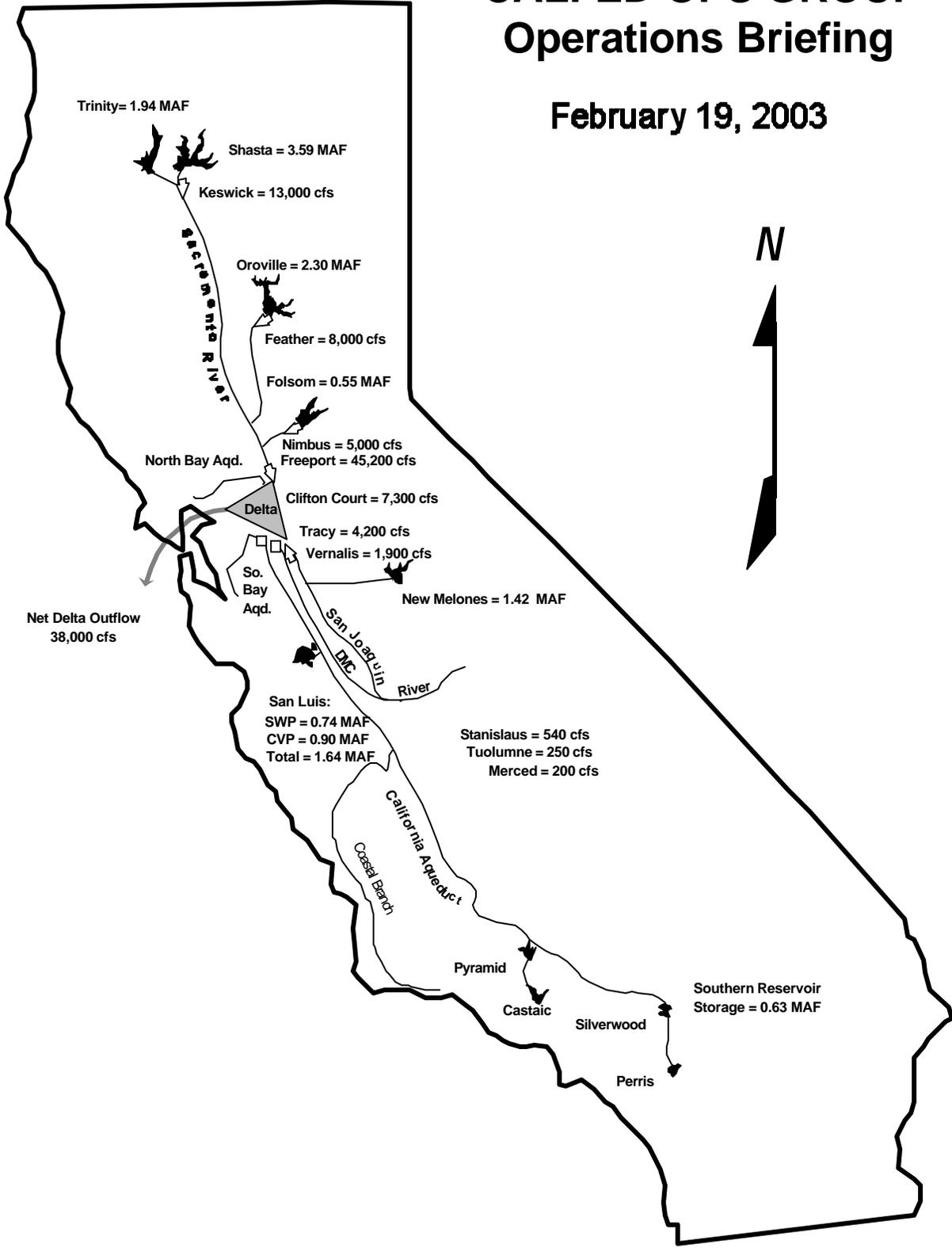


# CALFED OPS GROUP Operations Briefing

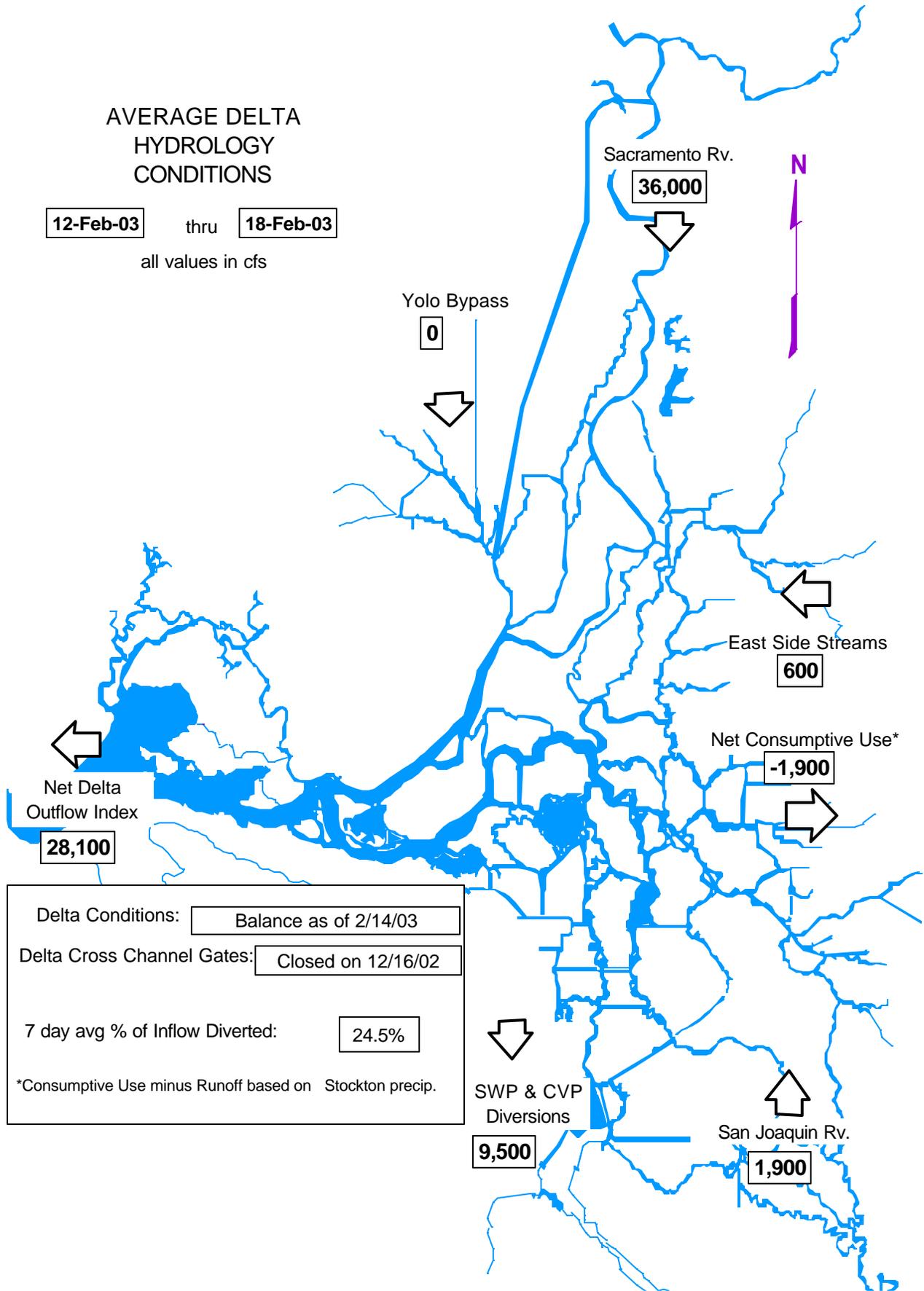
February 19, 2003



# AVERAGE DELTA HYDROLOGY CONDITIONS

**12-Feb-03** thru **18-Feb-03**

all values in cfs



Delta Conditions:	Balance as of 2/14/03
Delta Cross Channel Gates:	Closed on 12/16/02
7 day avg % of Inflow Diverted:	24.5%
*Consumptive Use minus Runoff based on Stockton precip.	

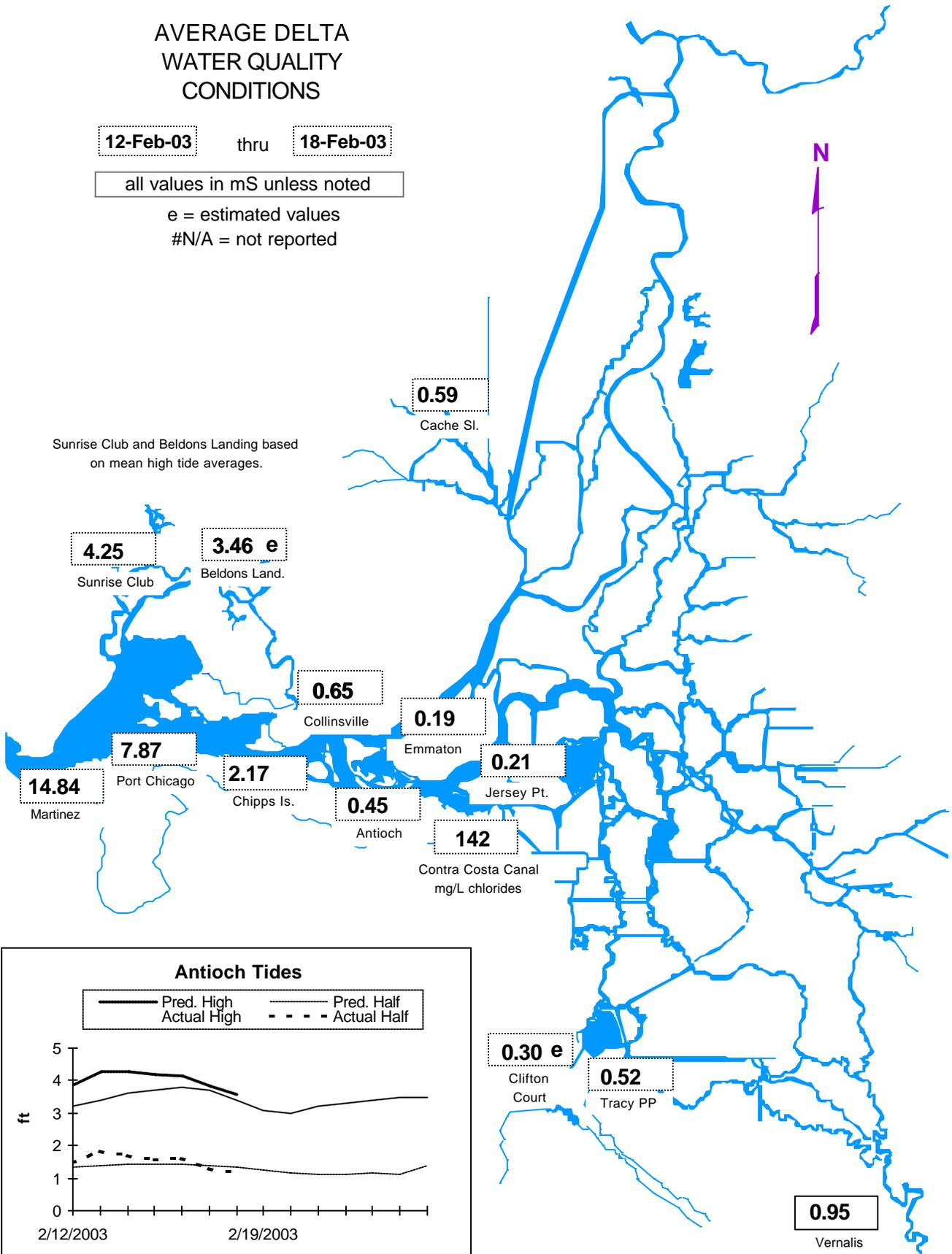
# AVERAGE DELTA WATER QUALITY CONDITIONS

12-Feb-03 thru 18-Feb-03

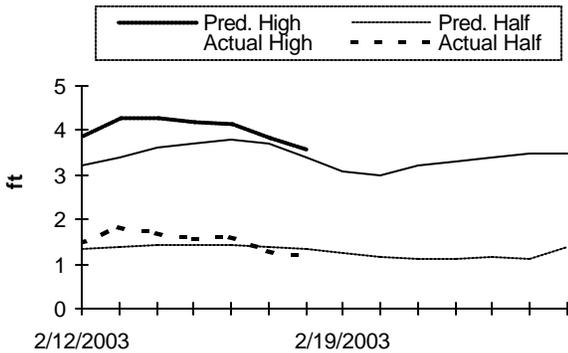
all values in mS unless noted

e = estimated values  
#N/A = not reported

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



**Antioch Tides**



**DRAFT**

# Bay-Delta Standards

Contained in D-1641

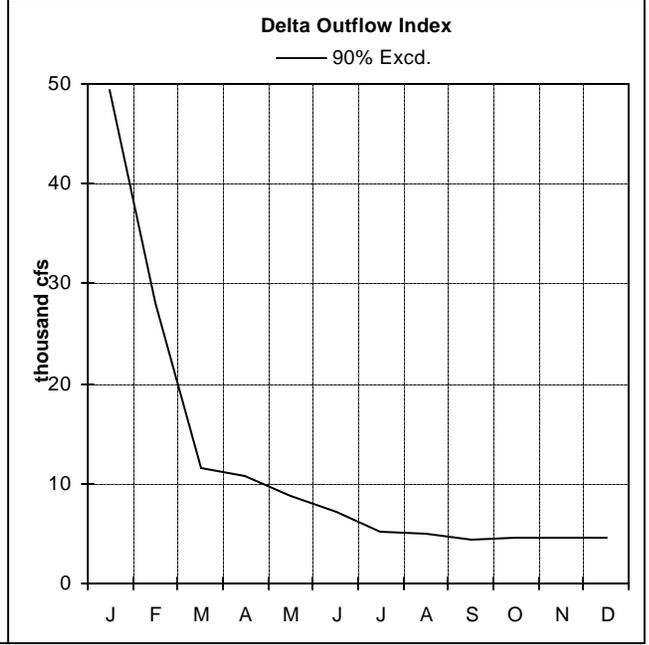
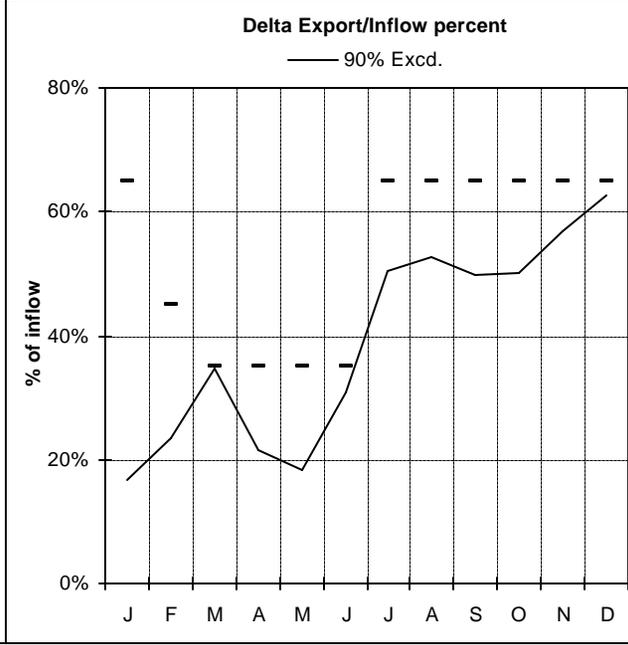
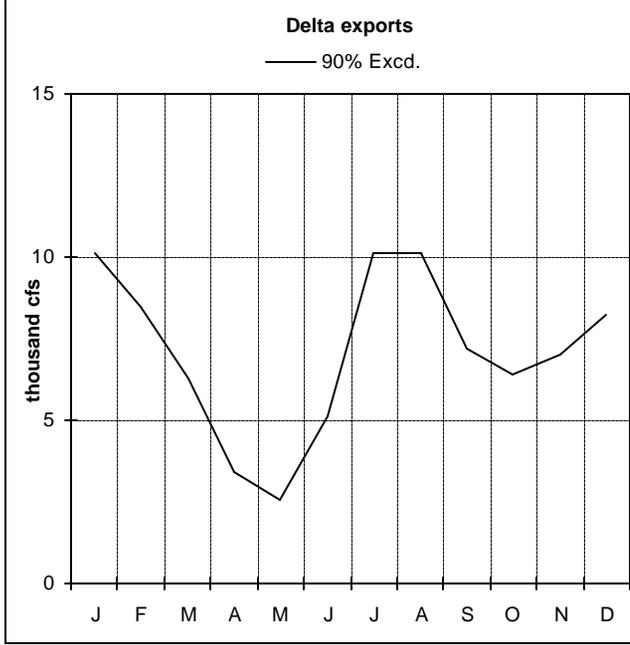
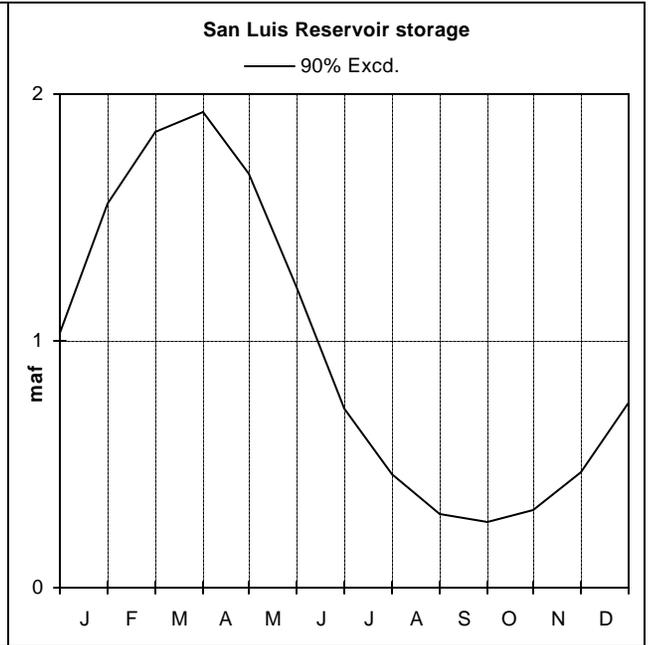
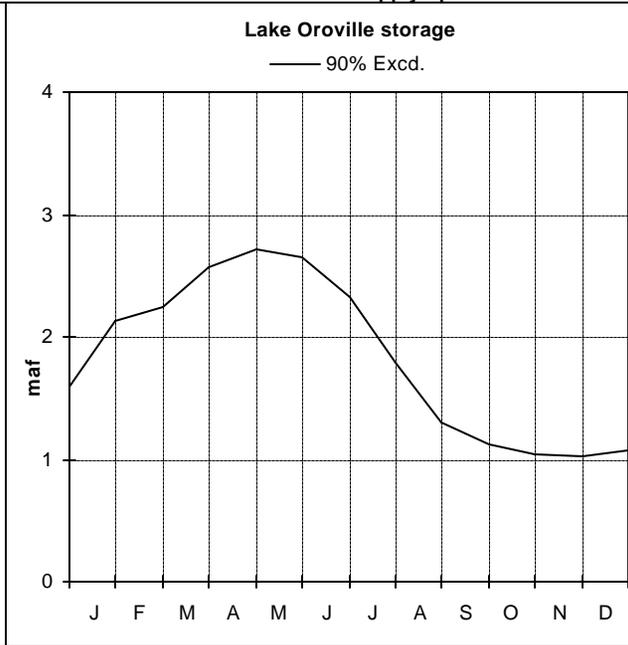
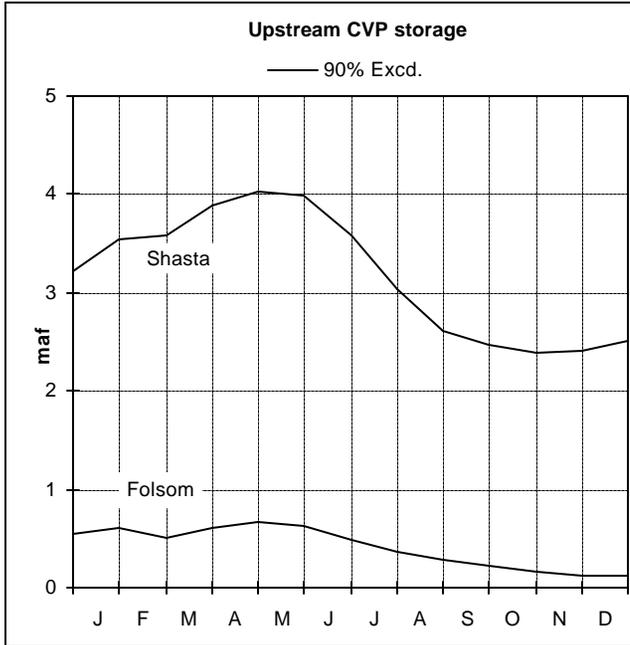
**DRAFT**

CRITERIA	Feb 2003	Mar 2003	Apr 2003
<b>FLOW/OPERATIONAL</b>			
<ul style="list-style-type: none"> <li>Fish and Wildlife</li> <li>SWP/CVP Export Limits</li> <li>Export/Inflow Ratio</li> <li>Minimum Outflow - mon. - 7 day avg.</li> <li>Striped Bass Survival</li> <li>Habitat Protection Outflow, X2</li> <li>River Flows:                             <ul style="list-style-type: none"> <li>@ Rio Vista - min. mon. avg. - 7 day average</li> <li>@ Vernalis: Base -min. mon. avg. - 7 day average</li> <li>Pulse objective</li> </ul> </li> <li>Delta Cross Channel Gates</li> </ul>			1,500 cfs or 100% of 3-day avg. Vernalis flow
	35%	35%	35%
	Port Chicago for 25 days	7,100 - 29,200 cfs or X2 days (through June)	
	2280 cfs	2280 cfs	2280 cfs
	1824 cfs	1824 cfs	1824 cfs
			5480 cfs
		Closed	

<b>WATER QUALITY STANDARDS</b>			
<ul style="list-style-type: none"> <li>Municipal and Industrial</li> <li>All Export Locations</li> <li>Contra Costa Canal</li> </ul>	Cl <= 250 mg/l		
	Cl <= 150 mg/l for 190, days for Above Normal Year Type		
<ul style="list-style-type: none"> <li>Agriculture</li> <li>Western/Interior Delta</li> <li>Southern Delta</li> </ul>			max. 14-day average EC 0.45 mS/cm
	30 day running avg. EC <= 1.0 mS/cm		30 day running avg. EC <= 0.7 mS/cm
<ul style="list-style-type: none"> <li>Fish and Wildlife</li> <li>San Joaquin River Salinity</li> <li>Suisun Marsh Salinity</li> </ul>			14-day avg.; 0.44 EC
	8.0 mhtEC	8.0 mhtEC	11.0 mhtEC

Water Year Classification: Above Normal (Based on forecast, 2/1/2003)  
 SRI (40-30-30 @ 50%) = 7.9 MAF  
 SJV (60-20-20 @ 75%) = 2.2 MAF

Based on 2/03 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 <sup>0</sup>	27 <sup>*3</sup>	1.7 <sup>3</sup>	0.7 <sup>3</sup>	6 <sup>5</sup>						55 <sup>6</sup>							63
SOD	37 <sup>4</sup>																0

EWA Asset Acquisition in SWP San Luis <sup>1</sup>																	
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 <sup>2</sup>											20 <sup>*5,6</sup>	20 <sup>*5,6</sup>	20 <sup>*5,6</sup>				60
Xfer NOD - San Joaquin River <sup>2</sup>																	0
SOD SWP Surface/GW Purchases								37 <sup>4</sup>	33	33	33	33					167
Exchange of EWA assets																	0
Groundwater pumping SOD																	0
Exchange from CVP to SWP in SL																	0
<b>Total Monthly EWA Assets</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>37</b>	<b>33</b>	<b>33</b>	<b>53</b>	<b>53</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>227</b>

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 <sup>2</sup>				0.5 <sup>3</sup>													1
Xfer NOD - San Joaquin River <sup>2</sup>																	0
SOD CVP Surface/GW purchases																	0
Exchange of EWA assets																	0
Groundwater pumping																	0
Exchange from SWP to CVP in SL																	0
<b>Total Monthly EWA Assets</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>											

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 <sup>8</sup>				-32 <sup>9</sup>	-118 <sup>10</sup>	-60		-3	-87	-38							-338
CVP export cuts																	0
<b>Total Expenditures</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-32</b>	<b>-118</b>	<b>-60</b>	<b>0</b>	<b>-3</b>	<b>-87</b>	<b>-38</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-338</b>

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 <sup>11</sup>	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
<b>Total Incremental Storage Changes</b>	<b>62*</b>	<b>2</b>	<b>1</b>	<b>-31</b>	<b>-156</b>	<b>-60</b>	<b>0</b>	<b>34</b>	<b>-55</b>	<b>50</b>	<b>28</b>	<b>28</b>	<b>-5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-104</b>

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	26	26	26	26	26	26	26	6
Groundwater SOD	37	37	37	37	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>EWA Asset Balance</b>	<b>62*</b>	<b>64</b>	<b>64</b>	<b>34</b>	<b>-123</b>	<b>-183</b>	<b>-183</b>	<b>-149</b>	<b>-203</b>	<b>-154</b>	<b>-126</b>	<b>-99</b>	<b>-104</b>	<b>-108</b>	<b>-108</b>	<b>-104</b>	

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) <sup>7</sup>		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																	
<b>Storage (with MWD source shifting)</b>		<b>650</b>	<b>788</b>	<b>1010</b>	<b>1319</b>	<b>1692</b>	<b>1819</b>	<b>1635</b>	<b>1146</b>	<b>672</b>	<b>520</b>	<b>426</b>	<b>442</b>	<b>480</b>	<b>615</b>	<b>871</b>	

<sup>0</sup> 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.

<sup>\*</sup> 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.

<sup>1</sup> Aqueduct conveyance and evaporation losses are not included.

<sup>2</sup> 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.

<sup>3</sup> 2002 SGA Transfer (CVP place of use). Exchange of EWA capacity during the summer for the CVP is pending; <sup>4</sup> 2002 KCWA Transfer (SWP place of use)

<sup>5</sup> 2003 OWID Transfer (Joint place of use) <sup>6</sup> 2003 YCWA Transfer (Joint place of use)

<sup>7</sup> Based upon the 1/1/03 DWR's 90% allocation study and the 1/24/2003 USBR's 90% forecast.

<sup>8</sup> These place holders are based upon the CVP January forecast.

<sup>9</sup> 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.

<sup>10</sup> 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.

<sup>11</sup> 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.