



INTRODUCING A WATER MARKET IN VENTURA COUNTY

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A free-market way to ease

As Ventura County struggles to cope with the long-term shortage of water, water trading has promise as a viable way to redistribute water under a free-market system that will provide an economic return on conservation, incentives to create new water supplies and flexibility as regulators reduce extraction to sustainable levels.

A water market is a way to transfer the allocation of groundwater pumping between water users. It is an administrative process that enables people who have excess water allocation to sell it to people who need it. Both sellers and buyers participate in the water exchange voluntarily.

Several states in the U.S., as well as countries including Australia, Chili and South Africa, have successfully implemented water markets as an equitable way to improve reliable water supplies, even amid devastating drought. With involvement of agricultural, municipal and environmental stakeholders, Ventura County is developing the first water market of its kind, created as a response to new groundwater regulation, the Sustainable Groundwater Management Act (2014).

With funding from the Morgan Family Foundation and the California Stewardship Network, Ventura County is working on solutions to long-term concerns. Guided by sound, long-term stewardship principles, water trading holds promise for triple bottom line impact on the urgent issue of water supply:

- Environmental stewardship for the sustainable management of our groundwater basins;
- Economic sustainability in preserving the resources that are vital to our rich agriculture economy and heritage; and
- Social equity as our purpose is the vitality and survival of the growers and labor that sustain, and are sustained by, our agriculture and food-system economy.

STRIKING A BALANCE AMONG STAKEHOLDERS WHILE CONQUERING THE EFFECTS OF DROUGHT

Ventura County's rich agriculture sector, a \$3.4 billion industry that sustains more than 30,000 jobs, is in jeopardy as it is heavily dependent on local groundwater. Though regional leadership has exercised a progressive and collaborative history of groundwater management, Ventura County basins are overdrawn or at imminent risk of becoming so, due to the ongoing drought and increasing demands for water.

Most vulnerable in a water shortage are landowners, growers, workers and food production/crop mix.

By establishing a water market, we create:

- A sustainable, equitable way to re-allocate groundwater resources among stakeholders including urban, agricultural and environmental stakeholders.
- A monetary incentive to save water and prevent over-drafting of the groundwater basin.
- Flexibility for farmers to respond to changing water availability.
- Enable environmental purchases to support sensitive habitat and increase flows for fish, thus reducing conflicts with water users over the allocation of scarce supplies.
- Incentive to innovate water-saving technologies and develop new water sources.
- Regional compliance with the California Sustainable Groundwater Management Act.
- A way for farmers to access the water needed to grow food and ensure the survival of farms as well as locally grown food—an important strategy toward combating hunger and building social equity.

the shortage of water

DEVELOPING A MODEL PROGRAM

In early 2016, Fox Canyon Groundwater Management Agency (FCGMA) in Ventura County chartered a diverse stakeholder group called the Water Market Group (WMG). WMG's goal is to develop comprehensive recommendations on the structure and operation of a water market within the jurisdiction of FCGMA, which manages groundwater extraction on approximately 50,000 acres of prime agricultural land in Ventura County as well as by the cities of Ventura, Oxnard and Camarillo.

Co-chaired by Matthew Fienup, director of the Center for Economic Research and Forecasting (CERF) at California Lutheran University, and Edgar Terry, president of Terry Farms and adjunct faculty member at CLU, the Water Market Group with some 50 members includes stakeholders representing:

- Farmers
- County of Ventura
- Water districts
- United Water Conservation District
- Cities/municipal water users
- The Nature Conservancy

In September of 2016, following 14 meetings and over 40 hours of research and deliberation, WMG unanimously approved a set of recommendations, including a recommendation for a pilot water market program involving a subset of agricultural water users on the Oxnard Plain.

The Water Market Pilot program launches in early 2017 for the Oxnard Basin of Ventura County with authorization by the FCGMA. FCGMA staff designated CERF to be the market's exchange administrator, managing all aspects of the exchange. The Economic Development Collaborative-Ventura County will provide neutral oversight of the pilot program.



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At the end of the pilot, CERF staff will work with the Nature Conservancy and FCGMA staff to report on the pilot and make recommendations on creating a broader FCGMA-wide water market.

CALIFORNIA'S COMPLEX WATER ALLOCATING SYSTEM

The state's existing system for allocating water to residents, businesses, and ecosystems is fragmented, inconsistent and lacking in transparency and clear lines of authority, according to the Public Policy Institute of California's Water Policy Center (PPIC).

Recommended reforms include streamlining state oversight of water rights, clarifying the allocation of water for environmental uses and facilitating water trading.

Policy enabling water trading would improve the way California allocates water, says the PPIC. A set of legal and policy reforms would improve California's water allocation and water rights systems and strengthen the state's ability to weather droughts and a changing climate, according to a report released by the PPIC about a year ago.

A CAP-AND-TRADE STRATEGY TO COPE WITH CALIFORNIA'S SUSTAINABLE GROUNDWATER MANAGEMENT ACT

Having this diverse group of stakeholders achieve consensus as they explore water trading makes Ventura County a leader in developing a sustainability plan required by the state's Sustainable Groundwater Management Act (SGMA).

In the Water Market Pilot, water allocation will be based on a fixed allocation, so farmers can change crops and sell surplus water allocation to other farmers, instead of being allocated by the Fox Canyon Groundwater Management Agency based on what crop is being grown. This gives farmers flexibility in how they run their businesses and control of how to use their water. If they create savings, they can sell the surplus water to another user. The footprint of the pilot will be limited to the inland half of the Oxnard Plain.

A key component to launching the pilot water market is advanced metering infrastructure (AMI) developed by Ranch Systems. AMI will provide accurate, real-time extraction data, using solar-powered radio transmitters and cloud-based data management. Fox Canyon's use of AMI represents another first in the state.

WATER MARKETS IN CALIFORNIA AS AN ENVIRONMENTAL STEWARDSHIP STRATEGY

"Unlike most other water markets in the U.S., trades in the California market are predominantly for water (for short-term use) not water rights (for long-term use). Another innovative component of the California water market is the approach to environmental protection by including "environmental players" such as the Environmental Water Account (EWA), whose main purpose is the acquisition of water for environmental protection. Such innovations make the California water market an excellent test case for understanding the future potential of water markets to efficiently allocate water resources and, concurrently, meet environmental goals, including both environmental protection and restoration."

--Stanford Woods Institute for the Environment



Photo by John Noble

"These developments in market-based groundwater trading in Ventura County not only demonstrate leadership and innovation, but tremendous collaboration among a very diverse and determined stakeholder group. Thanks to them, we are taking an important step toward long-term economic stability in an environmentally sound way that benefits all."

Bruce Stenslie, CEO, EDC-VC



1601 Carmen Drive, #215 • Camarillo, CA 93010
(805) 384-1800 • Fax: (805) 384-1805
www.edc-vc.com

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