

Plan of Finance Workshop 4: What does it cost?

Reservoir Committee and Authority Board

July 23, 2021



Cost questions on our minds...



Today we will address:

- How are costs allocated?
- What are the project costs for each agency?
- What costs can we impact?

Workshop objectives

Objectives

- Understand project fixed and variable costs for your agency
- Understand what “moves the needle” on project costs for your agency (and how changes impact other participants)
- Understand what costs the Reservoir Committee and Authority Board can and cannot impact
- Understand and plan for project costs

Agenda

- Background and context
- Understanding project costs
- Break
- What moves the needle?
- Actions

What do you need for this meeting?

Sites participant cost tables (from the portal)

Background and Context



This partnership has a lot to be proud of

- A decade of partnership between agencies to improve California water
- Named in Governor's drought resiliency portfolio
- Right-sized the project, saving over a billion dollars
- Receiving state and federal funding support over a billion dollars
- Strong bipartisan support

DISCUSSION QUESTION:

What Sites Project achievement are YOU most proud of?

What are the next big steps?

Jul

What does it cost?

- Fixed Costs
- Variable Costs
- Understand project costs and plan for it

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

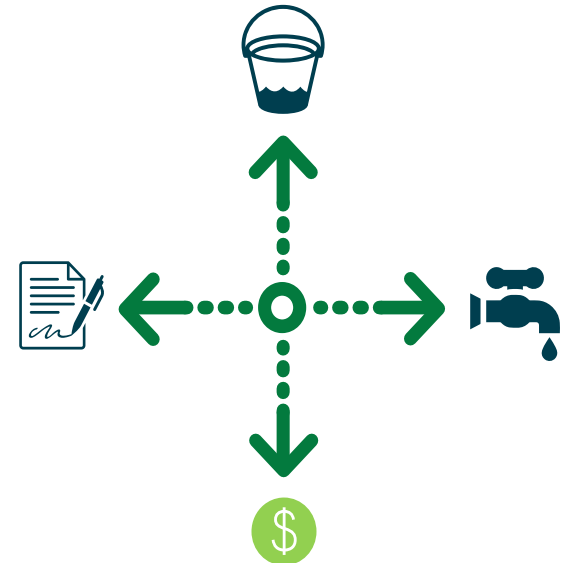
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How do we pay for it?

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

Cost is part of the equation

- Costs should be weighed with the value of the asset
- **You are in the driver's seat** with tools including water sales and storage leases
- We will be holding info sessions in August to explore Ag and Muni project considerations



Who needs to understand project costs?

All Reservoir Committee Representatives

Municipal Water Agencies

- Water Supply Managers and Planners (UWMPs)
- Finance staff
- Boards

Agricultural Districts

- Water Supply Managers and Planners
- Boards
- Landowners

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

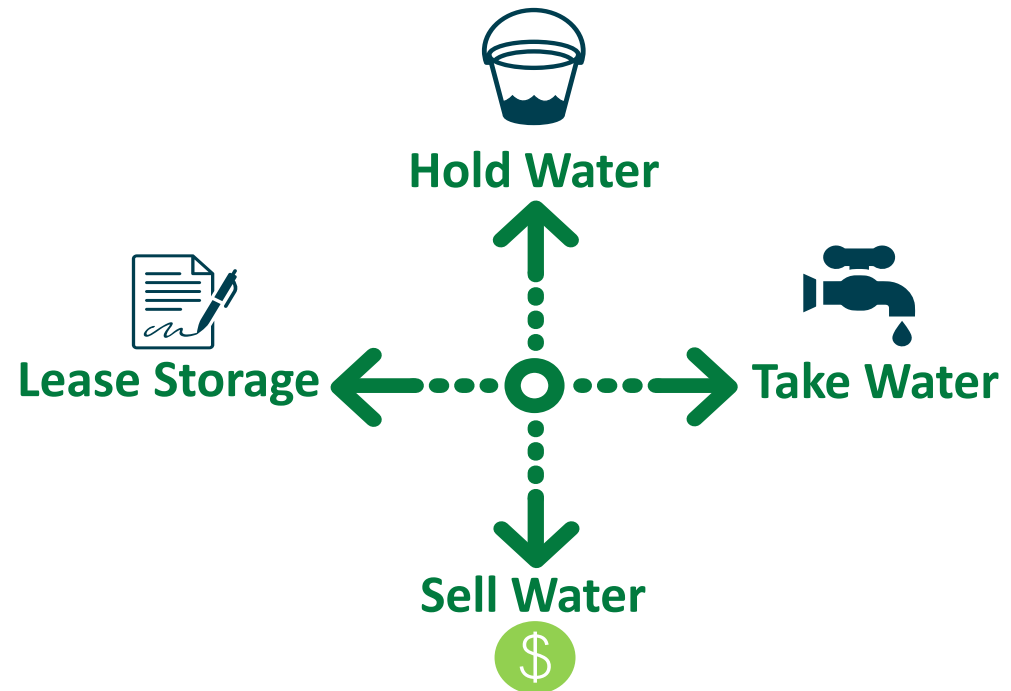
- Fixed costs
- Variable costs

Annual revenues

- Water sales
- Storage leasing
- Avoided costs

Annual benefits

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



You decide.

The project costs have come a long way

Serving California's **environment, families,** and **farms** takes:

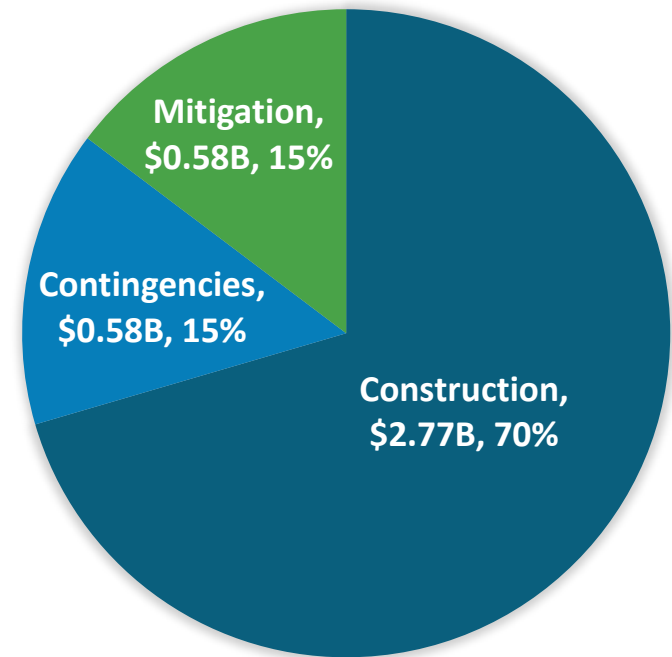
1.5 million acre-ft of storage

9 new dams

11 miles of big pipes (9-12ft)

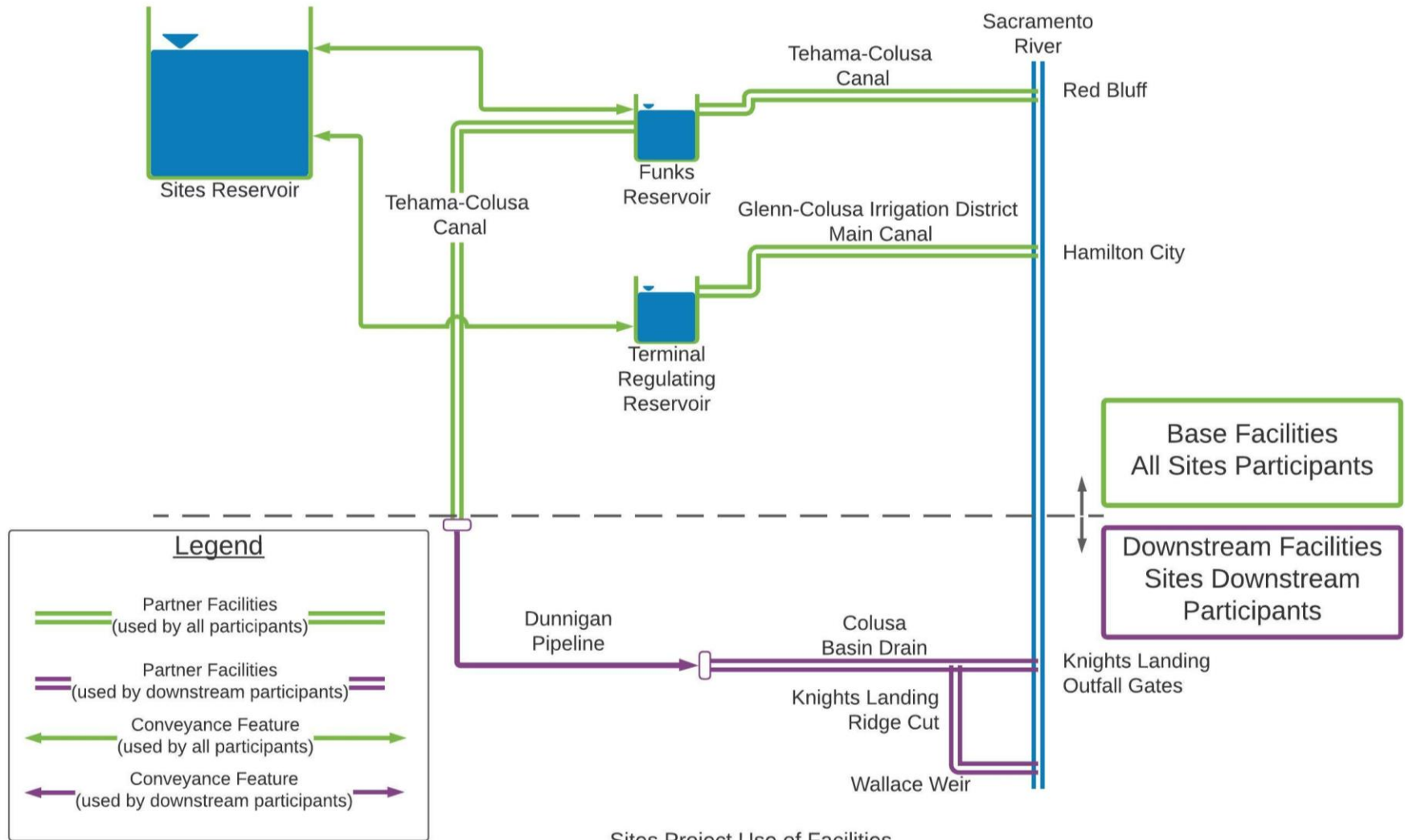
20 million cubic yards of fill

ESTIMATED PROJECT COSTS
(\$3.9B, 2021\$)



Estimated construction costs are based on the class 4 cost estimate for alternative 1 approved by the Reservoir Committee and Authority Board in June 2021

Pay only for facilities needed: “base facilities” or “base + downstream facilities”





Questions?

Project Costs

Types of Annual Costs

Finance Participant

During Construction (Table 6A)

- Interest payments
- Reserves

During Operations (Table 5)

- Debt service payments
- Fixed cost payments
- Variable cost payments

Pay-go Participant

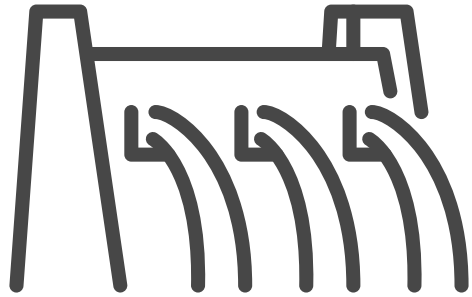
During Construction (Table 6B)

- Advance pay-go payments
- Reserves

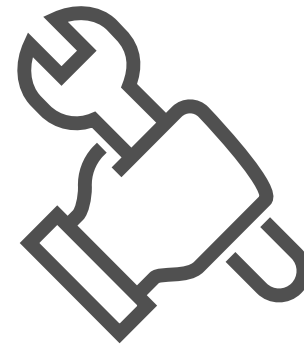
During Operations (Table 4)

- Fixed cost payments
- Variable cost payments

How are costs allocated?

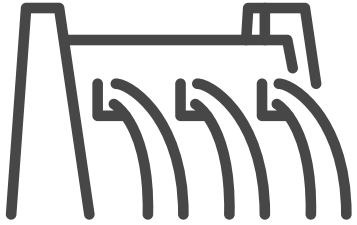


Capital Costs



Operational Costs

How are capital costs allocated?



Capital Costs

Determine which facilities are used:

- All participants use "Base" facilities
- Downstream participants use "Base + Downstream" facilities

Downstream facilities:

- 100% of Dunnigan Pipeline
- 10% of Mitigation Costs

Proportional to storage allocation:

- All participants pay for Base facilities
- Downstream participants pay for Downstream facilities

Sample estimated capital cost allocation (Tables 1, 2)

Santa Clarita Valley Water Agency Example

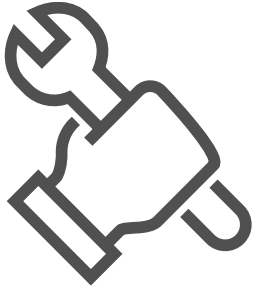
1. Downstream participant (uses Dunnigan pipeline, etc.)
2. A2 participation 5,000AF * 6.234 = storage account:
31,172 AF
3. Share of base facilities, 2.2% of \$4.2B:
\$92.5M
4. Share of downstream facilities, 2.8% of \$165M:
\$4.6M

Note that federal and state storage partners are considered downstream participants.

All costs are in future \$.

The estimated capital cost for Santa Clarita's share to be pay-go or financed is
\$97M

How are operational costs allocated?



Operational Costs

Fixed costs:

- Allocated based on storage allocation for each participant

Variable Costs:

- Driven by operational decisions, fills and releases
- Not driven by storage allocations
- Fill and release variable costs are allocated based on the volume (acre-ft) into and out of the reservoir

Sample estimated operating cost allocation (Table 4)

Santa Clarita Valley Water Agency example of annual **fixed** and **variable** operating costs after construction:

Fixed Costs (every year):

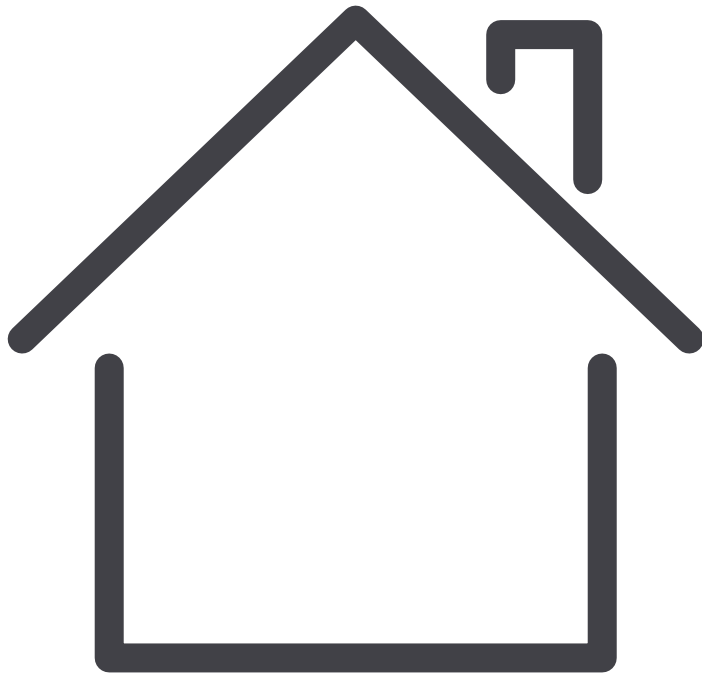
1. 31,172 AF storage is **3% share** of participant storage
2. 3% of participant fixed costs of \$12.5M per year: **\$374k per year**

Variable Costs (based on fill and release volumes):

1. Minimum variable cost, release only years: **\$0 per year**
2. Upper end variable cost, heavy fill years: **\$600k per year**
3. Average year variable cost: **\$200k per year**

The estimated annual operating cost for Santa Clarita would be between **\$374k** and **\$977k** per year, averaging **\$574k**

Home Analogy



Fixed Costs

- Mortgage
- Taxes
- Insurance

Variable Costs

- Power, gas, other utilities

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

How is debt service determined? (Finance Participants)

- 1. Total Construction Cost is determined per quarter for period of construction**
- 2. Funding Sources are layered in the following order**
 - WSIP funds (to pay State percent of current construction costs)
 - Federal funds (to pay Federal percentage of current construction costs)
 - Cash from Participants
 - USDA Loan (40 years)
 - WIFIA loan (35 years)
 - Revenue Bonds (40 years)
- 3. Revenue Bonds are issued once per year as needed to ensure construction is not delayed**

Sample annual cost range, finance participant (table 5)

Assuming Santa Clarita is a finance participant, their annual costs after construction could be estimated as:

1. Annual **debt service** for financing **capital** costs
2. Annual **fixed** and average **variable operating** costs

Annual Cost Component	Estimated Cost (2021\$)
Debt Service (Case 1)	\$4.3M
Fixed Operating Costs	\$380k
Variable Operating Costs (Average)	\$200k
Annual Estimated Costs	\$4.9M

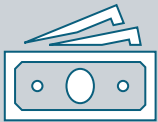
**\$157/yr per
AF storage**

Financing a 31,172 AF Storage Account post-construction

Discussion questions



Do you understand the project costs for your agency?



Do you understand how project costs are allocated?



Break

What moves the needle on cost?

Fixed Costs

- Interest rates (financing participants)
- Pace (schedule)
- Controlling construction costs
- Bifurcated costs

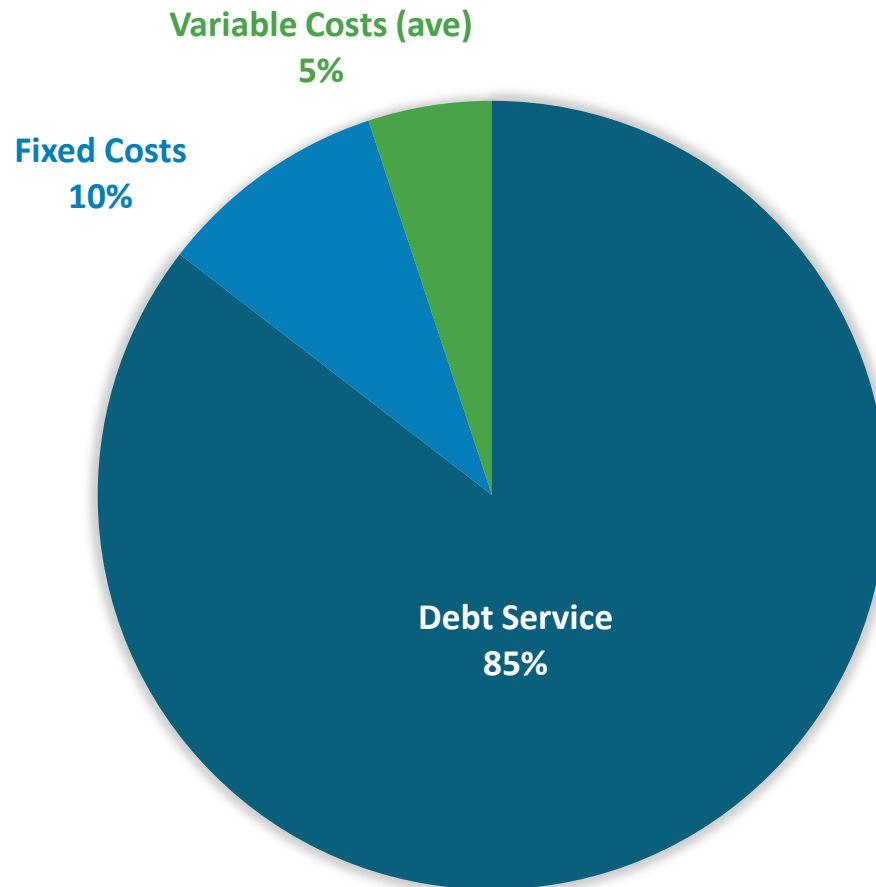
Variable Costs

- Power
- Losses (evaporation and seepage)



Debt service is the biggest annual cost

FINANCING PARTICIPANTS ANNUAL PROJECT COSTS



Sample: interest rate moves the needle

Assuming Santa Clarita is a finance participant, their annual costs after construction could be estimated as:

1. **Range** of annual **debt service** for financing **capital** costs
2. Annual **fixed** and average **variable operating** costs

Annual Cost Component	Estimated Cost (2021\$)
Debt Service (All Cases)	\$3.4M - \$4.3M
Fixed Operating Costs	\$380k
Variable Operating Costs (Average)	\$200k
Annual Estimated Costs	\$4M - 4.9M

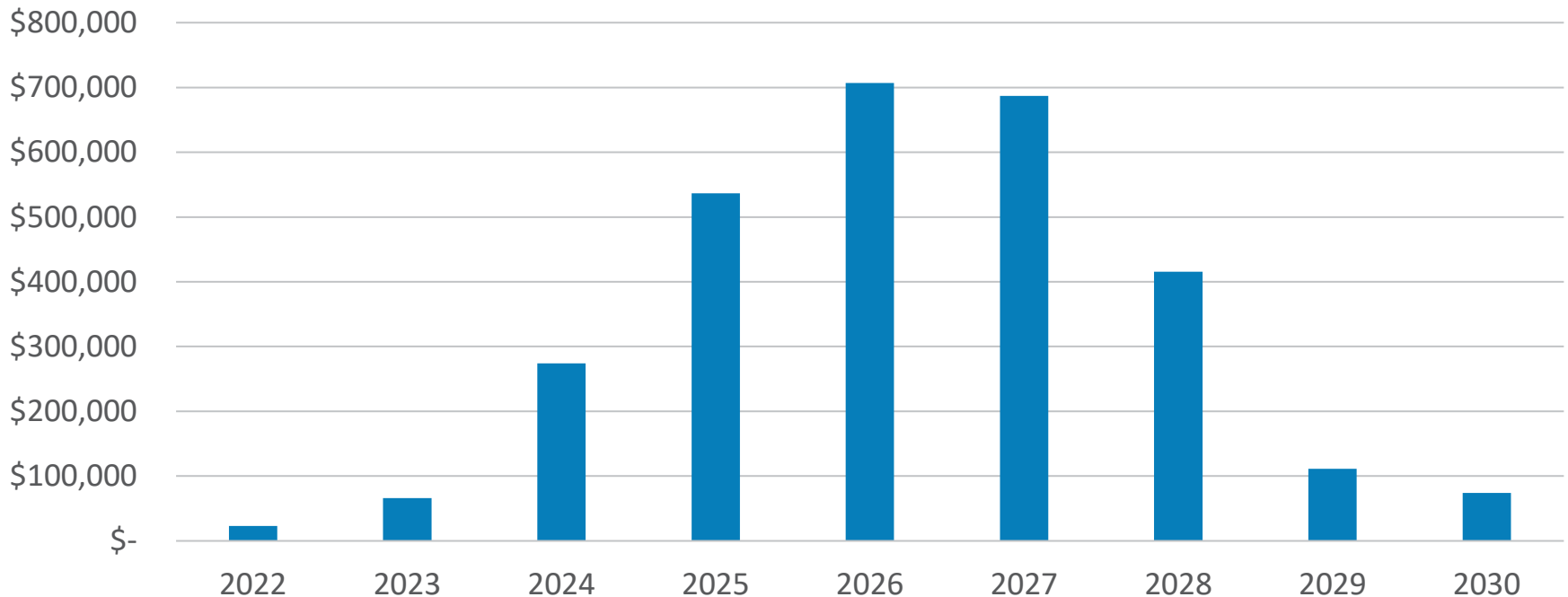
± 10%

Range of debt service:

- Current vs. modeled rates
- WIFIA vs. revenue bonds

Our delivery decisions and pace move the needle

PARTICIPANT SHARE CONSTRUCTION COSTS (\$1,000s, 2021\$)



Delivery considerations (assumes financing participants):

- Timing of locking **interest rates** \pm 10%
- Increased construction cost **escalation** by 0.5% increases annual costs by 3.5%
- Each additional \$100M in **construction costs** increases annual costs by 3.4%

Bifurcating facilities shifts costs

Capital Costs

- Downstream participants pay for “Base + Downstream” facilities and pay **\$3,110** per acre-foot of storage.
- All other participants pay only for “Base” facilities and pay **\$2,970/AF** of storage

In total, this methodology shifts capital costs by:

- Increasing downstream participant costs by **1%**
- Reducing all other participant costs by **4%**

Rebalancing shifts cost

The project is diversion-limited and currently fully subscribed, so changes in participation level impact fixed costs

- To decrease participation, either:
 - A new participant is needed, *or*
 - Other participants' **fixed costs increase**
- To increase participation, another participant must decrease
- No changes to participation = no impact

What can we impact (the RC/AB)?

Some things we can't impact without reducing performance of the project, but we are in the driver's seat on:



Our pace

- Impacts when we start financing (interest rates)
- Impacts escalation we pay for construction

Controlling construction costs

- Delivery method and risk allocation

Our allocation method (shifts costs to others)

Discussion questions



What do you think will have the biggest impact on cost without reducing performance or shifting costs to others?



Do you understand the rebalancing process and how changes impact other agencies?

Next Steps

Activities and Workshops



Workshop objectives (revisited)

Objectives

- ✓ Understand project fixed and variable costs for your agency
- ✓ Understand what “moves the needle” on project costs for your agency (and how changes impact other participants)
- ✓ Understand what costs the Reservoir Committee and Authority Board can and cannot impact
- ✓ Understand and plan for project costs

Next steps for participants

- Plan for table 6A (financing) or 6B (pay-go)
- Start your track for securing revenue
- Understand your benefits
- Weigh in on the contract guiding principles

Save the dates

August: Benefits and Costs Informational Sessions to be Scheduled

- August 13th: Sites and the agricultural business
- 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 to CWC



Questions?