

SITES PROJECT AUTHORITY:

*May 15 Workshop: WSIP
Application*



WSIP Application:

1. CWC WSIP Application/Proposal

- a. Process
- b. Regulations
- c. Scoring
- d. Schedule
- e. Funding

2. Operations and Benefits

- a. Operation Assumptions – hydrology, assumptions,
- b. Flexibility – alternatives, limitations, relationship to CVP/SWP
- c. Environmental Benefits – salmon, delta, bypass, water quality

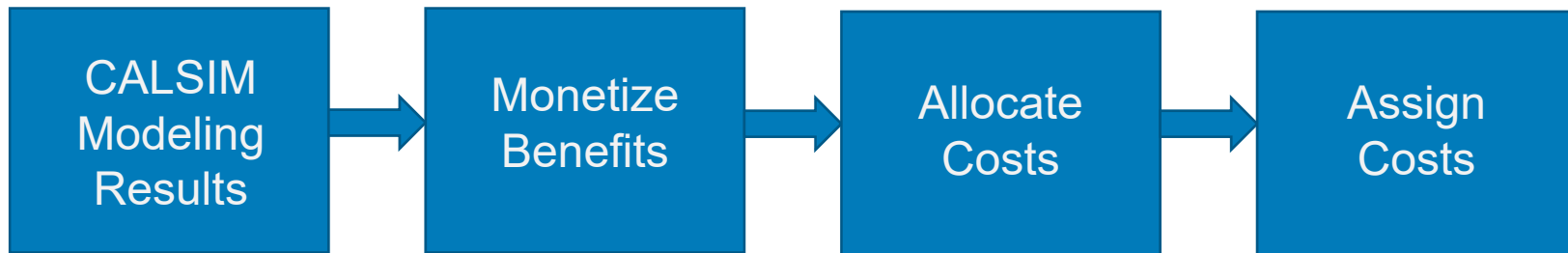
3. Permits, Approvals, Water Rights

- a. Permits/Approvals – agencies, linkages, schedules
- b. Water Rights – State Reserved Right, Application

4. Spillway & Reservoir Drawdown



Application Development

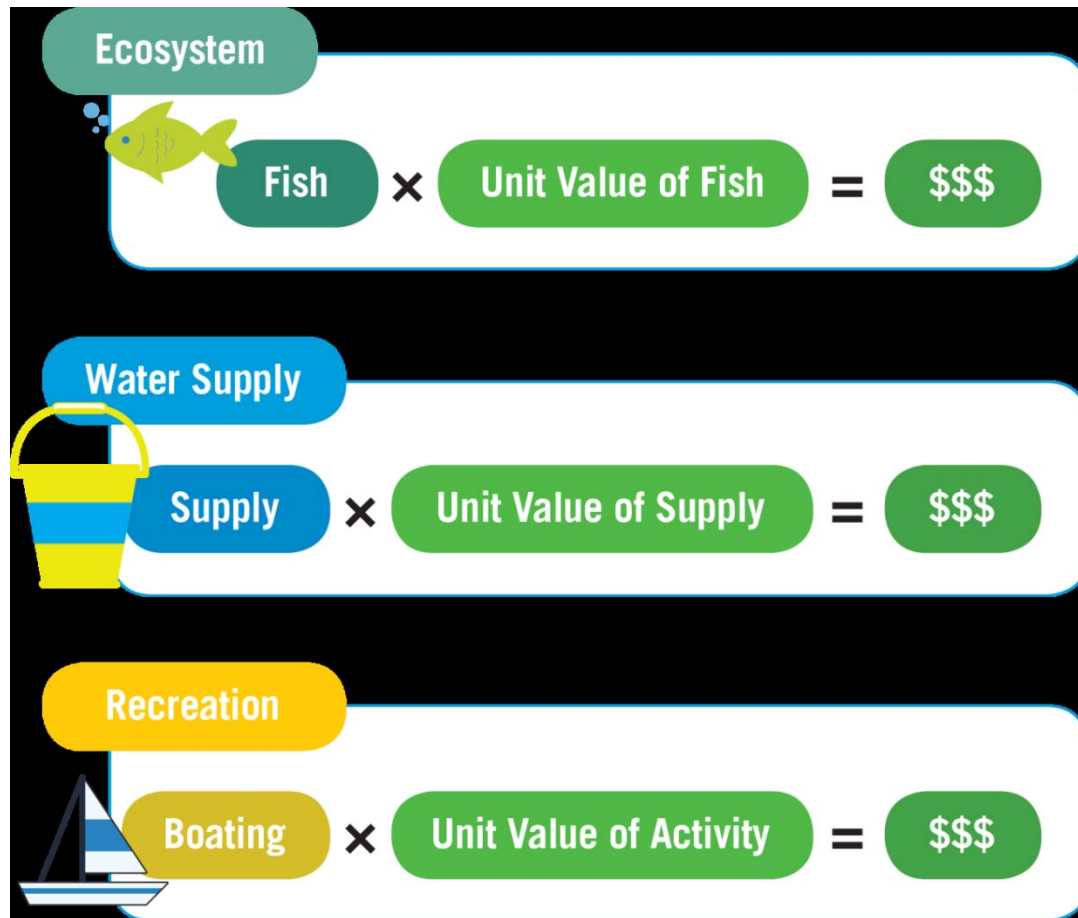


How Do You Monetize Benefits?

Benefit Type	With Project Condition (A)	Without Project Condition (B)	Physical Change (C = A – B)
Non-public Water Supply	400 TAF	200 TAF	200 TAF
Ecosystem			
Winter-run Chinook	2,000 Fish	1,600 Fish	400 Fish
Fall-run Chinook	10,000 Fish	9,000 Fish	1,000 Fish
Recreation			
Surface Area	200 Acres	0 Acres	200 Acres
Trails	30 Miles	0 Miles	30 Miles
Boat Ramps	15	0	15
Facilities	4	0	4
Visitor Days	40,000 People	0 People	40,000



How Do You Monetize Benefits?



How Do You Monetize Benefits?

Benefit Type	With Project Condition (A)	Without Project Condition (B)	Physical Change (C = A-B)	Unit Value (D)	Economic Value of Changes (E = C*D)
Non-public Water Supply	400 TAF	200 TAF	200 TAF	\$250 per AF	\$50,000,000
Ecosystem					
Winter-run Chinook	2,000 Fish	1,600 Fish	400 Fish	\$100,000 per Fish	\$40,000,000
Fall-run Chinook	10,000 Fish	9,000 Fish	1,000 Fish	\$2,500 per Fish	\$2,500,000
Recreation					
Surface Area	200 Acres	0 Acres	200 Acres		
Trails	30 Miles	0 Miles	30 Miles		
Boat Ramps	15	0	15		
Facilities	4	0	4		
Visitor Days	40,000 People	0 People	40,000 People	\$20 per Visitor	\$800,000



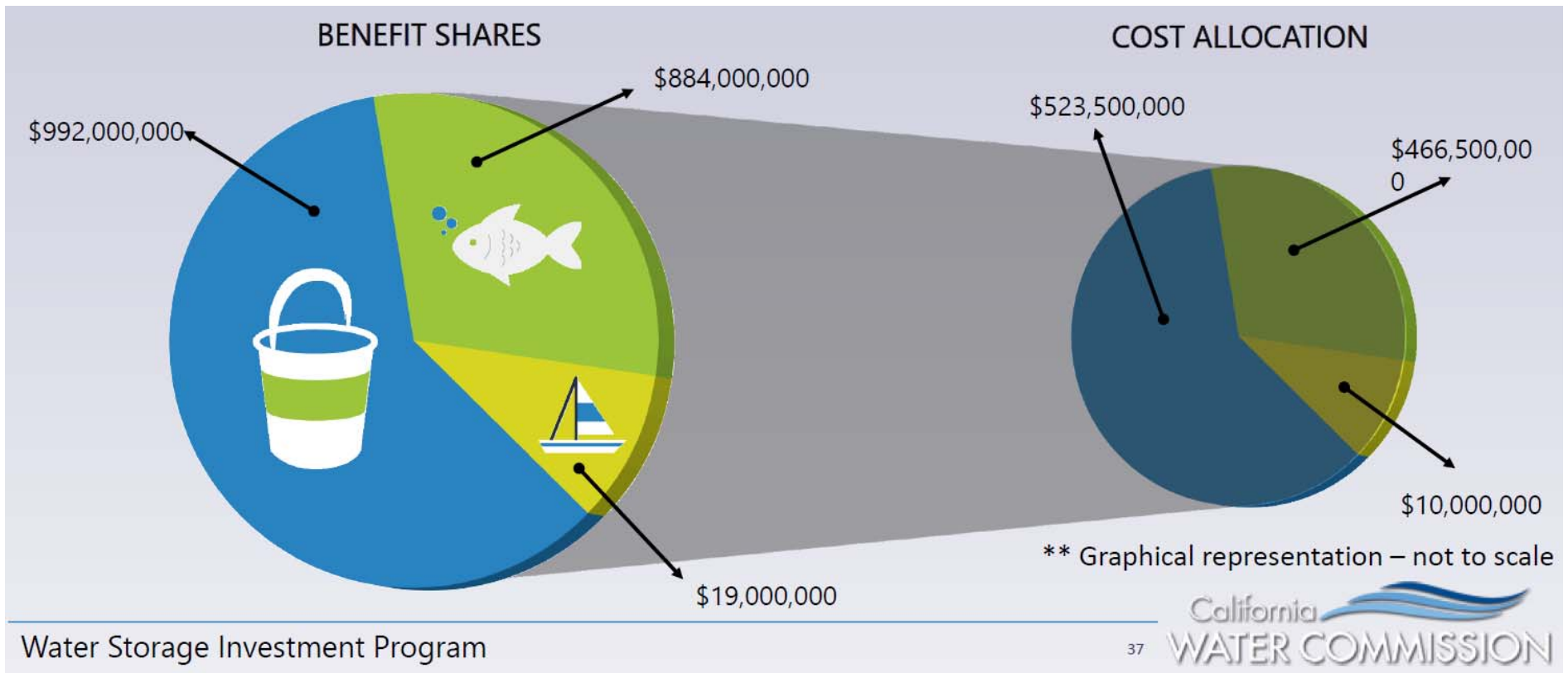
Sites Reservoir Benefits

Benefits	Estimation Method (Unit Values)
Water Supply	WSIP Unit Values, Alternative Project (<u>SWAP</u>)
Level 4 Refuge Water Supply	WSIP Unit Values, Alternative Project (<u>SWAP</u>)
Anadromous Fish	WSIP Unit Value for Coldwater Pool, <u>SALMOD</u> , Alternative Project Cost
Delta Environmental Water Quality	WSIP Unit Values, Alternative Project, Value/Smelt(?) (<u>SWAP</u>)
Hydropower	DWR Model
Recreation	Unit Value of Activity
Flood Damage Reduction	FEMA Methodology



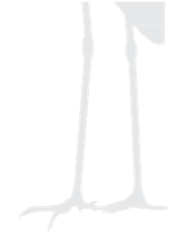
Cost Allocation

Total Cost = \$1B



Sites Benefits

Benefits that Require Release of Water	Benefits that Don't Require Release of Water
Water Supply	Anadromous Fish*
Level 4 Refuge Supply	Recreation
Delta Environmental Water Quality	Flood Damage Reduction
Hydropower*	Hydropower*



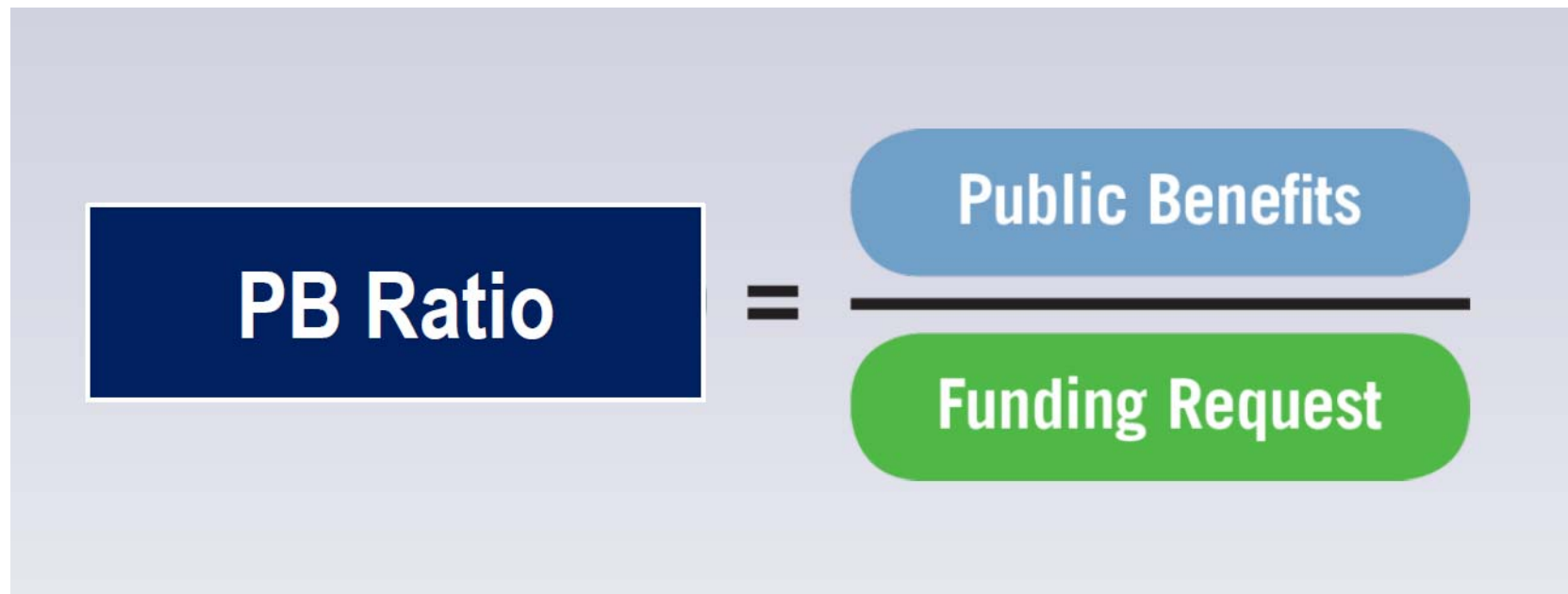
Cost Assignment



- For water supply costs there are identified Class 1 and Class 2 beneficiaries
- Public benefits will be assigned to the State (WSIP)



Public Benefit Ratio

$$\text{PB Ratio} = \frac{\text{Public Benefits}}{\text{Funding Request}}$$
A diagram illustrating the Public Benefit Ratio formula. On the left, a dark blue rounded rectangle contains the text "PB Ratio" in white. To its right is an equals sign. Further right is a fraction: a blue rounded rectangle containing "Public Benefits" is positioned above a horizontal black line, and a green rounded rectangle containing "Funding Request" is positioned below the line. The entire diagram is set against a light gray background.



Overall Benefit to Cost Ratio

$$= \frac{\text{Annual Benefits}}{\text{Annual Costs}}$$

