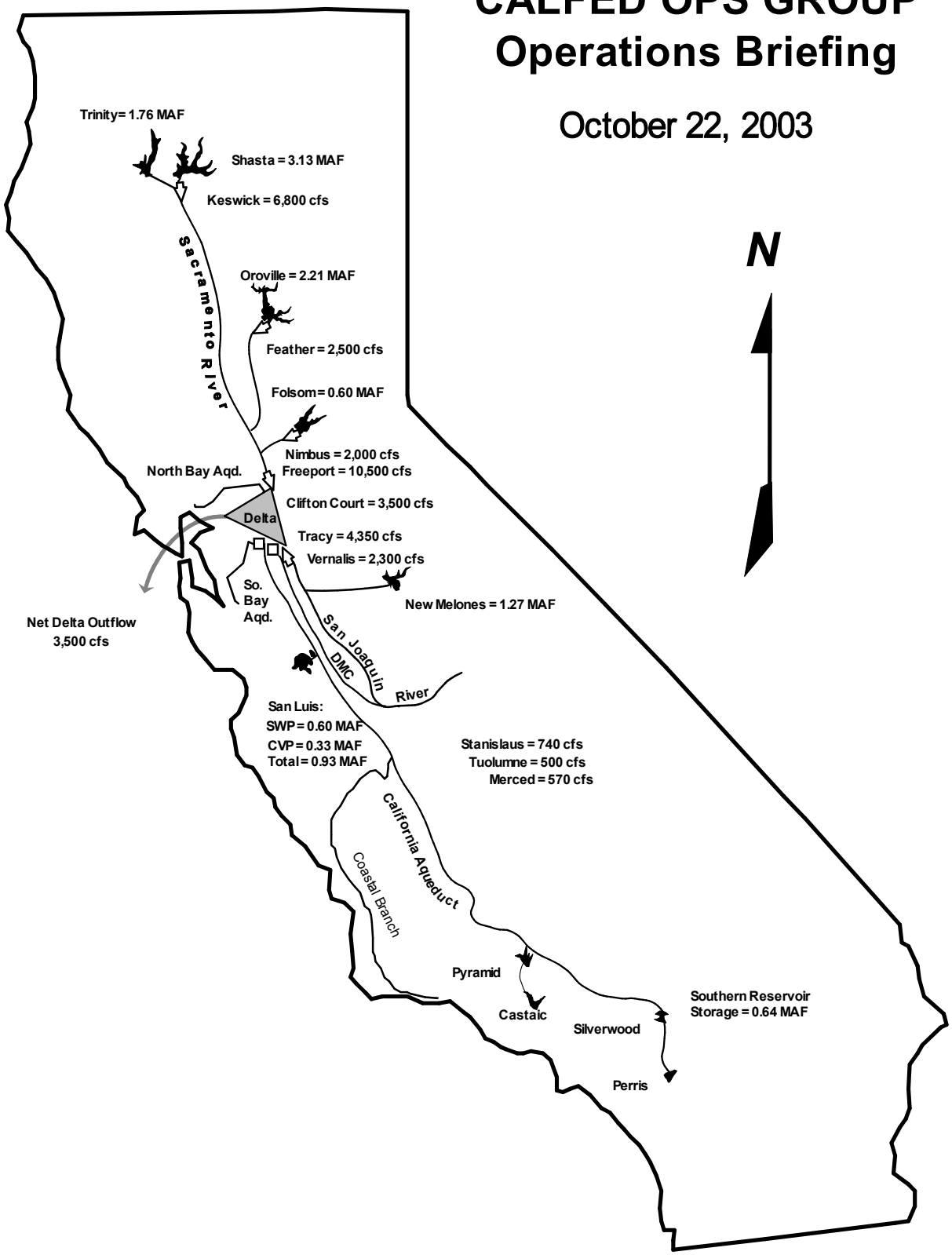
CALFED OPS GROUP
Operations Briefing

October 22, 2003



CURRENT SWP/CVP OPERATIONAL STATUS

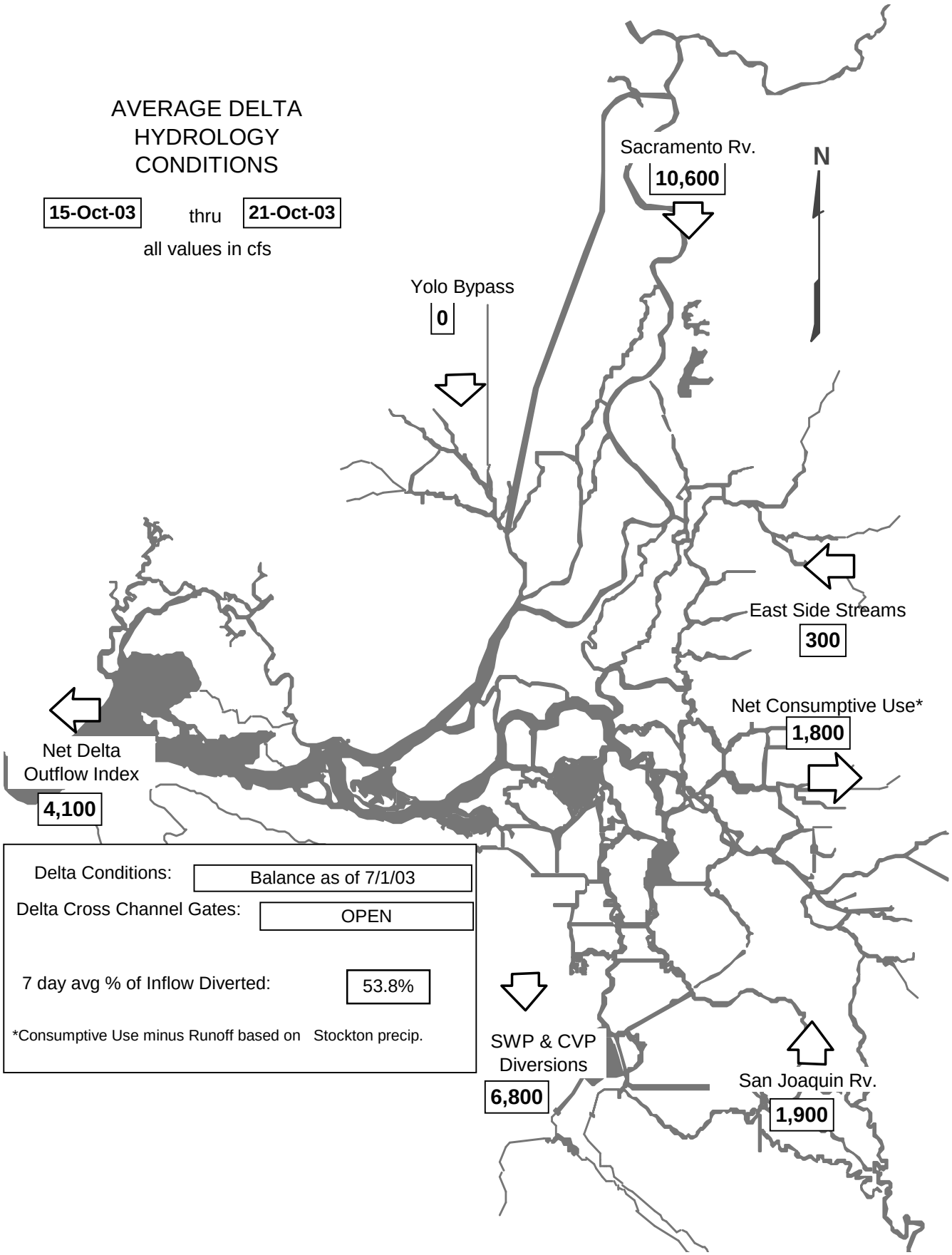
DATA AS OF
October 22, 2003

O&M, OSC

AVERAGE DELTA
HYDROLOGY
CONDITIONS

15-Oct-03 thru **21-Oct-03**

all values in cfs



Delta Conditions:	Balance as of 7/1/03
Delta Cross Channel Gates:	OPEN
7 day avg % of Inflow Diverted:	53.8%

*Consumptive Use minus Runoff based on Stockton precip.

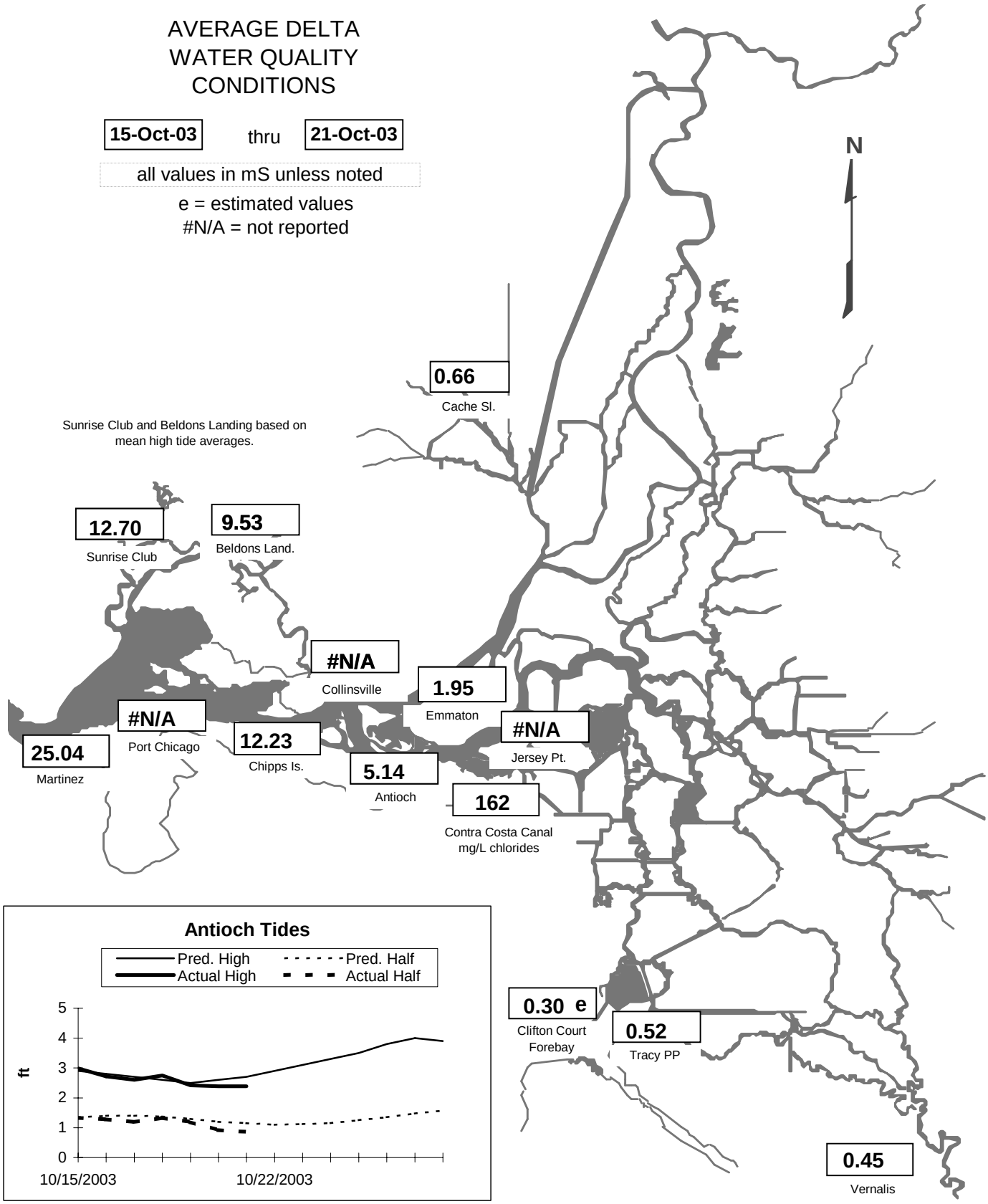
AVERAGE DELTA WATER QUALITY CONDITIONS

15-Oct-03 thru **21-Oct-03**

all values in mS unless noted

e = estimated values

#N/A = not reported



DRAFT

Bay-Delta Standards

DRAFT

Contained in D-1641

CRITERIA	Oct 03	Nov 03	Dec 03
FLOW/OPERATIONAL			
• Fish and Wildlife			
SWP/CVP Export Limits			
Export/Inflow Ratio	65%		
Minimum Outflow - mon.	4000 cfs	4500 cfs	4500 cfs
- 7 day avg.	3000 cfs	3500 cfs	3500 cfs
Striped Bass Survival			
Suisun Marsh			
Habitat Protection Outflow, X2			
River Flows:			
@ Rio Vista - min. mon. avg.	4000 cfs	4500 cfs	4500 cfs
- 7 day average	3000 cfs	3500 cfs	3500 cfs
@ Vernalis: Base -min. mon. avg.			
- 7 day average			
Pulse	*1000 cfs		
Delta Cross Channel Gates	* Up to an additional 28 TAF	Conditional	
WATER QUALITY STANDARDS			
• Municipal and Industrial			
All Export Locations	<= 250 mg/l Cl		
Contra Costa Canal	<= 150 mg/l for 190 days (Days have been met)		
• Agriculture			
Western/Interior Delta	30-day running average EC <= 1.0 mS		
• Fish and Wildlife			
San Joaquin River Salinity			
Suisun Marsh Salinity	19 mS/cm	15.5 mS/cm	

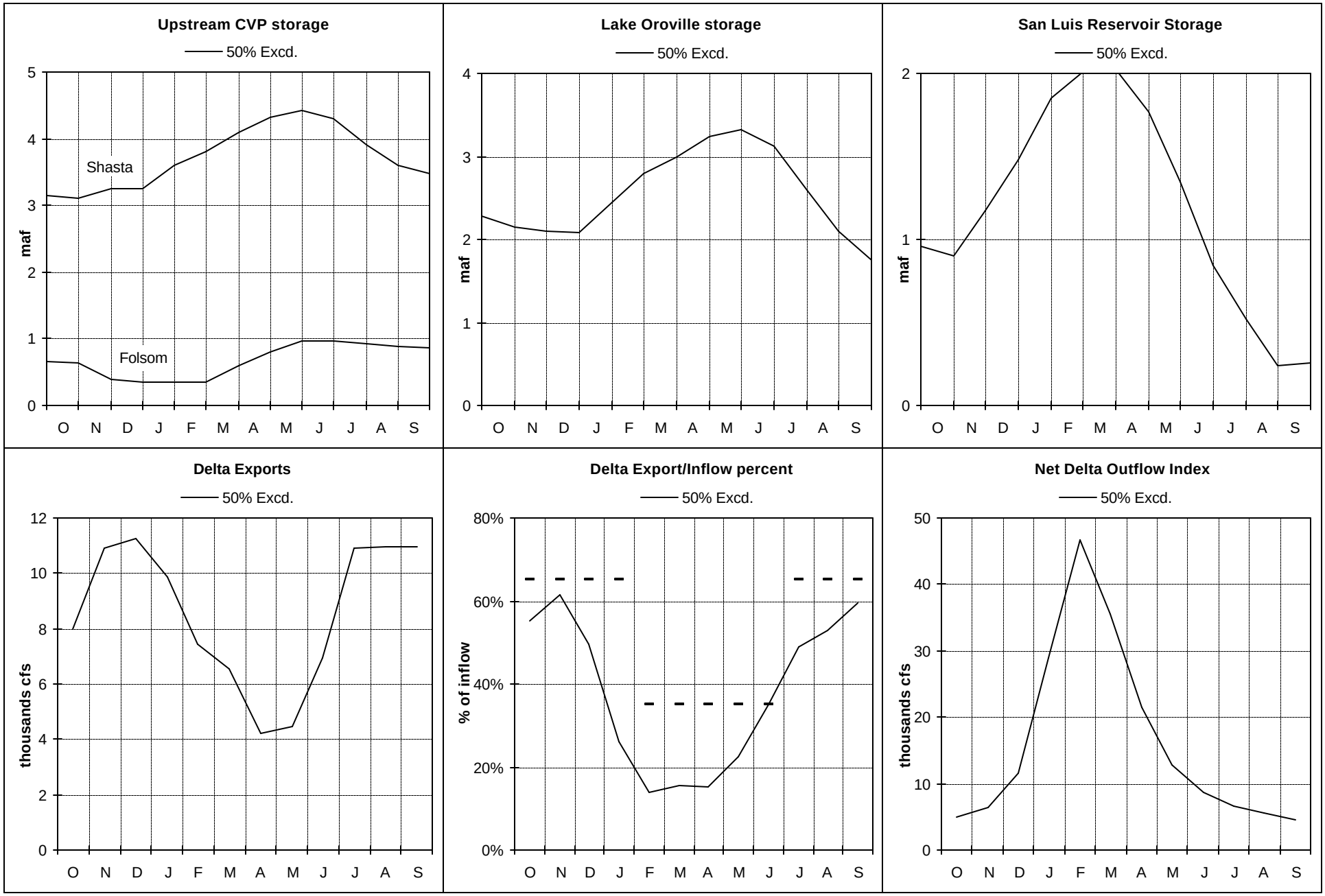
Water Year Classification: (May 1 forecast)

SRI (40-30-30 @ 50%) = 8.0 (Above Normal)

SJV (60-20-20 @75%) = 2.7 (Below Normal)

SWP & CVP WY 2004 Forecasted Operations.

Based on 10/1/03 Forecast



Flows are monthly averages.

WY 2002/2003 EWA Accounting Summary
Based upon July Operations Study - 50% Exceedance Hydrology
Assumptions: SWP Allocation - 90%; NOD Purchases - 69.9 TAF; SOD Purchases - 145 TAF

EWA NOD and SOD Storage Acquisitions (+) and Releases (-)

1	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
NOD (Oroville) [0]	20 *			5 [5]					-20 [13]	-12 [5,14]	8 [15]	1	-21				-19
NOD (non-Oroville)	7 [3]	-1.6 [3]	-0.7 [3]	-4.6 [3]					65 [6]		-19 [15]	-31 [6]	-15 [6]				0
SOD (KCWA)	37 [4]				-12 [4]	-15 [4]	-9 [4]										0
SOD (MWD)					12 [4]	15 [4]	2		-30 [4]								0

EWA Asset Acquisition in SWP San Luis[1]

2	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
E/I Relaxation							35			31 [14]			23				89
EWA share of SWP gain							19										19
Project Pumping to reduce EWA debt																	0
JPOD using excess flows																	0
JPOD using NOD storage																	0
Xfer NOD - Sacramento River [2]											8 [15]	21 [6]	10 [6]				40
Xfer NOD - San Joaquin River [2]																	0
SOD SWP Surface/GW Purchases							7 [4]		30 [4]	36 [7]	36 [7]	36 [7]	17 [7]				162
Exchange of EWA assets																	0
Groundwater pumping SOD																	0
Exchange from CVP to SWP in SL																	0
Total Monthly EWA Assets		**0**	**0**	**0**	**0**	**0**	**62**	**0**	**30**	**67**	**45**	**58**	**50**	**0**	**0**	**0**	**311**

EWA Asset Acquisition in CVP San Luis

3	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
E/I Relaxation																	0
Project Pumping to reduce EWA debt							6										6
JPOD using excess flows																	0
JPOD using NOD storage													6 [6]				12
Xfer NOD - Sacramento River [2]				0.5 [3]													0
Xfer NOD - San Joaquin River [2]																	0
SOD CVP Surface/GW purchases													20 [7]				20
Exchange of EWA assets																	0
Groundwater pumping																	0
Exchange from SWP to CVP in SL																	0
Total Monthly EWA Assets	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**26**	**0**	**0**	**0**	32

EWA Expenditures at the Export Pumps

4	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
SWP export cuts				-32 [8]	-89 [9]			-19 [10]	-182 [11]								-322
CVP export cuts									-26 [11]								-26
Total Expenditures	**0**	**0**	**0**	**-32**	**-89**	**0**	**0**	**-19**	**-208**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-348**

EWA End-of-Month Incremental Storage Changes

5	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
SWP in SL (without Source Shift)	11	0	0	-32	-89	0	62	-19	-152	67	45	58	50	0	0	0	-1
CVP in SL	-6	0	0	0	0	0	6	0	-26	0	0	0	26	0	0	0	0
NOD Storage (SOD equivalent) [12]	21	-1	-1	0	0	0	0	0	36	-10	-8	-24	-29	0	0	0	-15
SOD Storage (non-S.L.)	37	0	0	0	0	0	-7	0	-30	0	0	0	0	0	0	0	0
Total Incremental Storage Changes	**63**	**-1**	**-1**	**-31**	**-89**	**0**	**60**	**-19**	**-172**	**57**	**36**	**34**	**47**	**0**	**0**	**0**	**-16**

EWA End-of-Month Storage Balance at Various Sites

6	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SWP in SL (without Source Shift)	11	11	11	-21	-111	-111	-49	-68	-220	-153	-108	-51	-1	-1	-1	-1
CVP SL	-6	-6	-6	-6	-6	-6	0	0	-26	-26	-26	-26	0	0	0	0
NOD Storage (SOD equivalent) [12]	21	20	20	20	20	20	20	20	56	46	38	14	-15	-15	-15	-15
SOD Storage (non-S.L.)	37	37	37	37	37	37	30	30	0	0	0	0	0	0	0	0
EWA Asset Balance	**63**	**62**	**61**	**30**	**-59**	**-59**	**1**	**-18**	**-190**	**-133**	**-96**	**-63**	**-16**	**-16**	**-16**	**-16**

San Luis Reservoir Storage Conditions

7	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total Storage (base case) [16]		645	783	1037	1554	1856	2007	1897	1686	1406	1052	861	957	871	1087	1367
Encroachment																
Total Storage (EWA case)		650	788 0	1010	1438	1740	1958	1829	1440	1227	918	784	956	870	1086	1366
MWD Source Shifting																
Storage (with MWD source shifting)		**650**	**788**	**1010**	**1438**	**1740**	**1958**	**1829**	**1440**	**1227**	**918**	**784**	**956**	**870**	**1086**	**1366**

[0] 2002 NOD Purchases = 135(YCWA) + 10(SGA). 2003 NOD Purchases = 185(YCWA) + 10(OWID). YCWA has firm 55 taf; exercised option for an additional amount - 10 taf.

* The SWP was able to back 20 taf of water for the EWA into Lake Oroville between September 14 and October 6, 2002 (which includes a 20% carriage water loss). SOD equivalent = 16 taf (not a 1:1 Exchange).

[1] Aqueduct conveyance and evaporation losses are not included.

[2] Carriage water loss applies to water transfers from the Sacramento River; a 10% conveyance loss applies to water transfers from the San Joaquin River. A carriage water loss of 20% was applied to the 2002 water transfers.

[3] 2002 SGA Transfer (CVP place of use). The majority of this asset was used for instream flow benefits.

[4] 2002 KCWA Transfer (SWP place of use)

[5] 2003 OWID Transfer (Joint place of use)

[6] 2003 YCWA Transfer (Joint place of use)

[7] 2003 SOD Transfers (SWP Place of Use) - 125 TAF from KCWA and 20 TAF from SCVWD

[8] About 32 taf was expended for the December portion of the 12/27/02 - 1/2/03 curtailment.

[9] Of this amount, approximately 9.5 taf was expended for the 1/1-1/2/03 portion of the 12/31/02-1/2/03 curtailment; about 60 taf was expended for the 1/15-1/20/03 curtailment; about 20 taf was expended for the 1/25-1/28/03 curtailment..

[10] The VAMP cost is estimated to be about 32 taf for the SWP and is based upon the 4/30 estimate of base flows.

[11] The cost for VAMP shoulders is about 169 taf for the SWP; and 26 taf for CVP.

[12] Default assumption for C/W is 20%. When NOD storage is released and pumped a post analysis will be performed to calculate actual C/W costs.

[13] The SWP spilled ~ 20 taf of EWA water stored in Oroville during flood control operations.

[14] E/I relaxation: ~22 taf of surplus Delta flow pumped June 16-23. ~9taf OWID and SWP water pumped June 29-30. Upstream 12taf (5taf OWID+7taf SWP) water released for 9 taf of export.

[15] Early July, ~11 taf was released from Oroville with ~ 9 taf pumped at Banks utilizing the 500 cfs, thereby shifting EWA debt from State S.L. to Oroville. 7/14-7/31 18.9 of YCWA transfer "backed" into Oroville while approval of the water level response plan is still pending.

[16] Based upon the 10/1/2003 DWR's 50% study.

[17] In Sept E/I relaxation 22.8 taf= 14.549 (Oroville)+ 8.331taf surplus water

Revised 10/22/2003 Provisional