



# Kaweah Subbasin Water Marketing Strategy

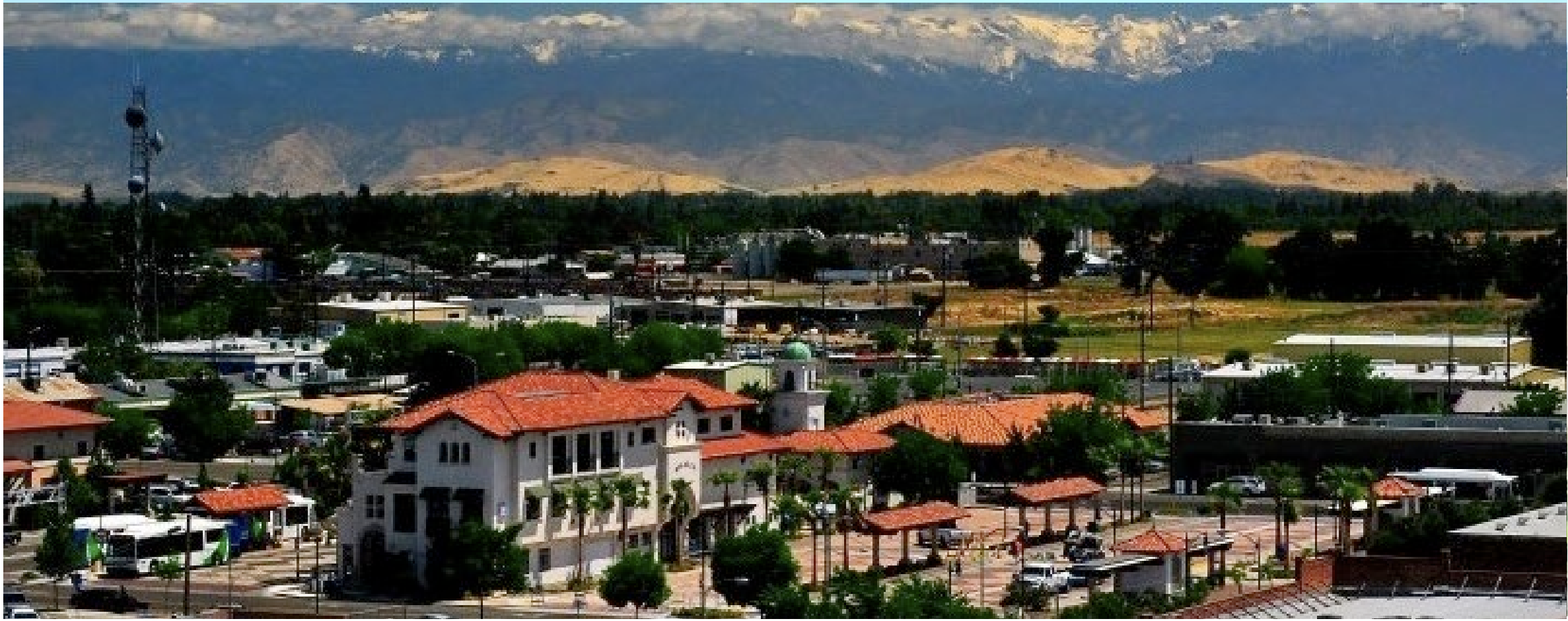
Strategy Committee Meeting  
March 23, 2022



# Agenda

1. Welcome and Previous Meeting Recap
2. Legal Team Update
3. Engineering Team Update
4. Existing Water Markets
5. Water Market Strategy Guiding Principles
6. Next Steps
7. Public Workshop No.2 scheduling





# Welcome & Previous Meeting Recap



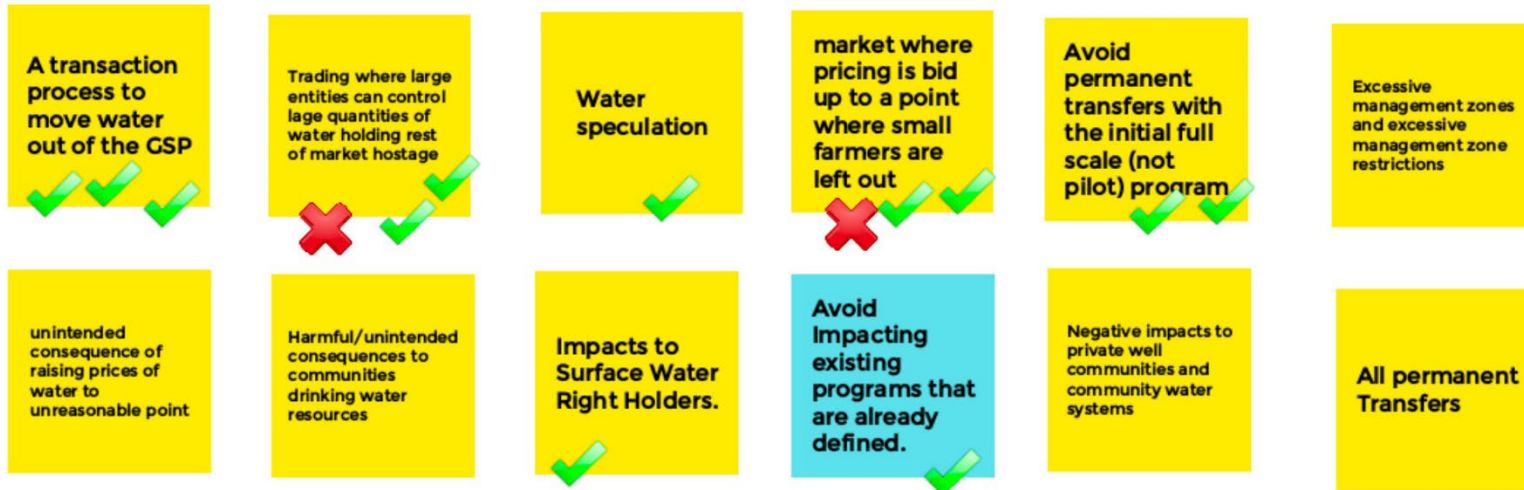
# Water Market Guiding Principles: JamBoard

What should the water marketing strategy ACCOMPLISH?

<p>Be very low cost to conduct and administer transactions</p>	<p>Should provide Equitable trading policy</p>	<p>Equitable water market that is protective of drinking water users</p>	<p>Align the Human Right to Water with water market</p>	<p>Adequate inclusion of the needs of DAC/SDACs re: drinking water and water quality protection</p>	<p>Minimalistic approach to achieve sustainability goals</p>	<p>Identify potential benefits to DAC/SDAC communities</p>	
<p> <b>Simplicity</b></p>	<p>Create a component of the marketing strategy to move water between all 3 GSA's in the Kaweah basin</p>	<p>Transparency</p>	<p>Strive to develop a Market to provide the most flexibility to landowners to develop their business plans and be a landowner driven process.</p>	<p>Allowable movement of water should be directly tied to groundwater levels in monitoring program to avoid undesirable results</p>	<p>Anonymous trading</p>	<p>Provide a market in which landowners can mitigate financial impacts of following by the sale of excess water assets</p>	<p>Transfer distances regulated on a case by case basis rather than an one size fits all. ie: ( 1 mile for a user transferring allocation to a location near a municipal well and 3+ miles for a user transferring allocation where there are no municipal wells)</p>
<p>Buffer zones around disadvantaged communities: private &amp; community wells</p>	<p>Robust stakeholder engagement</p>	<p>Clearly defined water carryover policy</p>	<p>Disadvantaged communities need to be engaged in shaping groundwater markets (these types of meetings need to be held in the communities, bilingual educational materials)</p>	<p>Incorporation of Following Program into market</p>	<p>Protection of groundwater dependent ecosystems</p>	<p>Daily reporting of water trades</p>	<p>InterBasin and InterGSA Trading Policy along borders</p>
<p>Electronic clearinghouse for both viewing and making trades.</p>	<p>Include an emergency drinking water mitigation plan</p>	<p>Blockchain based Market using DAO Smartcontracts</p>	<p>Groundwater level monitoring near vulnerable groundwater areas, like communities that rely on shallow wells</p>	<p>Open platform allowing direct communication between buyer and seller. Platform should still require reporting to GSA.</p>	<p>Identifying groundwater allocations that adequately address community needs now and into the future</p>	<p>should not only detect the status and trends of groundwater conditions, but must also be deployed to ensure that the market is running well and is not resulting in adverse impacts to groundwater quality and/or groundwater</p>	<p>Use the emergency program to test some features of the permanent program</p>

# Water Market Guiding Principles: JamBoard

What should the water marketing strategy AVOID?



# Water Market Guiding Principles: JamBoard

Accomplish/Avoid	Original Comment	For	Against	Guiding Principle	Secondary Principles	Notes
Accomplish	Create a component of the marketing strategy to move water between all 3 GSAs in the Kaweah basin	4		Flexibility	Adaptability	
Avoid	A transaction process to move water out of the GSP	3		Do no harm	Adaptability	
Accomplish	Strive to develop a market to provide the most flexibility to landowners to develop their business plans and be a landowner driver process	2		Adaptability		
Avoid	Avoid permanent transfers with the initial program	2		Do no harm	Adaptability	
Accomplish	Transferability that is evaluated on a case by case basis rather than an one size fits all		5	Flexibility	Do no harm	
Accomplish	Interbasin and InterGSA trading policy along borders			Flexibility	Adaptability	
Accomplish	Blockchain based market using DAO			Transparency	Ease of Use	
Accomplish	detect the status of trans of groundwater conditions but must also be deployed to ensure that the market is running well and is not resulting in adverse impacts to groundwater quality			Do no harm	Transparency	
Accomplish	Use the emergency program to test some features of the permanent program.			Adaptability	Flexibility	
Accomplish	Allowable movement of water should be directly tied to groundwater levels in monitoring program to avoid undesirable results			Do no harm	Adaptability	

# Water Market Guiding Principles

## JamBoard Exercise: Guiding Principles

- **Flexibility**  
Provide water users with flexibility to comply with new regulations and to respond to changing water availability
- **Adaptability**  
The WMS should anticipate adjustments in practices, rules and procedures as conditions change and as the experience of market participants grows and new information becomes available.
- **Transparency**  
The process of developing the WMS and for conducting market activities should be visible and understandable to all stakeholders. Transparency includes the availability of accurate and reliable water use data and the timely reporting of water market activity.
- **Do No Harm**  
The WMS strategy should anticipate and mitigate the risks of adverse impacts to third parties including DACs, GDEs, and small farms. The WMS should create mechanisms which address impacts as they are revealed.
- **Equity & Inclusion**  
The WMS should be developed with an open process that includes the full range of potential market participants and other stakeholders who could be impacted. Implementation of the WMS should be relatively simple and understandable to all stakeholders. In addition, the WMS should mitigate Market Power, the ability of certain participants to limit the participation of others.





# Legal Team Update



# Related Planning Activities

## 2.1 Analyzing Water Rights Within the Marketing Strategy

- Develop a framework for understanding relationship between water rights and transfer of pumping allocation
- Provide guidance regarding unit of trade, program period, duration of transfers, limitations on transferability

## 2.2 Research Existing Water Markets & Strategies

- The Stantec Team will prepare a survey of existing water markets around the United States and the world with careful attention to specific structures, operational mechanisms and rules employed by each, including:
  - Unit of trade
  - Allocation methodology
  - Eligible trading parties and types of trade
  - Mitigation of 3rd-party effects and Market Power

# Legal Team Planning Activities

## 3.1 Develop Legal Framework

- Identify various administrative acts which are required in order for GSAs to implement a water marketing strategy
- Provide guidance regarding ordinances and other administrative acts by the GSAs which:
  - Authorize the transfer of pumping
  - Adopt specific structures and operating mechanisms for a market, including rules governing trade, extraction monitoring, and penalties for over-pumping
  - Create a contract or agreement authorizing an exchange administrator
  - Create a water market participation agreement for water users

## 3.2 / 3.3 Develop Terms, Standards, Rules & Procedures

- Water market program period (including trading cycle and reporting cycle)
- Unit of trade and type(s) of allowable trades (annual, multi-year, permanent)
- Limitations on trade (management areas, directional restrictions, exchange ratios, minimum allocations, protections for DACs & GDEs, etc.)
- Initial allocation of exchange quantities or “credits”
- Participant eligibility requirements
- Mechanics of trade (submitting bids & offers, matching rules, reporting of transfers, price information, clearing & settlement)
- Regulatory approval of transfers
- Anonymity / Confidentiality of Market Participants
- Resolution of Market Disputes
- Enforcement of allocations and transfers





# Engineering Team Update





# Existing Water Markets Update



# Existing Water Markets

## Auctions / Reverse Auctions

### **Buena Vista Water Storage District, Kern County – *auction & fallowing incentive***

2014 Sealed-bid auction for 12,200 AF of stored water

Starting bid of \$600 per AF (3x prevailing price of State Water Project water)

50 bids received

Bid price of \$600 – \$1,350 per AF

Four winners purchased the water for an average price of \$1,135 per AF

Total revenue \$13.9 million

Fallowing incentive of \$400 per acre

11,000 acres applied for incentive

7,500 acres fallowed at a cost of \$3 million

# Existing Water Markets

## Auctions / Reverse Auctions

### Other examples

#### Westlands Irrigation District (2010)

Minimal participation in reverse auction (fewer than 500 acres enrolled)

#### Shafter-Wasco





# Water Market Strategy Guiding Principles

# Water Market Principles, Goals & Objectives

**Principles, Goals & Objectives provide a framework for making decisions regarding alternative strategies**

## **Example: Fox Canyon Water Market**

- Provide water users with flexibility to respond to changing water availability
- Incentivize conservation & creation of new supplies
- Positively impact the distribution of water quality
- Ensure that trading is neutral with respect to land use patterns (Ag to Urban conversion)
  
- Create Transparent & Fair Market Activity
  - Transparency
  - Reduction of Market Power
  - Mitigation of 3<sup>rd</sup> Party Impacts
  - Reduction of Transaction Costs



# Water Market Principles, Goals & Objectives

**Principles, Goals & Objectives provide a framework for making decisions regarding alternative strategies**

## **Example: Fox Canyon Water Market**

- Provide water users with flexibility to respond to changing water availability
  - Allow transfers of allocation separate from ownership of the land**
- Incentivize conservation & creation of new supplies
  - Spot market for conserved water; Explore Ag to M&I transfers in the future**
- Positively impact the distribution of water quality
  - Special Management Areas (SMAs) with directional restrictions**
- Ensure that trading is neutral with respect to land use patterns (Ag to Urban conversion)
  - Initially, only temporary transfers between agricultural users; consider minimum allocation in future**
- Create Transparent & Fair Market Activity
  - Transparency
    - Universal telemetric monitoring of extraction**
  - Reduction of Market Power
    - Anonymized market**
  - Mitigation of 3<sup>rd</sup> Party Impacts
    - SMAs, series of pilot markets**
  - Reduction of Transaction Costs
    - Formal exchange; pre-approval of transfers subject to market rules**

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# Water Market Guiding Principles

- **Flexibility**  
Provide water users with the flexibility to comply with new regulations and to respond to changing water availability
- **Adaptability**  
The WMS should promote adjustments in practices, rules and procedures as conditions change and as the experience of market participants grows and new information becomes available.
- **Transparency**  
The process of developing the WMS and for conducting market activities should be visible and understandable to interested stakeholders. Transparency includes the availability of accurate and reliable water use data and the timely reporting of water market activity.
- **Do No Harm**  
The WMS strategy should anticipate and avoid adverse impacts to water users and uses (add SGMA citation).
- **Equity & Inclusion**  
The WMS should be developed with an open process that includes the full range of potential market participants and other interested parties. Implementation of the WMS should be relatively simple and understandable to interested parties.
- **(Structural Consistency) (Title Yet to be Determined)**  
The WMS will develop a common framework available to the Kaweah Subbasin GSAs.



# Water Market Guiding Principles – Parking lot

- Grower confidentiality
- **Price Discovery that is Equitable**

**Principles, Goals & Objectives provide a framework for making decisions regarding alternative strategies**

## **Identifying the priorities of different stakeholder groups is important**

- **Where do the priorities of a particular stakeholder group conflict with those of another?**

**Principles, Goals & Objectives provide a framework for making decisions regarding alternative strategies**

## **Identifying the priorities of different stakeholder groups is important**

- **Where do the priorities of a particular stakeholder group conflict with those of another?**
  - **What is *essential* to you?**
  - **What can you live with?**



# Water Market Guiding Principles

- **Flexibility**

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# Water Market Guiding Principles

- **Adaptability**

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# Water Market Guiding Principles

- **Transparency**

The process of developing the WMS and for conducting market activities should be visible and understandable to all stakeholders. Transparency includes the availability of accurate and reliable water use data and the timely reporting of water market activity.

# Water Market Guiding Principles

- **Do No Harm**

The WMS strategy should anticipate and mitigate the risks of adverse impacts DACs and the Environment. The WMS should create mechanisms which address impacts as they are revealed.



# Water Market Guiding Principles

- **Equity & Inclusion**

The WMS should be developed with an open process that includes the full range of potential market participants and other stakeholders who could be impacted. Implementation of the WMS should be relatively simple and understandable to all stakeholders. In addition, the WMS should be equitable and accessible to all.

# Water Market Guiding Principles

**Has anything been left out?**

# Water Market Guiding Principles

## Has anything been left out?

- **Promote Regional Management Objectives**  
The WMS should enable and promote the achievement of water management objectives articulated in the Groundwater Sustainability Plans adopted in the Kaweah Subbasin.

# Water Market Guiding Principles

## JamBoard Exercise: Guiding Principles

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# Water Market Guiding Principles

- **Flexibility**

Provide water users with flexibility to comply with new regulations and to respond to changing water availability

## Allocation

Allocation Flexibility

## Market Structure

Type of Exchange

Term of Transfers

## Mitigation of Adverse Impacts

Geographic limitations on trade

Mitigation of Market Power

Market Testing & Adaptation



# Water Market Guiding Principles

- **Adaptability**

The WMS should anticipate adjustments in practices, rules and procedures as conditions change and as the experience of market participants grows and new information becomes available.

## Market Structure

- Type of Exchange
- Term of Transfers

## Mitigation of Adverse Impacts

- Geographic limitations on trade
- Mitigation of Market Power
- Market Testing & Adaptation

# Water Market Guiding Principles

- **Transparency**

The process of developing the WMS and for conducting market activities should be visible and understandable to all stakeholders. Transparency includes the availability of accurate and reliable water use data and the timely reporting of water market activity.

## Allocation

Monitoring of water use

## Market Structure

Type of exchange

Price information

## Mitigation of Adverse Impacts

Mitigation of Market Power

Market Testing & Adaptation

# Water Market Guiding Principles

- **Do No Harm**

The WMS strategy should anticipate and mitigate the risks of adverse impacts to third parties including DACs, GDEs, and small farms. The WMS should create mechanisms which address impacts as they are revealed.

## Allocation

- Method of allocation

- Monitoring of water use

## Market Structure

- Term of Transfers

## Mitigation of Adverse Impacts

- Geographic Limitations on trade

- Mitigation of Market Power

- Market Testing & Adaptation

# Water Market Guiding Principles

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## Allocation

Method of Allocation

## Market Structure

Type of exchange

## Mitigation of Adverse Impacts

Mitigation of Market Power

Market Testing & Adaptation





## Next Steps and Action Items





## Scheduling Public Workshop No. 2