



**Joint Sites Project Authority & Reservoir Committee Workshop**

- **Phase 2 Agreements**
- **Finance Plan**


**July 9 & 10, 2018**  
*Updated July 29*

This presentation is for informational use only. It contains working assumptions, primarily regarding costs and schedule that are subject to change.

## Purposes

**Preparations for Phase 2:**

- Provide information
- Answer questions
- Understand your needs & concerns
- Hold “one-on-one” meetings *this month*



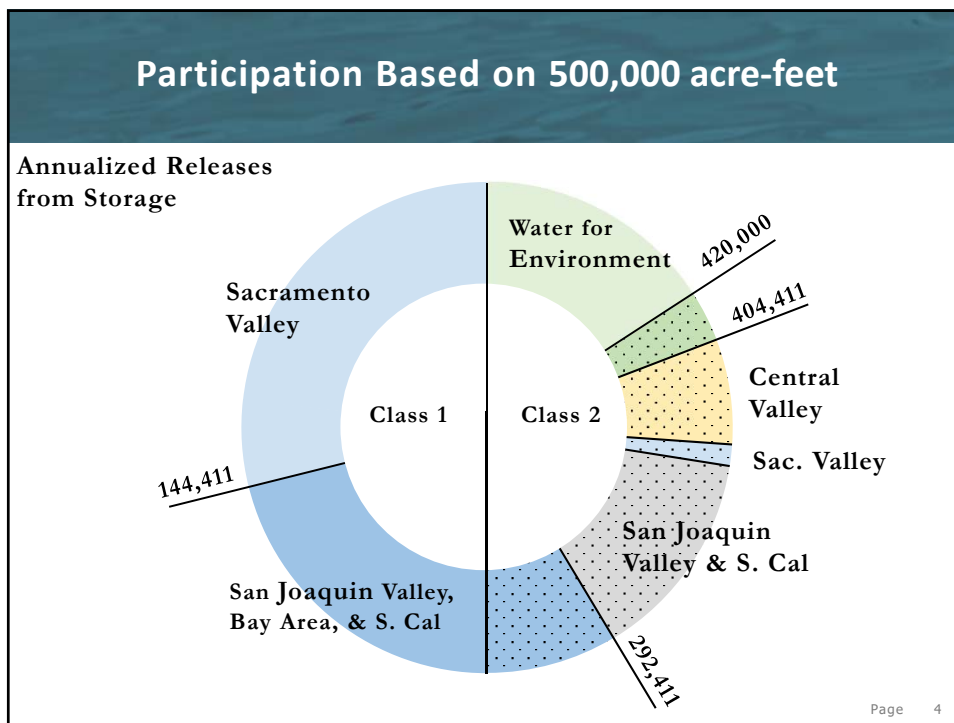
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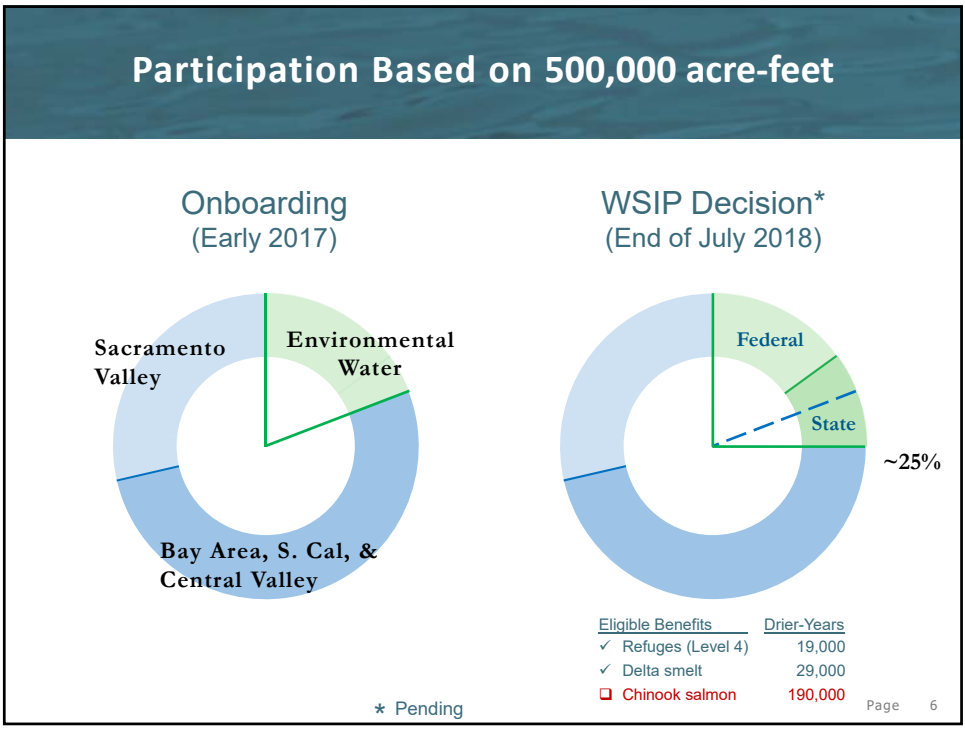
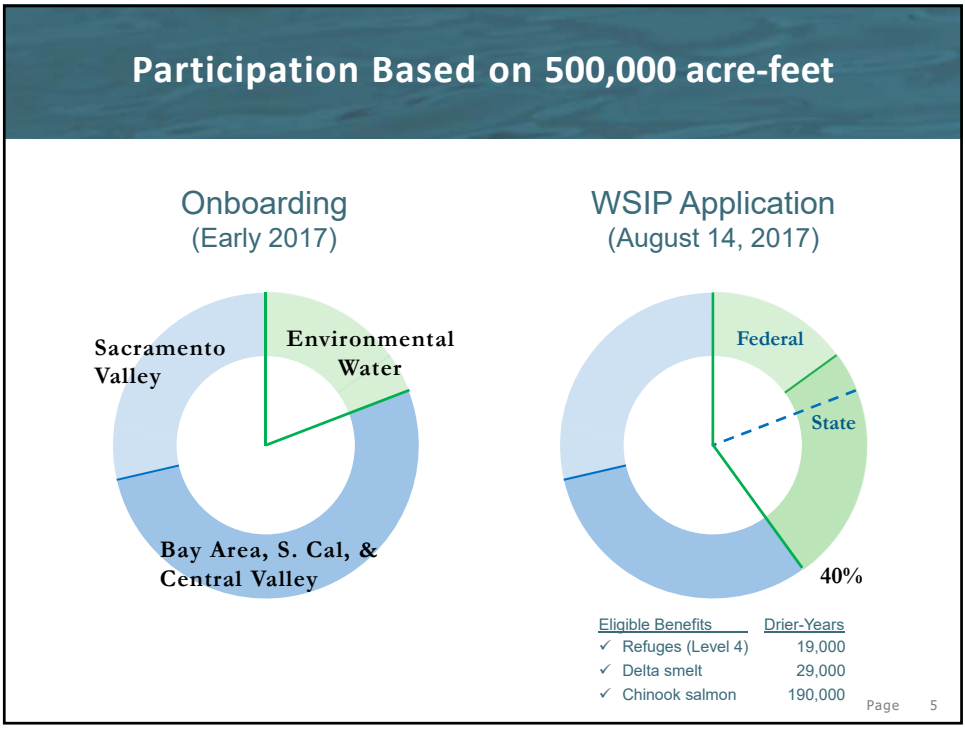
### Current Participants

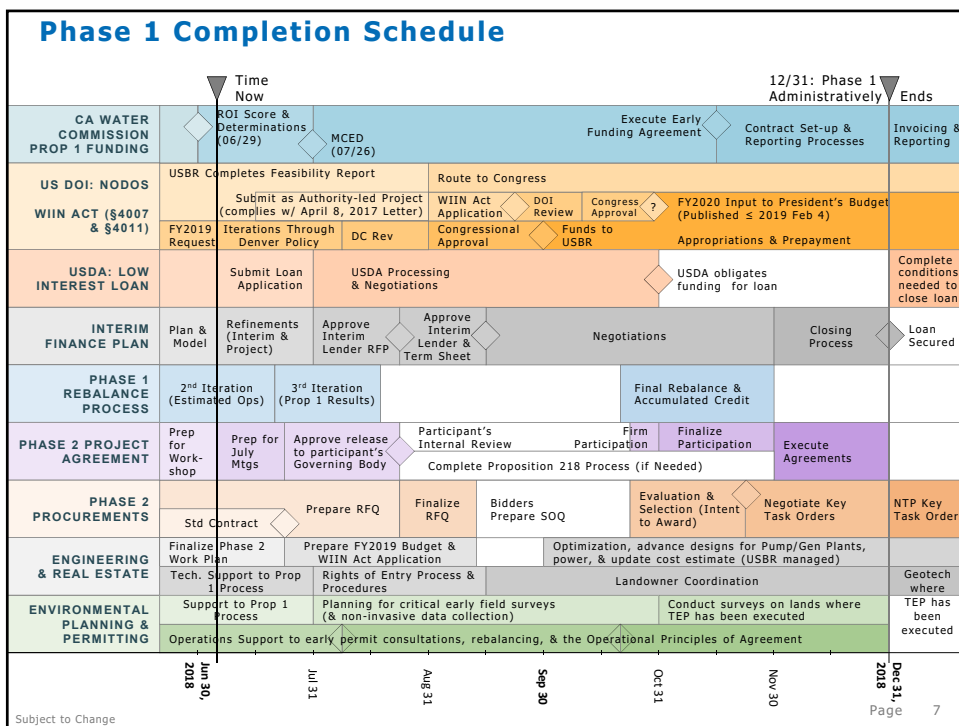
Sacramento Valley		Beyond the Sacramento Valley	
Organization	Acre-ft.	Organization	Acre-ft.
Glenn County	-	Antelope Valley-East Kern WA	2,000.
Maxwell Irrigation District	-	California Water Service	35,000.
Tehama-Colusa Canal Authority	-	Coachella Valley Water District	26,500.
PCWA & City of Roseville	-	Desert Water Agency	6,500.
Sacramento Co WA & City of Sacramento	-	Metropolitan Water District	50,000.
Colusa County	10,000.	Pacific Resources MWC	20,000.
Colusa County Water District	32,111.	San Bernardino Valley Muni WD	30,000.
Glenn-Colusa Irrigation District	20,000.	San Geronio Pass Water Agency	14,000.
Orland-Artois Water District	20,000.	Santa Clara Valley Water District	24,000.
Proberta Water District	3,000.	Santa Clarita Water Agency	5,000.
Reclamation District 108	20,000.	Wheeler Ridge-Maricopa WSD	20,000.
Western Canal Water District	3,500.	Zone 7 Water Agency	20,000.
<u>Westside Water District</u>	<u>25,000.</u>		
4M Water District	500.	<b>Total acre-ft:</b>	<b>404,411.</b>
Cortina Water District	300.	<b>Authority:</b>	<b>15 Agencies</b>
Davis Water District	2,000.	+ US Bureau of Reclamation (non-voting)	
Dunnigan Water District	5,000.	+ Dept of Water Resources (non-voting)	
LaGrande Water District	1,000.		
City of American Canyon	4,000.	<b>Combined:</b>	<b>37 Agencies</b>
Carter MWC	1,000.		
Garden Highway MWC	4,000.		

Working Draft dated 2017 Jul 06. Subject to change Page 3

July 29 Update: Added Reclamation & DWR as non-voting participants







**PHASE 2 RESERVOIR PROJECT AGREEMENT**

**GENERAL**

- Project Members will execute Phase 2 Agreements in November 2018
- Phase 2 Agreement based on Phase 1 Agreement
- Each Project Member will have a Participation Percentage for Phase 2 based on acre feet of water
- Conversion of Class 2 Water to Class 1 Water will include an additional payment
- Term of Phase 2 Agreement will extend to earlier of 2025 or completion of Phase 2
- Reservoir Committee continues under Phase 2 Agreement

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**PHASE 2 RESERVOIR PROJECT AGREEMENT**

**FINANCING PROVISIONS**

- All Phase 2 Costs (net of CWC and USBR contribution) will be financed by the Authority
- Currently anticipate financing will be a revolving line of credit with bank
- Project Members will pay interest only on the line of credit through Phase 2

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## PHASE 2 RESERVOIR PROJECT AGREEMENT

### BILLING PROVISIONS

- Authority will bill Project Members annually in advance
- Project Member's payments due January 15 of each year
- Project Member costs cannot be increased by more than 25% to cover defaults
- If Project Member covers a default, it receives a pro rata share of the defaulter's Participation Percentage

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## PHASE 2 RESERVOIR PROJECT AGREEMENT

### AT END OF PHASE 2:

- Interim financing refinanced by construction financing; or
- If Project does not proceed to construction, Project Member has choice of:
  - ✓ Paying off share of Phase 1 financing; or
  - ✓ Authority will refinance with long term debt

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Repayment (\$/acre-ft): Difference since 2015	
<p><u>2015 Estimate:</u></p> <ol style="list-style-type: none"> <li>1. "Alt C" (no water supplies in Sacramento Valley) &amp; facilities sited by DWR</li> <li>2. Priority of water for urban uses</li> <li>3. Assumed operations with CVP and SWP</li> <li>4. Assumption of water for the environment (pre-PPIC)</li> <li>5. Reservoir fill based on "current" conditions &amp; internal assessments</li> <li>6. Direct Costs: "Contract Costs" + contingency.                     <ul style="list-style-type: none"> <li>- No Authority costs</li> <li>- Incomplete estimate of mitigation</li> </ul> </li> <li>7. Dollars in year 2013</li> <li>8. Finance costs: 2015 market with <i>assumptions</i> for interim and construction financing (WIFIA-based + Prop 1) and capitalized interest.</li> </ol>	<p><u>2018 Estimate:</u></p> <ol style="list-style-type: none"> <li>1. "Alt D" (water for Sacramento Valley) &amp; increased mitigation &amp; protections (birds)</li> <li>2. Onboarding &amp; pending rebalancing process</li> <li>3. Includes input from CVP and SWP operators</li> <li>4. Includes Prop 1 (pending decision) &amp; federal interest (feasibility report &amp; WIIN Act)</li> <li>5. Insights gained from <u>public comments</u>, voluntary settlement, and early coordination</li> <li>6. Direct Costs: "All in" &amp; <u>Risk Adjusted</u> <ul style="list-style-type: none"> <li>+ Cost estimate updated (USBR)</li> <li>+ Includes cost of potential delays</li> </ul> </li> <li>7. Dollars in year 2018 (Construction \$ &gt; CPI)</li> <li>8. Finance costs: Current market using interim and construction <u>finance plan</u> (WIFIA, USDA, Prop 1, WIIN, &amp; reservoir fill time) <span style="float: right;">Page 14</span></li> </ol>

### PHASE 3-4 FINANCIAL MODELING

PRELIMINARY RESULTS BASED ON 2014 COST ESTIMATES of \$4,108 million

	\$	AF	\$/AF
<b>Annual Fixed Debt Service Cost per Acre Foot</b>			
in 2015 Dollars	212,010,218	322,329	658
in 2018 Dollars	238,482,662	322,329	740
in 2032 Dollars	412,974,809	322,329	1,281
<b>Annual O&amp;M Cost per Acre Foot</b>			
in 2015 Dollars	29,509,587	322,329	92
in 2018 Dollars	31,315,810	322,329	97
in 2032 Dollars	41,320,546	322,329	128
<b>Annual Revenue per Acre Foot</b>			
in 2015 Dollars	35,018,475	322,329	109
in 2018 Dollars	37,161,886	322,329	115
in 2032 Dollars	49,161,942	322,329	153
<b>Total Cost per Acre Foot</b>			
in 2015 Dollars	206,501,330	322,329	641
in 2018 Dollars	232,636,586	322,329	722
in 2032 Dollars	405,133,413	322,329	1,257

2018 and 2032 values escalated from 2015 results: debt service escalated at 4%, O&M and Revenue escalated at 2%

← Fixed through repayment period

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### PHASE 2 FINANCING

#### INTERIM LOAN PROJECTIONS

- Line of Credit for \$350 million
  - 3% interest rate
  - .75% commitment fee

Phase 2 Costs	\$ 420 million
less: Prop1 Funds	\$ 40 million
less: WIIN Act Funds	\$ 30 million
<b>Amount Needed</b>	<b>\$ 350 million</b>

	LOC Expense	Cost at 335,000 AF
CY-2019	\$3,309,360	\$9.89/AF
CY-2020	\$5,133,417	\$15.32/AF
CY-2021	\$6,994,665	\$20.88/AF
CY-2022	\$3,721,086	\$11.11/AF
<b>Total</b>	<b>\$19,158,528</b>	<b>\$57.19/AF</b>

Jan 2020 payment = \$25.20/AF ‡

‡ Does not include cost to convert Class 2 to Class 1 participation. Due in FY2019

- If Project does not proceed, \$350 million would represent
  - \$350 million / 335,000 AF = \$1,045/AF debt obligation
  - Amortized over 30 yrs at \$22.6 million/yr = \$67.6/AF (5% rate, level debt)

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July 29 Update: First payment for work financed is due in Jan, not Nov 2020.



## PHASE 3-4 FINANCIAL MODELING

### GENERAL ASSUMPTIONS AND INPUTS

- Total Costs to Be Financed (Ph2-4) are \$6,464 million (nominal dollars)
  - Construction costs escalated from 2015 estimate at 15%/7yrs average
  - Construction costs escalated to support delays and environmental risk
  - All other costs escalated approximately 2%/year based on current Bureau of Labor Statistics estimates
- CA State/Proposition 1 Funding at \$816.6 million (2015 dollars)
- Federal/WIIN Act Funding at \$1,002 million (15.5% of costs in nominal dollars)
- Midrange (intermediate) Hydrology (1974-2003 CALSIM runs)
- Electrical generation revenue exceeds pumping costs due to optimized operation of pumping and releases and pump-storage capability
- Stress Cases to be reviewed
  - Minimum(dry) hydrology (1922-51 CALSIM runs)
  - No electrical generation revenue

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July 29 Update: Updated Prop 1 to reflect July 24 decision. Added dollar year being used for Proposition 1 and Federal participation

## PHASE 3-4 FINANCIAL MODELING

### EXPENSES AND REVENUES

	Calculated	Allocated
<b>Expenses</b>		
Annual O&M	Annual charge	Per AF allotment
Annual A&G	Annual charge	Per AF allotment
Fill O&M Cost	Annual charge	Per AF allotment
Pumping to Fill	Per AF	Per AF Filled
Wheeling to Fill	Per AF	Per AF Filled
Wheeling to Release	Per AF	Per AF Released
<b>Revenues</b>		
Fill & Release Cost Reimbursements	Per AF	Per AF Filled/Release
Power Generation	Per AF	Per AF Released
Operating Account Interest Earnings	Annual amount	Per AF allotment
Debt Service Reserve Fund Interest Earnings	Annual amount	To Participants AF allotment
Operating Account Overage Return	Annual amount	To Participants AF allotment

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### PHASE 3-4 FINANCIAL MODELING

#### PERMANENT FINANCING

- Assumed 5% interest rate (3.875% for USDA loan)
- Semi-annual interest payments in Jun/Dec, principal payment in Dec
- Level Debt Service
- First bond issue pays of interim Loan

	40 Years w/ 10 years Capitalized Interest	40 Years w/ No Capitalized Interest
	(\$ millions)	(\$ millions)
<b>Bonds Issued for Project Costs</b>	<b>4,560</b>	<b>4,560</b>
<b>Bonds Issued for Capitalized Interest</b>	<b>2,073</b>	<b>-</b>
<b>Total Bond Principal</b>	<b>6,633</b>	<b>4,560</b>
<b>Total Interest Paid</b>	<b>6,321</b>	<b>5,402</b>
<b>Total Bond Debt Service</b>	<b>12,954</b>	<b>9,962</b>

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### PHASE 3-4 FINANCIAL MODELING

#### PRELIMINARY RESULTS: CURRENT COST ESTIMATES of \$6,464 million \*

	10 yrs Capitalized Interest Only Payments 2032-61		Principle and Interest Payments from 2022-61	
	\$	\$/AF (335,000 AF)	\$	\$/AF (335,000 AF)
<b>Annual Debt Service</b>				
in 2015 Dollars	265,672,097	793	167,452,533	500
in 2018 Dollars	290,307,074	867	182,979,904	546
in 2032 Dollars	439,115,497	1,311	276,773,522	826
<b>Annual O&amp;M Cost</b>				
in 2015 Dollars	31,460,191	94	30,963,885	92
in 2018 Dollars	33,385,807	100	32,951,459	98
in 2032 Dollars	44,051,863	131	44,051,863	131
<b>Annual Revenue</b>				
in 2015 Dollars	43,318,411	129	40,454,509	121
in 2018 Dollars	45,567,565	136	42,646,782	127
in 2032 Dollars	57,709,134	172	54,556,079	163
<b>Total Cost</b>				
in 2015 Dollars	253,813,878	758	157,961,908	472
in 2018 Dollars	278,125,316	830	173,284,581	517
in 2032 Dollars	425,458,226	1,270	266,269,306	795

\* In nominal dollars. Not 2018 dollars

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July 29 Update: Table Headers. Left is repayment of interest only during construction and right is not just capitalized interest, but repayment of principle and interest

Year	40 Yrs, 10 yrs Capitalized Interest			First Water Deliveries	40 Years, No Capitalized Interest		
	Principal	Interest	Total DS		Principal	Interest	Total DS
	(\$millions)	(\$millions)	(\$millions)		(\$millions)	(\$millions)	(\$millions)
2022					12	19	32
2023					15	66	81
2024					21	85	105
2025					27	111	138
2026					34	138	172
2027					42	164	206
2028					51	190	241
2029					58	211	268
2030					60	216	277
2031					63	213	277
2032	106	333	439		66	210	277
2033	111	328	439		70	207	277
2034	116	323	439		73	204	277
2035	122	317	439		77	200	277
2036	128	311	439		80	196	277
2037	134	305	439		84	193	277
2038	140	299	439		88	188	277
2039	147	292	439		93	184	277
2040	154	285	439		97	180	277
2041	162	277	439		102	175	277
2042	170	269	439		107	170	277
2043	178	261	439		112	165	277
2044	187	252	439		117	159	277
2045	196	243	439		123	154	277
2046	205	234	439		129	148	277
2047	215	224	439		135	141	277
2048	226	213	439		142	135	277
2049	237	203	439		149	128	277
2050	248	191	439		156	121	277
2051	260	179	439		164	113	277
2052	273	166	439		172	105	277
2053	286	153	439		180	97	277
2054	300	139	439		189	88	277
2055	315	124	439		198	79	277
2056	330	109	439		208	69	277
2057	346	93	439		218	59	277
2058	363	76	439		229	48	277
2059	381	58	439		240	37	277
2060	399	40	439		252	25	277
2061	199	20	220		125	13	138
<b>Total</b>	<b>6,633</b>	<b>6,321</b>	<b>12,954</b>		<b>4,560</b>	<b>5,402</b>	<b>9,962</b>

**PHASE 3-4  
FINANCIAL  
MODELING**

Comparison of  
Capitalized  
Interest

vs

No Capitalized  
Interest



**Joint Sites Project Authority &  
Reservoir Committee Workshop**

**Questions?**