



# SoCal Salinity News

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## SCSC Planning Workshop Encourages Collaboration on Salinity Management Strategies

This May, SCSC held a Planning Workshop that focused on coordinating efforts to better manage salinity in both Southern California and the southwestern United States. Over 70 people attended the one-day workshop, which was held at the Los Angeles headquarters of the Metropolitan Water District of Southern California.

Dialogue and interaction were key elements of the workshop, which included over 15 speakers and an open discussion among participants.

"We heard a lot of good information on current activities and received a lot of useful feedback from participants on future needs and concerns," said Rich Atwater of the Inland Empire Utilities Agency and President of SCSC. "One goal of this workshop is to prepare a list of follow-up activities for SCSC to consider next year. Because of all the information and feedback we received, we now have a great head start towards planning projects and events for 2007."

The workshop began with an overview of SCSC's current activities, including the creation of its own website, and followed-

up with highlights on projects addressing major salinity issues.

For instance, Behrooz Mortazavi of Eastern Municipal Water District in Riverside County, California, discussed the district's efforts to increase its local water resources (and reduce the use of imported water) by developing a desalination program in the San Jacinto Watershed. The problem with desalination is that it produces brine as a waste product, which is a major source of salinity. The district is now considering strategies, such as brine concentration, to reduce brine production. "We have to look at desalination as a salinity management program that also produces water," said Mortazavi. "It's not just a water supply program."

The workshop also included two panels, one of which brought together representatives from three local regional water quality control boards to discuss salinity issues.

Gerald Thibeault of the Santa Ana Regional Board discussed proposed waste discharge requirements for injecting or percolating imported water into the groundwater basin. His point was

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## Groundbreaking Project on Plant Salt Guide Nearing Completion

After almost 2 years of research and effort, Dr. Kenneth Tanji (University of California, Davis) and his team are in the final stages of preparing a user-friendly database on what role – if any – the salts in recycled water have on landscape flora in the Southern California region and how to mitigate potential salinity problems.

The database is part of a SCSC-funded project called "Salt Management Guide for Landscape Irrigation with Recycled Water," which was developed for the express purpose of showing that:

- Recycled waters are safe and suitable for landscape irrigation.
- The salinity of recycled waters is not excessive or harmful to most landscape plants.
- And, if found harmful to sensitive plants, there are management options.

At present, the project team is wrapping up work on three different deliverables:

- A literature review on the suitability of recycled waters for

landscape irrigation is in its final stages of editing. There are 10 chapters covering topics such as the salt tolerance of landscape plants grown in Southern California, soil salinity and management, and diagnosing and solving salinity-related problems in landscape irrigation.

- The literature review will be included on the "Salt Management Guide" CD-Rom as one of the tools available to help landscape professionals determine potential salt problems and management strategies. The interactive CD provides information varying from the basics of salinity to the design or redesign of landscapes systems based on water needs, soil conditions, and the salt-tolerance of plants.
- The project will wrap up with an educational brochure for the public, which will discuss both the issues related to salinity and the value in using recycled waters for irrigation practices in Southern California. An initial draft is in preparation. The project's estimated completion date is September 2006.

## Reclamation Holds Workshop on Brine Management Strategies and Implementation

In conjunction with SCSC's Strategic Planning Workshop, the Southern California Area Office of the Bureau of Reclamation held a Brine Management Implementation Study Workshop to explore opportunities and approaches to regional brine concentrate management strategies in Southern California.

Brine is an issue that affects many water and wastewater utilities, especially utilities using membrane treatment technologies like reverse osmosis and nanofiltration to separate contaminants, such as salts, from various sources of water to produce purified water. The separated contaminants are known as membrane concentrates, or brines, and are typically high in salinity.

"Brine management is an extremely important factor in the development of new sources of water," said Meena Westford, who is Reclamation's Area Planning Officer for the Southern California region. "As more and more utilities move inland, they will need a means to dispose of this brine concentrate, which has tons of salt. New ocean outfall lines are expensive to build and difficult to permit, and the brine can't be injected into the ground because it may affect water quality. So what do you do with the brine? Disposal is a key concern."

The workshop, held on May 3, 2006, at the Metropolitan

Water District of Southern California, was intended to:

- Gather input to begin formulating a regional strategy for successful brine concentrate management processes for both inland and coastal areas throughout Southern California.
- Review ongoing activities and studies addressing brine management concentrate.
- Develop a list of potential partners.

"Southern California water agencies must work together to better identify solutions to salinity in our water resources," said Westford. "Brine concentrate disposal is an issue that will hinder the implementation of advanced water treatment facilities, which Southern California is heavily reliant upon. This problem will be especially more critical the next 15 to 20 years. Working together as a region is the only way to develop and implement solutions in an economically and environmentally sound manner. We don't want to implement programs that our grandchildren will have to clean up behind us. It's better to be ahead of the issue and a part of the solution."

As part of the workshop, participants also broke out into small working groups to brainstorm a future project that may involve siting one or two pilot studies throughout Southern California. The purpose of the project is to further evaluate the most promising technologies and "give stakeholders a better idea of what they will cost and if they are even feasible," said Westford.

### Save the Date for the FIFTH ANNUAL NATIONAL SALINITY MANAGEMENT AND DESALINATION SUMMIT

Hosted by:

The Multi-State Salinity Coalition

January 11-12, 2007  
Catamaran Resort Hotel  
San Diego, California

For further information, please visit  
[www.multi-statesalinitycoalition.com](http://www.multi-statesalinitycoalition.com)

## Salinity Management Strategies Sought at Planning Workshop

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that "we are not targeting imported water – we are targeting salts" as a means to alleviate salinity levels in the basin.

For the Los Angeles region, Sam Unger said the focus on salinity management strategies was on industrial and domestic sources of salinity, while San Diego representative John Robertus discussed salinity management across 11 watersheds, from the negative impacts of saltwater intrusion into a groundwater basin to the needs of utilities that are inland and have no access to an ocean to discharge brine.

The most important part of the workshop was the open discussion, which gave participants the opportunity to discuss concerns and make suggestions related to salinity management. Some of the following were issues brought up during the open discussion that SCSC may pursue:

- Finding creative ways to leverage funding and policy on salinity management projects, including pooling resources to

activities of common interest.

- Collaborating on advocacy.
- Supporting research in areas of need, including membrane technologies, innovative technologies, and concentrate management.
- Incorporating salinity management into integrated regional planning.
- Assessing global warming issues as related to salinity management.

"It's great to see organizations like SCSC addressing these problems," said workshop attendee Dr. Bruce Macler, a national risk assessment expert for the U.S. Environmental Protection Agency. "They are working hard to further the field, and having a workshop like this provided a good opportunity for people to talk to each other and find agreement. Salinity is an issue we all need to work on more, and SCSC is in a great position to help us move forward."

## Southern California Salinity Coalition

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