

**Southern California Salinity Coalition
Projects & Activities
(as of May 2012)**

1. Projects

Title	PI	Description	Years	Partners
Salinity Mitigation Strategies	TBD	Develop an approach to assess irrigation and treatment impacts due to salinity and identify solutions to conserve water and reduce regional economic costs throughout Southern California. The project will focus on the assessment and control of salinity in imported water from the Colorado River.	2012-2013	Metropolitan Water District of Southern California, Bureau Of Reclamation
Salt Management Study Update	TBD	Update the 1998 salinity management action plan, USBR salinity economics impact model, and Southern California groundwater salt balance determination.	2011-Present	Metropolitan Water District of Southern California, Bureau Of Reclamation
White Paper on Ocean Brine Disposal	Dr. Michael Welch, Consultant	Summarize the scientific/regulatory issues associated with ocean brine disposal, and recommend strategies for the continued use of ocean outfalls as a brine disposal option.	2011-Present	None
Evaluation of Alternatives to Water Softeners	Dr. Peter Fox, Arizona State University	Develop performance and cost data for the most promising alternative technologies that either soften hard water or reduce the scaling effects of hard water without a net increase of total dissolved solids in wastewater.	2011-Present	WateReuse Research Foundation
Proposed Guidelines for Salinity/Nutrient Management Planning in the San Diego Region	Dr. Michael Welch, Consultant	Provide a standardized approach and framework for developing salinity/nutrient management plans, and include sections on constituents of concern, aquifer characterization, proposed planning approach and priorities, and salinity management tasks. The guidelines are available at www.socalsalinity.org , and were endorsed by the California Regional Water Quality Control Board, San Diego Region in November 2010.	2009-2010	SCSC, San Diego County Water Authority

Title	PI	Description	Years	Partners
Automatic Water Softener Removal Rebate Program	Inland Empire Utilities Agency	Develop a regional education and rebate program for the voluntary removal of residential self-regenerating water softeners in the Chino Basin area.	2008-Present	Inland Empire Utilities Agency, NWRI, Metropolitan Water District of Southern California
Automatic Water Softener Rebate Program-Phase II: Public Outreach Program	County Sanitation Districts of Los Angeles County	Develop and implement a successful residential automatic water softener rebate and outreach program. Final Project Report published in December 2010. Available at http://www.socalsalinity.org/scscpublications.htm	2008 - 2010	County Sanitation Districts of Los Angeles County
Desalination Recovery Enhancement and Concentrate Management Study – Phase II	Dr. G. Adam Zacheis, Carollo Engineers	Reduce brine volumes discharged to the Santa Ana Regional Interceptor (SARI) from the Menifee and Perris desalters. The project incorporated testing of chemical softening, followed by secondary reverse osmosis and electro dialysis reversal to reduce brine volume and produce additional potable water. Final Project Report published in November 2010. Available at http://www.socalsalinity.org/scscpublications.htm	2009 - 2010	Eastern Municipal Water District
Southern California Regional Brine-Concentrate Management Study-Phase 1	Scott Lynch, CH2M Hill	Examine the different challenges that affect brine-concentrate management, such as regulatory issues, emerging constituents, brine disposal methods, and more. Final Project Reports published in February 2010. They are made up of six separate reports and an Executive Summary. These reports are available at www.usbr.gov/lc/socal/planning.html and are linked to SCSC's website.	2008 - 2010	Bureau of Reclamation and 13 other agencies
Salinity Reduction Study	Dr. David .S. Kung and Kim Knight, Claremont Graduate University	Reduce salinity by developing tools to allow utilities to implement cost-effective salinity management plans. Examples of tools include a public awareness program and reduction-of-use program to encourage residents to use water softeners more efficiently and with less salt.	2005-2007	Inland Empire Utilities Agency; Water Quality Association/Pacific Water Quality Association; Claremont Graduate University

Title	PI	Description	Years	Partners
Salt Management Guide for Landscape Irrigation with Recycled Water -Website/CD-Rom -Literature Survey -Brochure	Dr. Kenneth K. Tanji, University of California, Davis	Available online at www.salinitymanagement.org or as a CD-ROM, this interactive tool shows how recycled water can be safely used for landscape irrigation and that salinity can be addressed through proper management strategies. It covers topics that include: salinity and related concepts, designing and redesigning landscapes, and how to solve problems related to plants, water or soil.	2004-2008	UC Davis; WaterReuse Foundation; California DWR; City of Cerritos; Los Angeles Department of Water and Power; Water Replenishment District; West Basin Municipal Water District
Water Softener Pilot Project	Dr. David .S. Kung and Kim Knight, Claremont Graduate University	Help mitigate salinity issues that are caused by the use of water softeners in residential households, specifically looking at eliminating water softeners directly.	2003 - 2004	Irvine Ranch Water District; Water Research Foundation; Orange County Sanitation District; Los Angeles County Sanitation District; Inland Empire Utilities Agency; California DWR; Claremont Graduate University

2. Graduate Student Fellowships

Title	PI	Description	Years	Partners
Water Desalination by Reverse Osmosis with Nanostructured Polymers	Kari Varin, University of California, Los Angeles	Develop a new class of high-performance reverse osmosis (RO) membranes and conduct a pilot demonstration of advanced surface nano-structured RO membranes to produce water of potable quality.	2011-2012	NWRI
Development of Fouling/Scaling-Resistant Surface Nano-Structured Polyamide Reverse Osmosis/Nanofiltration Membranes	Nancy H. Lin University of California, Los Angeles	Develop a new class of membranes with low mineral scaling propensity and bio-adhesion resistance that will help decrease the cost of desalination.	2007-2009	NWRI

3. Outreach

Title	Authors	Description	Pub Date	Partners
SCSC Fact Sheet on Salinity and Water Softeners	SCSC	This one-page fact sheet on the impacts of water softeners on salinity in water resources was developed for public use and was distributed as information in Sacramento for Assembly Bill 1366, which became effective in 2009.	2009	None
Website	SCSC	Provide information about SCSC, upcoming events, past events, downloadable reports, research projects, and other information pertaining to salinity in water supplies in CA.	2009	None

4. Workshops

Title	Description	Date	Partners
SCSC Salinity Management Plan Implementation Workshop	Discuss the benefits of water and recycled water agency involvement in salt/nutrient management planning in the San Diego region. Over 60 individuals representing local water interests attended the event. A workshop summary is available at the SCSC website.	October 2009	San Diego County Water Authority; Regional Water Quality Board, San Diego Region
Salinity Seminar - San Diego Region	Raise awareness and engage water and wastewater agencies and stakeholders on salinity issues in the San Diego region. A summary of the seminar is available at the SCSC website.	June 2008	San Diego County Water Authority; Regional Board - San Diego; County of San Diego; City of San Diego; San Diego Integrated Regional Water Management; NWRI
Salinity Management and Control in the Colorado River Basin	Invited Southern California water agencies to discuss and learn more about salinity management policies for the Colorado River and long-term planning for the Colorado River Basin.	May 2008	None
2006 SCSC Planning Workshop	Help coordinate salinity management strategies, including research projects, with water and wastewater agencies throughout Sou. Calif.	May 2006	None
2005 SCSC Planning Workshop	Help coordinate salinity management strategies, including research projects, with water and wastewater agencies throughout Sou. Calif.	Feb. 2005	Regional Water Quality Control Boards for Los Angeles, San Diego, and Santa Ana
2004 Salinity Roundtable	Provide a forum to discuss the issues associated with increases in salinity throughout Sou. Calif.	Feb. 2004	None