



THE STATE BAR OF CALIFORNIA

Environmental Law Section

How Blue is Your Valley? Your Voice, Your Future: A Community Conference on Water in the San Joaquin Valley

The Human Right to Water: Providing Safe Drinking Water for Disadvantaged Communities

Friday, April 24, 2015
1:45 p.m.-3:15 p.m.

Moderator: Mark Keppler
Panelists: Laurel Firestone, Dee Dee D'Adamo and William Thomas Jr.

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The Tulare Lake Basin Disadvantaged Community Water Study

In 2008, the Legislature directed the California Department of Water Resources to grant \$2 million to the County of Tulare to develop a plan for regional water and wastewater solutions for disadvantaged communities in the Tulare Lake Basin, including areas in Fresno, Kern, Kings and Tulare Counties. The resulting *Tulare Lake Basin Disadvantaged Community Water Study* was completed in August 2014. Informed by an extensive stakeholder participation process the Study developed an integrated water quality and wastewater treatment program plan to address the priority issues identified in the Basin including specific recommendations for achieving sustainable community water solutions.

DAC Database: The TLB Study developed a database of all Disadvantaged Communities (DACs) in the Tulare Lake Basin. Of the 530 unincorporated communities identified, 353 (67%) are disadvantaged or severely disadvantaged.¹ The database was then reviewed to evaluate the water quality and supply source issues as well as wastewater treatment and disposal issues within the Study Area. Of the 353 DACs, only 56% had water quality data available, and of those, 45% were considered to have a water quality issue. Approximately 27% of the communities rely on a single water source leaving them especially vulnerable to drought and other water supply challenges, as well as changes in water quality. A total of 62 communities, or 18%, have an unknown water source. Of the 38 DAC communities that have their own wastewater treatment facility, 66% had discharge violations. As a critical resource for regional planning, the Study recommends that the database continue to be maintained and updated by the County of Tulare.

Stakeholder process: A Stakeholder Oversight Advisory Committee was selected from a pool of applicants and included a member of each County Board of Supervisors, and both a local drinking water board member and a resident from a disadvantaged community in each of the four counties of the Tulare Lake Basin. The Committee also included non-voting members from federal and state funding agencies, local IRWM groups, and technical assistance providers and local non-profits. This Committee and additional stakeholder participation with each pilot were central drivers throughout all stages of the Study, consulting with the project team on everything from the identification of priority issues to the development of pilot studies and recommendations.

Priority issues identified: In consultation with the Stakeholder Oversight Advisory Committee, the project team used the database to identify common problems facing DACs in the Tulare Lake Basin and subsequently narrowed these down to five priority issues:

1. Lack of funding to offset increasingly expensive operations and maintenance costs in large part to lack of economies of scale;
2. Lack of technical, managerial and financial (TMF) capacity by water and wastewater providers;
3. Poor water quality;
4. Inadequate or unaffordable funding or funding constraints to make improvements; and
5. Lack of informed, empowered, or engaged residents.

Pilot studies: Based on the priority issues, four pilot studies were selected to address the following:

1. Management and non-infrastructure solutions to reduce costs and improve efficiency;
2. Technical solutions to improve efficiency and reduce operation and maintenance;
3. New source development; and
4. Individual household solutions.

¹ A disadvantaged community (DAC) is a community whose median household income is 80 percent or less of the statewide median household income (\$48,706 or less). A severely disadvantaged community (SDACs) is a community whose median household income is 60 percent or less of the statewide median household income (\$36,530 or less).

In consultation with the individual Project Stakeholder Advisory Groups, each project team considered solution alternatives, funding opportunities, barriers or obstacles to implementation of the proposed solutions, ways to eliminate those barriers and key steps to ensure the long-term sustainability of the implemented solutions.

Recommendations: Ultimately the Study proposes 59 specific recommendations for planning, infrastructure and other management actions at various levels to:

- Improve local technical, managerial and financial capacity;
- Improve operation and maintenance funding;
- Improve water supply quality and reliability;
- improve funding for disadvantaged communities;
- improve disadvantaged community awareness and participation;
- Improve land use planning to minimize creation of new water/wastewater issues; and
- Develop and maintain information on DAC water/wastewater needs.

Study successes:

- The TLB DAC study was compiled and made publically available (<http://tularelakebasin.com/alliance/index.cfm/final-report/>).
- A database of DACs within the Tulare Lake Basin and their water and wastewater challengers was compiled (<http://tularelakebasin.com/alliance/index.cfm/water-system-search/>).
- Interest and awareness of water and wastewater issues in the Tulare Lake Basin was expanded through outreach to more than 1100 local DAC water stakeholders from communities and water boards in all four counties.
- A roadmap or set of decision tress was developed to guide communities and funding agencies through the critical steps to selecting an appropriate alternative (<http://tularelakebasin.com/alliance/index.cfm/pilot-projects/>).
- Recommendations for local service providers, regulatory and funding agencies, as well as the legislature were developed to overcome obstacles and barriers (<http://tularelakebasin.com/alliance/index.cfm/final-report/final-report-appendix-n-recommendations-pdf/>).

Next steps: The Tulare Lake Basin Study is an important first step in developing sustainable community-driven solutions for the region. However, much more work is needed at the state, regional and local levels to follow through on the recommendations presented in the Study.

In particular, the Stakeholder Oversight Advisory Committee identified six priorities for implementation:

- 1) Continue to convene the DAC focused stakeholder group to track implementation and progress;
- 2) Establish local DAC coordinator(s) for the Tulare Lake Basin to support outreach, data coordination, funding assistance, and the integration of DACs into planning and funding processes;
- 3) Invest in DAC outreach and engagement;
- 4) Actively fund, facilitate and incentivize collaborative solutions;
- 5) Actively pursue a policy of “non-proliferation” by providing strong incentives and controls though land use planning and permitting decisions; and
- 6) Incentivize and reduce barriers to innovative approaches that reduce O&M costs.

Of the 59 recommendations included in the Study, the following consider potential actions by the legislature:

- Support the evaluation and development of a regional entity or entities to provide regional operations, management, or other services for DACs;
- Consider establishing a transitional funding program to assist with O&M costs on a temporary basis;
- Require and actively support investment in bringing existing systems into compliance and developing long-term sustainable/affordable solutions before allowing growth. In areas where there is no existing water system infrastructure available, building permits should only be issued if adequate supply and quality is confirmed;
- Require disclosure to the buyer of water quality on sale of property. Any contaminants exceeding primary drinking water quality standards should be disclosed upon sale of a property.



Funding To Support the Human Right to Water

Many small, low-income communities have had to bear extreme and acute impacts due to increasing water scarcity and groundwater contamination long before the Governor's Drought Declaration in March of 2014. For years, disadvantaged communities (DACs) particularly in the San Joaquin and Salinas Valleys have lacked safe, clean, accessible, affordable and reliable drinking water. Many barriers have slowed or stalled DAC access to the financial and technical resources necessary to address their water issues, leaving DACs across the state without what California has declared is a basic human right.¹ Now, heading into the fourth year of a drought that appears to be increasing in intensity,² DACs are on the front line, feeling the impacts of increased drinking water contamination and well failures most acutely and having the least ability to adapt and mitigate these conditions.

Proposition 1 and state drought funding plays a vital role in addressing the needs of the most vulnerable communities, primarily small, rural areas that are disadvantaged, or severely disadvantaged. Funding should be targeted in order to systematically reduce the number of non-compliant public water systems and impacted communities that lack a centralized water system. Appropriations this year should focus on developing regional tools and programs and funding projects that address matters related to lack of both economies of scale and technical, managerial and financial (TMF) capacity. Additionally, more emergency and interim funding is needed to ensure all Californians have access to safe and affordable water as long-term solutions are pursued.

Appropriations Recommendations

Prioritize the Most Vulnerable Communities: Even though \$32 billion in water bonds have been approved since 2000, less than 2% of that total has funded small community drinking water or wastewater projects.³ Legislative appropriations (particularly Chapters 5, 7, and 8 of Proposition 1) should protect the interests of the most vulnerable communities, especially those that lack safe drinking water. A particular focus should be to prioritize severely disadvantaged communities (SDACs) with small water systems under 200, extremely small systems (fewer than 15 connections), and those on private wells, and help them transition or consolidate into larger or regional operational entities that can be more resilient, affordable and sustainable. In addition, renewed emergency and interim solutions funding is needed for those communities without safe or adequate water sources to ensure immediate needs can be met while a more permanent, sustainable solution is pursued.

Do Not Prioritize "Shovel Ready" Projects Over DACs Projects: Implementation of previous bonds prioritized shovel ready projects, which meant that nearly all money went to larger water systems that had the internal funding sources to do planning and design, and limited the ability of the most disadvantaged communities to access those funding programs. Proposition 84's appropriation bills limited certain key sections to only "immediate" projects, making those funds inaccessible to most DACs that needed some planning or design work. It is crucial that we do not limit Proposition 1 in the same way.

¹ Governor Brown signed AB685 (2012) declaring that, "every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes." California Water Code Section 106.3(A).

² <http://www.latimes.com/local/lanow/la-me-ln-california-drought-monitor-report-20150205-story.html>

³ <http://www.ppica.org/main/testimony.asp?i=1331>

Prioritize Funding of Multidisciplinary Technical Assistance for DACs: Broad-based technical assistance (project development, community engagement, grant writing, project management, engineering, legal, environmental review, as well as technical, managerial, and financial training and assistance) are needed to ensure that DAC solutions are funded and able to achieve the best outcome for the communities that they are meant to serve. Previous bonds did not include targeted technical assistance. Proposition 1 allocated \$25 million in Chapter 5 for DAC technical assistance. This funding must be used early and targeted effectively to develop community-driven solutions that are reliable, affordable and sustainable for the communities that need it most.

Funding Consolidations: Consolidation of small systems is not sufficiently promoted, despite language in the 1996 Safe Drinking Water Act promoting this solution. Out of a total of 7500 regulated drinking water systems (3000 of them community water systems), in the last 20 years, the Drinking Water Program has only completed 145 consolidations. This results in less efficient and effective use of taxpayer funds, and often unaffordable water rates for small communities forced to pay higher costs for treatment, distribution and other expenses related to the provision of safe drinking water. State funding is key to promote consolidations more aggressively, cover the transactional and planning costs of consolidations, and ensure that larger systems are willing and able to annex in or extend services to existing DACs without adequate water or wastewater services.

Funding of O&M Costs for DACs

Emergency and interim solutions for communities with no water or contaminated water require funding sources that can cover operations and maintenance costs. Additionally, in those cases where groundwater contamination requires water treatment, it is not uncommon for small DACs to struggle to pay household rates of \$100+ per month for water alone. It is vital that funding be made available for operations and maintenance for DACs for both interim and emergency solutions, and to cover the costs of contaminant treatment and help transition to a more permanent solution that is affordable. While Proposition 1 allows for up to two years of O&M, it is important that the California develop alternative funding sources that can cover these kinds of costs. Important sources include drought funding through the General Fund and continued use of the Clean Up and Abatement Account at the State Water Resources Control Board. But it is important that the legislature also push for enacting more sustainable funding sources such as a “Fertilizer Fee,” “Water Discharger Fee,” or a “Public Goods Charge on Water” throughout the state to ensure that a basic amount of water can be affordable for all.

Ensure All Disadvantaged & Vulnerable Communities Are Eligible:

Eligibility is often a problem for very small communities to access funding through the State Revolving Fund (SRF) since only water systems with 15 connections or more are currently eligible for funding. That leaves up to 2 million Californians that get drinking water from private wells or small systems with fewer than 15 connections unable to access the primary state and federal funding source. Appropriations of Chapter 5 of Proposition 1 should ensure that eligibility allows for investment of sustainable solutions for all DACs without safe and reliable water, including those communities without existing centralized systems over 15 connections.

Create a Small DAC Office at the State Water Board: Small communities with water contamination or poor infrastructure pay higher unit costs due to economies of scale, and generally do not have skilled staff to assist with planning, engineering or fundraising needs. By contrast, larger water and wastewater systems that serve a majority of Californians can fund their capital, operations, and maintenance needs from a large customer base. The State Water Board keeps a list of 183 small communities (“Small Systems List”) that are unable to supply safe drinking water on an on-going basis. These systems are located in nearly every county of California, with a majority in the San Joaquin Valley. Recent reports from State Water Board imply that this list will increase in number, possibly by the hundreds, when more complete analysis of impacted systems are included as well as communities not meeting the Hexavalent Chromium standards. A more targeted and systematic approach addressing this growing and unmet demand is needed. Appropriations should be made to create an office within the State Water Board to provide technical assistance and to promote regional solutions for DACs.

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California's Drinking Water Crisis

- **Each year, over a million Californians are exposed to unsafe drinking water from the taps in their homes and schools.**
 - In 2012, **1,265,883 Californians** were served by public drinking water systems that did not meet Safe Drinking Water Act standards of safety.ⁱ
 - This number significantly **underestimates** the total number of Californians without safe drinking water due to insufficient regulation and under-reporting.^{ii,iii}
- **Unsafe tap water can be found in virtually every county of the state, but areas like the San Joaquin Valley are disproportionately impacted.**
 - The top 20 worst census tracts in California in terms of exposure to toxics in drinking water were located in **Sonoma, Kern, Kings, Sacramento, Stanislaus, San Bernardino, and Tulare Counties.**^{iv,vvi}
- **The problem is chronic in many areas, meaning some communities lack access to safe drinking water for a decade or more.**
 - The SWRCB maintains a list of **384 small publicly regulated water systems** that have been unable to supply safe drinking water to their communities for several years or even decades.^{vii}
- **Schools throughout California have been impacted by unsafe drinking water at the tap, and many schools face recurring challenges to providing safe water.**
 - Our preliminary analysis suggests an estimated 1,000 California public schools were impacted by unsafe drinking water from 2005-2012, meaning they received or were associated with at least one Maximum Contaminant Level (MCL) violation.^{viii} The SWRCB maintains a list of 60 schools and day cares on their own water systems that have been impacted by unsafe drinking water for several years.
- **Water systems serving predominately Latino and low-income communities have disproportionately high occurrences of arsenic and nitrate contamination.**^{ix}
- **Groundwater contamination impacts the safety and cost of drinking water for millions of Californians.**
 - **21 million Californians**, or 680 communities, drink water from contaminated groundwater sources.^x 4.1 million people, or 508 communities, are 100% reliant on contaminated groundwater as their source of drinking water.
 - Contamination results either in lack of access to drinking water or significant costs that can make water unaffordable for low-income residents.^{xi}

Community-driven water solutions through organizing, education, and advocacy

ENDNOTES & CITATIONS

ⁱ Based on the (most recent publicly available) 2012 Annual Compliance Report from the California Department of Public Health's Drinking Water Program http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/dwdocuments/2012/2012acr.pdf

ⁱⁱ Contaminant hexavalent chromium was not regulated in California until 2014 and 1,2,3, TCP is not yet regulated. Both contaminants affect the drinking water of tens of millions of Californians. More information is available at <http://www.cdph.ca.gov/services/DPOPP/regs/Documents/DPH-11-005HexavalentChromiumMCL.aspx> and <http://www.cdph.ca.gov/services/DPOPP/regs/Documents/DPH-11-005HCMCLISOR.pdf> and at <http://www.cdph.ca.gov/certlic/drinkingwater/Pages/123TCP.aspx>

ⁱⁱⁱ Preliminary data analysis of CDPH's drinking water monitoring data indicates that under-reporting is likely a significant problem, but the exact magnitude of the population affected is unknown and is almost entirely limited to systems between 15-200 connections.

^{iv} Based on data reported at <http://oehha.ca.gov/ei/ces2.html>

^v <http://www.cdph.ca.gov/certlic/drinkingwater/Documents/SWS/2013/Map%20of%20Program%20Plan%20Systems.pdf>

^{vi} See *Draft California Communities Environmental Health Screening Tool, Version 2.0 (CalEnvirScreen 2.0)*, pg. 35:

<http://oehha.ca.gov/ei/pdf/CES20PublicReview04212014.pdf>

^{vii} This list only includes communities with under 1000 connections. It does not include schools or other non-community systems.

^{viii} This estimate is from a preliminary analysis conducted by the Environmental Justice Coalition for Water, Carolina Balazs, and CWC, investigating California public schools impacted by unsafe drinking water at the tap. More details are available upon request.

^{ix} See peer reviewed publications by Carolina Balazs, available at

http://d3n8a8pro7vhmx.cloudfront.net/communitywatercenter/pages/52/attachments/original/1394397743/Balazs_Social-Disparities-in-Nitrate-Contaminated-Drinking-Water_2011.pdf?1394397743 and

http://d3n8a8pro7vhmx.cloudfront.net/communitywatercenter/pages/52/attachments/original/1394398105/Balazsetal_Arsenic.pdf?1394398105

^x http://www.swrcb.ca.gov/press_room/press_releases/2013/pr020413.pdf http://www.swrcb.ca.gov/water_issues/programs/gama/ab2222/docs/ab2222.pdf

^{xi} See http://d3n8a8pro7vhmx.cloudfront.net/communitywatercenter/pages/52/attachments/original/1394397615/PaInst_Human-Costs-of-Nitrate_2011.pdf?1394397615 and <http://d3n8a8pro7vhmx.cloudfront.net/communitywatercenter/pages/52/attachments/original/1394397950/assessing-water-affordability.pdf?1394397950>

Community-driven water solutions through organizing, education, and advocacy

Affordable, Safe Drinking Water for Disadvantaged Communities

Problem Statement:

All Californians have a right to safe, clean, affordable and accessible water adequate for human consumption, cooking, and sanitary purposes. Disadvantaged communities, in particular, often struggle to provide an adequate supply of safe, affordable drinking water. The reasons for this are numerous: changes in drinking water quality standards, pollution, aging infrastructure, lack of funding for basic infrastructure, lack of funding for ongoing operation and maintenance, and unreliable supplies resulting in service interruptions are among the most common. (From California Water Action Plan, 2014)

- Even though California established a Human Right to Water in 2012, an estimated 500¹ public water systems² in disadvantaged communities rely on sources of drinking water that fall short of state and federal safe drinking water standards.
- Many low-income residents of these communities, both urban and rural, already pay high rates for the tap water they receive.
- Small³ public water systems in disadvantaged communities often lack the technical, managerial and financial (TMF) capacity to sustainably provide drinking water that meets safe drinking water standards at affordable rates.
- While loans and grants are available from various funding sources including the 2014 Water Bond to cover the capital costs of new infrastructure, there are no funds available to cover operations and maintenance (O&M) costs of these systems other than ratepayer contributions that are unaffordable for the customers; a community that cannot sustainably cover its own O&M costs is not likely to be eligible for existing financial assistance for capital costs.
- Fulfilling the Human Right to Water in California will remain unattainable in these communities unless the State together with locals can add tools and an innovative approach towards achieving affordable, safe drinking water.

Conceptual Proposal

“The Administration will work with local governments, communities and dischargers on strategies to bring these systems into compliance, including governance, technical assistance, capital improvements, and ongoing operations and maintenance costs.” (From the Governor’s Budget, 2015)

¹ Count has been rounded up (to 500) to account for expected future Cr VI violations as initial monitoring continues.

² Note that the proposal discussed in this issue paper only addresses public water systems and does not include domestic wells or systems under 15 service connections, except schools and day care centers (due to their vulnerable consumers). Over the long term, as stated in the draft Safe Drinking Water Plan, the State Water Board is committed to actively pursuing initiatives to address the Human Right to Water, beginning with the state’s residents who are served by public water systems but who do not receive safe drinking water.

³ Less than 3300 service connections (population of 10,000).

The Administration proposes to:

- First, seek to maintain existing systems whenever feasible and effective in providing safe drinking water. In these cases, the Administration would:
 - Move unsustainable systems to sustainability through technical and financial assistance including funding for capital infrastructure needed to connect or improve system(s); and
 - Incentivize or require consolidation (physical or managerial) of systems that are not independently sustainable; this would likely entail providing liability relief to the receiving system.
- Second, where maintaining existing systems or consolidation cannot feasibly and effectively provide safe drinking water, provide assistance that would ensure delivery of affordable, safe drinking water through resources contracted by the State. Contracted entities could be non-profit organizations, counties, investor-owned utilities, regional "shared solution" entities, or others. Specifically, the proposal would:
 - Provide funding for capital infrastructure needed to improve systems;
 - Provide funding (maximum duration ten years), through the contracted resources, for O&M costs in a manner that prevents fraud, waste, and abuse;
 - Provide funding (maximum duration ten years), through the contracted resources, that guarantees affordable rates.
- Continually, apply existing rules that require any new community public water system to have adequate TMF capacity and at least two drinking water sources to ensure that new systems will be sustainable in the long run.

Strategies

- Focus on systems whose drinking water does not meet standards, specifically:
 - Small, disadvantaged communities that lack TMF capacity to sustainably address drinking water contamination.
 - Public water systems, which fall under the state's regulatory mandate; and
 - Systems serving residences (community systems), schools, and day care centers, since these serve the most vulnerable populations.
- Prevent potential for fraud, waste, and abuse.
- Ensure supported systems are on a path towards long-term sustainability.
- Where drinking water contamination is not naturally-occurring, use fees and/or enforcement actions to require responsible parties to contribute an appropriate share of the cost of providing safe drinking water.
- Ensure local land use planning and decisions prevent creation of future unsustainable drinking water systems.
- Use a step-wise strategy that (1) maintains existing systems or consolidates systems where feasible and effective in providing safe drinking water; or if not feasible and effective, (2) uses contracted resources to address problem and ensure delivery of affordable, safe drinking water.
- Provide transparency and accountability. Regional oversight boards that include local government and environmental justice representatives could be created to provide accountability.



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**CALIFORNIA STATE BAR ENVIRONMENTAL LAW SECTION
COMMUNITY CONFERENCE ON WATER IN THE SAN JOAQUIN VALLEY**

Human Right to Drinking Water Panel, April 24, 2015

Presented by William J. Thomas

1. BACKGROUND

For more than a decade I have represented the Southern San Joaquin Valley Water Quality Coalition that covers the geographical footprint of the areas draining to and serviced by the Kings, Kaweah, Tule, St. John's, and Kern Rivers. This covers in excess of 5 million irrigated acres from Fresno, south to the top of the Tehachapis, including the Tulare lakebed. This area covers the four counties (Fresno, Kings, Tulare, Kern) which are the top agricultural and economic producing counties in the nation. Agriculture drives the economy, wealth, employment, and culture of the San Joaquin Valley.

This vast area features significant hydrologic characteristics. None of the described river systems have any natural outlets to the delta or to the ocean. Therefore, the valley floor and the Tulare lakebed itself have for eons been collecting natural elements carried by these river drainage systems. The irrigation waters in the valley are consumed by plant transpiration, evaporation, percolation to the underground aquifers, and some of these waters are held in the soil column being chemically tied to soil particles. Those natural processes have gone on for centuries, and continue today. These waters have been significantly augmented for the beneficial use of agricultural irrigation, by the water imported from within and outside the basin, and also conveyed through and out of the basin for urban M & I use.

One apparent paradox is the rivers that flow from the Sierras to the valley floor are composed of some of the state's purest natural waters; however, at their terminus, they may contain salts and other constituents. As explained below in our discussion of remedial activities, this very clean water on the east side of the valley can be a part of local drinking water solutions.

2. THE PROBLEM

Critical to our discussion today is, of course, nitrates in groundwater. We first have to be clear that nitrogen is not inherently a problem. It is approximately 78% of the air we breathe, is an essential component of amino acids (the building blocks of life) and is the singularly most important plant nutrient. When nitrogen is applied as fertilizer, it is not a waste product, but is an essential nutrient for agronomic plant growth. When nitrogen sources such as ammonium (NH₄), urea, ammonia sulfate or ammonia nitrate break down to nitrate, it is very useful to



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plants, but can be problematic when it further transforms to nitrite, and is subsequently consumed in human drinking water. The contribution of nitrates source from natural deposits in rocks and soil particles, concentrated animal facilities (dairies), and from human activities, such as lawn and garden care and from defective septic systems. However, undeniably, the largest augmentation of nitrates in the valley waters is from the application of the essential element nitrogen to grow the vast and important bounty of San Joaquin Valley agriculture.

The recent California Senate Office of Research report, "The Water We Drink" (Table 6, pg. 14) lists the sources of nitrate as "runoff from fertilizer use; leaking from septic tanks, sewage; and erosion of natural deposits." It further notes, "nitrates are an important naturally occurring nutrient. However, in concentrations that exceed MCL standards, nitrates are typically considered anthropogenic contaminants, the result of fertilizer application or leaking septic systems." (Pg. 15) Nitrate contamination can come from many sources, including fertilizers to increase lawn growth and crop production, animal waste runoff from feedlots, or leaky septic systems." (Pg. 20, Senate Report)

As the UC Davis Harter Report ("Addressing Nitrate in California's Drinking Water", prepared by Thomas Harter and Jay Lund, January 2012) has indicated, it takes many years for nitrates to percolate below the root zone down to shallow and deep aquifers. Often, this can be as many as 30 years or more. In some of the problem areas; however, local small communities and individual wells have been drilled and screened only down to the rather shallow aquifers, and in those situations that soil column transport time may be significantly reduced. A number of our San Joaquin Valley water districts have been focused on this nitrate problem for many years. Starting in 2004, water quality coalitions came together to deal with surface water quality. This, in part, provided a forum among the water districts across the entire southern San Joaquin Valley to discuss many issues, including the problems associated with nitrates in some valley drinking water.

Nitrates unduly present problems in the drinking water of some small rural hamlets and communities. As stated, these rural community drinking water problems are compounded by being located in agricultural areas, often with shallow domestic wells, and often in areas with inferior septic systems. All these factors do not just contribute to the cause of nitrate problems, but make remediation of these problems extraordinarily difficult. The problems took many decades to create, and will take extraordinary efforts to resolve.

3. COORDINATION OF EFFORTS

In 2012, the governor made appointments to a Governor's Task Force to deal with the drinking water problems, principally in the Central Valley and the Salinas Valley. Drinking water problems are not limited to the Central and Salinas Valleys; however, for purposes of our discussions, today we shall focus on nitrate in wells in the San Joaquin Valley. The governor appointed two co-chairs: one, Laurel Firestone from the Environmental Justice ("EJ") Community, and David Orth, General Manager of the Kings Resource Conservation District,



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who is also the chair of the Southern San Joaquin Valley Water Quality Coalition. These two respected leaders had worked together on a number of issues before and have continued to do so since.

Therefore, there was considerable mutual trust between them, and also between many of the other appointees to the Governor's Task Force from both the EJ community and the water district community. Key among those were Dennis Keller representing the Kaweah River System, and Chris Kapheim from Alta Irrigation District. Throughout those extensive deliberations, there were many discussions where various representatives of the Southern San Joaquin water community recognized and stated that California certainly owes an obligation to afford healthful drinking water to its valley communities. That has always seemed to be fundamental. The water districts and resource conservation districts that deal with the Valley's important water asset and, therefore, the state's economy, have long been cognizant of the water quality problems associated with certain aquifers.

One of the many discussion topics addressed by the Governor's Drinking Water Task Force involved the state's drinking water program, which had previously been housed in the Department of Public Health. California first regulated drinking water back in 1917, but in more modern times AB 21 (Sher) Chapter 823, 1989, amended the historic California drinking water law requiring the development of drinking water plans for large water systems. The Department of Public Health has a broad mandate to address many important public health issues. Compared to other drinking water issues, the nitrate problem in the drinking water of the San Joaquin Valley was not getting significant attention. CDPH seemed somewhat satisfied that, "More than 98% of Californians who receive public water system water received water that met drinking water standards." (Senate Office of Research report, "The Water We Drink") The agricultural community, however, came to understand the frustration the EJ community had experienced dealing with the California Department of Public Health. The frustrations had been the subject of prior regional and national publicity, as well as lawsuits. Therefore, we fully understood the importance of transferring jurisdiction from CDPH to the State Water Resources Control Board ("SWRCB"). SB 861, Chpt. 35, 2014 transferred the drinking water program from the California Department of Public Health to the State Water Resources Control Board, which is now housed in its new Division of Drinking Water.¹

¹ "Six state governmental departments have responsibility over the quality of the state's water; however, the SWRCB is the only state agency responsible for the quality of the state's *drinking* water. (Table 1, Senate Office of Research, "The Water We Drink, Part I: What is California Doing to Ensure Its Water is Safe?")



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The EJ community also wanted to codify safe drinking water as a natural right of the citizens of the state. My clients did not oppose that codification because it was quite consistent with many of the statements the ag water community had been making, and was consistent with not just our policy considerations, but also the work that was going on relative to these communities.

In 2012, the "Human Right to Water Law" was passed setting forth the policy that these rights extend to all California citizens. Codification of that right in the Water Code was important in its policy sense; however, it does not deal with the hydrologic and chemical issues that give rise and contribute to this problem, nor to its solution. The codified statement is also not an action driving component of the Code, but it does set forth a policy that can give rise to funding priorities and somewhat focus political attention to this problem. The transfer of the drinking water authority to SWRCB does have significant enforcement and compliance elements regarding notification of quality standard exceedances and monitoring requirements.

The human right to water is therefore a significant statement of policy, but it does not change California water rights. The California courts have continued to uphold California's water right system over assertions of general equality and equity arguments. The Court of Appeal in 2006 ruled that the State Board should make "every effort to repeat the rule of priority," *El Dorado Irrigation Dist. V. SWRCB* (2006) 142 Cal. App. 4th 937. It seems clear that this right to drinking water is something the State Board can, however, consider in water rights considerations, but is itself not a basis of a right or grounds to redistribute water rights.

I assert that this reference in the code really does not have much direct legal consequence, principally because it did not do much more than has always been the situation in California water law. In California, municipal use (MUN) and agricultural use (AGR) have always been considered the highest priority beneficial uses of water and must work in reasonable balance. That is true now as it has always been. Further, it is apparent that the specific actions that are necessary to clean up the aquifers on both an immediate short term basis, and over the long run, and supply healthful drinking water, also requires this mutual effort. To take significant clean up or alternative supply action requires a number of factors: (1) leadership, (2) community; (3) money; (4) authority; (5) expertise; (6) extensive planning, (7) phased implementation, (8) operational capability; and (9) a significant sense of endurance because nothing is achieved rapidly.

The small communities that are afflicted with these acute nitrate problems fall well short in many of these areas, and thus the partnership with the local water agencies is a necessity. It also needs to be understood that one size does not fit all circumstances in all communities. The available resources, expertise, and infrastructure differ widely. Some of this complex reality can best be explained by looking at a few of the water quality/drinking water improvement efforts that have been engaged, such as those involving Alta Irrigation District and Kaweah Delta Water Conservation District.



BEST BEST & KRIEGER
ATTORNEYS AT LAW

PROJECT 1: ALTA IRRIGATION DISTRICT – NORTHERN TULARE COUNTY

The Northern Tulare County nitrate in groundwater issue has been being focused on since 1992, but aggressively addressed by the Alta Irrigation District since 2006, and the solution is now coming to fruition.

Cutler and Orosi Public Utility Districts approached Alta to cooperatively address the nitrate in their groundwater problem as it is their only source of community drinking water. Alta Irrigation District and these districts committed \$75,000 to a study, which determined that individual well head treatment was not feasible. Instead, a regional solution to treat available surface water was needed because the capital costs, annual operations obligations, and maintenance costs would be lower, and a phased implementation would provide both quality water as well as provide other regional groundwater benefits. Some of the related regional considerations involved groundwater recharge efforts funded under Prop 13 and Prop 50. These groundwater banking projects cost Alta Irrigation District some \$4 million.

This project was unreasonably delayed due to problems dealing with CDPH, but those have largely been overcome with the transfer of jurisdiction to the SWRCB. Delays are sometimes also associated with the processes of the local agencies, and at times with the disadvantaged communities' lack of experience with complex projects or larger regional multi-purpose projects.

Just recently, in February 2015, the North Tulare County Regional Surface Water Treatment Plant Final Report was filed, and was financed through the state Safe Drinking Water Revolving Fund. The treatment plant will cost \$13,432,646, and the conveyance pipelines an additional \$10,435,809, thereby totaling nearly \$24 million. The plant will serve the local PUDs and the Community Service Districts of seven communities (Orosi, Cutler, Yettem, Seville, Sultana, Monson, and East Orosi) (see map attached).

A few outstanding issues still remain and are being addressed (i.e., water supply contracts, agreements with local conveyance entities, water exchange agreements, and obtaining a purchase option for the treatment plant property). The project will be ready for financing within two years, and take approximately 18 months to construct. This will resolve the nitrate in groundwater problems and will provide clean, safe drinking water for seven separate communities. It has taken years to develop the plan, commit millions of dollars, coordinate between residents, communities and water/utility interests, all under the coordination efforts by the Alta Irrigation District. (See attachments A, B, and C.)

PROJECT 2 – KAWEAH DELTA WATER CONSERVATION DISTRICT

Whereas the Alta project dealt with nitrates, the problems in Kaweah are associated with both chemicals and nitrates. Efforts are presently ongoing to identify necessary resources for both capital facility and conveyance systems, and for operation and maintenance, which is often more elusive. This project will serve the areas of Tuleville and Lindcove.

EXHIBIT A

PIPELINE ALIGNMENTS

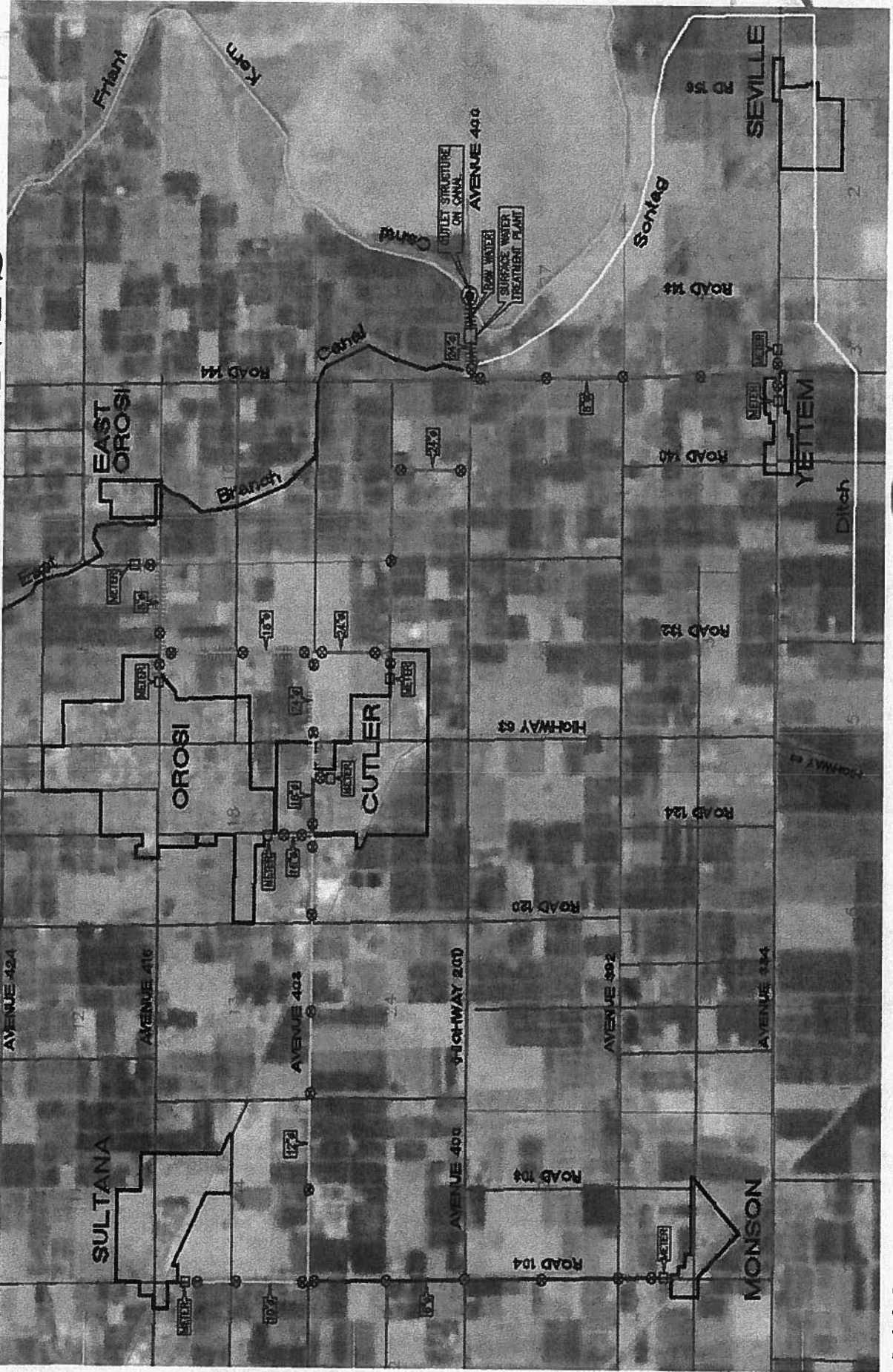


EXHIBIT B

WATER DEMANDS

<u>AGENCY</u>	<u>ANNUAL DEMAND</u>	<u>% TOTAL SUPPLY</u>
CUTLER PUD	921 AF	40.40
OROSI PUD	953 AF	41.80
SULTANA CSD	161 AF	7.10
E. OROSI CSD	115 AF	5.10
SEVILLE (ZOB, 1)	60 AF	2.60
YETTEM (ZOB, 1)	52 AF	2.30
MONSON AREA	16 AF	0.70
TOTAL	2278 AF	100.00

EXHIBIT C

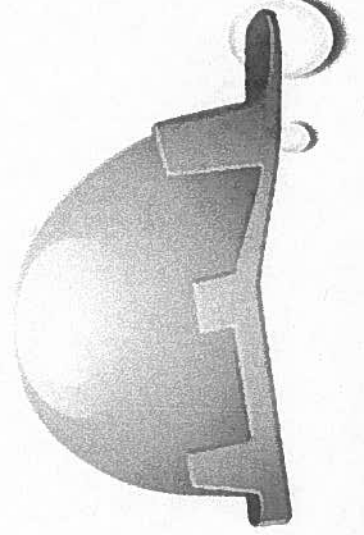
PROJECT COSTS

1. TOTAL PLANT COST \$13,432,646

2. TOTAL PIPELINE COST \$10,435,809

TOTAL GRANT FUNDING < \$20,000,000 >

TOTAL PROPOSED LOAN \$3,868,455



Human Right to Safe Drinking Water: Providing Safe Drinking Water for Disadvantaged Communities

*How Blue Is Your Valley? Your Voice, Your Future: A Community Conference on
Water in the San Joaquin Valley
April 24, 2015
Fresno City College, California*

DeeDee D'Adamo, Board Member
State Water Resources Control Board
www.waterboards.ca.gov



AB 685- The Human Right to Water

“... every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.”

California Water Code Sec. 106.3

Implementation Focus

State Board is required to consider Human Right To Water when revising, adopting, or establishing policies, regulations, and grant criteria relevant to domestic water uses.

Challenges in Disadvantaged Communities

- Over 7,500 public water systems in CA.
- About 500 of these are small systems that do not meet safe drinking water standards.
- Many residents of these communities pay high rates for contaminated tap water.
- Many small water systems lack the capacity to operate their systems at affordable rates.

Goals

- All water systems are sustainably operated.
- All Californians have safe, clean, affordable and accessible drinking water.
- All Californians have information on the quality of their drinking water.

Goals

- Consolidation of smaller systems where necessary and feasible.
- ID responsible parties & use enforcement authority.
- Achieve compliance with drinking water standards for small water systems.

Current Tools Limited:

- Funding- grants & loans
- Outreach & Technical Assistance
- Online Resources
- Regulatory Compliance
- Enforcement

Funding available for DACs

➤ Prop 1:

➤ Drinking Water - \$260 M

- Draft Guidelines – April 2015
- Public Workshops – May 2015
- Final Guidelines – Aug 2015

➤ Wastewater - \$260 M

- Draft Guidelines – Done
- Public Workshops – Done
- Final Guidelines – June 2015

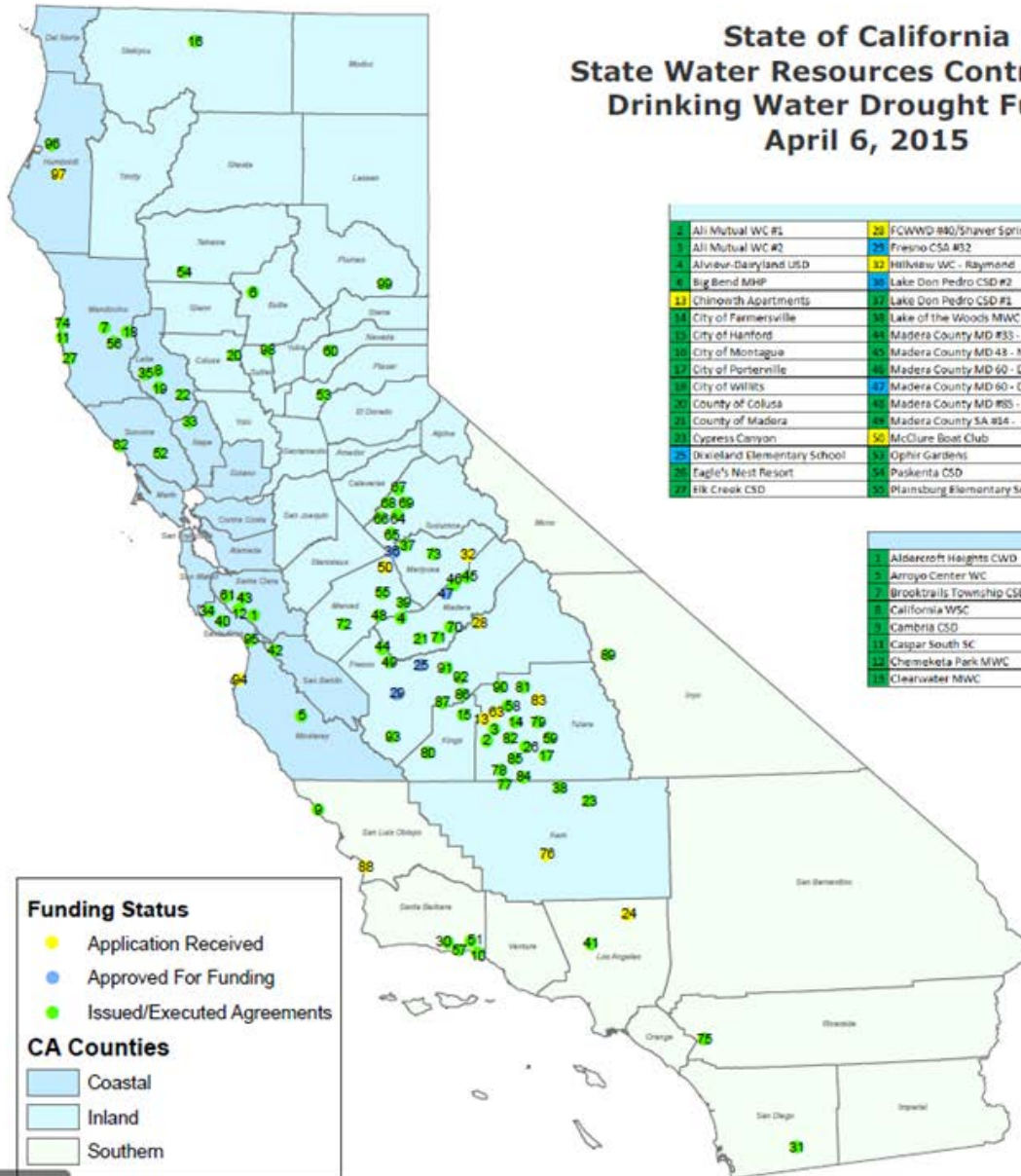
- **TECHNICAL ASSISTANCE** -Up to 15% of Prop. 1 funds available for drinking water and wastewater may be directed to a multi-disciplinary technical assistance program for small DACs and SDACs

➤ SRF:

- DWSRF – unlimited low interest loans
- CWSRF - unlimited low interest loans

Drinking Water Drought Funding

State of California State Water Resources Control Board Drinking Water Drought Funding April 6, 2015



Funding Status

- Application Received
- Approved For Funding
- Issued/Executed Agreements

CA Counties

- Coastal
- Inland
- Southern

Inland			
1	Ali Mutual WC #1	28	FCWWD #40/Shaver Springs
2	Ali Mutual WC #2	29	Fresno CSD #32
3	Alvieu-Dairyland USD	30	Hillview WC - Raymond
4	Big Bend MHP	31	Lake Don Pedro CSD #2
11	Chinook Apartments	32	Lake Don Pedro CSD #1
14	City of Farmersville	33	Lake of the Woods MWC
15	City of Hanford	34	Madera County MD #35 - Fairmead
16	City of Mantague	35	Madera County MD #8 - Miami Creek Knolls
17	City of Porterville	36	Madera County MD #60 - Dillon Estates #2
18	City of Willits	37	Madera County MD #60 - Dillon Estates #2
19	County of Colusa	38	Madera County MD #85 - Valets
20	County of Madera	39	Madera County SA #84 - Chuk Chansae
21	Cypress Canyon	40	McClure Boat Club
22	Dixeland Elementary School	41	Ophir Gardens
23	Tagle's Nest Resort	42	Paskenta CSD
24	Elk Creek CSD	43	Plainsburg Elementary School
58	Seville WC	76	Arvin CSD
59	Springville PUD	77	City of Delano
60	Cal Forestry and Fire Protection	78	Allensnorth CSD
61	Tulare County CWS - Visalia	79	Tooleville Mutual NWA
62	Tuolumne UD 5510001 #1	80	Kettleman City CSD
63	Tuolumne UD 5510001 #2	81	Sequoia Union School
64	Tuolumne UD 5510013 #1	82	City of Lindsay
65	Tuolumne UD 5510013 #2	83	City of Lindsay
66	Tuolumne UD 5510013 #3	84	Beverly-Grand MWC
67	Tuolumne UD 5510013 #4	85	Souils MWC
68	Tuolumne UD 5510013 #5	86	Tulare County
69	Twain Harte CSD	87	Self Help Enterprises
70	Valley Teen Ranch #1	88	East Orosi CSD
71	Valley Teen Ranch #2	89	Pushing High School
72	Volta CSD	90	Self Help Enterprises
73	Whispering Pines Apartments	91	Washington Union School
74		92	City of Live Oak
75		93	Grizzly Lake CSD
		94	Le Grand CSD

Coastal			
1	Aldereroft Heights CWD	32	Crescent Bay IC
2	Arroyo Center WC	33	Lake Berryessa Resort ID
3	Brooktrails Township CSD	34	Lake Canyon MWC
4	California WSC	35	Lake County SA #12 - Mt. Hannah
5	Cambria CSD	36	Lompoc County WD
6	Caspar South SE	37	Los Madroños MWC
7	Chemetka Park MWC	38	Luzon Lodge
8	Clearwater MWC	39	MT Taylor MHP
96	Redwood Valley CWD	97	Yurok Tribe
98	Summit MWC		
99	Timber Cove CWD		
100	Woodside RV Park		
101	Environmental Justice Coalition		
102	Springfield/Parajo Mesa CSD		
103	Yurok Tribe		

Southern	
10	Carpinteria Valley WD
11	Desert Palms MHP
12	Goleta WD
13	Guatay MWC
14	Los Angeles Residential CF
15	Monterey WD
16	Santa Barbara WD
17	Elsinore Valley WD
18	Oceanside CSD
19	Inyo County

Regional Totals			
Inland	Coastal	Southern	
4	0	0	4
7	2	2	11
54	22	8	84
65	24	10	Totals

Seville, Tulare County

- Small, poor, central valley community, about .6 square mile.
- Average income is \$14,000 annually.
- About 500 residents, 95% Hispanic, primarily farmworkers.
- Residents pay for their water twice: they pay for tap water they use to shower and do laundry. They pay for bottled water to drink, cook and brush their teeth.

Seville Today

- Water Board funding provided bottled water to residents for drinking and cooking.
- Water Board funding allowed the drilling of a new well to provide quality drinking water to the residents.
- Future includes another well and consolidation with the nearby community of Yettem.
- But even after this, affordability will remain an issue.

Addressing the Challenge

- California Water Action Plan
- Transfer of Program to State Board
- Opportunities for better integration of surface water and groundwater protection efforts to protect drinking water
- Safe Drinking Water Plan
- Governor's Proposed Budget

Safe Drinking Water Plan

Purpose

- Assess overall quality of the state's drinking water.
- Identify specific water quality problems.
- Analyze health risks associated with drinking water contamination.
- Provide recommendations to improve drinking water quality.

Safe Drinking Water Plan- key Issues

- Consolidation
- DACs and sustainability
- Point of Use or Point of Entry Devices
- Funding

Sustainable Systems in DACs: Need Innovative Approach

Fulfilling Human Right to Water will remain unattainable without a new approach to assist with compliance of sustainable systems:

- State role
- Local role
- More tools
- Funding

Administration's Concept: Stepped Approach

Maintain existing systems where feasible:

- Provide technical & financial assistance
- Fund infrastructure
- Incentivize or require consolidation (physical or managerial) of systems not independently sustainable

State contracted resources for “batch of systems”

- Fund infrastructure
- Fund O&M to guarantee affordable rates
- Ensure local systems are on a path of sustainability- 10 yr. sunset

Additional Information



- Proposition 1 Information

http://www.waterboards.ca.gov/water_issues/programs/grants_loans/proposition1.shtml

- Human Right to Water statute

http://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=WAT§ionNum=106.3

Safe Drinking Water Plan

http://www.waterboards.ca.gov/drinking_water/safedrinkingwaterplan/

DORENE D'ADAMO

Board Member

Dorene D'Adamo was appointed to the board by Governor Brown in 2013. She previously served on the California Air Resources Board from 1999-2013 under the Brown, Schwarzenegger and Davis Administrations, where she was instrumental in the board's air quality and climate change programs and regulations.

Ms. D'Adamo served in various capacities for Members of Congress from the San Joaquin Valley over a 20 year period, working primarily on environmental, water and agricultural legislative policy. She was a representative on the Davis Administration's CALFED team and the Governor's "Red Team" for UC Merced. She currently serves on the Valley Coalition for UC Merced's Medical School and on the board of the Governor's Partnership for the San Joaquin Valley.

Ms. D'Adamo was a visiting lecturer at the California State University, Stanislaus Department of Politics from 1992-1998 and was an associate in a Modesto, law firm working primarily on juvenile delinquency and dependency cases. Ms. D'Adamo has served in a variety of roles within California's criminal justice system, including Assistant Director to the California Department of the Youth Authority, Legal Counsel to the California State Assembly Committee on Public Safety and Consultant to the State Legislative Joint Committee on Prison Construction and Operations.

Ms. D'Adamo is a graduate of the University of California, Davis (B.A. 1982) and the University of the Pacific, McGeorge School of Law (J.D. 1986).



Laurel Firestone Biography

Laurel Firestone co-founded and co-directs the Community Water Center (CWC).

Laurel previously served as the Director of the Rural Poverty Water Project at the Center on Race, Poverty and the Environment in Delano, California, under a 2004-06 Equal Justice Works Fellowship. Laurel was awarded the Gary Bellow Public Service Award by the Harvard Law School in 2013, awarded to one alumnus and one student each year. In 2010, she and her Co-Executive Director, Susana De Anda, were co-awarded the Carla Bard Advocacy Award from Public Officials for Water and Environmental Reform (POWER), awarded to one water advocate in California each year. In 2009, she authored the comprehensive *Guide to Community Drinking Water Advocacy*.

She also served on the Tulare County Water Commission from 2007-2012, and Co-Chaired the Governor's Drinking Water Stakeholder Group. Laurel graduated with honors from Harvard Law School and holds a B.A. *magna cum laude* in Environmental Studies from Brown University.

WILLIAM J. THOMAS, OF COUNSEL
Best Best & Krieger LLP

William J. Thomas is of counsel in the Environmental Law & Natural Resources practice group of Best Best & Krieger LLP in the firm's Sacramento office. Mr. Thomas represents agriculture and agricultural business and water district interests before California governmental agencies such as the state and regional water boards, and the Departments of Food and Agriculture, Fish & Game, and Pesticide Regulation. He also works with federal agencies such as the United States Departments of Agriculture (Forest Service) and Interior (Fish & Wildlife Service, Bureau of Land Management). His clients include farmers, ranchers, chemical manufacturers, agricultural, water, and other business associations. He provides counsel and advocacy regarding water, water quality, pesticide registration, and pest control. He practices extensively in areas involving water quality, pesticide use, drainage and endangered species. He is an expert on state and federal environmental laws, water quality acts, Proposition 65, environmental conservation easements, and public land issues.

Mr. Thomas has represented the California Cattlemen's Association in landmark litigation involving the Sierra Framework United States Forest Service rules when challenged by the nationwide environmental interests. He has also represented the National Cattlemen's Beef Association's Public Lands Council in defending nationwide Bureau of Land Management rules involving grazing.

Mr. Thomas has served agricultural interests for over 35 years in private practice. He has represented business and water clients in developing regulations, administrative determinations and enforcement actions. He has represented the water districts in the Southern San Joaquin Valley regarding water quality and dealing with nitrate/groundwater issues.

Mr. Thomas has been appointed by the Governor and agency heads to many political, environmental and agricultural positions, such as the Uniform Environmental Statute Commission and AB 982 Advisory Group for California's Implementation of Total Maximum Daily Loads. He was appointed by the Governor to the Drinking Water Task Force in 2012. He is a member and past chair (1986-1998) of the California Department of Food and Agriculture, Market Enforcement Advisory Committee and the Department of Pesticide Regulation, Pest Management Advisory Board.

Mr. Thomas received his Juris Doctorate from the University of the Pacific, McGeorge School of Law in 1974. He received his Bachelor of Science degree from the California State University, Chico, where he was student body president, in 1968. California State University, Chico honored him as the College of Agriculture Distinguished Alumni. He served as a LT, j.g. in the U.S. Navy. He is a member of the Sacramento County Bar Association.