us. Although the perchlorate crisis has presented a significant challenge in our region, we are working tirelessly to be part of the solution, not only for our ratepayers, but also – thanks to the ESTCP – for everyone else who is or may be affected by perchlorate in the future. With the help of our elected representatives including Senator Boxer, we are providing new technologies that can remove perchlorate safely and cost efficiently. This is a win-win collaboration for West Valley Water District, our customers, the DoD, and all Americans who rely on the delivery of clean, safe and affordable drinking water.
Thank you.