Unique Opportunity for Ecosystem Enhancement, Improved Water Supply Reliability, and Emergency Water Supply



#### **Pacheco Reservoir Expansion Project**



#### **Board Policy Decisions**

- Where does the Pacheco Reservoir Expansion Project fit into the Water Supply Master Plan?
- Are there predetermined "triggers" that require that the project be re-validated by the Board of Directors (time, partnership participation, cost, schedule, etc.)
- What level of Partnership participation should be assumed for financial planning purposes?



# Pacheco Benefits for Valley Water (WSIP)

#### **ENVIRONMENTAL**

Enhance habitat for federally threatened steelhead

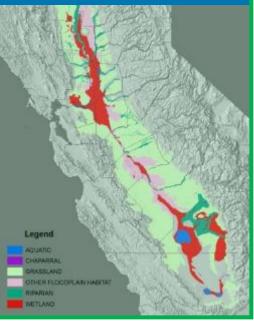
Enhance water supply in below- normal years to wildlife refuges in the Delta

Increase water supply reliability and emergency water supply

Resolve the water quality problem in supply sourced from San Luis Reservoir

Reduce flooding along Pacheco Creek and to disadvantaged communities













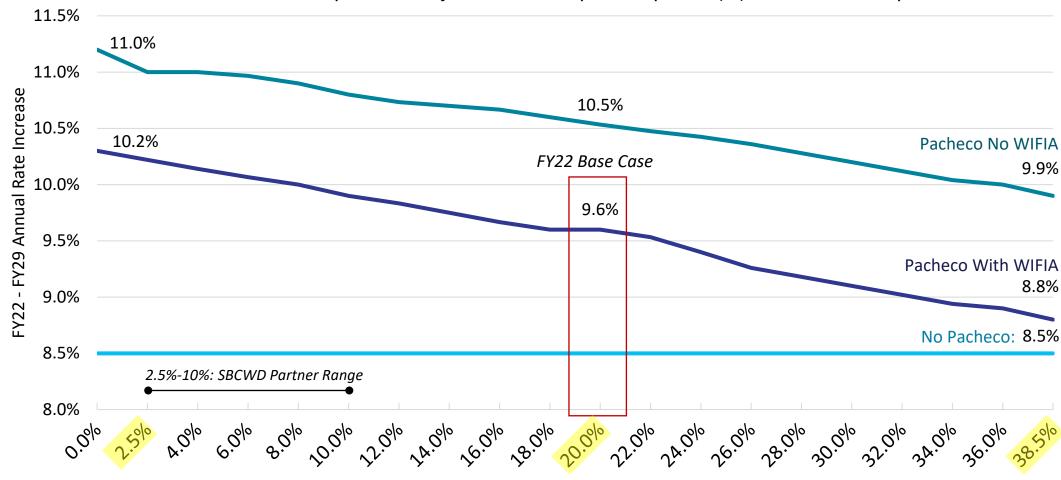
# **Project Cost Estimate History**

Year	CIP Estimate	Estimate with future inflation (CIP calc.)	
2017	\$969,000,000	N/A	2015 dollars for WSIP Application
2019	\$1,182,004,000	\$1,345,000,000	No construction cost changes from WSIP estimate
2020	\$2,203,321,000	\$2,519,622,000	*NEW CONSTRUCTION ESTIMATE*



#### **Water Rate Impact**

FY22-FY29 Annual Rate Increase (Zone W-2 M&I)
Pacheco Reservoir Expansion Project: Partnership Participation (%) & Scenario Comparison

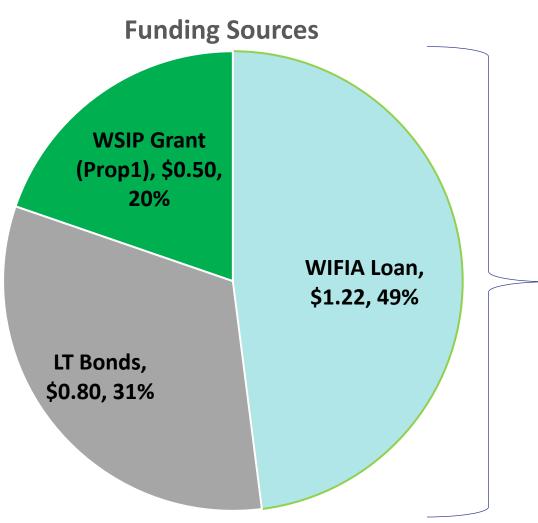




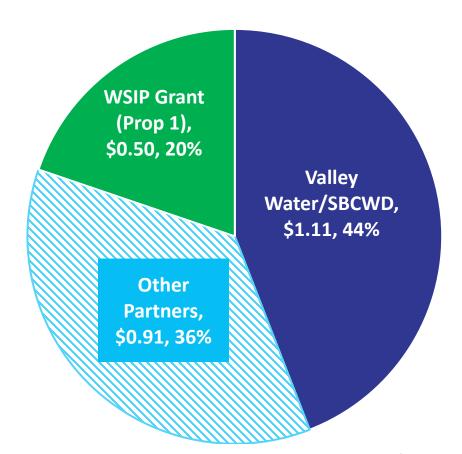
Partnership Participation Level (% of total project costs)

## Financing Plan - Total Project Cost \$2.5B

(\$BILLIONS)







Total Financing Costs (Principal + Interest): \$3.8B\*

Average Annual Debt Service: \$81M\*



#### **Four Partnership Options**

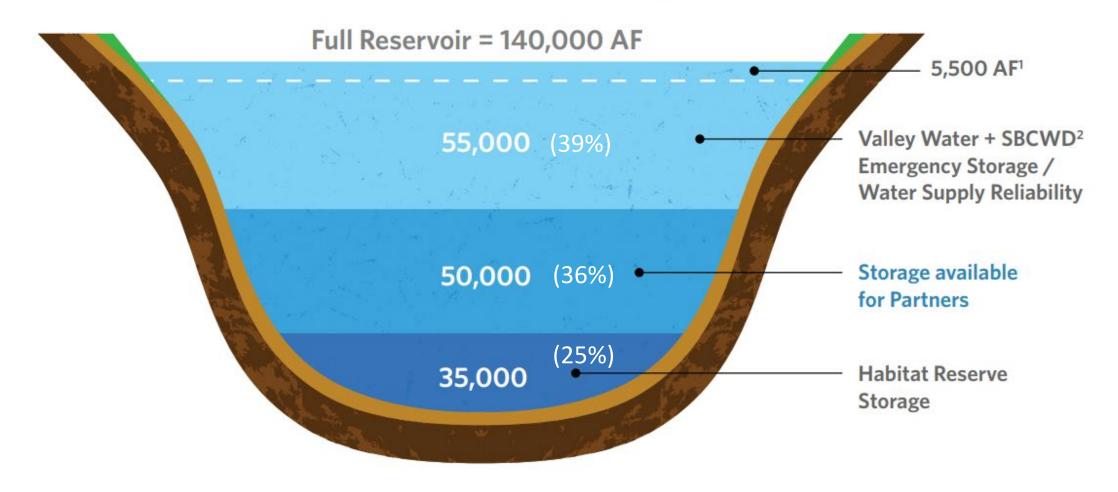
- (1) Valley Water retains ownership form partnerships via third party contractual rights
- (2) Joint Exercise of Powers of Authority (JPA) form partnerships through JPA membership
- (3) Partnerships with Private Entities form partnership with private entities to invest in capacity and sell their benefits to others
- (4) Partnerships with Federal and/or State agencies



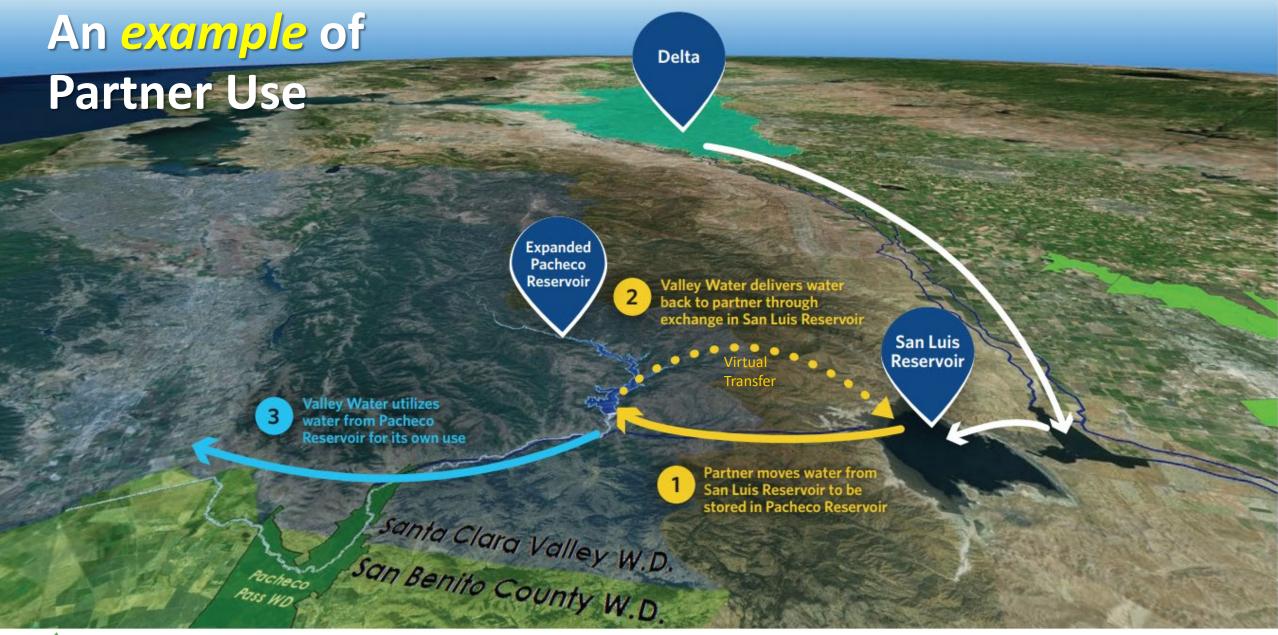
#### Possible Partnership Structure Example

#### PARTNERSHIP STORAGE

- 1 5,500 AF storage space reserved Nov. 1 for natural inflow only
- 2 San Benito County Water District









# **Example of Partner Costs**

#### PARTNERSHIP COST

	Environmental Reserve (WSIP) <sup>1</sup>	Valley Water and San Benito County Water District	Partners	Total
Reservoir Reserved Volume (acre-feet, AF)	35,000 AF	55,000 <sup>2</sup> AF	50,000 AF	140,000 AF
Capital Cost	\$ 0.5 billion <sup>2</sup>	\$ 1.1 billion <sup>3</sup>	\$ 0.9 billion	\$ 2.5 billion
Capital Cost (% of Total)	20%	44%	36%	100%
Annual O&M Cost (\$million/year, 2030)	-	\$ 2.6 million/year	\$ 2.4 million/year	\$ 5.0 million/year

- 1 Water Storage Investment Program
- 2 Includes payment for emergency storage benefits (Valley Water)
- 3 Will increase if Partnership commitment is less than 50,000 acre-feet



#### **Approximate Storage Project Cost Comparison**

	Pacheco Reservoir Expansion	Los Vaqueros Expansion and Transfer Bethany Pipeline <sup>1</sup>	Sisk Dam Raise <sup>2</sup>	McMullin 'Aquaterra' Groundwater Bank³	AVEK 'High Desert' Groundwater Bank <sup>4</sup>
Total Capital Cost	~\$2,520 Million	~\$951 Million	~\$1,292 Million	~\$344 Million	~\$159 Million
Total Storage Capacity	134 TAF	115 TAF	130 TAF	800 TAF	280 TAF
\$/AF of storage capacity	\$18,800/AF	\$8,300/AF	\$9,900/AF	\$400/AF	\$600/AF

- 1. LVE Total Project Cost based on LVE Expansion Proforma Financial Model Version 5.0 Total Capital Cost, which includes the Transfer Bethany Pipeline cost.
- 2. Sisk Total Project Cost based on Sisk Dam final feasibility report dated December 2020, which was converted to an inflated cost projection using 4% inflation assumption
- 3. McMullin Total Project Cost based on 2020 preliminary estimate (to be revised) which was converted to an inflated cost projection using 4% inflation assumption
- 4. AVEK Total Project Cost based on Phase 1 Project Cost (similar size/scope), which was converted to an inflated cost projection using 4% inflation assumption

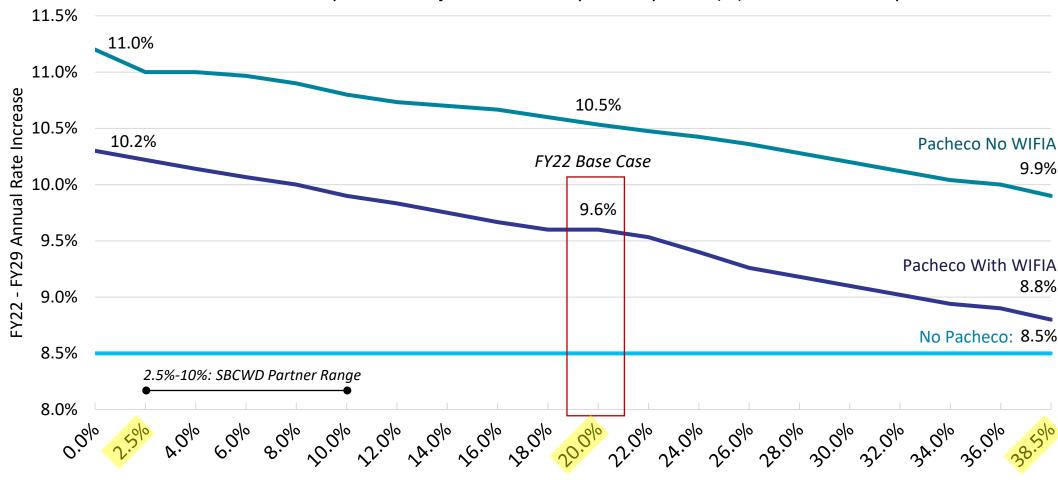






## **Conclusion - Water Rate Impact**

FY22-FY29 Annual Rate Increase (Zone W-2 M&I)
Pacheco Reservoir Expansion Project: Partnership Participation (%) & Scenario Comparison





Partnership Participation Level (% of total project costs)

#### What Could Pacheco Do?

- Increases operational flexibility by increasing local storage capacity
- Banks existing imported water contract supplies for use during 1-2 years of a drought
- Provides year-round flow to creek downstream of reservoir

#### What Will Pacheco Not Do?

- No significant reduction in water shortage severity during prolonged droughts
- No long-term drought supply
- No new water supply



#### **Discussion Summary**

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- Pacheco Reservoir Expansion is one of several WSIP projects moving forward with partnership potential
- Unamortized capital cost of reservoir storage is between \$18K-\$20K/AF
- Annual increase in North County Zone W-2 M&I groundwater charge ranges from 8.5%-11% to account for Pacheco Reservoir Expansion Project



## **Board Policy Decisions**

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- Does it make sense to continue to include the Pacheco Reservoir Expansion Project in the Water Supply Master Plan?
- Are there predetermined "triggers" that require that the project be re-validated by the Board of Directors (time, partnership participation, cost, schedule, etc.)
- What level of Partnership participation should be assumed for financial planning purposes?



# QUESTIONS

