



# IDEAS IN ACTION

## PACIFIC RESEARCH INSTITUTE FACT SHEET

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### ENDING CALIFORNIA'S WATER CRISIS: A MARKET SOLUTION TO THE POLITICS OF WATER

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**W**ater is undoubtedly California's most precious resource. Many of the policies that govern California water, however, do not reflect water's value or scarcity. As a result, Californians face numerous political problems in an attempt to make the most of their limited water supply. One solution that policymakers and resource agencies are beginning to embrace is water markets.

Water markets balance supply with demand. Although they do not create new supplies, they make more efficient use of existing supplies through reallocation, promote water conservation, and allow users to get more out of their supply than they otherwise could. As California looks ahead to the future of water policy, markets should and will dominate the structure of that policy. Although their enormous potential has yet to be realized, California already has had limited experience with water markets.

The three primary types are local agricultural water markets, which exist throughout the state; agriculture-to-urban transfers, which are gaining attention and popularity mostly in Southern California; and water banking, which was used to alleviate the effects of drought in the early 1990s.

While policymakers and resource agencies have shown enthusiasm about water markets, most of the policy recommendations they put forth will not lead to effective or efficient markets. In fact, many policies that claim to promote water markets actually impede them.

Foremost is the California Department of Water Resources' (DWR) latest update of the California Water Plan: Bulletin 160-98. According to Bulletin 160-98, California will experience water shortages of 2.4 million acre-feet by 2020 (an acre-foot is about 326,000 gallons, a one-year's supply for two typical families of four.) Because DWR's predicted water shortages do not take water markets into account, they are highly inaccurate and lead to misguided policy recommendations. DWR ignores the issue of water price, as well as its effect on water use. Currently, most of California water is highly subsidized—thus, any future predictions must take these issues into account.

Moreover, Bulletin 160-98 takes a stagnant view of water use based on today's economic, demographic, and technological conditions. These inherent flaws are directly carried over into numerous water planning activities: primarily, the ongoing CALFED process, whose policy

recommendations rely heavily on DWR data.

CALFED, the federal-state task force created by the 1994 Bay Delta Accord, is currently attempting to develop a "long term water supply plan" for most of California, as well as to address environmental concerns over the Sacramento-San Joaquin Bay-Delta. To date, CALFED has proposed multi-billion dollar construction projects to create more water infrastructure, as well as additional regulations to govern California water. Rather than more dams, canals, and bureaucratic rules, however, CALFED should look to water markets.

Water markets can alleviate other perceived water crises in California as well, such as disputes over the allotment of the Colorado River. Contrary to alarmist rhetoric, the Colorado River contains more than enough water to meet the demands of all the states to which it supplies water. Interstate water markets offer the best way to allocate Colorado River water in the same way that water markets can manage water within California.

*Ending California's Water Crisis: A Market Solution to the Politics of Water* offers examples of existing water markets and makes policy recommendations to allow water markets to further benefit California. Such reforms include:

**Because DWR's predicted water shortages do not take water markets into account, they are highly inaccurate and lead to misguided policy recommendations.**

◆ **Privatize Irrigation Projects Whenever Possible.** State and federal water projects continue to provide most of California's water supply. Because these projects are funded by tax dollars and operated by public agencies, they create a significant subsidy to recipients of project water—primarily, agricultural water districts. For example, in some areas of southern California, cities pay ten to 100 times more for an acre-foot of water than do neighboring farmers. If private irrigation companies, however, operated these water projects, subsidies would end. Water bills would vary along with water use, giving water users the incentive to conserve water.

◆ **Ensure that Property Rights to Water Remain Secure and Tradable.** Secure property rights are the key to any good market. If water users do not have secure property rights to water, they cannot buy, sell, or trade that water to others. For the most part, California water rights are secure property rights based on the doctrine of prior appropriation. Yet over the past century, those rights

have been weakened. Water rights must remain secure, and water-rights holders should have greater autonomy to trade those rights to different users.

◆ **Create a Statewide Water Transfer Clearinghouse.** In order for a water market to really flow, water users must have a place where they can interact with other willing buyers and sellers. A state-wide water clearinghouse would serve this purpose. Any users who wished to sell or lease water rights would post their rights at the clearinghouse, and potential buyers would look to the clearinghouse to find rights for sale or lease. The clearinghouse could also act as an information center for water transfers in California, revealing how much trading is occurring and the effects of those trades throughout the state, as well as providing information on surface water supplies, groundwater levels, and other water conditions. Over time, the clearinghouse would develop according to water owners' needs, and it would become an even more sophisticated and valuable resource.

◆ **Create Property Rights for Groundwater as well as Surface Water.** While the majority of this report focuses on surface water, about 40 percent of the state's water supply comes from groundwater. Overdraft of groundwater basins has occurred in California for most of this century, due largely to irrigation for agriculture. The reason for this is obvious: when people have open access to free groundwater, they attempt to pump as much as possible. This situation is known as a "tragedy of the commons." Property rights, however, can rectify this situation because water users cannot pump groundwater that belongs to someone else.

◆ **Reform or Abolish the California Water Plan's Bulletin 160 Process.** The Bulletin 160 series constitutes an inherently flawed process that leads to inaccurate conclusions and misguided policy recommendations. The problems with the Bulletin 160 process are intrinsic to the process itself and cannot be remedied with simple reforms. Policymakers should, therefore, look to create a new "planning" process for California water use—one that incorporates technological improvements, economic and demographic changes, and the effect of water price on water use, and that promotes water markets as the best way to match California's water supply and demand.

◆ **Advise CALFED to Promote Water Markets, Rather Than More Water Projects.** To date, CALFED's policy recommendations rely on old-fashioned, costly approaches that postpone, rather than solve, California's water problems. Rather than prescribe that California taxpayers foot the multi-billion dollar bill for more construction projects and more regulation, CALFED should look to water markets.

◆ **Promote Interstate Water Markets as the Basis for California's "4.4 Plan".** California's "4.4 plan" is an ongoing effort to bring California back within its legal entitlement to 4.4 million acre-feet of Colorado River water annually. California presently takes 5.2 million acre-feet every year. While it is reasonable for other states to expect California to stop taking 800,000 extra acre-feet each year, it is also reasonable for California to purchase or lease Colorado River water from other states. California policymakers should petition the U.S. Department of the Interior to allow for interstate water transfers. While other states and agencies should not be required to sell or lease water to California, they should have the legal option to do so.

With 15 million new residents expected by the year 2020, forming a new and efficient water policy is not an option for California. Policymakers and resource agencies, aiming to make the most of California's limited water supply and interstate water supplies coming from the Colorado River, will take markets seriously and base reforms on the recommendations outlined in this paper. For the benefit of all Californians, water markets offer the best way to allocate and manage the state's most scarce and precious resource.



This Ideas In Action fact sheet is a digest of a publication entitled:  
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