

Trading water

A liquid market

Los Angeles

Caps on groundwater use could flood California with a new type of trade

In the San Joaquin Valley agriculture accounts for 18% of jobs and agriculture runs on water. Most of it comes from local rivers and rainfall, some is imported from the river deltas upstate, and the rest is pumped out of groundwater basins. During the drought of 2012-16 landowners pumped more and more groundwater to compensate for the lack of rain. Thousands of wells ran dry. As a result, California passed a law requiring water users to organise themselves into local Groundwater Sustainability Agencies (GSAS), with the aim of bringing groundwater use to sustainable levels by the early 2040s. In the driest basins, GSAS must file plans on how to do so by the end of January 2020.

The Public Policy Institute of California (PPIC), a think-tank, estimates that this could result in as much as 15% of the valley's 5.2m acres of irrigated cropland lying fallow. At first glance, each farmer seems to be faced with a choice: let land go fallow or grow crops which use less water. But if landowners in the San Joaquin Valley traded both groundwater and surface water, they could cut their revenue losses by half, according to the PPIC's estimates.

"Water is an asset and markets would allow you to allocate it in the right way," says Edgar Terry, a farmer in Ventura County, 50 miles south of the San Joaquin Valley. If landowners lease pumping rights to others for more than they would earn from using the water to grow additional crops, they benefit. Buyers may make larger profits from the additional crops they can grow than the water costs them. Towns or industrial users may pay landowners for additional pumping rights. The scarce resource would flow towards its most efficient use.

Given the potential benefits of a market-based approach, non-profits such as the Environmental Defence Fund, the Fresh Water Trust and the Nature Conservancy have stepped up in to advice the GSAS on how to set up markets around California.