

Plan of Finance Workshop: Sites and the Municipal Water Agency

Reservoir Committee and Authority Board

August 20, 2021



Questions on our minds...



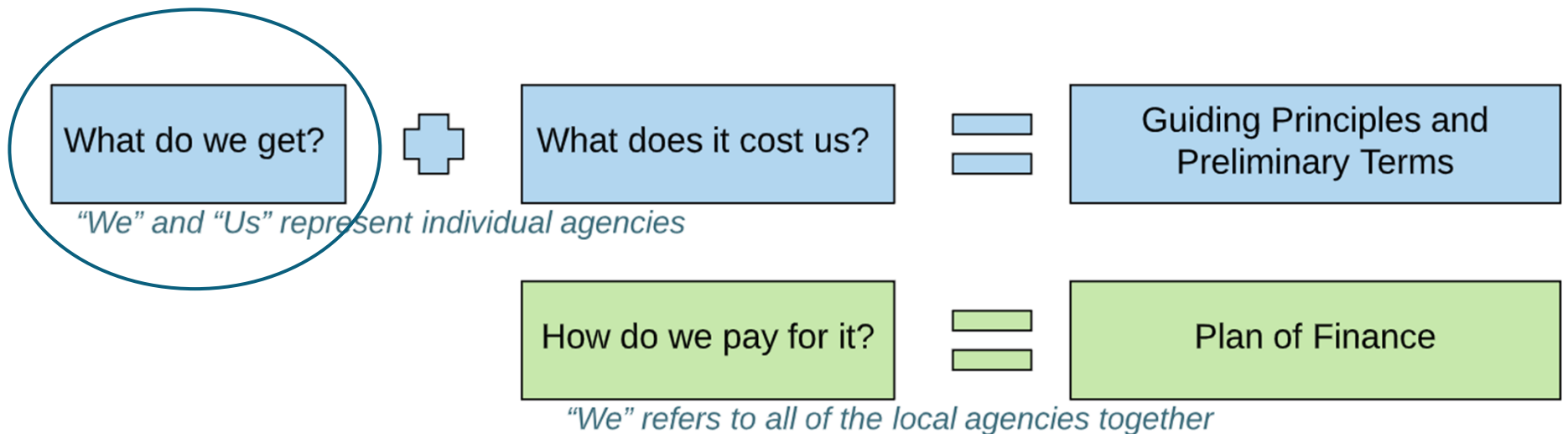
Today we will address:

- What kinds of decisions can my agency make?
- How does Sites fit within my agency's planning?

Workshop objectives

Objectives

- Begin to understand potential operating scenarios to achieve various agency goals
- Understand what "moves the needle" on benefits and affordability



What do we get?

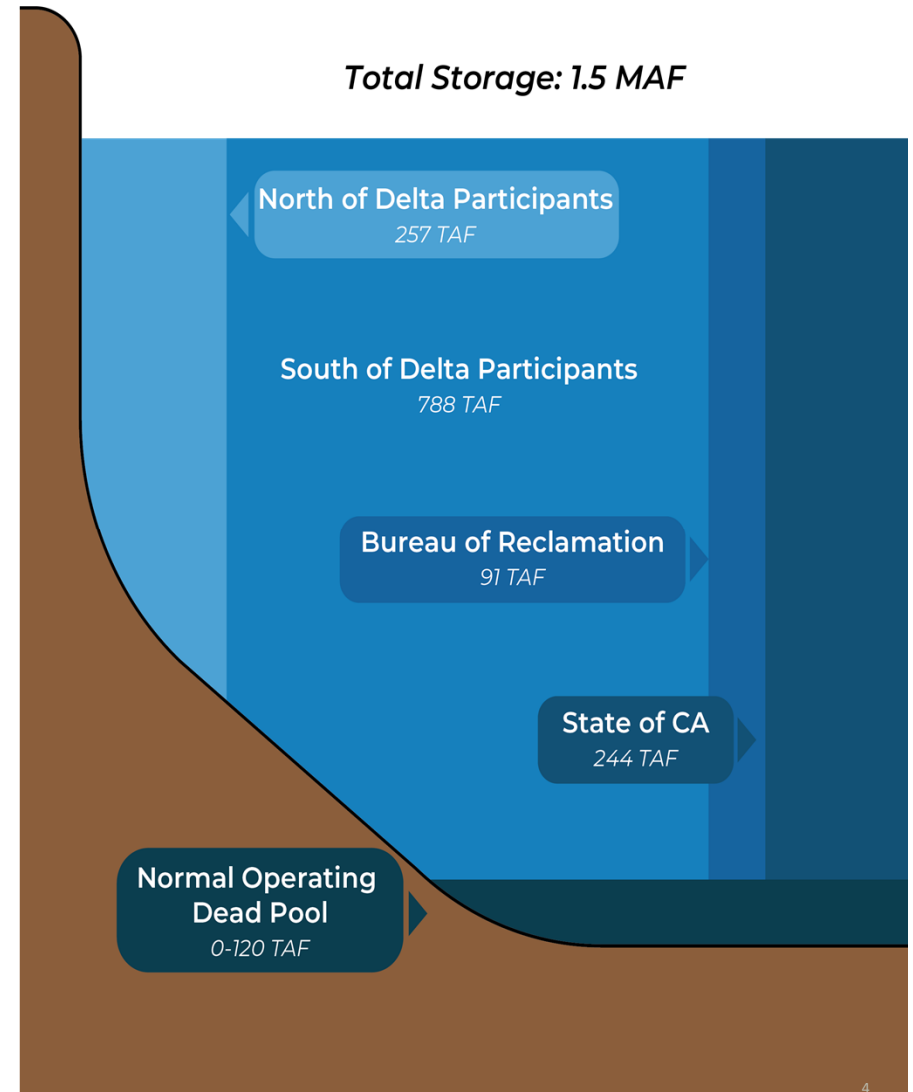


Storage space: your own bucket

Proportion of diversions to storage until your bucket is full



Ability to manage your storage to meet your agency's needs

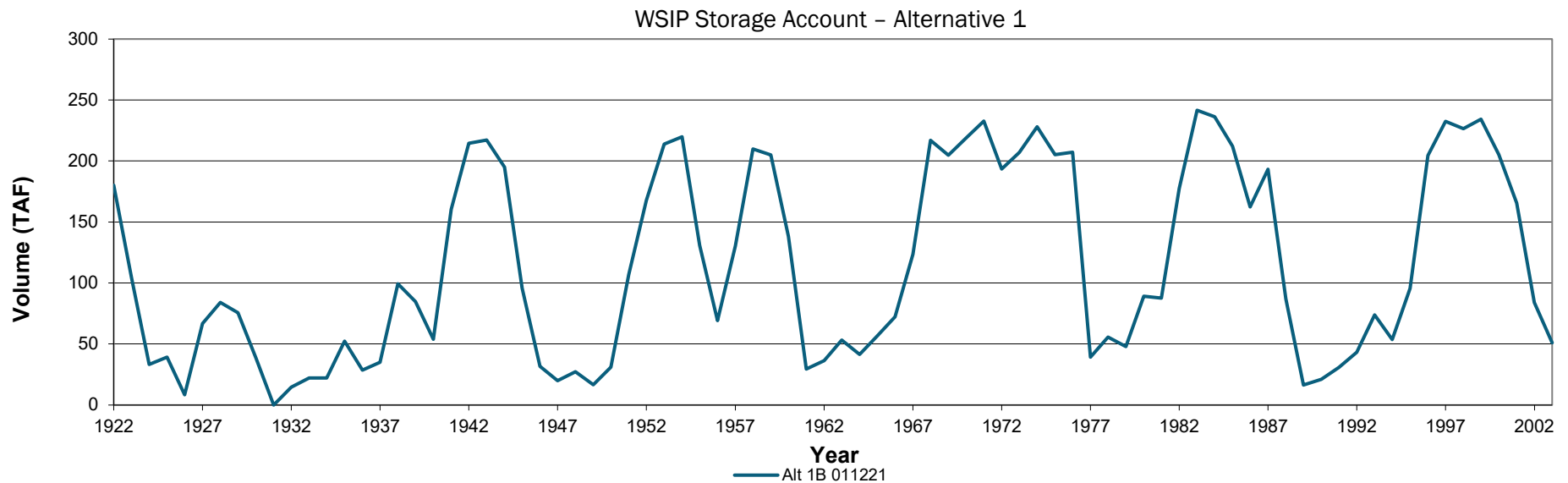


What Does the Environment Get?

- Storage account size = 244 TAF
- Releases to Yolo Bypass: 41 TAF
- Releases to Refuges: 29 TAF (5 TAF NOD)
- State allocated storage based on amount needed to deliver benefits

Outstanding Questions

- ? O&M Payment
- ? Benefit monitoring and requirements
- ? Use of water after the Bypass
- ? Management of storage account in Sites



Melded way of looking at affordability

Melded, project-wide affordability metric:

$$\frac{\$}{AF} = \frac{\textit{average project costs}}{\textit{average project deliveries}}$$

This is a useful metric, but it...

- is not how you will pay
- does not answer “what does it cost?” for your agency
- assumes “average” operations

Agency way of looking at affordability

Annual costs

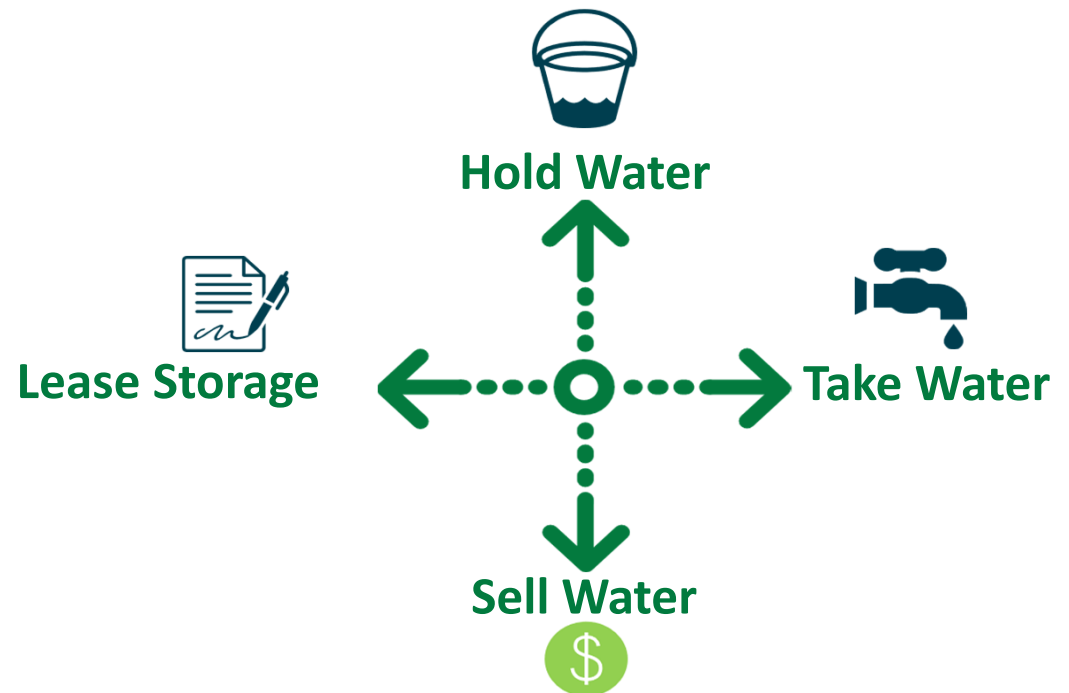
- Fixed costs
- Variable costs

Annual revenues

- Water sales
- Storage leasing
- Avoided costs

Annual benefits

- Storage: hydrology-based
- Deliveries: **operating decisions-based**



You decide.

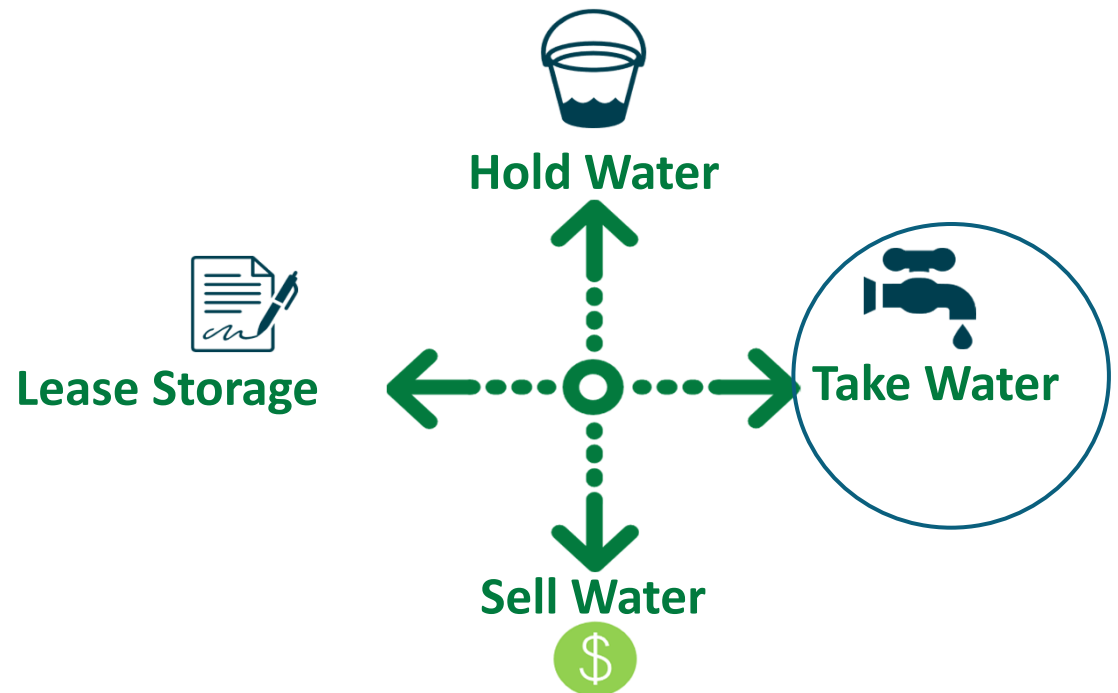
Project Benefits



Deliveries: operating decisions

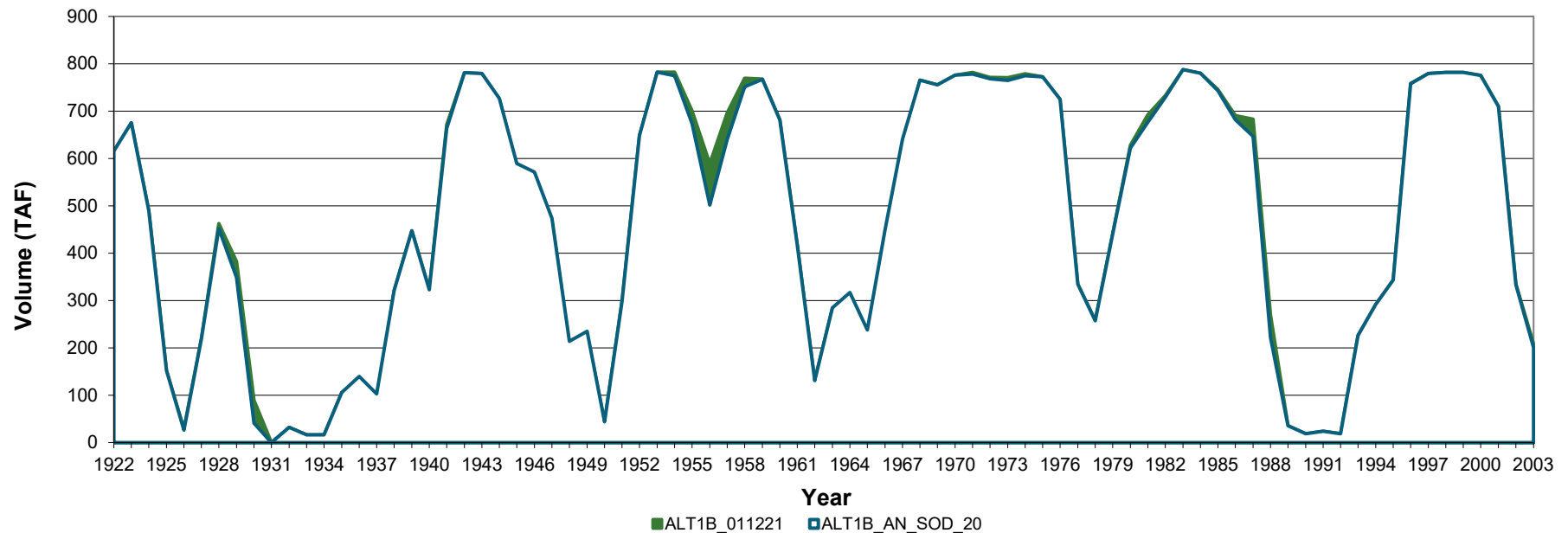
Case Study:

Operating for drier years
versus all year types –
South of Delta
participants



Case Study: Dry Year vs. Broader Use

October-September Sites Private Storage - Delta Participants



Green area represents additional water released from storage when releasing water only in critical, dry, and below normal years versus all year types

Limited ability to move water through the Delta in wet and above normal years

Model takes conservative approach: may be more opportunities in real-time

Case Study: Oroville Exchange

Current modeling assumes a conservative exchange with Oroville

Question: How important is this exchange for overall project yield?

Tests:

1. Remove Oroville exchange from operation
2. Operate exchanges more “aggressively”

Key Takeaways:

- Oroville exchanges have a minor impact on project performance
- However, CalSim model does not account for Colusa Basin Drain restrictions
- Exchanges provide more flexibility for operations and risk mitigation for Colusa Basin Drain capacity constraints

	Alt 1B	No Oroville Exchange	Aggressive Oroville Exchange
Total Sites Releases (TAF)	234 TAF	229 TAF	234 TAF

What moves the needle?

Amount of Storage

- Storage allocated to your agency determines proportion of diversions you receive

Operating Constraints

- Carriage water/salinity costs through the Delta
- Capacity constraints
- Transfer window limitations



Discussion questions



What criteria does your agency use to evaluate project benefits?



How does your agency think about losses due to the Delta/salinity costs?



Are there other ways you might want to utilize your Sites water (e.g. sale in wet years)?

Project Costs

Sites cost components

Fixed Costs

Every year, regardless of water supply benefits (\$/yr)

- Debt service (**finance participants**)
- Admin and General
- Operations and Maintenance
- Replacements
- Sufficiency reserves

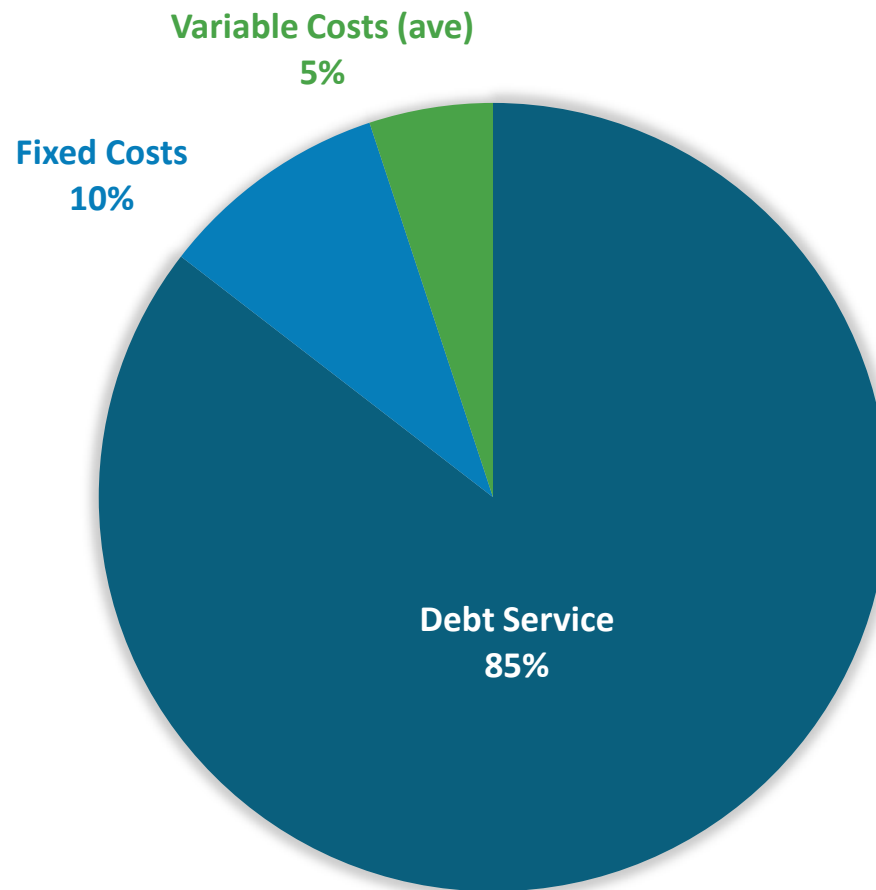
Variable Costs

Varies based on water supply benefits (\$/AF)

- Power consumption (pumping)
- Power generation (releasing, revenue)
- Wheeling costs

Debt service is the biggest annual cost

FINANCING PARTICIPANTS ANNUAL PROJECT COSTS



Affordability



Sample agency affordability

Santa Clarita Valley Water Agency Example

1. A2 participation 5,000AF * 6.234 = storage account: **31,172 AF**
2. Base facilities, 2.2% of \$4.2B: **\$92.5M**
3. Downstream facilities, 2.8% of \$165M: **\$4.6M**
4. Average annual costs (if financed): **\$4.3M**
5. Average release target: **5,000 AF**

Santa Clarita uses Downstream Facilities (i.e. Dunnigan Pipeline)

Debt service based on case 3, all costs are in future \$

The long-term average cost for water for Santa Clarita is about **\$860/AF**
At the Knights Landing Outfall Gates

Sample agency affordability: carriage water sensitivity

Santa Clarita Valley Water Agency Example

1. Average annual costs (financed): **\$4.3M**
2. Average annual releases: **5,000 AF**
3. Delta carriage water required: **15-35%**
4. Average annual deliveries net of carriage water losses: **3,250 – 4,250 AF**

Important: each participant has other costs and losses to account for including conveyance, treatment, etc. that are not included here.

Carriage water
alone impacts
affordability by
\$150/AF
to
\$460/AF

What moves the needle on affordability?

Constraints

- The Delta, carriage water
- South of Delta storage
- Regulatory changes

Costs

- Debt service (if financed)
- Avoided costs (other options)
- Conveyance, where you are in California



Sites and Agency Planning



Each agency has its own planning approach

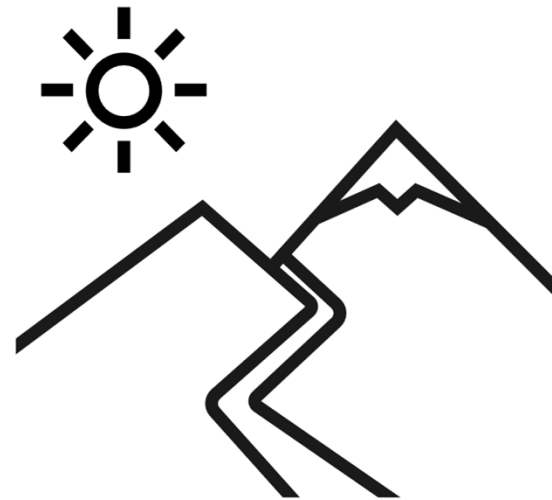
Regulatory Driven

- Urban Water Management Plans (UWMPs)
- Groundwater Sustainability Plans (GSPs)

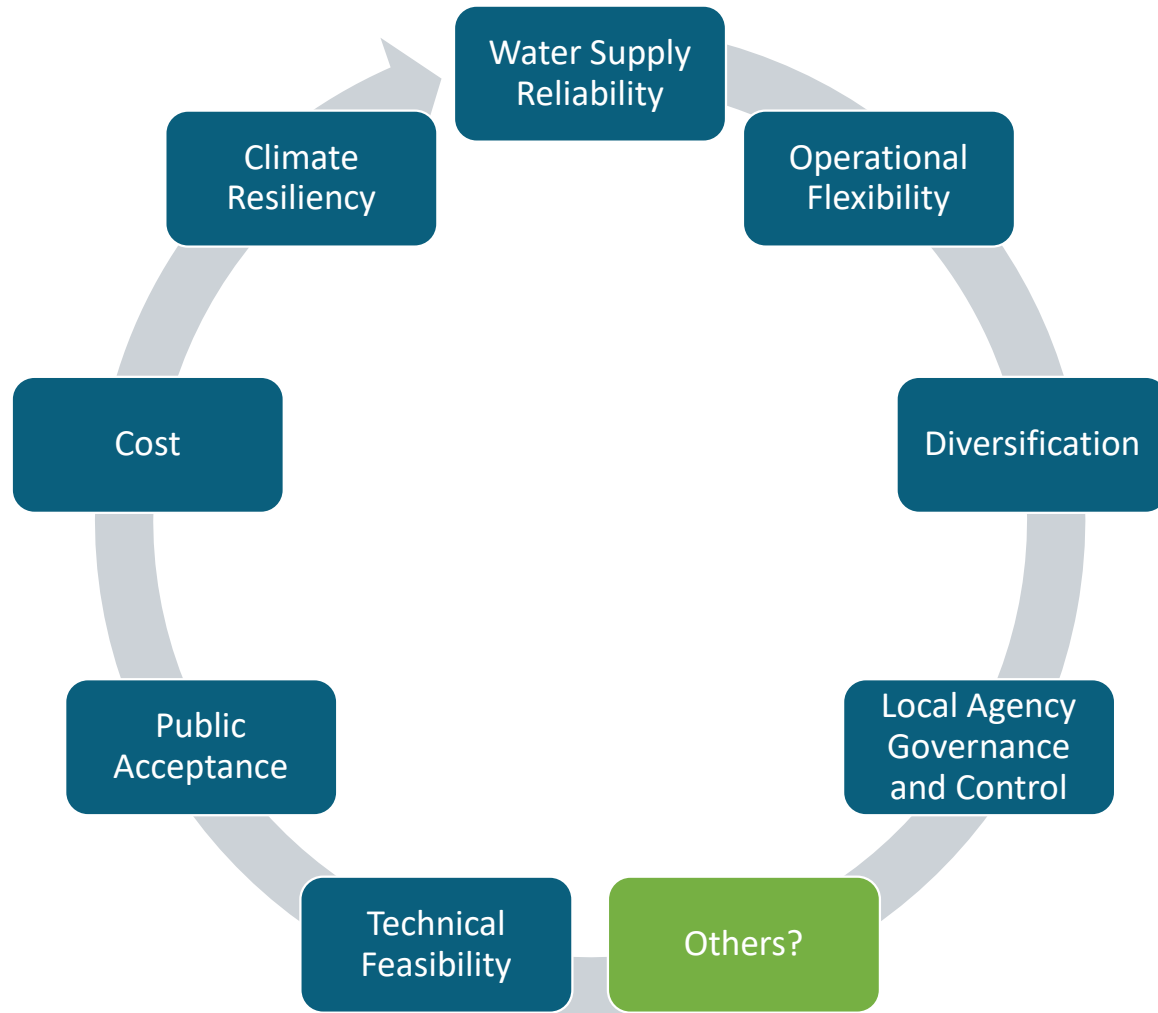


Locally Driven

- Capital Improvement Programs (CIPs)
- Water Supply Evaluations
- Drought Contingency Plans



How does Sites compare to your other options?



How does Sites compare to other options?

(PPIC Report: Water and Future of the San Joaquin Valley 2019)

	Increased Water Availability (TAF)			Total Cost (\$/AF)			Source and Comments
	Min	Avg	Max	Min	Avg	Max	
Sites Reservoir	159	177	187	\$583	\$722	\$848	Final Feasibility Cost Estimate approved 06.26.21 and Proforma 2.0
Shasta Reservoir Expansion	27	40	59	\$834	\$1,211	\$1,911	USBR (2015)
Los Vaqueros Expansion	10	10	10	\$1,402	\$1,422	\$1,443	CWC Water Storage Investment Plan
San Luis Expansion	7	25	43	\$412	\$1,471	\$2,529	USBR (2013)
WaterFix	127	194	261	\$1,708	\$2,301	\$3,524	Bay Delta Water Conservation Plan
Urban Conservation in the SJ Valley	0	N/A	144	\$137	\$1,335	\$4,580	CPUC (2016)
Urban Reuse (recycling)	0	N/A	16	\$396	\$2,898	\$5,800	SWRCB (2015), CPUC (2016)
Groundwater Recharge	0	190	550	\$36	\$327	\$1,500	DWR (2017a). Perrone and Merri Rohde (2016), Bachand et al. (2016)

A Sites storage account is an asset

With your Sites storage account, you get:

1. Storage in the largest watershed in the state **which reduces your portfolio's hydrological risk**
2. The ability to time releases **to help the environment of the Delta**
3. An off-stream reservoir **that does not spill**

It gets better with:

1. More storage south of the Delta
2. A changing climate

Sites and Agency Planning



Is Sites featured in your agency's planning documents? Why or why not?



What factors does your agency value when evaluating proposed projects?



How does your agency evaluate risk on projects like Sites?



Do you understand what costs and benefits to include in your planning?

Panel Discussion

Questions and Answers



Discussion questions: Sites market



Is your agency interested in a managed marketplace for water within Sites? For storage?



What role should the Authority play, if any, in setting prices for water sales within Sites?



Is having first right of refusal to water or storage available in the Sites market important to your agency?

Discussion questions: participation



Where is your agency in the decision-making process for participation beyond 2021?



Is your agency treating Sites cash calls as an operating expense or using another method?



What is the path for your agency to secure revenue to pay project costs?

Next Steps

Activities and Workshops



What are the next big steps?

Aug

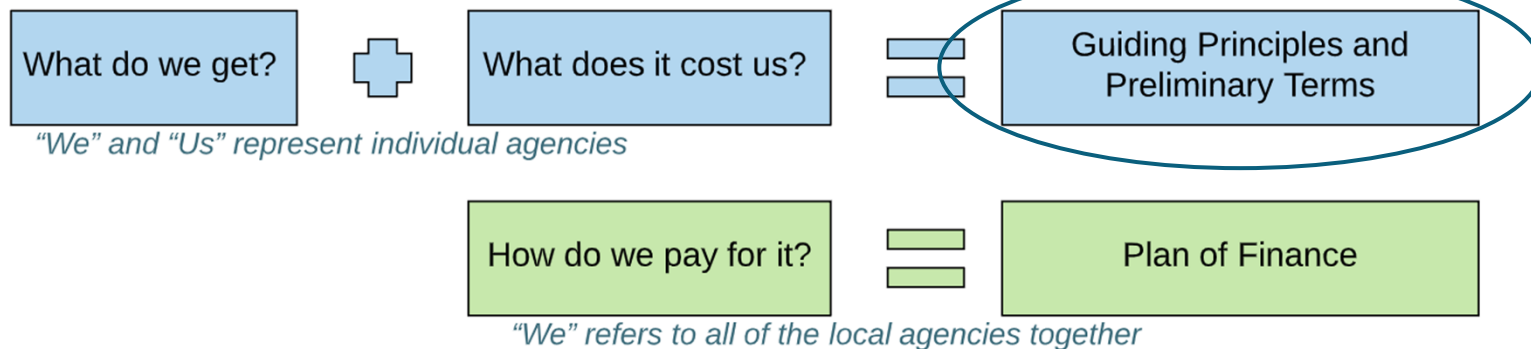
What do we get?

- Sites and the ag business
- Sites and the municipal water agency
- Sites and the environment
- Understand the value of the asset

Sep

How do we pay for it?

- Plan of finance
- Contract guiding principles
- Amendment 3 agreement and work plan



Save the dates

August: Benefits and Costs Informational Sessions

- ✓ August 20th: Sites and the municipal water agency

September 2nd Workshop: Plan of Finance and Guiding Principles

September 22nd Joint Meeting: 2021 Draft Approvals

- Plan of Finance, Guiding Principles, Amendment 3

October: Submit 75% Non-Public Cost Share Resolution Package to CWC