

Stanfield Irrigation and Drainage District (MSIDD). A tour of the Tempe Town Lake, Arizona Falls Generating Station, Lake Pleasant, Granite Reef, Hoover Dam and the Grand Canyon were also included throughout the tour.

The tribal farms of the Gila River Indian Community and Ft. McDowell Yavapai Nation were also visited; as well as, a presentation provided by Dr. George Seperich, on behalf of the Agri-Business Council of Arizona.

GCE and the Chilean delegation also toured and visited sites in California including the Imperial Irrigation District (IID), All American Canal, and the Coachella Valley Water District (CVWD). In addition, Julian DeSantiago, Acting Group Mgr. for Environmental Compliance, USBR, Yuma Area Office, provided a presentation to the group during dinner.

Officials and key management representatives of the many water entities that were visited welcomed the delegation and served as hands-on tour guides of their respective facilities. Opportunities for on-site visits of water delivery systems, handout materials, souvenirs, and photo ops were beneficial and appreciated by the delegates.

The invaluable information provided from the tour will assist the Chilean representatives in developing a proposal to address the need for upgrades to their country's agricultural and urban water delivery systems; establish water regulations; and aid in implementing cost efficiency and better management of their water resources. The proposal will be submitted to the Chilean government for approval; which in turn will be implemented with government funds that have been appropriated for water delivery and hydropower systems and infrastructure development in their country.

GCE foresees an opportunity for international business relations and actively participating in irrigation, canal rehabilitation and hydropower development engineering and supporting the implementation of the Chilean delegate's proposal.

For additional information please contact George Cairo, Principal Engineer and Owner, George Cairo Engineering, Inc. at his office (480) 921-4080 or contact him personally at (602) 690-6661. Also please visit the GCE website at [www.gcairoinc.com](http://www.gcairoinc.com). (See photo on back of Newsletter.)

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## ENVISIONING THE FUTURE OF AGRICULTURE IN ARIZONA AND ITS WATER MANAGEMENT IMPLICATIONS

Provided by Dr. Rimjhim Aggarwal, School of Sustainability, Arizona State University

What will agriculture look like in your community (and in Arizona) over the next 25 years? What are the issues that keep you (farmers) awake at night about your future? What would you like to see for your children and grandchildren?

These were some of the questions posed during the listening sessions organized by the Agri-Business Council of Arizona in collaboration with a group of researchers from University of Arizona and Arizona State University from April 2008-September 2008. Organized as part of a project funded by the Arizona Water Institute (AWI), the objective of these sessions was to have an open discussion with key stakeholders and practitioners in different parts of the state about their visions for the future of agriculture.

In order to capture the diversity across the state, the listening sessions were held in Yuma, Coolidge, Safford, Buckeye and Tucson (to meet with Native American growers at the Southwest Indian Agriculture Association conference). All of these sessions were very well attended with representation from a wide cross-section of key stakeholders and practitioners. Using input from these sessions, university researchers (in collaboration with ABC and other stakeholders) are currently engaged in developing 3-5 future scenarios for each region that project changes in levels, location, and composition of agricultural production and their implications on agricultural water management; and identify knowledge gaps and promising areas for further research.

During the listening sessions, farmers in all the regions expressed concern about the diminishing interest among their children and grandchildren for continuing in farming, growing pressure on land from urbanization, the rising costs of farming and falling profitability, uncertainty over water rights, problems of labor availability, the growing burden of regulation (particularly in the form of food safety and environmental regulations), estate planning and the need to maintain enough acreage for a viable farm. While these concerns were widely expressed by farmers across the state, there was also discussion about challenges unique to specific regions - such as the issue of mining and associated land-water rights in Safford; increasing salinity and tribal water settlements in Buckeye; and future security of water rights over the Colorado River in Yuma.

A key issue that stuck in my mind as we listened to growers was their concern about a lack of public awareness about the value of farming. In particular, concerns about the erosion of local, state, and national self-sufficiency in agricultural production were repeatedly expressed. The participants wanted the research team to explore alternative ways to convey the importance of agriculture in Arizona's economy through its importance in securing food security, preserving open space, mitigating urban heat island, and as a buffer against future uncertainties about water supplies. The research team is specifically analyzing these themes as they develop alternative scenarios for agriculture and examine their implications on sustainability. Also following up on the recommendation made during the sessions, a final AWI project is looking at the impact of climate change on water supplies and crop production throughout the state.

The success of the listening sessions led me to think about how we can further develop long-term partnerships between the stakeholder and the university community to collectively formulate and conduct research that addresses the current problems and explores innovative solutions in the emerging context of rapid urbanization and climate change. As a step in this direction, I brainstormed ideas with colleagues at ABC, AWI, and University of Arizona's cooperative extension office in Phoenix to develop a workshop course for graduate students in the School of Sustainability at ASU that would engage students with stakeholders to understand the current agricultural system in central Arizona, develop alternative future scenarios, and identify strategies and policies to transition towards a sustainable path.

The course was offered this Fall semester and it gave students the opportunity to visit a couple of farms in the local area and talk to a wide range of stakeholders. The students presented their research to the academic and stakeholder community on December 11th. One of the scenarios developed by the students on "agriculture-urban partnerships" that sustain agriculture into the future fueled a lot of discussion at the break-out sessions. Another scenario aptly termed as "powering up Arizona" explored the potentialities for agriculture to provide renewable sources of energy in the future in the form of new bio-fuel crops, solar, and wind farms. We look forward to continuing our engagement with the stakeholders and building on these synergies.

*The final reports from both the AWI funded project and the workshop course are expected to be available by early part of 2010. Please contact Rimjhm Aggarwal (Rimjhm@asu.edu) for further details.*

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## WESTERN LAWMAKERS UNITE AGAINST CLEAN WATER RESTORATION ACT

By: Taryn Luntz, E&E Reporter

A group of 28 Republican lawmakers from Western states told House and Senate leadership yesterday that they "strongly object" to any attempt to move a controversial bill to amend the Clean Water Act.

"We strongly object to any attempt to move this legislation as a stand alone bill or as an attachment to a bill, in the Senate or House of Representatives," said a letter to Senate Majority Leader Harry Reid (D-Nev.) and House Speaker Nancy Pelosi (D-Calif.). "More specifically, we cannot imagine any bill so important that we could support it with the Clean Water Restoration Act attached."

The bill, S. 787, would remove the term "navigable waters" from the CWA and replace it with "waters of the United States."

"The concern we hear back home is that this legislation would grant the Environmental Protection Agency and the Army Corps of Engineers virtually unlimited regulatory control over all wet areas within a state," the letter from 11 senators and 17 representatives said. "This bill attempts to trump state's rights and pre-empts state and local governments from making local land and water use decisions."

A spokeswoman for Rep. Rob Bishop (R-Utah), one of the letter's authors, said the letter was prompted by a Friday Washington Times story that quoted Transportation and Infrastructure Committee spokeswoman Mary Kerr saying Chairman James Oberstar (D-Minn.) plans to advance a House companion measure this year.

"Congressman Oberstar has told the committee to prepare to move a bill this year," Kerr said.

Oberstar has yet to introduce his draft of the bill in the House, but committee staff yesterday confirmed that he plans to move the bill before the end of the year. The Senate Environment and Public Works Committee passed S. 787 in June by a margin of 12-7 amid strong Republican dissent.