

EWA – THE FOUR YEAR TEST  
HAS IT WORKED?  
WHAT HAVE BEEN THE EFFECTS?



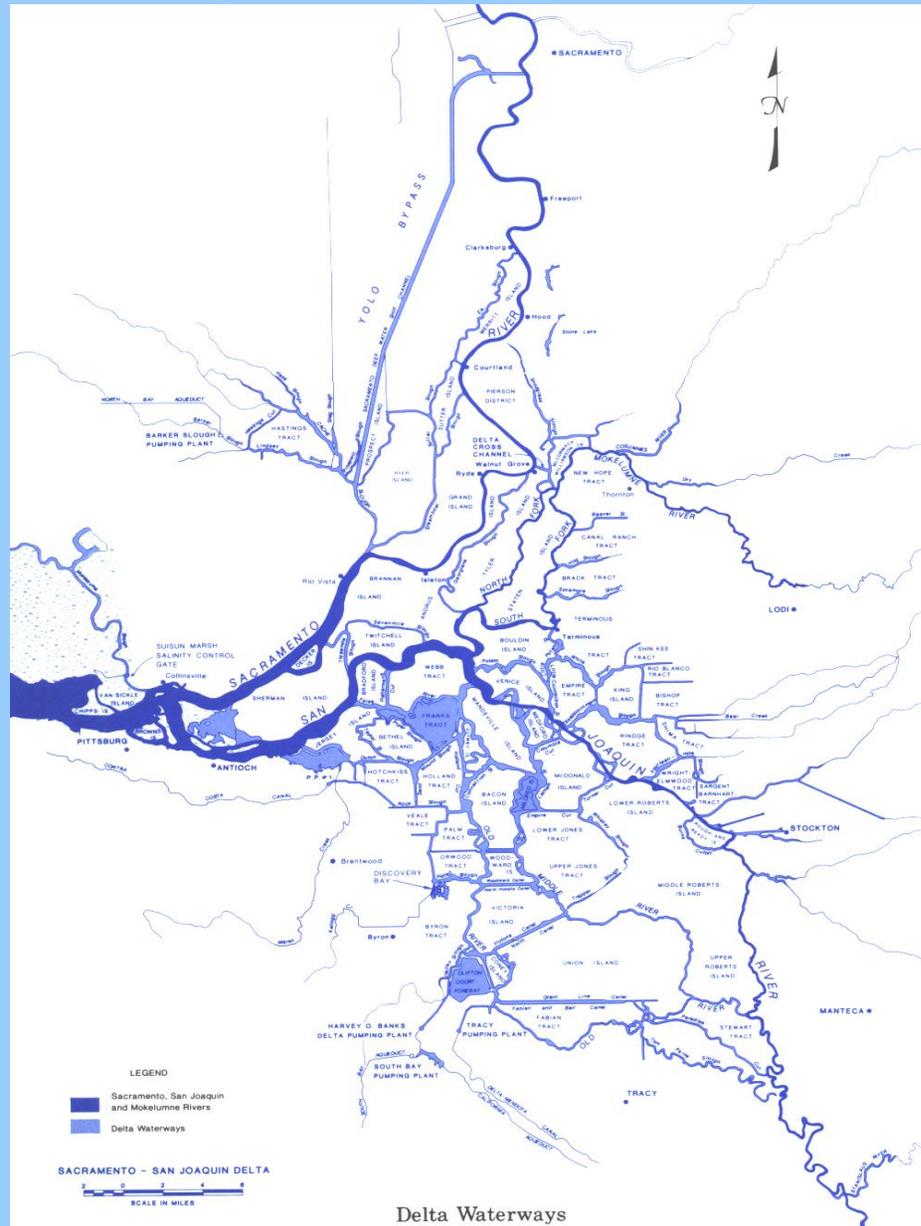
EWA SCIENCE PANEL  
NOVEMBER 8-10, 2004  
JERRY JOHNS, DWR

# Sacramento-San Joaquin River Delta (Delta)

CALFED Bay-Delta Program

Record of Decision  
August 2000

EWA First Year  
2000-01



# What is EWA

- Cooperative Management Program
  - to provide protection to fish of the Bay/Delta
  - by changes in operation of the CVP & SWP
  - at no uncompensated costs to project users
  - Four year program extendable by EWA Agencies
- Goals
  - Water Supply Reliability for CVP and SWP
  - Trajectory for Recovery of At Risk Fish Species of the Bay/Delta Estuary

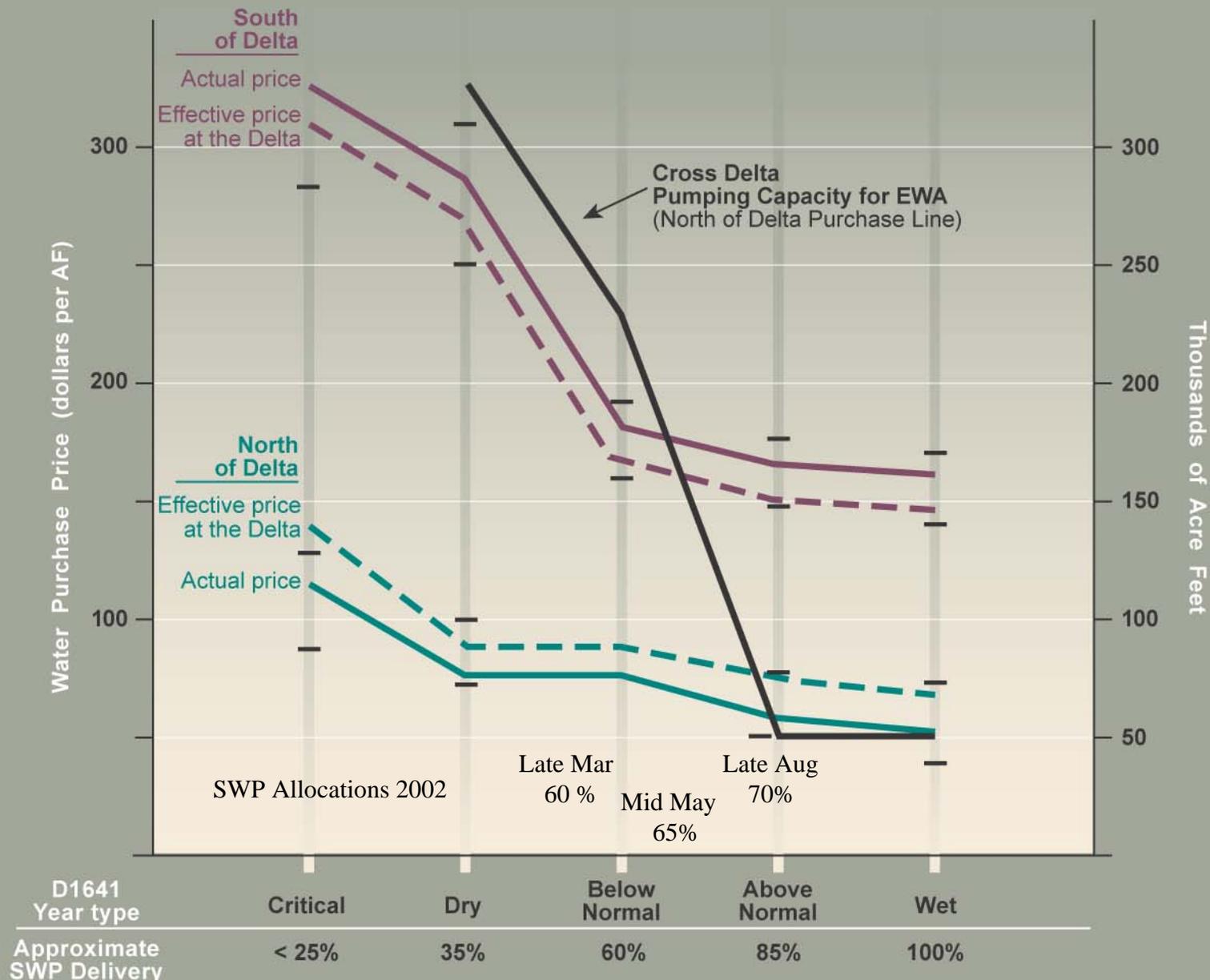
# Management of EWA

- Management Agencies - DFG, USFWS, NMSF
- Project Agencies - DWR, USBR
- Water Operations Management Team (WOMT)
- EWA Team (EWAT)

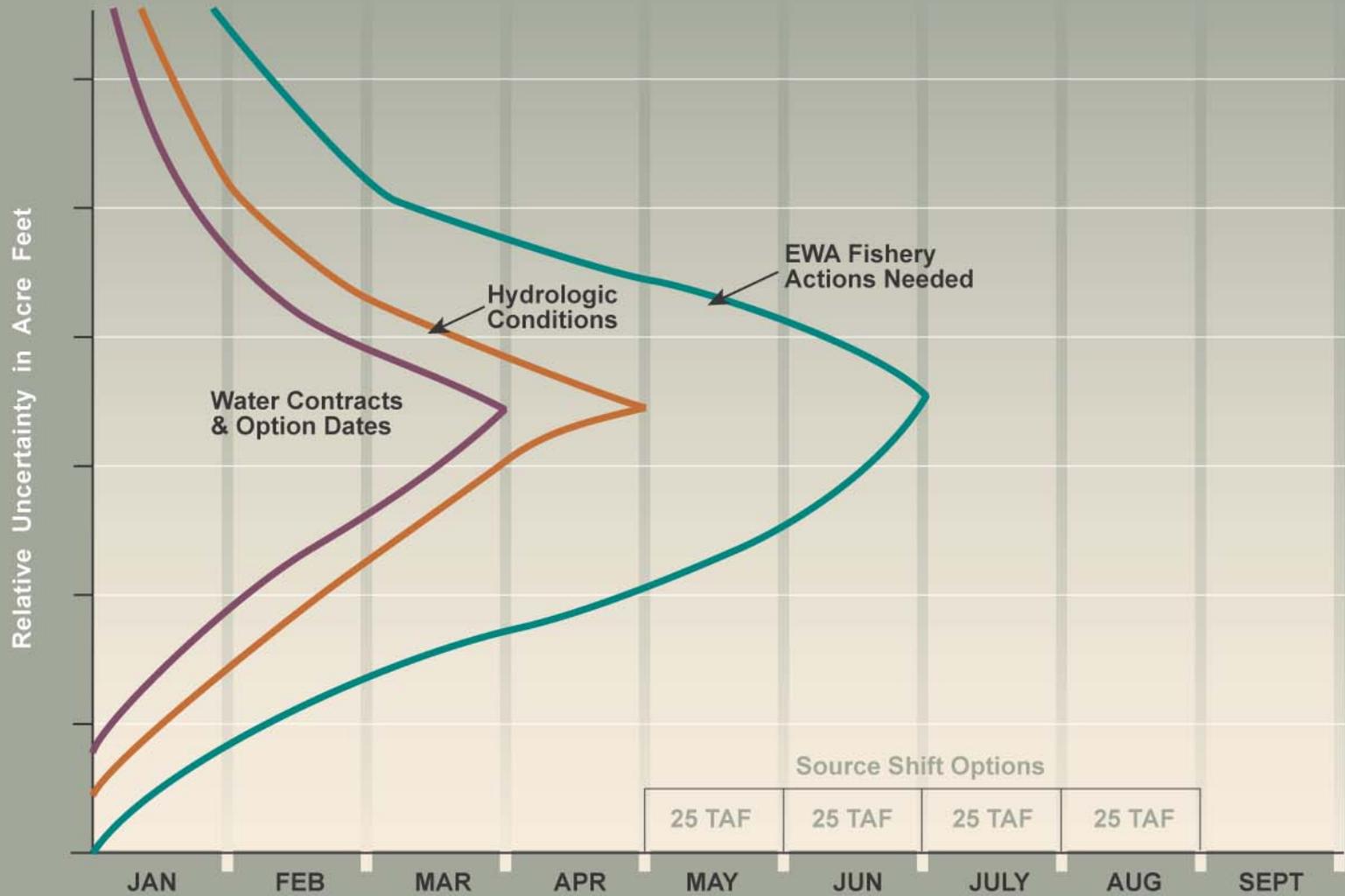
# EWA Assets in the 2000 CALFED ROD

- Fixed – Water Purchase Targets 185 TAF
  - UOD 35 TAF SOD 150 TAF
- Variable - operational tools
  - E/I relaxation (est. 30 TAF)
  - SWP Pumping of b(2) releases (est. 40 TAF)
  - SWP pumping capability (125 TAF – W 75, S 50)
- Total EWA 380 TAF SOD Actions
- Source shift – Obtain 100 TAF
  - (bridge loan to get past low point in San Luis Reservoir)
- Borrowing - Obtain 200 TAF SOD
  - Within years and between years
- Cost Estimate \$50 Million /Year

# EWA Cost of Water and EWA Cross-Delta Pumping Capacity



# Range of Uncertainty on Key Aspects of EWA



# Observations on EWA

- EWA is working. 2 Dry years, 1 Above Normal and 1 Below Normal Year - no big fights
- Fish have benefited – Stable water supply
- 2002 70 % CVP and SWP allocation in a dry year
- Focused on Delta with coordinated upstream benefits
  - Yuba, Merced, American (Power Bypass)
- 4 years + 1 MAF in fish actions - \$143 Million
- Average: Actions 252 TAF, Purchases 236 TAF  
Variable 55 TAF, Costs \$35.85 M
- What Price Peace?

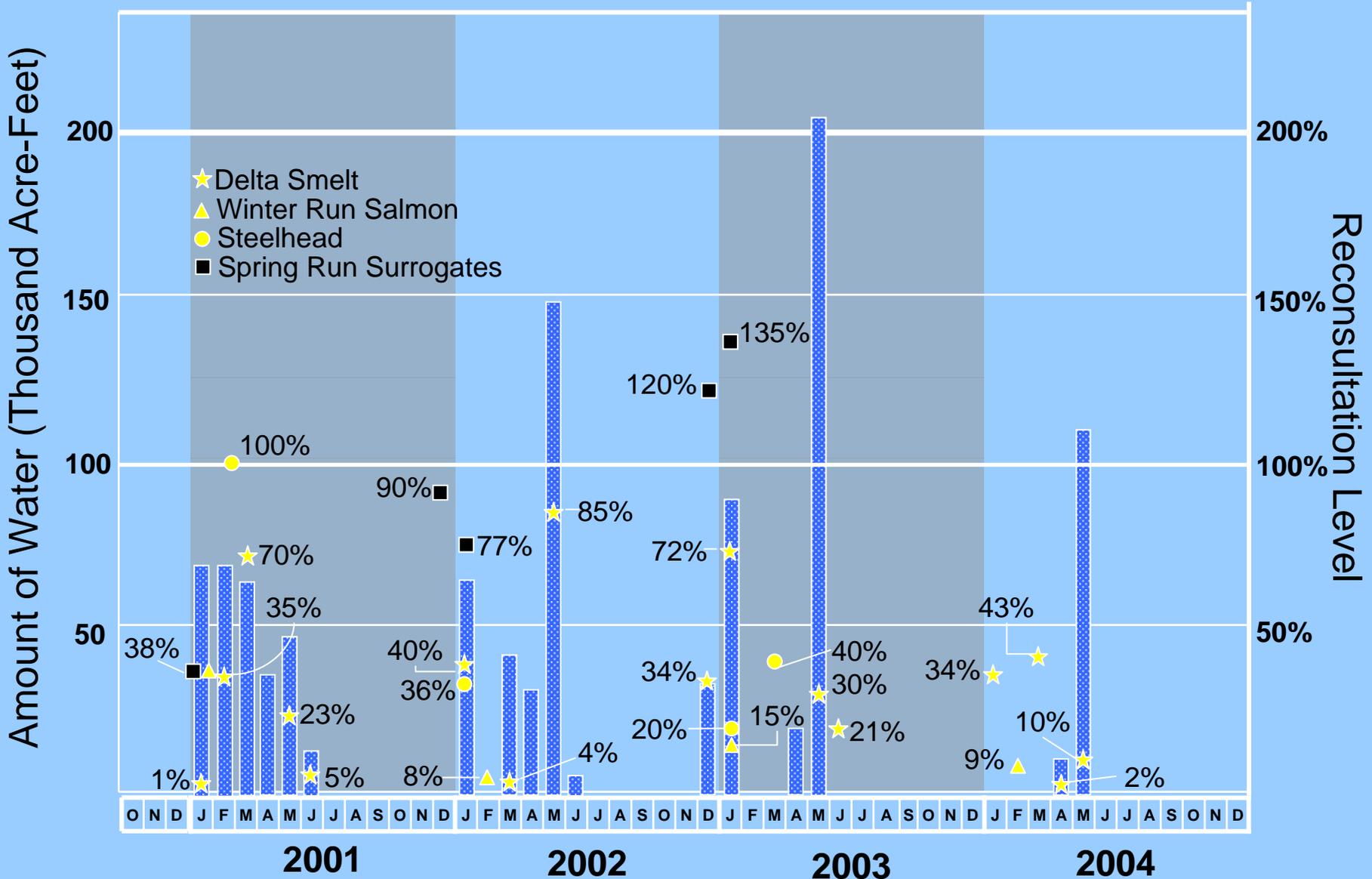
# EWA Asset Acquisition, Use, Costs 2001 through 2004

<b>EWA Assets Acquired</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004<sub>a/</sub></b>
<b>Water Purchases</b>	<b>TAF</b>	<b>TAF</b>	<b>TAF</b>	<b>TAF</b>
Sources upstream of Delta	105	142	70	120
Sources in export area	231	98	145	35
Total purchases	336	240	215	155
<b>Operational Assets</b> (e.g. E:I flexibility)	48	83	91	<1
Losses <sub>b/</sub>	-17	-51	-16	-28 <sub>c/</sub>
<b>Total Net Assets Obtained</b>	<b>367</b>	<b>272</b>	<b>290</b>	<b>127</b>
Assets Carried Over from Prior Year		77	58	0
<b>Total Assets Available for WY</b>	<b>367</b>	<b>349</b>	<b>348</b>	<b>127</b>
<b>EWA Asset Costs</b>	<b>TAF</b>	<b>TAF</b>	<b>TAF</b>	<b>TAF</b>
State	\$54.4 M	\$17.8 M	\$30.1 M	\$19.6 M
Federal	\$10.0 M <sub>d/</sub>	\$11.5 M	\$0 M	\$0 M
<b>Total EWA Costs for WY</b>	<b>\$64.4 M</b>	<b>\$29.3 M</b>	<b>\$30.1 M</b>	<b>\$19.6 M</b>
Average price/acre-foot <sub>e/</sub>	\$179/AF	\$118/AF	\$ 144/AF	\$126/AF
<b>EWA Asset Use</b>				
SWP/CVP pumping reductions				
Chinook salmon / steelhead	86			
Salmonids and delta smelt	137	67	121	
VAMP period	43	45	32	20
Post – VAMP period: delta smelt and Chinook salmon	24	137	195	104
<b>Total EWA pumping reductions for fish protection</b>	<b>290</b>	<b>249</b>	<b>348</b>	<b>124</b>
Pumping reduction during conversion of EWA water to project water in San Luis reservoir		38		
Upstream use for Chinook salmon		4		
<b>Total EWA Expenditures for WY</b>	<b>290</b>	<b>291</b>	<b>348</b>	<b>124</b>

# EWA Asset Acquisition, Use 2001 through 2004

- a/ Numbers for water year 2004 are preliminary
- b/ Includes carriage water associated with EWA Delta transfers, San Joaquin River tributary conveyance losses, and water spilled from Lake Oroville during flood control operations.
- c/ Based on assumed carriage losses and operational losses in 2004. Actual losses are not known until EWA transfers are concluded and operations/Delta water quality modeling is completed.
- d/ Amount paid for water purchased by Reclamation initially for CVP purposes and subsequently provided to EWA.
- e/ Average Price calculations exclude operational assets.

# EWA Expenditures from October 2000 through September 2004



# EWA Benefits

- Peace with Fishery Agencies
  - Can we move forward with Intertie, Contract Renewals, benefits of 8,500 cfs at Banks if we are fighting with the Fishery Agencies ?
  - Biological Opinions with OCAP
- Fish Agencies on a Budget
  - Past actions just take the water away
  - Now Fishery Agencies have to Manage their actions and budget

# Benefits (continued)

- EWA has opened up water transfers and new water markets
  - For the first time fishery agencies actively making water transfers work
  - Yuba Transfers easier than just a few years ago
  - Cross Delta Issues no longer an issue
  - Dedicated EWA capacity helps upstream water Transfers. Not just dry years.

# Water Transfer Programs by CalFed Agencies in the last four water years

Program	2001	2002	2003	2004
Type	Dry	Dry	AN	BN
SWP/CVP	39%/49%	70%/70%	90%/75%	65%/70%
	UOD/SOD	UOD/SOD	UOD/SOD	UOD/SOD
	(TAF)	(TAF)	(TAF)	(TAF)
EWA	105/159	145/97	70/145	120/35
DWR Dry Year	138/0	22/0	134*/0	1/0
CVP Dry Year	160/0	0	0	0
CVPIA				
-refuge	25/43	0/63	0/70	0/108
-instream (SJRA)	109/0	110/0	91/0	98/0
ERP	0	0	0	0
Others	10/0	5/0	0	0
Totals	547/202	282/160	295/215	219/143
	749	442	510	362

\*includes 123 TAF for the Colorado River Contingency Program by Metropolitan Water District of Southern California supported by DWR

# Concerns with EWA

- Fish Actions taken not really needed to improve fish populations
  - Perceptions are reality - B.O. Take Limits
  - Export Pumps are great fish collection devices
  - Independent Science Review
  - Changing paradigms takes time
  - Movement is happening - More will Happen

# Concerns (continued)

- EWA Creates Competition for scarce water supplies and drives up prices - Users cannot compete with Government programs
  - Yes, EWA is a factor in the market
  - SOD purchases focused in wetter years not dry years - Price and Cross Delta Capacity
  - EWA should be used to help expand the water markets for everyone. More NOD Sources
  - New Exchange Program - Water Banking with EWA
  - Coordination of Water Transfers with others

# Environmental Water Account

- Development of Straw Proposal For EWA
  - Support of EWA Part of Project Integration Proposal (Summer 2003)
  - Integral part of SDIP, OCAP
  - Developed straw proposal
  - Contractors offered tools

# Environmental Water Account

- Development of Straw Proposal For EWA
  - DWR, USBR worked with USFWS, NOAA Fisheries, DFG
  - EWA Agencies worked to game and model
  - Included in OCAP as part of Project Description for the future
  - Funding a big issue

# Long Term EWA

- Appears Technically Feasible
- Costs \$33 Million Per Year – Average
- Large Swings in Costs due to exchanges

# Does EWA Continue?

## If so, In What Form?

- Who Benefits
  - Water supply Reliability – SWP/CVP
  - Trajectory Towards Recovery – F&W, Public
- Size of EWA
  - With 6680, with 8500 and Intertie
- Formulation and Funding
  - Public Funding – State and Federal
  - SWP Funding – Mitigation of Delta Smelt and Indirect Impacts
  - Participation by CVP and Federal funding
- Timing – Next Ten Years
  - Near Term – next 3 Years through 2007
  - Long Term with 8,500 at Banks -

# EWA Issues Ahead

- Clarify the **Purpose** of EWA and its beneficiaries
- Integration of **Science** in EWA and policy decisions
- **Long-term ESA Commitments** with a long term EWA
- **Operating rules** with 8,500 and Intertie (400 cfs)
- **Stable Access to Water Supplies SOD** in Wetter Years
- **Financing** of EWA long-term