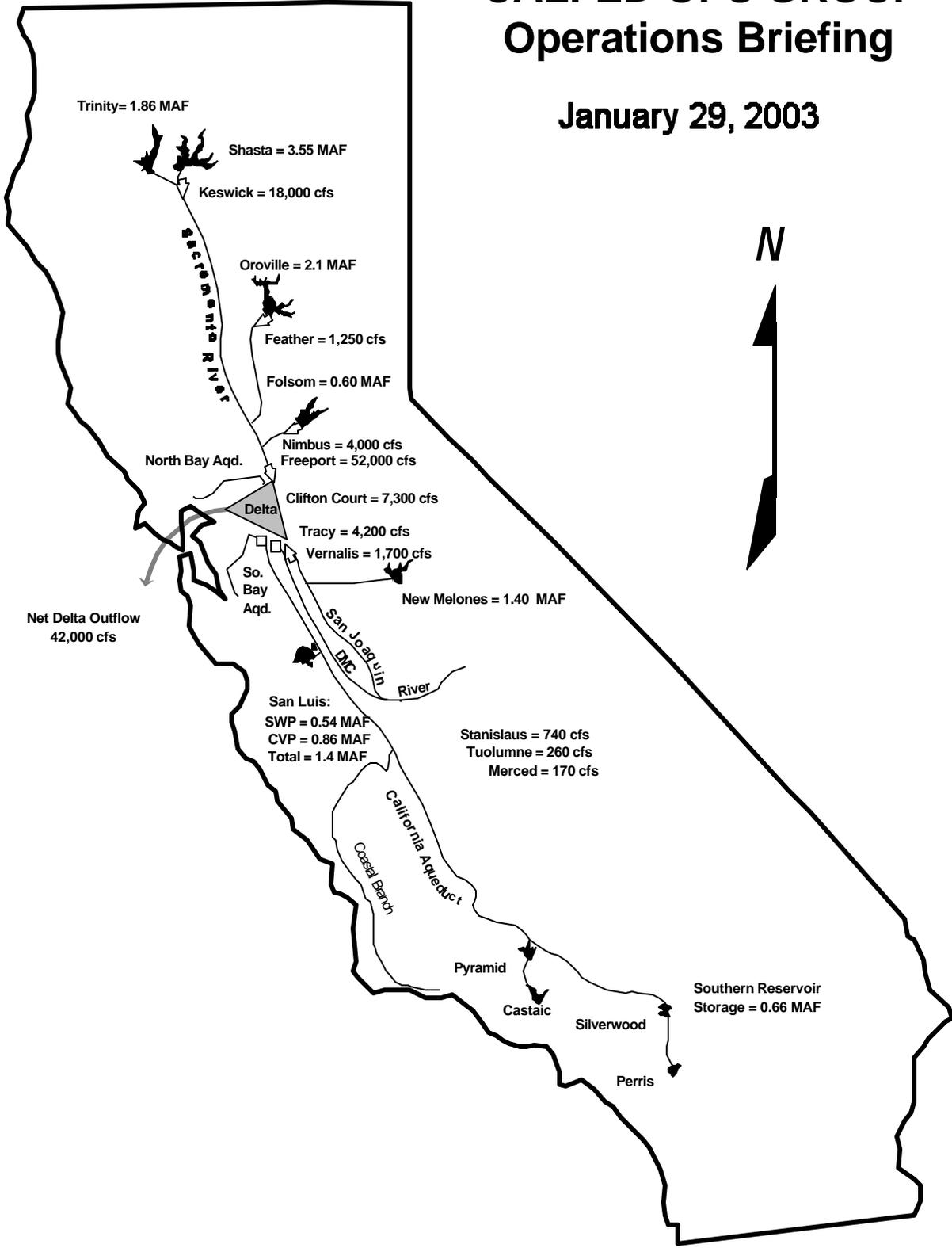


CALFED OPS GROUP Operations Briefing

January 29, 2003



Net Delta Outflow
42,000 cfs

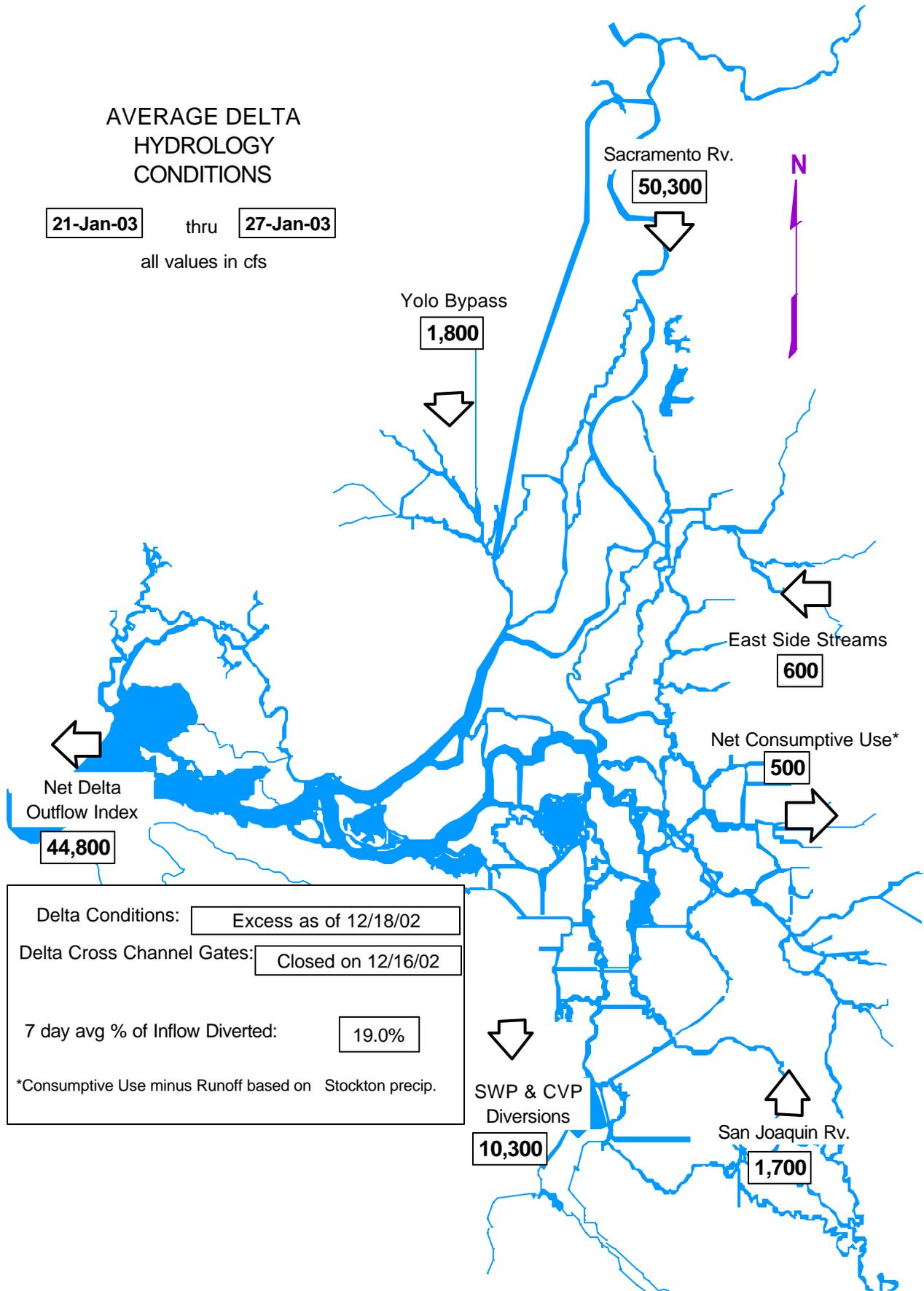
CURRENT SWP/CVP OPERATIONAL STATUS

DATA AS OF
January 29, 2003

AVERAGE DELTA HYDROLOGY CONDITIONS

21-Jan-03 thru **27-Jan-03**

all values in cfs



Net Delta
Outflow Index

44,800

Sacramento Rv.

50,300

Yolo Bypass

1,800

East Side Streams

600

Net Consumptive Use*

500

SWP & CVP
Diversions

10,300

San Joaquin Rv.

1,700

Delta Conditions: **Excess as of 12/18/02**

Delta Cross Channel Gates: **Closed on 12/16/02**

7 day avg % of Inflow Diverted: **19.0%**

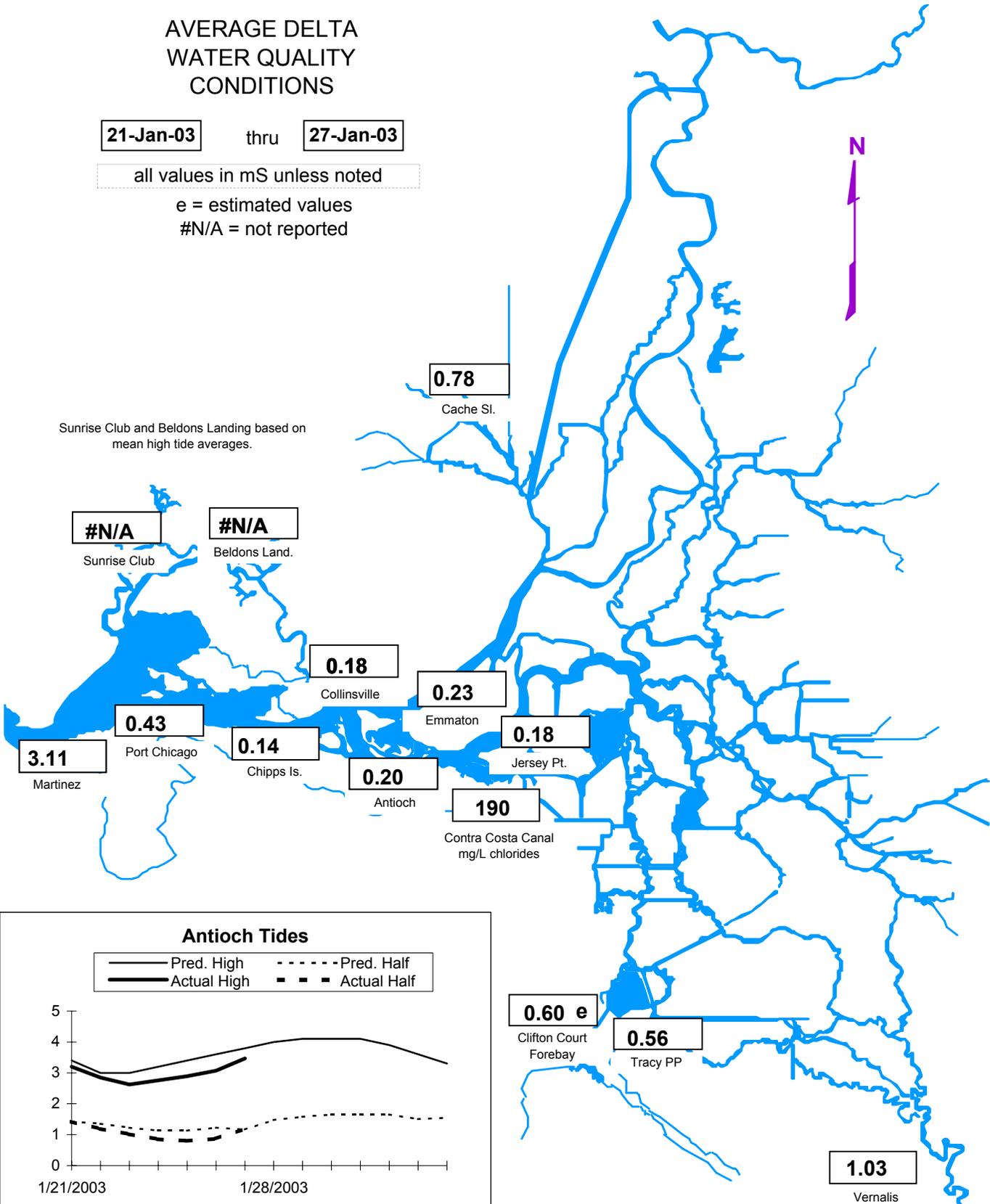
*Consumptive Use minus Runoff based on Stockton precip.

AVERAGE DELTA WATER QUALITY CONDITIONS

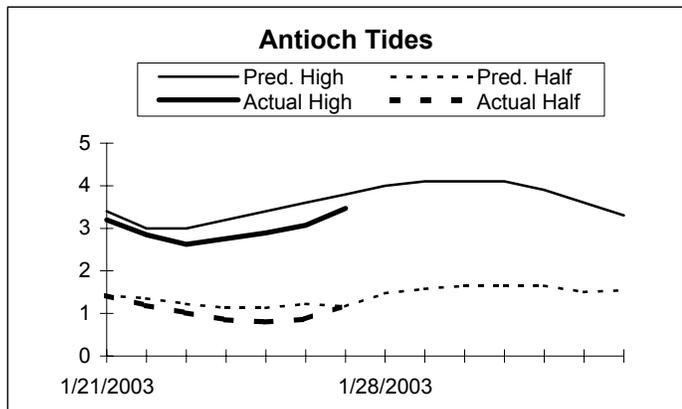
21-Jan-03 thru **27-Jan-03**

all values in mS unless noted

e = estimated values
#N/A = not reported



Sunrise Club and Beldons Landing based on mean high tide averages.



DRAFT

Bay-Delta Standards

Contained in D-1641

DRAFT

CRITERIA	Jan 03	Feb 03	Mar 03
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FLOW/OPERATIONAL

<ul style="list-style-type: none"> Fish and Wildlife SWP/CVP Export Limits Export/Inflow Ratio Minimum Outflow - mon. - 7 day ave. Striped Bass Survival Suisun Marsh Habitat Protection Outflow, X2 River Flows: @ Rio Vista - min. mon. avg. @ Vernalis: Base -min. mon. avg. - 7 day average Pulse objective Delta Cross Channel Gates 	<p>65%</p> <p>4500 cfs</p> <p>3500 cfs</p>	<p>35%</p> <p>7,100 - 29,200 cfs or X2 days (through June)</p> <p>1420 (or 2280) cfs if X2 > 74 km</p> <p>1136 (or 1824) cfs if X2 > 74 km</p>	<p>35%</p> <p>Closed</p>
	Nov.-Jan. may be closed up to a total of 45 days		

WATER QUALITY STANDARDS

<ul style="list-style-type: none"> Municipal and Industrial All Export Locations Contra Costa Canal 		<p>250 mg/l Chlorides</p> <p>Cl <= 150 mg/l for 190 days</p>	
<ul style="list-style-type: none"> Agriculture Western/Interior Delta Southern Delta 		30 day running avg EC <= 1.0 mS	
<ul style="list-style-type: none"> Fish and Wildlife San Joaquin River Salinity Suisun Marsh Salinity 	12.5		8.0 mhtEC

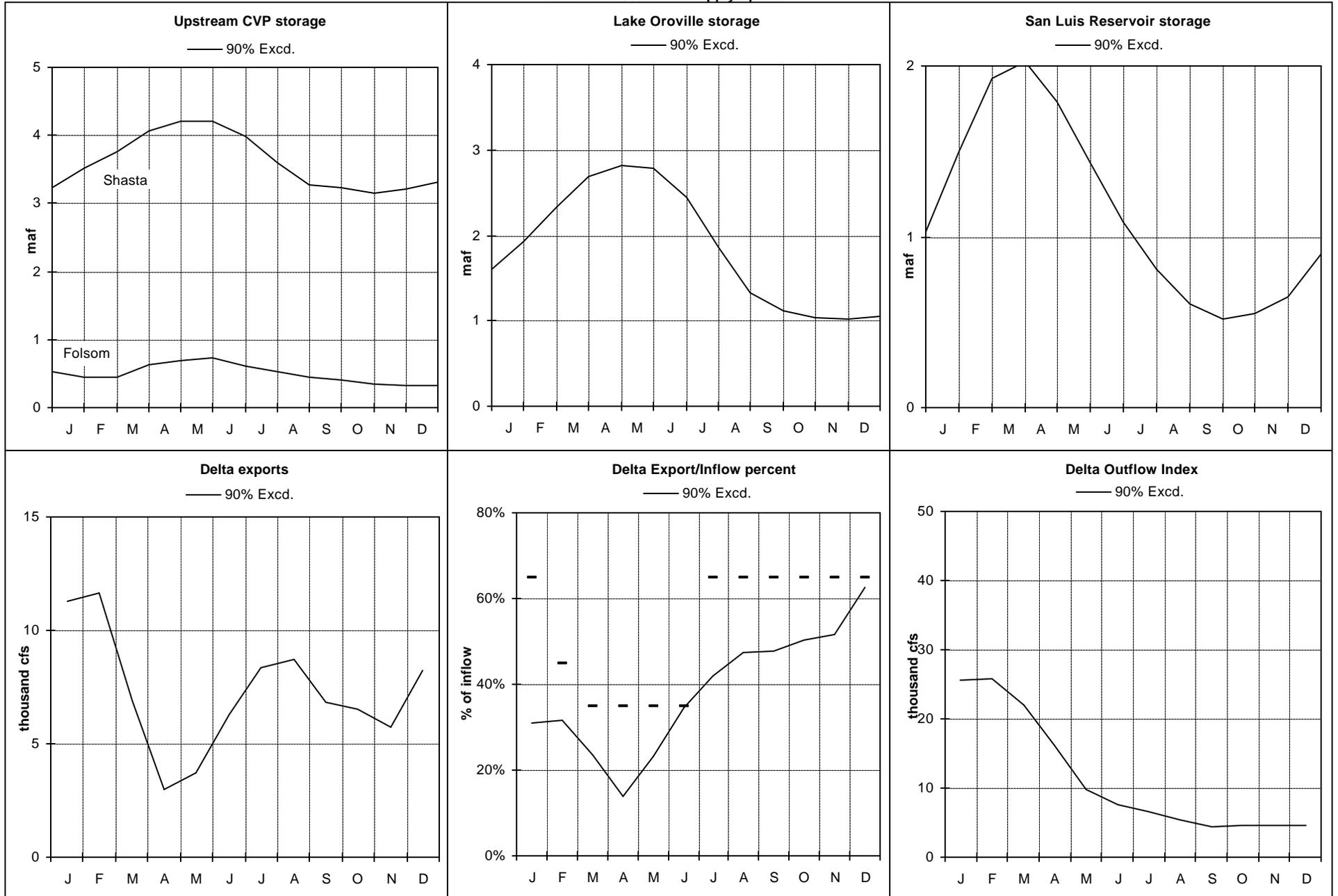
Water Year Classification: Above Normal (Preliminary forecast, 1/1/2003)

SRI (40-30-30 @ 50%) = 8.7 MAF

SJV (60-20-20 @ 75%) = 2.6 MAF

SWP & CVP WY 2003 Forecasted Operations.

Based on 1/03 water supply update



Flows are monthly averages.

WY 2002/2003 EWA Accounting Summary
Based upon January 1 - 90% Exceedence Hydrology
Assumptions: SWP Allocation ~ 76%; NOD Purchases - 64 TAF; SOD Purchases - 130 TAF

EWA NOD and SOD Storage																	
1	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
NOD ⁰	27 ^{*3}	1.7 ³	0.7 ³	6 ⁵						55 ⁶							63
SOD	37 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																	0
EWA share of SWP gain																	0
Project Pumping to reduce EWA debt																	0
JPOD using excess flows																	0
JPOD using NOD storage																	0
Xfer NOD - Sacramento River ²											20 ^{*5,6}	20 ^{*5,6}	20 ^{*5,6}				60
Xfer NOD - San Joaquin River ²																	0
SOD SWP Surface/GW Purchases								37 ⁴	33	33	33	33					167
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	0	37	33	33	53	53	20	0	0	0	227

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																	0
JPOD using excess flows																	0
JPOD using NOD storage																	0
Xfer NOD - Sacramento River ²				0.5 ³													1
Xfer NOD - San Joaquin River ²																	0
SOD CVP Surface/GW purchases																	0
Exchange of EWA assets																	0
Groundwater pumping																	0
Exchange from SWP to CVP in SL																	0
Total Monthly EWA Assets	0	0	0	1	0	1											

EWA Expenditures at the Export Pump ³																	
4	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
SWP export cuts ⁸				-32 ⁹	-118 ¹⁰	-60		-3	-87	-38							-338
CVP export cuts																	0
Total Expenditures	0	0	0	-32	-118	-60	0	-3	-87	-38	0	0	0	0	0	0	-338

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	-118	-60	0	34	-55	-6	53	53	20	0	0	0	-100
CVP in SL	-6	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	-6
NOD Storage ¹¹	24	2	1	1	-2	0	0	0	0	55	-25	-25	-25	0	0	0	6
Groundwater SOD	37	0	0	0	-37	0	0	0	0	0	0	0	0	0	0	0	0
Total Incremental Storage Changes	62[*]	2	1	-31	-156	-60	0	34	-55	50	28	28	-5	0	0	0	-104

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	Total
SWP in SL (without Source Shift)	11	11	11	-21	-139	-199	-199	-165	-220	-225	-173	-120	-100	-100	-100	-100	
CVP SL	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	
NOD Storage	24	26	27	28	26	26	26	26	26	81	56	31	6	6	6	6	
Groundwater SOD	37	37	37	37	0	0	0	0	0	0	0	0	0	0	0	0	
EWA Asset Balance	62[*]	64	64	34	-123	-183	-183	-149	-203	-154	-126	-99	-104	-108	-108	-104	

San Luis Reservoir Storage Conditions																	
7	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Total Storage (base case) ⁷		645	783	1037	1464	1897	2024	1806	1371	903	698	552	548	586	721	977	
Encroachment																	
Total Storage (EWA case)		650	788	1010	1319	1692	1819	1635	1146	672	520	426	442	480	615	871	
MWD Source Shifting																	
Storage (with MWD source shifting)		650	788	1010	1319	1692	1819	1635	1146	672	520	426	442	480	615	871	

⁰ 2002 NOD Purchases = 135(YCWA) + 10(SGA). 2003 NOD Purchases = 150(YCWA) + 10(OWID). YCWA has firm 55 TAF; can exercise options for remaining amount.

^{*} EWA backed up water into Lake Oroville between September 14 and 30, 2002 (which includes a 20% carriage water loss). SOD equivalent = 16 TAF (not a 1:1 Exchange).

Since EWA water was backed up into Lake Oroville, then the amount of available water south of the Delta is reduced.

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). Exchange of EWA capacity during the summer for the CVP is pending; 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 Based upon the 1/1/03 DWR's 90% allocation study and the 1/24/2003 USBR's 90% forecast.

⁸ These place holders are based upon the CVP January forecast.

⁹ Of this amount, 27 TAF was expended for the 12/27-12/30/02 curtailment. The remaining amount is for the 12/31/02 portion of the 12/31/02-1/2/03 curtailment.

¹⁰ 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.

¹¹ The CVP released the following: 4.645 TAF of water (which is the San Juan portion of the SGA) between 12/20-12/29/02 from Folsom Reservoir.

1.587 TAF of water (which is the City of Sacramento portion of the SGA) beginning 1/14/03 since both Shasta and Folsom went in flood operations.

WY 2002/2003 EWA Accounting Summary

Based upon January 1 - 50% Exceedence Hydrology

Assumptions: SWP Allocation ~ 96%; NOD Purchases - 64 TAF; SOD Purchases - 161 TAF; MWD SS - 87 TAF; SLR storage is @ Elev. 212 for low point (August)

EWA NOD and SOD Storage																	
1	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
NOD ⁰	27 ^{*2}	1.7 ³	0.7 ³	6 ⁵						55 ⁶							62
SOD	37 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																	0
EWA share of SWP gain																	0
Project Pumping to reduce EWA debt																	0
JPOD using excess flows																	0
JPOD using NOD storage																	0
Xfer NOD - Sacramento River ²											20 ^{*5,6}	20 ^{*5,6}	20 ^{*5,6}				60
Xfer NOD - San Joaquin River ²																	0
SOD SWP Surface/GW Purchases								37 ⁴	40	40	40	40					198
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	0	37	40	40	60	60	20	0	0	0	258

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																	0
JPOD using excess flows																	0
JPOD using NOD storage																	0
Xfer NOD - Sacramento River ²				0.5 ³													1
Xfer NOD - San Joaquin River ²																	0
SOD CVP Surface/GW purchases																	0
Exchange of EWA assets																	0
Groundwater pumping																	0
Exchange from SWP to CVP in SL																	0
Total Monthly EWA Assets	0	0	0	1	0	1											

EWA Expenditures at the Export Pump ³																	
4	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
SWP export cuts ⁸				-32 ⁹	-90 ¹⁰				-36	-127	-78						-363
CVP export cuts																	0
Total Expenditures	0	0	0	-32	-90	0	0	-36	-127	-78	0	0	0	0	0	0	-363

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	-90	0	0	1	-87	-38	60	60	20	0	0	0	-94
CVP in SL	-6	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	-6
NOD Storage ¹¹	24	2	1	1	-2	0	0	0	0	55	-25	-25	-25	0	0	0	6
Groundwater SOD	37	0	0	0	-37	0	0	0	0	0	0	0	0	0	0	0	0
Total Incremental Storage Changes	62[*]	2	1	-31	-128	0	0	1	-87	17	35	35	-5	0	0	0	-98

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	Total
SWP in SL (without Source Shift)	11	11	11	-21	-111	-111	-111	-110	-197	-235	-174	-114	-94	-94	-94	-94	
CVP SL	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	
NOD Storage	24	26	27	28	26	26	26	26	26	81	56	31	6	6	6	6	
Groundwater SOD	37	37	37	37	0	0	0	0	0	0	0	0	0	0	0	0	
EWA Asset Balance	62[*]	64	64	34	-95	-95	-95	-94	-181	-163	-128	-93	-98	-98	-98	-98	

San Luis Reservoir Storage Conditions																	
7	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Total Storage (base case) ⁷		645	783	1037	1516	1961	2026	1830	1288	839	496	212	290	323	630	963	
Encroachment																	
Total Storage (EWA case)		650	788	1010	1399	1844	1909	1714	1085	599	316	92	190	223	530	863	
MWD Source Shifting									25	25	25	25		-33	-33	-33	
Storage (with MWD source shifting)		650	788	1010	1399	1844	1909	1714	1110	649	391	192	290	290	564	863	

⁰ 2002 NOD Purchases = 135(YCWA) + 10(SGA). 2003 NOD Purchases = 150(YCWA) + 10(OWID). YCWA has firm 55 TAF; can exercise options for remaining amount.

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⁷ Based upon the 1/1/03 DWR's 50% allocation study and the 1/24/2003 USBR's 50% forecast.

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