



The Water Resilience Portfolio (Portfolio) is guided by Governor Newsom’s Executive Order N-10-19, which calls for a “set of actions to meet California’s water needs through the 21st century.” Within the Portfolio, Action 3.6 relates to the topic of groundwater trading.

Action 3.6 calls on the Department of Water Resources, the State Water Resources Control Board, the California Department of Food and Agriculture, and the Department of Fish and Wildlife to create flexibility for groundwater sustainability agencies to trade water within basins by enabling and incentivizing transactional approaches, including groundwater markets, with rules that safeguard natural resources, small- and medium-size farms, and water supply and quality for disadvantaged communities.

The Commission is holding two statewide workshops to hear from stakeholders about their views on groundwater trading and the State’s role in it. Following these workshops, the Commission will develop a white paper with recommendations to the implementing agencies.

*Groundwater Trading
Safeguards for
Vulnerable Water Users*
WORKBOOK

October 2021

AGENDA

Groundwater Trading Safeguards for Vulnerable Water Users Workshop

Thursday, October 28, 2021, 2:30 – 5:00pm

Friday, October 29, 2021, 9:30 – 12:00pm

Session Goals:

1. Hear from diverse participants about how groundwater trading could impact or benefit them.
2. Create opportunities for Commissioners to hear directly from stakeholders.
3. Gather information and test assumptions around:
 - a. opportunities and concerns around groundwater trading,
 - b. potential impacts to ecosystems, farms, and communities, and
 - c. a State role in enabling groundwater trading with safeguards for water users.

Time	Item
--	Pework - Session participants are invited to provide input on the characteristics of well-managed groundwater trading and how the State can best advance guidance on these characteristics. Add your thoughts at https://www.surveymonkey.com/r/GW_Trading1 .
2:30pm/9:30am	1. Login, Handouts, and Meeting Logistics <ul style="list-style-type: none"> • Where Are You From?
2:40pm/9:40am	2. Welcome and Greetings <ul style="list-style-type: none"> • Session Goals, Definitions, Where We've Been and Where We Are Going • Agenda Review
2:55pm/9:55am	3. Panel Discussion: How Will Groundwater Trading Impact Different Stakeholders? <ul style="list-style-type: none"> • Q&A
3:20pm/10:20am	4. White Board Exercise: Thoughts, Opinions, and Concerns about Groundwater Trading
3:30pm/10:30am	5. Presentation: Cross-Cutting Themes and Points of Divergence
3:40pm/10:40am	6. Breakout Session: Points of Divergence <ul style="list-style-type: none"> • Report-out
4:10pm/11:10pm	7. Presentation: The Role of the State
4:20pm/11:20am	8. Large Group Discussion: The Role of the State
4:50pm/11:50am	9. Next Steps
4:55pm/11:55am	10. Closing Remarks
5:00pm/12:00pm	11. Adjourn

Session Pre-Work

While you are waiting for the session to start, if you have not already, please complete the pre-work survey at https://www.surveymonkey.com/r/GW_Trading1.

Workshop Questions and Discussions

Agenda Item 1 – Where Are You From?

During the live Zoom meeting, reply here: <https://pollev.com/lisabautler208>



Agenda Item 2 – Welcome and Greetings

Introduction

Groundwater trading is a topic that has received renewed attention after the passage of the Sustainable Groundwater Management Act (SGMA) in 2014. SGMA established a framework of priorities and requirements to facilitate sustainable groundwater management throughout California. The intent of SGMA is for groundwater to be managed by local public agencies (Groundwater Sustainability Agencies [GSAs]) to ensure a groundwater basin is operated sustainably through the development and implementation of a Groundwater Sustainability Plan (GSP).

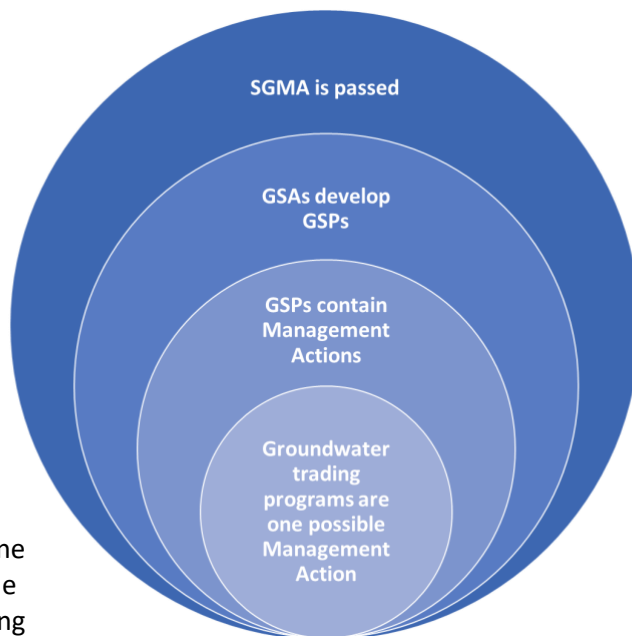
In some cases, GSAs plan to use groundwater trading as one tool among many to sustainably manage their basin. Of the forty six submitted GSPs, nineteen will be or are considering setting up a groundwater trading program. To date, several GSAs are already developing trading programs. GSAs and existing water rights holders have the ability to set up these programs: the State does not have any regulatory authority to tell a GSA or other entities that it must, or how to, develop a groundwater trading program. Stakeholders do have a say in the process of developing groundwater trading programs by engaging with their GSA.

Groundwater trading may reduce the economic hardships caused by water scarcity by giving water users flexible, voluntary mechanisms to shift available water to where it is needed most. Where feasible to implement, these programs should be well-designed to ensure that third parties are not impacted.

The Commission’s Approach

The California Water Commission is leading a thorough and inclusive public dialog to frame State considerations around how to shape well-managed groundwater trading programs. “Well-managed groundwater trading” programs are based on sound water accounting, well thought out groundwater allocations, strong stakeholder engagement, and carefully developed trading rules that protect the interests of communities, ecosystems, and small farms, and avoid negative impacts. The Commission will consider if the State has a role in enabling well-managed, locally designed, and locally-led trading programs. The Commission will not consider the trading of water futures as part of this effort.

Drawing on public discussions, the Commission will develop a white paper that guides the continued work on Action 3.6 by the Department of Water Resources, the State Water Resources Control Board, the California Department of Food and Agriculture, and the Department of Fish and Wildlife. The white paper will include a set of conclusions and next steps around how to shape well-managed groundwater trading programs with appropriate safeguards for communities, ecosystems, and small farms, and will address engagement, oversight, governance, and what the role the State could play in advancing well-managed groundwater trading.



Bookends: What is Being Considered

Action 3.6 outlines the topics that will be the focus of workshop discussion.

Natural resources, small- and medium-sized farms, and disadvantaged communities.

These three specific topics are the focus of this effort.

State Role. The dialogue is about what role the State could play in groundwater trading and to what extent the State could act to provide safeguards for the environment, smaller farmers, and communities.

Scale. The basin or subbasin scale is the spatial extent. Transboundary transactions are not under consideration.

Agenda Item 5 – Presentation: Cross-Cutting Themes and Points of Divergence

As part of the Commission’s work on groundwater trading, the Commission hosted expert panels at its monthly meetings and staff interviewed sector leaders in small group settings to discuss groundwater trading. The Commission heard from tribal representatives, environmental interests, water associations, GSAs, agricultural interests, State agencies, federal agencies, academia, economists, utilities, water banks, wholesalers, community-based organizations, and wildlife managers. From these discussions, several cross-cutting themes arose, in addition to points of divergence.

Cross-Cutting Themes

The topics below were commonly discussed among experts and interviewees.

- **Trust is critical** – Groundwater trading starts and ends with trust, which is sometimes lacking due to long-standing historical issues. This includes both interpersonal trust and institutional trust.
- **Part of a larger groundwater management effort** – Groundwater trading is not a silver bullet for “solving” sustainable groundwater management; it will not fix over-pumping by itself. Rather, it is one tool in the toolbox.
- **Good trading starts with good GSP, water budget, water accounting, and allocations** – If these precursors are not done well, a well-managed groundwater trading program is not feasible.
- **Good data is imperative** – To design a well-managed groundwater trading program, GSAs or other entities need high quality data. Data helps decision-makers understand basin characteristics, the impacts of trading, and who may be impacted. Data can be used as one means to ensure fairness and monitor impacts.
- **Start small** – Starting with a limited geography and duration increases flexibility and allows a program to respond to new data and adapt safeguards.
- **Beware market power and gaming the system** – Experts and interviewees expressed concern over inequities in trading. Municipalities, large farms, and investors could drive up prices or create user blocs that dictate where water goes. There are also concerns about outright lying, coercion, etc.

Points of Divergence

Three main points of divergence emerged from these interviews:

1. Transparency vs. Confidentiality
2. Customization vs. Standardization
3. Local Control vs. State Oversight

The differing views are explained in more detail on the next page, which offers some guiding questions for the break-out discussion.

Transparency vs. Confidentiality

When considering or making transactions, information about the seller, buyer, price, and terms are recorded. This information can be made confidential or transparent. The level of confidentiality may change from location to location or could be a function that the State oversees.



Customization vs. Standardization

Groundwater trading is a relatively new and evolving management tool. There is a school of thought that says groundwater trading should be explored without standards to allow for ingenuity, flexibility, and local control. The opposing school of thought says that standardization is needed to safeguard vulnerable users, maximize resources, and provide a certain level of quality control.



Local Control vs. State Oversight

Under SGMA, GSAs are charged with sustainably managing their basin. The State's role is to review and approve the GSPs, provide assistance (technical, financial, and facilitation), and, in the event of noncompliance, take over basin management. When it comes to groundwater trading, there are those who believe that it should be left to the locals, in alignment with SGMA, and those who think the State needs to play a larger oversight role. They feel that there must be a State backstop to ensure that trading is done well and negative consequences are properly addressed and mitigated.



Agenda Item 6 - Breakout Session: Points of Divergence

1. Tell us more about where you fall on the spectrums on the previous page.
2. Consider the questions under each side of the spectrum. How would you manage and bridge the difference?

Staff or a facilitator will be assigned to your group to watch time and encourage discussion. About thirty minutes have been allotted for discussion. The small group should select a spokesperson to share their findings with all the participants.

Agenda Item 7 – Presentation: The Role of the State

There are many ways in which the State could engage on groundwater trading. Some examples are provided below.

- **Provide information & education** – Interviewees shared a request for a centralized location for information on groundwater trading. The State could provide a clearinghouse, online platform, meeting space, or conference to fill this need. Part of this information sharing could also include a process for greater education. What kinds of information or education would be helpful to increasing trust and engagement and improving outcomes as groundwater trading programs are developed?
- **Provide technical & financial assistance** – The State could provide technical and financial assistance for target groundwater trading specifically. For instance, state funding could be used to help GSAs educate and engage local communities on the topic of groundwater trading. Resources could be used for research, data development, and facilitation to support groundwater trading, or for developing regional points of contact for information sharing. What types of technical or financial assistance would help enable well-managed groundwater trading programs?
- **Provide guidance and/or minimum standards** – Through the SGMA process, the Department of Water Resources has developed several Best Management Practices (BMPs). A groundwater trading BMP could outline practices or methodologies that result in well-managed trading programs, such as data collection and safeguards for vulnerable water users. The BMPs could be used as a requirement to receive benefits (e.g., technical, financial assistance), part of the GSP approval process, or simply as guidelines. How can the State best provide guidance to enable groundwater trading with safeguards for vulnerable users? What are examples of safeguards that would be helpful?
- **Ensure Human Right to Water is met** – The state of California codified a human right to water in 2012. The State has a responsibility for ensuring water is safe, clean, affordable and accessible for human consumption. As it relates to groundwater trading, the State could have a role in overseeing and potentially even establishing safeguards for vulnerable users. How can the State ensure the Human Right to Water is met and support the flexibility and evolution of groundwater trading programs within basins?

Agenda Item 8 – Large Group Discussion: The Role of the State

Participants will interact in a large group discussion to consider the State’s role. A guiding question is provided below. Please use the chat feature or raise your hand to provide input.

What role could the State play in ensuring that groundwater trading programs are well-designed and well-managed, providing safeguards for vulnerable water users?

Agenda Items 9 & 10 – Next Steps and Closing Remarks

Commission staff will describe next steps and the session will be adjourned.



October 28, 2021, Panelists

Sarah Heard, The Nature Conservancy

Sarah Heard leads MarketLab, a unique function in The Nature Conservancy's California chapter that uses economics and finance to accelerate conservation. Sarah supports the Land, Land Networks, Water and Oceans teams in developing innovative market-based approaches to the chapter's conservation objectives. Since 2016, she has been deeply involved in the design and implementation of the Fox Canyon groundwater market.

Dave Runsten, Community Alliance with Family Farmers

Dave Runsten has been the Policy Director at the Community Alliance with Family Farmers (CAFF) in Davis, California, for the past 15 years. Dave directs all of CAFF's policy work as well as the food safety and water stewardship outreach. Previously, Dave spent ten years running a research center at the UCLA Luskin School of Public Affairs.

Aaron Fukuda, Tulare Irrigation District

Aaron Fukuda is the General Manager for the Tulare Irrigation District. Aaron also serves as the Executive Director for the Mid-Kaweah GSA. Through this role, he is working towards establishing a groundwater market for the Kaweah Subbasin.

Eddie Ocampo, Self-Help Enterprises

Eddie Ocampo is Program Director for the Community Sustainability Department at Self-Help Enterprises. As the Program Director, he collaborates with rural and low-income communities to identify energy, water, and wastewater systems' needs and solutions.

October 29, 2021, Panelists

Christina Babbitt, Environmental Defense Fund

Christina Babbitt is the Director, Climate Resilient Water Systems, at the Environmental Defense Fund. Christina works to advance and scale water sustainability policies and practices across California and the western United States. She currently serves on the California Water Data Consortium steering committee and the Rosenberg International Forum on Water Policy advisory committee.

Ruth Dahlquist-Willard, UC Cooperative Extension

Ruth Dahlquist-Willard is the Small Farms and Specialty Crops Advisor for UC Cooperative Extension in Fresno and Tulare Counties. Ruth coordinates an extension program supporting small-scale, diversified, and socially disadvantaged farmers through individual extension support, bilingual outreach and training in Hmong, Lao, Spanish, and Punjabi, research on small-acreage specialty crops, and policy engagement.

Stephanie Anagnoson, Madera County

Stephanie Anagnoson is the Director of Water and Natural Resources at Madera County. Trained in geology, Stephanie serves as the manager for the Madera County GSA for the Madera Subbasin. Additionally, she acts as the flood control manager for the County.

Amanda Monaco, Leadership Counsel

Amanda Monaco works as a Policy Coordinator - Water Programs at Leadership Counsel. As the Policy Coordinator, she helps communities organize and fight for their rights to equitable access to drinking water and wastewater services and sustainable groundwater management.