

Improving California's Water Market: Groundwater Markets

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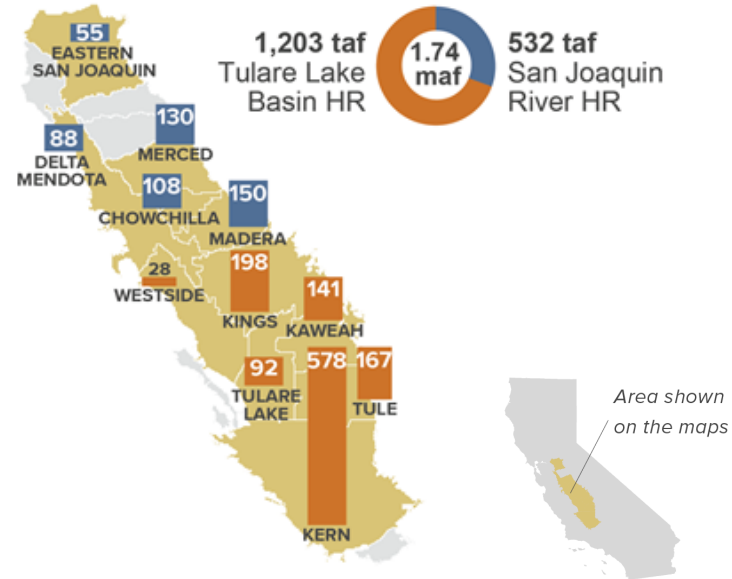
SGMA will prompt demand management

- SGMA plans focus on recharge, but pumping reductions are unavoidable in many basins
- Why have a market?
 - Reduce costs of sustainability
 - Clarify who has the right to pump
 - Facilitate drought adaptation, banking

Opportunity for trade in overdrafted basins

- Scarcity can create value differentials
- Short-term (drought) and long-term (SGMA) reallocation
- Trade across (SW) and within (SW/GW) basins
- Groundwater banking

Overdraft recalculated from the plans (2003–10)



Groundwater trading supports sustainability

- Groundwater trading is not new to California, but SGMA will drive expanded interest
 - **Mojave Basin** (San Bernardino County)
 - **Chino Basin** (Inland Empire)
 - **Fox Canyon GMA** (Ventura County)
 - **Rosedale-Rio Bravo WSD** (Kern County)
 - **Borrego Valley Basin** (San Diego County)

Groundwater Markets: Enabling Conditions

Markets require several enabling conditions

1. Secure Property Rights
2. Accounting: Measurement & Reporting
3. Hydrologic Connection
4. Transparent Market Information
5. Mechanism to Address Third-party Impacts

Recommendations for Groundwater Markets

Trading will require allocation of groundwater

- Tie allocations to the different types of groundwater
- Consider flexible carryover rules
- Make judicious decisions about transitional water
- Develop strong monitoring and enforcement systems

Smart, streamlined management of impacts

- Establish stronger systems for anticipating and addressing undesirable impacts of pumping
- Pay special attention to drinking water impacts in small, low-income, well-dependent communities
- Establish specific rules to address impacts from trading and banking
- Streamline transfer reviews while maintaining protections

Other recommendations

- Develop more equitable local rules for groundwater substitution transfers
- Provide transparent market information
- Promote within and cross-basin collaboration on water trading
- Encourage collaborative approaches to capturing water for banking

Final thoughts

- Groundwater market development rests with GSAs, their members, and interested parties
- Priorities: defining allocations and ramp-down
- Important to facilitate low-cost trading while addressing third-party impacts
- Well-designed markets will reduce the costs of SGMA and enable easier adaptation in the future

Thank You

These slides were created to accompany a presentation. They do not include full documentation of sources, data samples, methods, and interpretations. To avoid misinterpretations, please contact:

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Thank you for your interest in this work.