

MADERA

ESTABLISHED 1893



HEART OF CALIFORNIA

COUNTY



Madera County

- Madera County has land in three critically overdrafted subbasins
 - Madera
 - Chowchilla
 - Delta-Mendota
- County as County GSA is responsible for approximately 215,000 acres of “white area” of which roughly half is irrigated
- County GSA has adopted an allocation and is completing a rate study for:
 - Recharge
 - Water supplies
 - Resting and Repurposing land
 - Domestic Well Mitigation



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Bureau of Reclamation WaterSMART Water Market Strategy Grant

Strong grower interest in a water market led Madera County to apply for the grant in 2018

The contract for the grant was awarded in 2019

Madera County issued an RFP and awarded a contract to Corona Environmental Consulting (with Kearns & West) for grant tasks including:

- Stakeholder Interviews
- Workshops
- Creation of Rules
- Creation and Operation of a Pilot Program



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Stakeholder Interviews

Interviews were conducted by Kearns & West:

- Groundwater Sustainability Agencies
- Farm Bureau
- Cattlemen's Association
- Grower Group
- Resource Conservation District
- Disadvantaged Community Group Advocates



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Key Stakeholder Findings

Support

- Groundwater markets provide flexibility
- Groundwater markets could be a key tool

Conditional Support

- Details, transparency, and equity matter
- Trust needs to be built
- Enforcement matters



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Key Stakeholder Findings

Non-Support

- Concerns that markets are not appropriate for natural resources
- Concerns that markets will impact drinking water supplies
- Concern that the County does not have the time or resources to provide oversight, regulation and enforcement
- Concern that County was pursuing a water market due to stakeholder pressures
- Concern that land fallowing does not exist as an option amid permanent crops
- Concerns that a pilot project will distract from basin-wide solutions



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Workshop #1 – In person

- 43 people in person + staff/consultants
- Topics included
 - Water Rights 101
 - Water Market Overview
 - Water Market Examples
 - Mapping of Opportunities and Constraints
 - Highlights include discussions on confidentiality/transparency as well as small farmers
 - Confusion between SGMA and the water market
- “We are concerned about the fundamental premise of the market, which assigns a value to groundwater that can be bought and sold by individual participants, which does not take into account the invaluable price of drinking water and water for ecosystems.”



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Workshop #2 – Online – Understanding Concerns

96 people plus staff/consultants

Topics included

- Allocations
- Market exchange structures
- Confidentiality and transparency
- Market structure options including rules
 - Trading zones
 - Carryover
 - Caps on amount purchased or sold
 - Prohibitions on re-selling
- “These rules all have a basis in legitimate concerns. There is no ‘right’ answer to these suggestions. There does need to be a body overseeing these rules that has the goodwill and the good sense to make adjustments as needed in the regulations.”



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Workshop #3 - Online

79 people + staff/consultants

Discussion focused on the proposed simulation:

- Trading zones
- Buffer areas
- Carryover
- Matching buyers and sellers

“I need to realize at some point most of these meeting are to recruit people to help "rearrange the deck chairs" not help solve actual critical problems.”



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Pilot Project

A simulation of a groundwater market

- 9-month period of real time simulated 9 years between 2020 and 2040
- Trades of sustainable yield allocation water occurred each month
- 58 people signed up; 25 people reliably participated each month
- Crops and zones were assigned to growers
- Variable hydrology including lengthy dry periods
- Feedback was provided during the trade once a month



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Challenges in Simulation

- Growers reduced their acreage rather than sold water
- Permanent crops and their high demand made for a less flexible market
- Expectation from ranchers of the ability to sell groundwater that they were not using
- Expectation from growers that this was the entire solution to water scarcity
- Learning curve for market function
- Administration of the market



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Lessons learned...

- A market allows for trading allocations to pump and must first have a functioning allocation approach
- Market would allow the ‘trading’ of allocations to pump groundwater – not actually moving groundwater from one place to another
 - Continued overdraft adverse to the GSP’s sustainability goals can occur if one area overbuys to maintain today’s pumping quantities
- GSA’s actual allocation approach includes Farm Units to provide a degree of flexibility growers would hope a market could provide
 - Provides more time to evaluate if a market for groundwater allocations is appropriate/functional



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