

# SoCal Salinity News

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## Coalition Members

Calleguas Municipal  
Water District

Central and West Basin  
Municipal Water Districts

Los Angeles  
Department of  
Water & Power

Inland Empire  
Utilities Agency

Irvine Ranch  
Water District

Metropolitan  
Water District  
of Southern California

Orange County  
Sanitation District

Orange County  
Water District

San Diego  
Water Authority

Sanitation Districts of  
Los Angeles County

Santa Ana  
Watershed Project  
Authority

*in Affiliation with the*

National Water  
Research Institute

## 2004 Salinity Roundtable Looks at Managing Salinity in Southern California

This February, the Southern California Salinity Coalition held the 2004 Salinity Roundtable, a forum where over 60 participants were able to discuss the issues associated with increases in salinity throughout Southern California.

"Salinity issues are not going away," said guest speaker Art Baggett, Chairman of the State Water Quality Control Board. He pointed out that salinity cannot be solved by regulators alone. Agriculture, industry, and utilities must work together with regulators to "protect our groundwater basins."

The Roundtable was designed to bring interested parties together with the staffs of the Santa Ana, Los Angeles, and San Diego Region Water Quality Control Boards to share experience on how each region manages salinity and how they can benefit from collaborating together on salinity-related projects.

Jerry Thibeault, Executive Officer of the Santa Ana Regional Water Quality Control Board, discussed the strategies of the Santa Ana Basin Salt Management Plan, a region-wide total dissolved solid and nitrogen management plan adopted by the Regional Board on January 22. This plan was



*Art Baggett, Chairman of the State Water Quality Control Board, was an invited guest speaker at the 2004 Salinity Roundtable.*

adopted without dissent or opposition. More information on this plan is available at the Regional Board's website at [www.swrcb.ca.gov/rwqcb8/](http://www.swrcb.ca.gov/rwqcb8/).

From the Los Angeles standpoint, Dennis Dickerson, the

*Please see ROUNDTABLE on page 2*

## Northern California Creates Its Own Salinity Coalition

Eight San Francisco Bay Area water agencies located in Northern California have united to form the Northern California Salinity Coalition, an organization dedicated to protecting the region's water supplies from salt contamination and to advancing desalination technology.

The major focus of the Northern California Salinity Coalition is to advance the interests of the member agencies in the development of local and regional projects and programs that will use desalination and salinity management technologies, practices, and approaches to improve water supply reliability for Coalition

members and to reduce salinity-related problems affecting the water supplies of member agencies.

The Northern California Salinity Coalition is focusing its efforts in the following areas: seawater desalination, brackish groundwater desalination, salinity increases in groundwater basins and the impact on water supplies, seawater intrusion, control of salinity in wastewater to improve recycling options for irrigation or industrial use, and other related issues.

The eight members of the Northern California Salinity

*Please see EIGHT AGENCIES on page 3*

*The Northern California Salinity Coalition was formed in recognition that salinity will affect future water usage and because of the challenges, issues, and stewardship responsibilities unique to the Northern California region.*

## Roundtable Examines Water Softeners, Recycled Water

*Continued from page 1*

Executive Officer of the Los Angeles Regional Water Quality Control Board, said that salinity is often paired with “conflict.” Population growth increases salinity. The use of water softeners increases salinity. But who is the most impacted by salinity? Agriculture is. To solve, this, however, requires costly upgrades – and that is a problem for everyone involved.

For John Robertus, the Executive Officer of the San Diego Regional Water Quality Control Board, “salt is on our radar screen.” San Diego imports a majority of its water in the summer, and the bulk of that water is used one time and then discharged into the ocean. Industries are now approaching San Diego to use recycled water – but recycled water with high levels of salts is too costly to treat and use.

Following the presentations from the three Regional Boards, the Roundtable question-and-answer session began, which included audience participation. The most significant concerns and issues that were brought up at the Roundtable included:

- What research is being conducted on brine discharge into the ocean?
- What do we do about contaminants other than salt in brine discharge?
- Is degradation possible without



*Roundtable attendee Jerry King, the Vice President of Planning and Development at McGuire Environmental Consultants, Inc., of Newport Beach, California, discusses the difficulty in financing the construction and operation of brinelines. He was one of over 60 participants at the Roundtable.*

violating water quality standards?

- Are current water quality standards too conservative?
- How marketable is recycled water if it has high salinity?

approach to water management?

- How do we communicate to the public that they are contributing to salinity?

The Roundtable ended with a presentation by Martha Davis, Legislative Affairs Officer of the Inland Empire Utilities Agency. “We assume that the water supplies we have today will be the ones we have tomorrow,” she said. “That’s not true. What we see in Southern California as

our water supply, others see as theirs.” She pointed out that Southern California cannot rely on imported water supplies, and it may not have a full aqueduct in the next few years. The solution: an integrated approach.

“We need to acknowledge the role water softeners may be playing and the role of other sources of salts. We need to diversify our water supply sources.” Recycled water is key. “Can we afford to throw water away?” she asked.

And, finally, “we need to do a better job of partnering.” As Ms. Davis pointed out, “the public, when convinced of need, will open their pocketbooks. We need to reach out to the public and draw it in as a partner.”

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*“We need to do a better job of partnering,” said Martha Davis, Legislative Affairs Officer of the Inland Empire Utilities Agency. “We need to reach out to the public.”*

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- To what extent are water softeners contributing to salinity?
- How can the water softener industry provide quality products to customers, but not impact the treatment system with salinity?
- How can we create a more integrated



*The purpose of the Roundtable was to share experience on how three Regional Water Quality Control Boards manage salinity. Representing the Regional Boards were Executive Directors John Robertus (San Diego), Jerry Thibeault (Santa Ana), and Dennis Dickerson (Los Angeles).*

## ***Eight Agencies Represent NoCal Coalition***

*Continued from page 1*

Coalition include:

- **Alameda County Water District**, which supplies drinking water to more than 318,000 people living in the cities of Fremont, Newark, and Union City.
- **Contra Costa Water District**, which delivers safe, clean water to 450,000 people in central and eastern Contra Costa County.
- **East Bay Municipal Utility District**, which supplies water and provides wastewater treatment for parts of Alameda and Contra Costa Counties on the eastern side of the San Francisco Bay.
- **San Francisco Public Utilities Commission**, which is a department of the City and County of San Francisco that provides water, wastewater, and municipal power services to 750,000 residents in San Francisco and provides water to 29 wholesale agencies within the Bay Area, representing 1.6 million people.
- **Santa Clara Valley Water District**, which is the primary water resources agency for Santa Clara County, acting not only as the county's water wholesaler, but also as its flood protection agency and steward for the streams and creeks, underground aquifers, and reservoirs.
- **Solano County Water Agency**, which provides untreated water to cities and agricultural districts in Solano County from the Federal Solano Project and the North Bay Aqueduct of the State Water Project.
- **Sonoma County Water Agency**, which provides wholesale water supply to Sonoma and Marin Counties, and flood control and sanitation services for Sonoma County.
- **Zone 7 Water Agency** (short for Zone

7 of Alameda County Flood Control and Water Conservation District), which provides water supply, groundwater management, and flood control protection in the Livermore-Amador Valley in eastern Alameda County.

To fulfill its mission, the Northern California Salinity Coalition has adopted the following six strategic objectives:

- Demonstrate regional leadership in the areas of salinity management and desalination by seeking to collaborate and coordinate research activities, and cooperate on project development and implementation efforts, when viable.
- Identify Federal, State, local, and available funding for Coalition-endorsed projects, programs, and activities.
- Coordinate outreach efforts with executive and senior management staff of other agencies or organizations to protect and promote the Coalition's interests.
- Seek to increase Coalition effectiveness by increasing membership in the Coalition with agencies that have similar interests.
- Educate and provide outreach to the public and the executive and senior management staff of other organizations and agencies about the importance of the Coalition's leadership, as well as Coalition-endorsed programs, outcomes, and activities.
- Communicate concerns regarding proposed regulatory matters related to Coalition interests, and work and respond collaboratively to the extent possible.

Already, Coalition members are collaborating on regional projects and are working with other salinity groups on issues of common interest. One regional

project involves four Coalition members that are evaluating sites for a regional desalination facility in the Bay area to help meet the water supply, drought-reliability, and water-quality needs of their constituents. In addition, another agency is considering using wells and reverse osmosis treatment facilities to draw water



*The Sacramento San Joaquin Delta is the source of drinking water for more than 22-million Californians. The Northern California Salinity Coalition members are actively involved in preserving the quality of Delta water as a drinking water source and seek to implement projects that control or prevent salinity from entering the region's water systems. The Coalition also promotes the use of desalination and groundwater salinity management to improve water supply reliability for the region.*

with high salt content from unused shallow aquifers to reduce salt loading in its main groundwater basin. The de-mineralized water would be used for potable municipal and industrial use.

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*For further information about the Northern California Salinity Coalition, contact Executive Director Ernesto Avila at (415) 576-1230 or [eavila@avilaassociates.com](mailto:eavila@avilaassociates.com).*

# Phase Two of Water Softener Project Examines Consumer Behavior

The focus of Phase Two of the Claremont Graduate University Water Softener Pilot Project was to look more closely at individual consumer motivations regarding the purchase and retention of water softening devices, followed by the development of viable marketing strategies that could help reduce the negative impact of water softeners in Southern California. The research involved in-depth interviews with a number of participants in Orange County, Los Angeles County, and the Inland Empire.



Principal Investigators Kim L. Knight and David S. Kung, Ph.D., of the Claremont Graduate University in Claremont, California.

## Salt and Pepper Facts

Salinity – or, the amount (by weight) of salt in water – is expressed in “parts per million” (ppm). If water has a concentration of 10,000 ppm of dissolved salts, then one percent (10,000 divided by 1,000,000) of the weight of the water comes from dissolved salts. For reference, fresh water should have less than 1,000 ppm, while ocean water contains about 35,000 ppm of salts. The Great Salt Lake in Utah, which is hypersaline, has 250,000 ppm of salts.

Source: <http://www.ga.usgs.gov/edu/saline.html>.

Some of the basic findings include:

- Significant observed differences in consumer behavior based on age and length of exposure to the use of softeners.
- Early intervention and education with non-users is critical to modifying expectations.
- Consumer decisions on softeners many times are

based on specific triggering events.

- The removal of softener units is a great deal more difficult than the reduction of salt usage.

Also, there are opportunities that the three involved constituents (consumers, local water agencies, and the private water treatment industry) can collaborate together to help decrease salinity in water.

Since 2002, the Southern California Salinity Coalition has funded the Water Softener Pilot Project, launched by David S. Kung, Ph.D., and Kim Knight of Claremont Graduate University in Claremont, California, to help mitigate salinity issues that are caused by the use of water softeners in residential households.

The final report will be available spring 2004. For further information, please contact Dr. Kung and Mr. Knight at (909) 607-8100.

## SoCal Salinity Coalition Is on the Web

Learn more about salinity and the Southern California Salinity Coalition at [www.NWRI-USA.org](http://www.NWRI-USA.org). The website includes information on:

- What is salinity?
- What is the Southern California Salinity Coalition?
- Salinity Coalition member organizations, including links to each organization's website.
- Salinity Coalition board members
- Calendar of Salinity Coalition board meetings
- Salinity Coalition newsletter archives, including past issues of the *SoCal Salinity News*

- Salinity Coalition's Salinity Action Plan
- Upcoming Salinity Coalition events
- Links to other salinity organizations, such as the Multi-State Salinity Coalition and Colorado River Salinity Coalition Forum

- How water softeners affect salinity
- Water softener ordinances in Southern California, including Assembly Bill 334 on water softening and conditioning appliances (2003)

Link the Salinity Coalition's website address to your website today!

## Southern California Salinity Coalition

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