

California Water Use Efficiency Proposals Must be Grounded in Technical Reality

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Two months ago, I wrote a column for this paper about a controversial report released by the Pacific Institute, an Oakland think tank. That report - entitled "More with Less" - claims that by changing what crops are grown and how California farmers grow them, the state can achieve "substantial water savings". California urban newspapers gave the report plenty of coverage, and at least one editorial board appeared to publicly endorse the report's troubling findings.

Two weeks ago – to considerably less media fanfare - four renowned specialists with 120 years combined experience in agricultural and landscape irrigation released a "commentary" that found "incorrect conclusions" in the Pacific Institute report. *Agricultural Water Conservation and Efficiency in California - A Commentary* – was released in late October by Dr. Charles Burt, Peter Canessa, P.E., Dr. Larry Schwankl, and Dr. David Zoldoske to address some of the key conclusions of the recent Pacific Institute paper.

"We four authors took on this task at our own initiative because we sensed that the widely read paper merited some formal technical peer review," said Dr. Burt, who chairs the Irrigation Training and Research Center at California Polytechnic State University in San Luis Obispo. "We hope that this commentary will be looked at as that - a technical peer review, rather than a questioning of the good intentions of the Pacific Institute paper authors."

The recent commentary finds that certain points in the Pacific Institute paper directly draw incorrect conclusions, or infer incorrect conclusions based on "significant errors in the underlying assumptions."

"The importance of finding solutions to California's water problems is so great that we would be remiss if we did not express our reservations," the authors note.

The commentary addresses key points discussed in the Pacific Institute paper. First, many of the "new ideas" presented in the Institute paper are not as new as the authors infer, and the commentary suggests that many of these ideas have been discussed since the early 1980's. The ideas about "more crop per drop", the importance of good on-farm irrigation efficiency, the need for better appropriate water measurement at various levels, and the minimization of art in water management are all ideas for which there has been extensive discussion, investment, and effort. Second, the commentary warns about the Institute's authors downplaying their own admissions, such as the need for more detailed economic assessments to capture the social, economic, and environmental benefits and costs of the report's projected improvements.

"Without such an assessment, conclusions drawn by the authors of the (Institute) Paper are difficult to support," the commentary notes.

The commentary found that a few of the Institute report's claims are "overly broad and simplistic". For example, Pacific Institute believes that there are substantial volumes of water that could be easily conserved by agriculture in the San Joaquin Valley without reducing acreage, and that this conservation would have no or minimal effect on established economic, cultural and ecological environments. The commentary found no supporting, significant discussion regarding these complexities. The authors of the commentary recognize that there is insufficient water to meet all of the demands in California as they presently exist, and promote the importance of improved on-farm irrigation management. However, the commentary also emphasizes that technically correct information must be used to shape future water decisions in California. That argument is perhaps best stated in a 25-year old report cited in the commentary:

"Statements suggesting a 10-50% potential savings in agricultural water conservation by improving irrigation application systems are a disservice to the people of California because water policy and action programs based on such estimates will substantially underestimate the state's needs for future water supplies."

The commentary comes at a time when the State of California is looking at cutting water deliveries to their second-lowest level ever next year. This grim outlook underscores Governor Schwarzenegger's call to modernize and expand the state's water storage and delivery system.

Irrigators recognize that water use efficiency is part of the solution to address the state's water challenges, but these actions must be coupled with needed improvements in water storage and conveyance.

And further water efficiency proposals must be grounded in reality before they are quickly accepted by policy makers and the media.