Rosemary Kamei
Board Member
Santa Clara Valley Water District

Testimony
Before the Subcommittee on Water and Power
Committee on Resources
United States House of Representatives

Hearing on
H.R. 4459 Llagas Reclamation Groundwater Remediation Initiative

June 23, 2004

Testimony of Rosemary Kamei
Board Member
Santa Clara Valley Water District
Before the
Subcommittee on Water and Power
Committee on Resources
United States House of Representatives
Regarding
H.R. 4459 Llagas Reclamation Groundwater Remediation Initiative

Good afternoon, Mr. Chairman, members of the Subcommittee and staff. My name is Rosemary Kamei and I am a member of the Board of Directors of the Santa Clara Valley Water District. Specifically, I represent the southern portion of Santa Clara County, which has been hard-hit by perchlorate contamination in groundwater. I want to thank you for holding this hearing on H.R. 4459 the Llagas Reclamation Groundwater Remediation Initiative, to authorize the Secretary of the Interior to participate in the funding and implementation of a balanced, long-term remediation program for California, and thank Chairman Pombo, in particular, for his aggressive efforts in allowing water districts to move towards community-driven solutions.

The Santa Clara Valley Water District is the comprehensive water resources management agency for Santa Clara County in California. The Water District was originally formed in 1929 to respond to water supply problems. Increased agricultural development in what was known as “the valley of hearts delight” was stressing groundwater resources and causing land subsidence. The District was formed to conserve water behind reservoirs for later release for groundwater recharge and water supply. Since the District was formed in 1929, the District has added flood protection and stream stewardship to our mission. However, our core business continues to include water supply and groundwater basin management. Nearly 50 percent of the county’s annual water demand is provided by the groundwater basin. The District’s integrated water resources planning efforts have found that protecting and sustaining our local groundwater supplies is one of the key efforts necessary to meet water supply needs for this county of 1.7 million residents.

The approximately 90,000 residents of the Llagas Groundwater Subbasin rely solely on groundwater for their drinking water supply. Perchlorate has been detected in more than 800 supply wells in the Llagas Groundwater Subbasin, in an area of over 20 square miles. The perchlorate concentration in more than 200 wells exceeds the California Public Health Goal of 6 micrograms per liter. Bottled water is being provided to approximately 800 households. Thousands of other residents are receiving treated groundwater from the City of Morgan Hill, the West San Martin Water Works, or San Martin County Water District. While a lot work has been done on this contamination case, significant unknowns remain and many of the necessary remediation efforts, including containment of the 10.5 mile long perchlorate plume, have not yet been started.

Olin Corporation owned and, along with Standard Fusee, operated a flare manufacturing facility on Tennant Avenue in Morgan Hill from 1956 to 1996. During that time, waste water containing perchlorate was discharged to evaporation ponds on the site. This allowed perchlorate to enter the subsurface and contaminate groundwater. The District's first action on this case was in Spring 2002. When we learned that perchlorate had been detected in a public water supply well across the street from the Olin facility, we recommended that private wells south of the Olin facility be tested. Unlike public water supply wells, private wells are not subject to monitoring requirements. Olin performed the testing within a mile of the facility and detected contamination in several wells. In the fall of 2002, the District conducted regular groundwater monitoring to assess basinwide groundwater conditions and detected perchlorate approximately 4.5 miles south of the Olin site. The District stepped up its actions when it received those monitoring results in January 2003.

On January 16, 2003, the District held a media conference in cooperation with the Santa Clara County Public Health Officer, the Regional Water Quality Control Board, and the City of Morgan Hill. At that time, we announced that we were offering free well water testing and bottled water to residents in the affected area as a precautionary measure. In the weeks following that announcement, District staff fielded thousands of calls, collected more than 1,000 water quality samples from more than 900 wells, and initiated bottled water service to more than 1,200 households. The District also held two public meetings to respond to community concerns, prepared and distributed fact sheets and maps, analyzed water supply alternatives, and developed a comprehensive web page on perchlorate. Approximately 800 people attended the first community meeting and about 450 people attended the second community meeting. District staff continues to receive dozens of inquiries from the public every week. The level of community interest and participation in this issue is unprecedented.

The District has spent more than $2,000,000 addressing the perchlorate issue to date. In addition, the City of Morgan Hill has incurred costs for wellhead treatment and the City of Gilroy has incurred costs for contingency planning. The County of Santa Clara has incurred costs related to analyzing health data and communicating health risks to the community. Residents in the affected area have devoted their own time and resources toward finding solutions. The entire community has been affected and we are all working together to find solutions.

The District is continuing to work with the rest of the community, including the cities of Morgan Hill and Gilroy, County of Santa Clara, Central Coast Regional Water Quality Control Board, the Perchlorate Community Advisory Group, and legislators on several efforts, including:

• Supporting research on effective technologies for removing perchlorate at the wellhead,
• Continued groundwater monitoring of perchlorate, other water quality parameters, and water levels,
• Obtaining federal funding to find and implement solutions to the perchlorate contamination,
• Web site posting of perchlorate information, updates, and technical reports,
• Analyzing and commenting on technical report submittals from Olin Corp. to the Regional Water Quality Control Board,
• Identifying appropriate technical actions necessary to fully address the perchlorate problem,
• Providing technical and administrative support to the Regional Board and the Perchlorate Community Advisory Group, and
• Seeking legislation to improve the Regional Board's and the district's ability to meet the community's expectations.

Our goal in these efforts is to ensure that the community's needs for water supply and groundwater cleanup are addressed quickly and at minimal local cost. At this time we have several concerns related to the Olin/Standard Fusee perchlorate contamination case. Most of the concerns are related to the extent of Olin's efforts to begin long-term water supply and groundwater cleanup. Olin has taken over groundwater sampling and has been collecting hundreds of samples per quarter. Olin has also taken over most bottled water deliveries and has installed wellhead treatment for perchlorate removal on two community water systems that serve approximately 450 households and businesses. Olin has also implemented groundwater cleanup at their former manufacturing facility. Nonetheless, long-term solutions to address the 10.5 mile long plume remain elusive.

We believe our community has the right to have our groundwater restored to the condition it was in before it was polluted and that cleanup should begin now before the plume affects any more areas. This is consistent with California State Water Resources Control Board policy, which provides direction that high quality water should be maintained and that contamination should be cleaned up to the highest water quality that is

consistent with the maximum benefit to the people of the state. Over 20 square miles of the Llagas Groundwater Subbasin have been contaminated with perchlorate. It is extremely important that a comprehensive groundwater cleanup effort begin immediately to prevent the further spread of contamination and protect drinking water supplies.

Well water users need solutions now. Perchlorate removal systems have been installed for some public water suppliers, but most affected well water users are still relying on bottled water for their drinking water. Alternative water supplies are not being provided for non-drinking water uses such as animal watering. A better, long-term solution needs to be developed and implemented. Olin has performed a preliminary alternative water supply evaluation, but they propose waiting until there is a drinking water standard to begin implementing drinking water solutions. Instead, work needs to begin now to develop and demonstrate additional treatment technologies for private well owners. Interim actions could also include point-of-use reverse osmosis treatment as an alternative to bottled water, since reverse osmosis has now been certified for perchlorate removal.

Water supply reliability is a significant issue for public water suppliers. The City of Morgan Hill had four wells off-line last summer due to perchlorate concerns. The City will be challenged to meet its water demands this summer without getting additional supply or using their Tennant Avenue well across the street from the Olin facility. Morgan Hill, with assistance from the Santa Clara Valley Water District, installed a treatment system on the Tennant Avenue well, but Olin opposes the City's operation of the well. The City of Gilroy, which is at the southern end of the plume, is responding to the threat to their wells with contingency planning.

There needs to be more work done to understand where the perchlorate contamination is and where it is going. Well testing has been going on for almost two years. Yet, the full extent of the perchlorate plume, how deep it is, and how fast it is moving are still undefined. These questions need to be answered in order to develop a long-term remediation strategy.

We have ongoing concerns about the complete reliance on private water supply wells for the groundwater monitoring network. Olin has not yet installed any wells that monitor individual aquifers away from the Tennant Avenue site. Instead they rely on private water supply wells that are typically screened across multiple water zones and are difficult to use to determine where and how perchlorate is moving in the subsurface. This information is necessary to develop and evaluate the long-term cleanup alternatives.

We also have concerns with efforts to characterize groundwater conditions northeast of the Tennant Avenue site. Olin proposes to analyze the conditions using groundwater modeling. We believe wells need to be installed and monitored to verify and calibrate those models. This is an important issue because perchlorate has been detected northeast of the Tennant Avenue site, but solutions for that area will be postponed until the area has been better characterized. This is off particular concern to the City of Morgan Hill, which has two wells northeast of the Olin site offline due to perchlorate contamination and is faced with high summer demands. The city has installed treatment on a third well at its own cost.

There are gaps in the location of monitoring points on the eastern side of the City of Gilroy, in the vicinity of four of the City's eight water supply wells. There are few existing wells available for testing and, for two of the supply wells, the nearest known well tested positive for perchlorate. Additional characterization by the installation of depth-specific monitoring wells in the Gilroy area and throughout the plume will determine the extent, magnitude, and rate of plume migration in all three dimensions.

The community, through the Perchlorate Community Advisory Group, has also requested a comprehensive health risk analysis to study short-term and long-term perchlorate effects on humans and animals. As stated above, the community relies solely on the groundwater basin for its drinking water supply. It is frightening to people to know that their families are drinking water that has been contaminated. They need assurance that their water supply is safe.

The community has also requested a comprehensive health-risk assessment to determine the significance of perchlorate residues in agricultural crops and agricultural irrigation water. There is need for nationwide research on uptake and accumulation of perchlorate by crop plants, including the development and validation of reliable testing methodologies for various food crops. Growers also need research to identify appropriate remediation technologies or mitigation measures used when residues are found in agricultural wells. There also needs to be public education and outreach efforts for residents, consumers, and regulatory officials, so that informed decisions are made regarding perchlorate residues in crops.

The community needs a comprehensive plan to clean up perchlorate from the groundwater basin and to safeguard its water supply. The plan must answer all the outstanding questions and provide definite timelines for completing different elements of the solution. This includes full definition of the plume and how it is moving, water supply alternatives that address all beneficial uses, and containment and remediation of the contamination plume. The existence and continued spread of the plume presents a real and substantial threat to the ability of the two largest water systems in the area, the Cities of Gilroy and Morgan Hill, to meet water demands. Private well owners are still waiting for solutions.

In summary, local residents, the District, and other local agencies are working together on the perchlorate issue. We have a variety of needs and interests related to perchlorate that are not currently being met. These include:

? Immediate design and implementation of groundwater cleanup solutions to restore water quality and prevent additional plume movement,
? Development, testing, and installation of private well treatment technologies,
? Assisting public water suppliers in meeting water demands,
? Full characterization of where the contamination is, where it is going, and how fast it is moving,
? Health risk assessments, and
? Timely implementation of a comprehensive plan to ensure groundwater cleanup and a safe water supply.

The District has been working diligently to respond to community needs and make the District and community whole with regard to costs. We want to thank Chairman Pombo for recognizing our groundwater crisis and proactively developing an approach to address the immediate community need. HR 4459 establishes program that can address the community's perchlorate needs and interests. The $25 million specified in the bill provides a means of implementing overdue solutions for the community. The District, assuming it takes advantage of this fund, would pursue the remediation approaches the community wants and needs, then later separately seek to recover its local costs from the parties responsible for the contamination, consistent with our current approach. It needs to be clear that the intent of the bill is not to fund responsible party duties to remediate contamination. Rather, it provides a means for local agencies to implement timely, necessary solutions to protect the community.

HR 4459 is currently broad in the definition of work that can be performed under the bill. We support this approach and believe it is important that the definition remain broad. In addition, the implementation of the bill needs to preserve a broad authority for implementing remedial actions. The District has been fortunate to receive Congressional appropriations for perchlorate groundwater remediation and cleanup. However, the implementing regulations have strict, but justified limitations on the use of the funding. Consequently, we are unable to use the grant funding to move many projects of interest to the community forward. Examples of the types of projects that we are unable to move forward under the current appropriations are installation of point of use treatment and implementation of remedial actions. To take full advantage of HR 4459, and provide for solutions the community is asking for, we will need the authorized work under the bill to remain rather broad.

Mr. Chairman, the Santa Clara Valley Water District takes its role as groundwater basin manager and water supplier very seriously. Perchlorate has seriously impacted our local groundwater resources. The District, the community, and all the local agencies are looking for solutions that can be implemented now. We need the plume to be fully characterized. We need ongoing monitoring that tells us if and where the plume is changing. We need the plume to be contained and, ultimately, cleaned up. We need water supply alternatives that address all the uses of local groundwater. This legislation, based on Chairman Pombo's concern for improving the quality of life in our area, now provides significant support and hope for our area and we thank Chairman Pombo for his tremendous efforts. The District remains committed to ensuring those groundwater needs are met quickly and at minimal local cost. HR 4459 can be the tool that enables us to achieve that goal, and we heartily support the legislation.

Thank you, Mr. Chairman, for your time and consideration and I stand ready to answer any questions you may have.