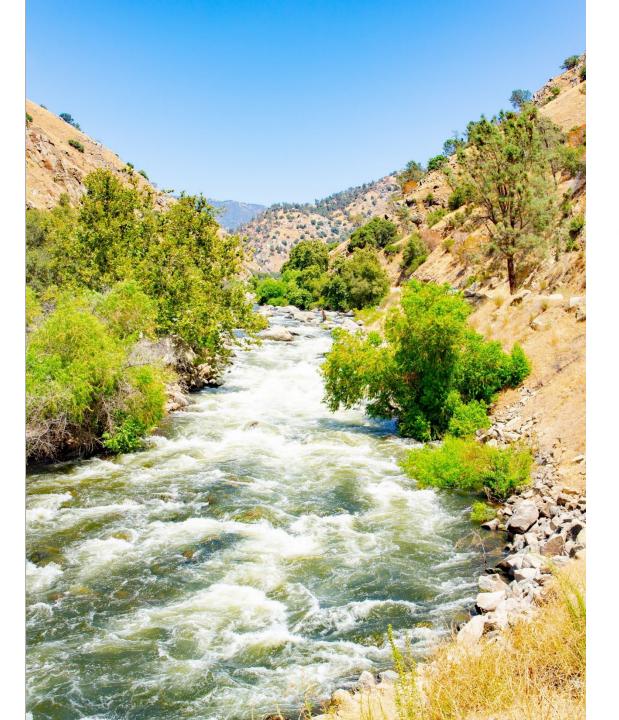


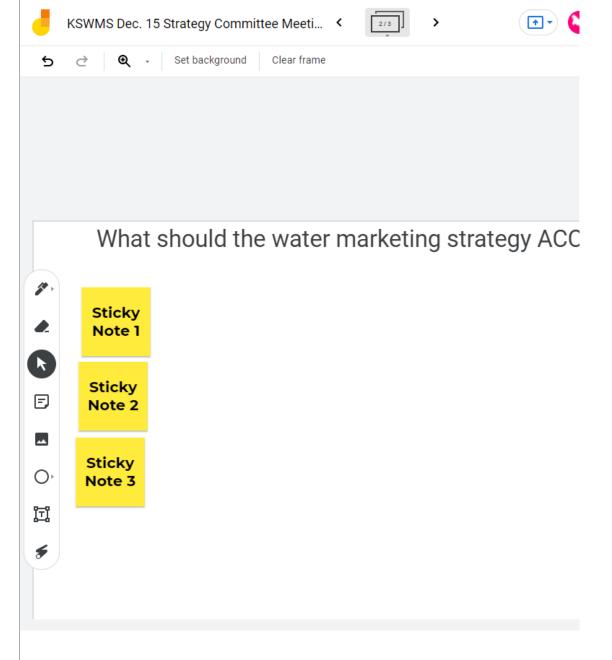
Kaweah Subbasin Water Marketing Strategy

Strategy Committee Meeting December 15, 2021



Agenda

- 1. Welcome and Introductions
- 2. Discussion of Legal and Engineering elements to support WMS
- 3. Water Market Goals & Objectives



Jamboard

- 1. An electronic whiteboard exercise that allow anyone with a link to anonymously post a note, comment, or other information.
- 2. To join the jamboard session visit:

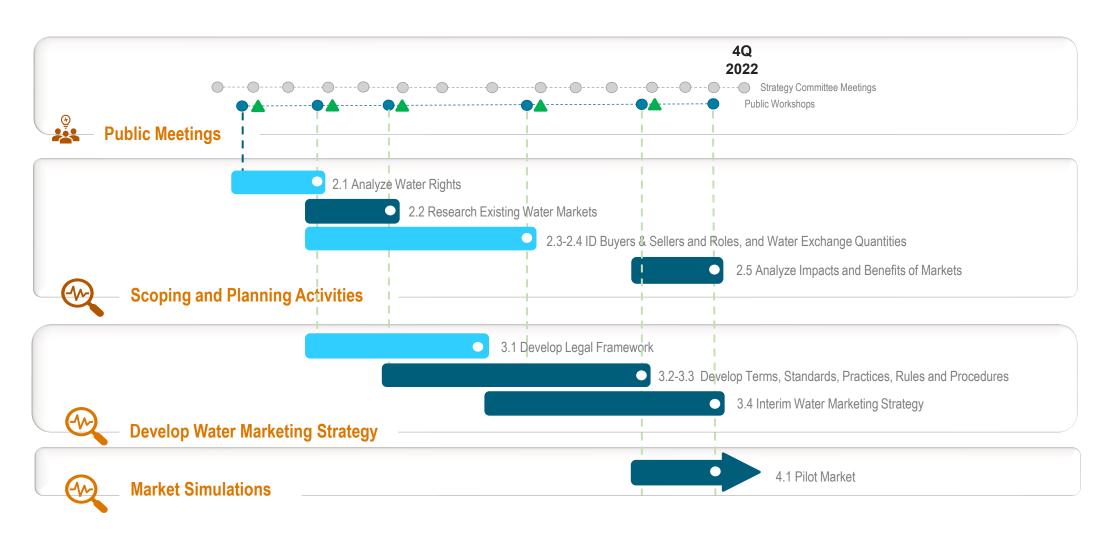
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3. Brief tutorial to be provided during today's meeting.



Discussion of Legal & Engineering elements to support WMS

Scope of Work



Legend:

Stantec Team Lead

Legal/Engineering Team Lead

▲ Office Hours

LEGAL TEAM

2.1 Analyze Water Rights Within the Marketing Strategy

- Develop a framework for understanding the relationship between water rights and transfers of allocation
 - Identify potential parameters of transferring allocation between users of Native, Foreign and Salvaged water
 - Identify the risks of transferring allocation within each of the three buckets

3.1 Develop Legal Framework

- Identify various administrative acts which are required for GSAs to implement a water marketing strategy
 - Authorize the transfer of allocation
 - Adopt specific structures and operating mechanisms for a market, including rules governing trade, requirements for 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

LEGAL TEAM

Goal: Legal team will draft a chapter to guide the market and how it treats water rights, develops allocations, and creates a market framework

Process:

- Legal team will collaborate on agreed upon set of applicable rules
- Legal team will analyze the risks of market components (who, what, where, when)
- Risks will be presented to technical and policy teams for decisions on how to structure the market

LEGAL TEAM

Any marketing strategy will require that rigid rules be broken or bent. The legal team will provide an analysis of risk (which rules are being bent and the extent of the bending) for each of the questions below:

WHO: Who is eligible to participate? Overliers? Appropriators? Surface water right holders? In Lieu users? Prescriptive claimants?

WHAT: What type of water is included? Limited to native groundwater? Salvage? Foreign? Stored surface water? Previously abandoned water?

WHERE: What are the geographic limitations of trading? Trade out of the subbasin? Out of each GSA?

WHEN: What are the temporal limits of trading? Temporary or Permanent? Use it or lose it? Ability to carry water over?

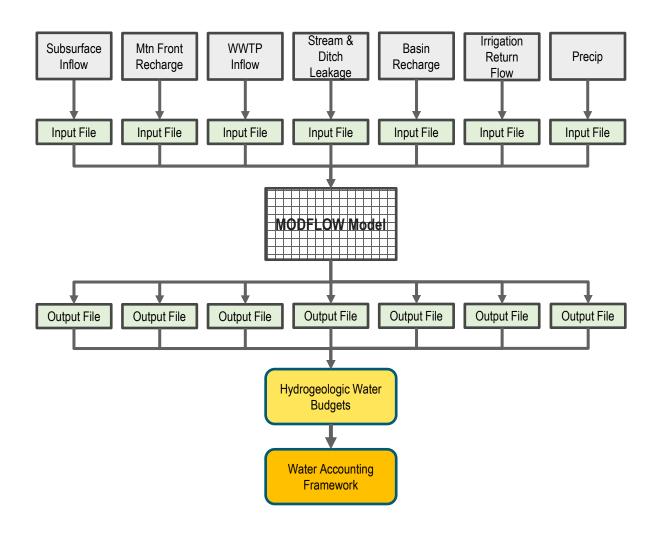
ENGINEERING TEAM

2.3 / 2.4 Refine Groundwater Model, Update Water Budget & Accounting Framework

- Define individual pumpers' access to Native, Foreign and/or Salvaged water and identify potential buyers and sellers
 - Provide guidance on Allocation Methodology
 - Identify potential Buyers & Sellers
- Provide guidance regarding definition of management zones and corresponding limitations on transfers of pumping
 - Identify potential third-party impacts of transfers of allocation
 - Provide guidance regarding geographic limitations on transferability to mitigate third-party impacts

ENGINEERING TEAM

2.3 / 2.4 Refine Groundwater Model, update Water Budget & Accounting Framework



ENGINEERING TEAM

2.3 / 2.4 Refine Groundwater Model, Update Water Budget & Accounting Framework

Update Water Budgets (March 2022)

- Update and evaluate water budget components (P&P lead; M&A support)
- Prepare model refinement work plan

Refine Groundwater Model (Q4 2022)

- Restructure model input for WAF
- Update and recalibrate model in 2022 to improve confidence

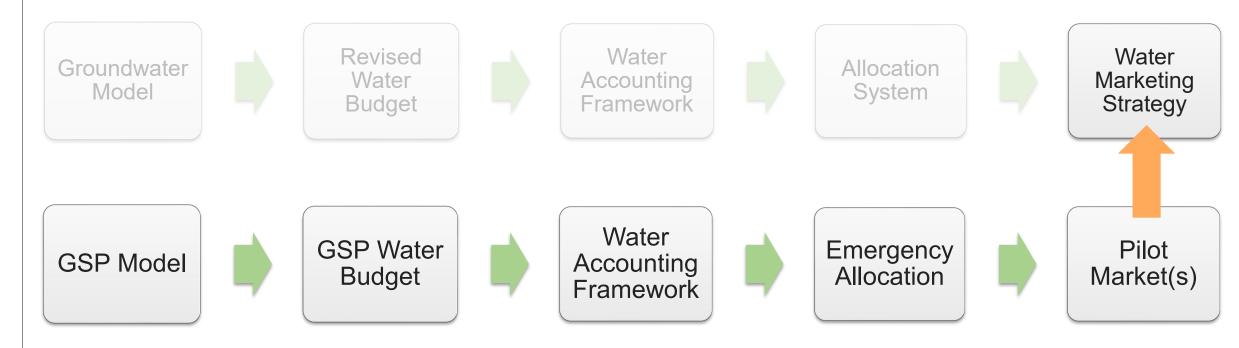
Update hydrogeologic water budgets and water accounting framework (Q4 2022)

Original Workflow: Developing a Water Marketing Strategy



- •Refine Groundwater Model (Q3 2022)
- Update Hydrologic Water Budget & Water Accounting Framework (Q4 2022)
- Devise an Allocation System consistent with the Water Accounting Framework
- •Finalize a Water Marketing Strategy based upon the Allocation System

Alternative Workflow: Developing a Water Marketing Strategy



- Use emergency allocation developed using GSP Model and GSP Water Budget to devise small pilot market(s)
- •Pilot market(s) will be used to provide water users flexibility under 2022 emergency allocation, to test alternative market strategies and to identify potential unintended impacts
- •Lessons from pilot market(s) will be an input to final water marketing strategy

Developing a Water Marketing Strategy

STANTEC TEAM

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



Water Market Goals & Objectives

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 3rd Party Impacts
 - Reduction of Transaction Costs

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

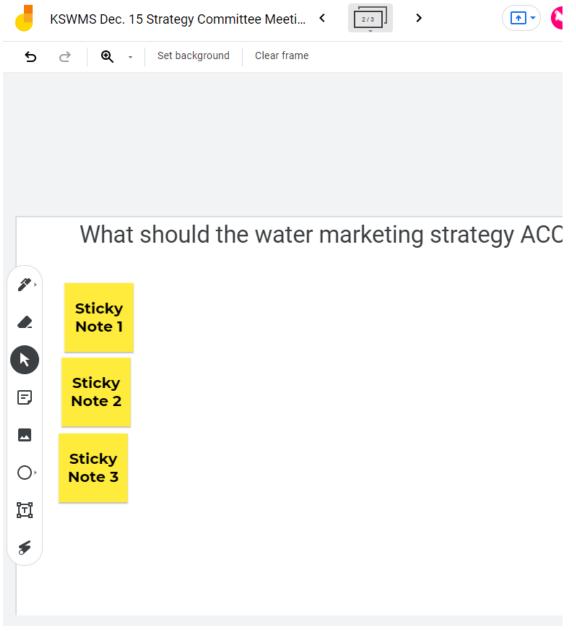
Example: Fox Canyon Water Market

- Provide water users with flexibility to respond to changing water availability
- Incentivize conservation & creation of new supplies
- Positively impact the distribution of water quality
 - **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
- Create Transparent & Fair Market Activity
 - Transparency
 - Universal telemetric monitoring of extraction
 - Reduction of Market Power
 - **Anonymized market**
 - Mitigation of 3rd Party Impacts
 - **SMAs**, series of pilot markets
 - Reduction of Transaction Costs
 - Formal exchange; pre-approval of transfers subject to market rules

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

Examples identified at November 10 Office Hours

- Provide water users with flexibility under reduced access to water
 - Provide flexibility within White Areas
 - Provide users flexibility during the current drought
 - Lease pumping allocations separate from the land
- Avoid unintended consequences for the environment (e.g. ET-based monitoring may drive farmers to forego cover crops, harm soil health)
- Adaptive approach
 - Start broad and get more restrictive as impacts arise
 - Start simple, learn as you go and get more complex over time
- Provide access to information about the market / marketing strategy in Spanish



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Topic No. 1: What should the water marketing strategy ACCOMPLISH?

Topic No. 2: What should the water marketing strategy AVOID?