



SCV Water

Cost Model Summary

Agenda

- 1. Overview of the Cost Model**
 1. Introduction (Sarah)
 2. Why?
 3. Assumptions
 4. Starting Water Supplies
 5. Data Flow and Cost Components
 6. Model Output
 7. Next Steps (Sarah)
- 2. Committee Feedback and Comments**



Introduction

Sarah

- **WestWater Research**
- **Banking Partnership Analysis**
- **Water Portfolio Study**
- **Cost Analysis**



Why are we doing this? Cost matters...

The model provides four important unit costs:

- **Nominal Cost:** Historic perspective (*what actually happened*).
- **Current Year Costs:** Today's perspective (*what we think has happened*).
- **Net Present Costs:** Tomorrow's perspective (*what we think will happen*).
- **Variable Costs:** The added cost of getting one more AF of water from each supply.

SCV Water Cost Analysis

Model Assumptions

Assumption	Description
Grants and Revenues	Model does not include grants or revenues.
PFAS, VOC, Perchlorate	All treatment costs similar enough to be grouped together
CalSim III	Used to forecast SWP Allocations
CPI	Same CPI as other SCV Water transfer agreements
Bond Yield	Used 3.5% bond yield for discount rate
Surface Water Costs	DWR Bulletin 132 and Appendices
Supply Delivery	Model assumes one point of delivery for every supply

Starting Supplies

Imported

- SWP Table A
- BV/RRB
- Yuba Accord
- RRB Banking
- SWSD Banking

Groundwater

- Alluvial Treated – PFAS, Perchlorate, VOC
- Alluvial Disinfection Only
- Saugus Treated – PFAS, Perchlorate, VOC
- Saugus Disinfection Only
- Dry Year Wells

Exchanges

- 2019 AVEK
- 2023 RRB
- 2023 MWD

Other

- Recycled Water
- Template for additional modeling scenarios



SCV Water Cost Analysis

Data Flow and Cost Components



Water Supply Cost Component Examples

Cost Component	SWP Table A	Alluvial Treated Groundwater	BV/RRB
Volume (AF)	<ul style="list-style-type: none"> Volume Delivered 	<ul style="list-style-type: none"> Volume Delivered Volume Sold 	<ul style="list-style-type: none"> Volume Delivered
Capital (\$)	<ul style="list-style-type: none"> Transportation Capital – Conservation and Transportation Minimum OMP&R – Conservation and Transportation Capital – Variable OMP&R 	<ul style="list-style-type: none"> Well Replacement Capital Well Rehab Capital PFAS Capital Other Capital 	<ul style="list-style-type: none"> Capital Payment at execution of agreement
O&M (\$)	<ul style="list-style-type: none"> Capital Power – Conservation and Transportation Variable Power – OMP&R 	<ul style="list-style-type: none"> PFAS Labor PFAS Lab PFAS Maintenance PFAS Consumables Disinfection Chemicals Well O&M 	
Payments and Fees (\$)	<ul style="list-style-type: none"> Delta Water Charge 	<ul style="list-style-type: none"> Payments and Fees 	<ul style="list-style-type: none"> Annual program payment Look-in adjustment
Variable (\$)	<ul style="list-style-type: none"> Water System Revenue Bond Surcharge SCV Water Raw Water Treatment 	<ul style="list-style-type: none"> PFAS Energy Pumping Energy 	<ul style="list-style-type: none"> Conveyance charges SCV Water raw water treatment

SCV Water Cost Analysis

Model Output

	<i>Selection</i>		
	Model Scenarios		
<u>Water Supply Assumptions</u>			
Start Year			
End Year			
Project Life			
<u>Water Supplies</u>			
Volume Delivered (AF)			
Volume Returned (AF)			
Total Volume (AF)			
<u>Costs</u>			
Capital			
O&M			
Pmts & Fees			
Variable			
Total			
<u>Outputs</u>			
Current Year Total Costs (\$/AF)			
Nominal Cost (\$/AF)			
Net Present Cost - Total (\$/AF)			
Net Present Cost - Variable (\$/AF)			

- Possible Analyses:**
- Single Year
 - Multi-Year
 - Single Supply
 - Multiple Supplies
 - Historical Years
 - Current Year
 - Future Years

Next Steps, Sarah....



Thank You

Alan Becker

becker@waterexchange.com

