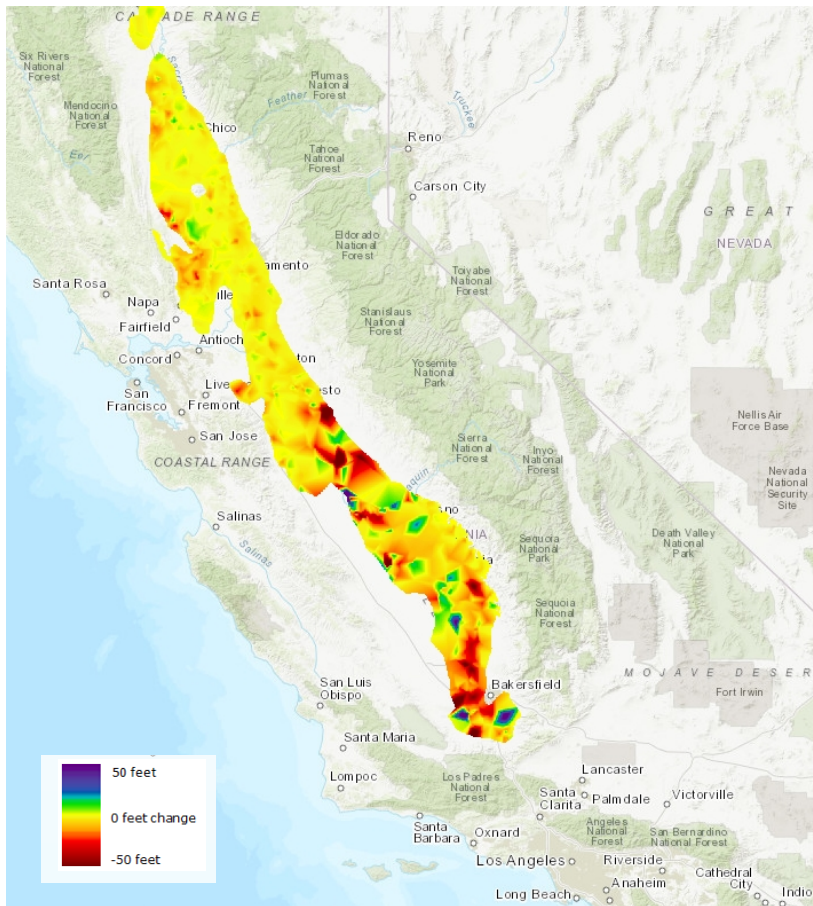


THE SUSTAINABLE GROUNDWATER MANAGEMENT ACT'S FIRST GROUNDWATER MARKET

A CASE STUDY OF FOX CANYON

CALIFORNIA'S HISTORY OF GROUNDWATER OVERPUMPING

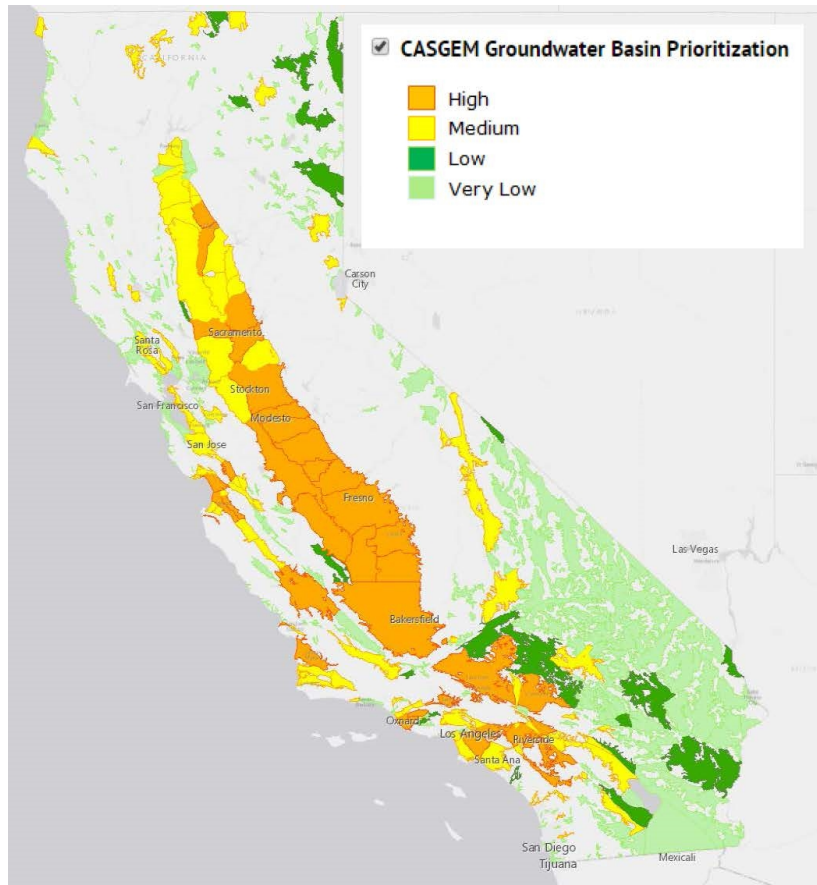
GROUNDWATER LEVEL CHANGE, SPRING 2014-2015



LANDMARK GROUNDWATER LAW PASSES 2014

127 BASINS REQUIRE SUSTAINABILITY PLANS

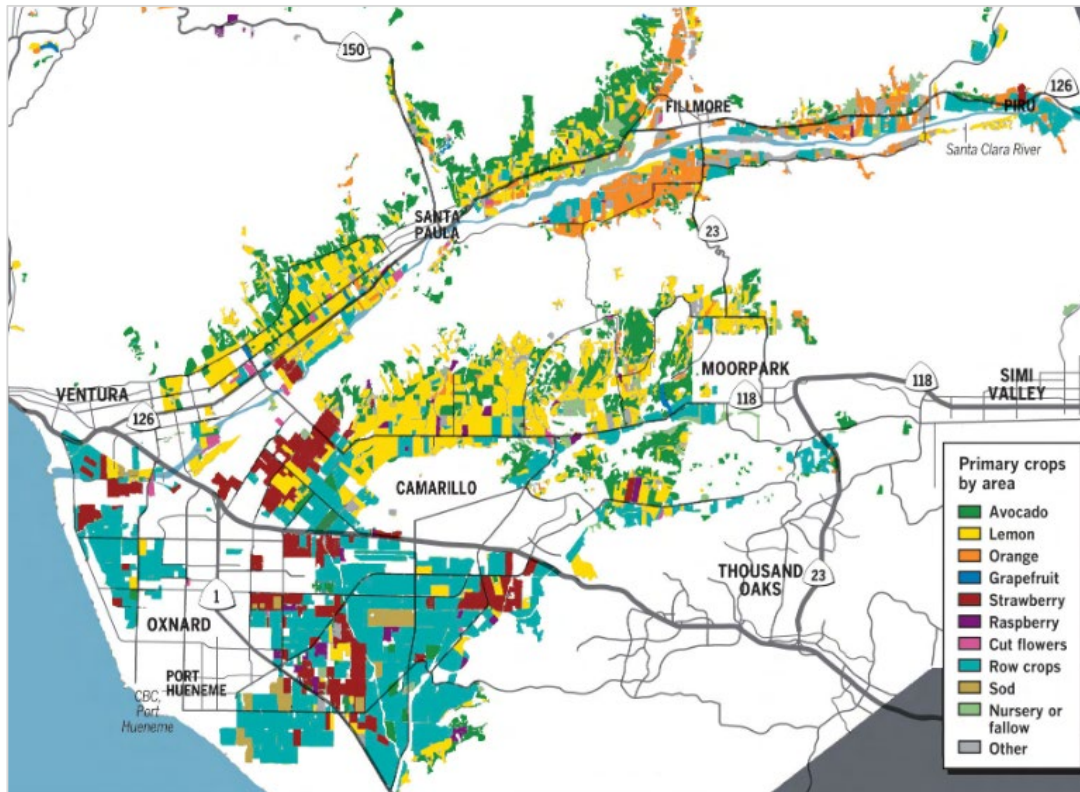
21 CRITICALLY OVERDRAFTED BASINS PRIORITIZED



SOURCE: CALIFORNIA DEPARTMENT OF WATER RESOURCES

VENTURA COUNTY, CALIFORNIA

HIGH-VALUE AGRICULTURE + HABITAT ON THE FRINGE OF LOS ANGELES



SOURCE: VENTURA COUNTY FARM BUREAU

WHY A GROUNDWATER MARKET IN VENTURA COUNTY?

ENABLING CONDITIONS

- **Water scarcity:** cuts of up to 40%
- **Governance:** Fox Canyon GMA established 1982; automatic GSA
- **Majority support:** grower-led initiative
- **Technical expertise:** Economist at California Lutheran University, Matthew Fienup
- **Funding & capacity:** \$1M+ Conservation Innovation Grant

FOX CANYON GROUNDWATER MARKET DESIGN

Market Formation

- Open group of ~50 diverse stakeholders
- CLU as facilitator + exchange administrator

Elements + Rules

- AMI required for agricultural wells
- Agricultural water users + 3rd parties
- Temporary trades only
- Restricted trading in 2 Special Management Areas
- Blind algorithmic matching



TESTING THE FOX CANYON GROUNDWATER MARKET

2 PILOT PHASES

Phase 1 Pilot: 47 wells

- Market eligibility tested
- First AMI units installed
- Exchange data portal created

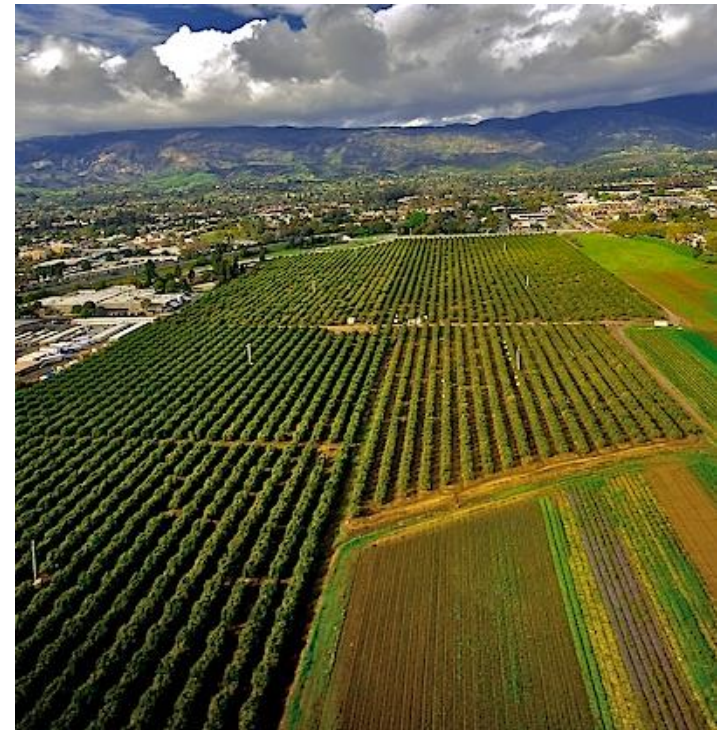
Phase 2 Pilot: 96 wells

- Full AMI rollout
- Incentive program created
- Goal to test trading for 1 year



FOX CANYON GROUNDWATER MARKET: LESSONS LEARNED

- **Complexity** requires subject-matter expertise
- Significant **capacity** needed for implementation + participation
- Agency + stakeholder **support** essential
- **Allocations** a significant challenge
- Must be **transparent, fair** and **low-cost**



A wide-angle landscape photograph. In the foreground, a vineyard with rows of young green grapevines stretches across the frame. The ground between the vines is a mix of green grass and brown soil. In the middle ground, a wide, dry riverbed or floodplain is visible, with some sparse vegetation and utility poles. In the background, a range of mountains with green and brown slopes rises against a blue sky with scattered white and grey clouds. The word "QUESTIONS?" is overlaid in large, white, sans-serif capital letters in the center of the image.

QUESTIONS?