

A market solution to california's water crisis

[Business](#), [Marketing](#)



The history of California's water pricing scheme is a complicated amalgam of laws and policies whose etiology can be traced to the early days of the state's development. This "policy soup" continues to be reflected in current water policy and includes riparian and appropriative rights to water in addition to the more recent era of California water law, which is based on the reallocation and management of the state's existing water supply.

In many areas of the state, water districts or wholesalers set prices so that agricultural users pay far less than residential users for this resource; farmers pay far less than the true cost of water. While the adoption of the proposed marginal cost pricing system may bring gains in efficiency, it may also cause a shift of water usage away from certain crops. For example, the average factor share of water by crop tells us what percent of the cost of producing a crop is accounted for by the cost of the water to irrigate it; the average factor share of corn is 21.7% while it is 5.3% for tomatoes.

This disparity demonstrates how the effects of a price increase from a marginal cost scheme would vary by crop and therefore have a greater impact on some farmers than on others, farmers who could not pass on the increased factor cost to consumers in a perfectly competitive agricultural market where they cannot influence prices. If consumers are not willing to pay enough to cover production costs, highly-impacted farmers will discontinue growing the crop altogether. It is no surprise that marginal cost pricing has met opposition from the agricultural community. One viable alternative is a market solution for California water, which may offer the best way to manage and allocate this valuable resource.

To ensure the development of an efficient and effective water market in California, several steps must be taken. First, property rights based on the doctrine of prior appropriation must remain secure. If secure rights are not maintained, parties cannot buy, sell, or trade water to others. Also, subsidies must be eliminated. Because irrigation projects such as the Central Valley Project are funded by tax dollars, a significant subsidy is facilitated to recipients of project water, primarily agricultural users; the government uses fixed prices that undervalue water rather than variable prices that reflect its true cost.

As a result, cities often pay between 10 and 100 times more per acre-foot of water than do neighboring agricultural districts. If irrigation projects are privatized, however, subsidies would cease and the price of water would reflect its true cost. Low transaction costs must also be ensured in a market system. A recently enacted law that eliminates economic roadblocks to water transfers by removing contract term limits may assist in keeping transaction costs low.

There are many benefits of a move toward a water market system. Because of gains from trade, water users could utilize their supplies more efficiently and production may increase. Markets also convey information and stimulate individual response. Notably, the disappearance of subsidies would decrease waste and promote conservation, as water bills would now vary with actual water use and therefore give farmers incentive to increase efficiency. Water is a scarce and valuable resource. While markets do not create additional water supplies, they reallocate water to make more efficient use of existing

supplies and promote conservation, which is of vital environmental and economic importance to this populous state. Consequently, policymakers may wish embrace water markets as the basis for a sound water policy in California