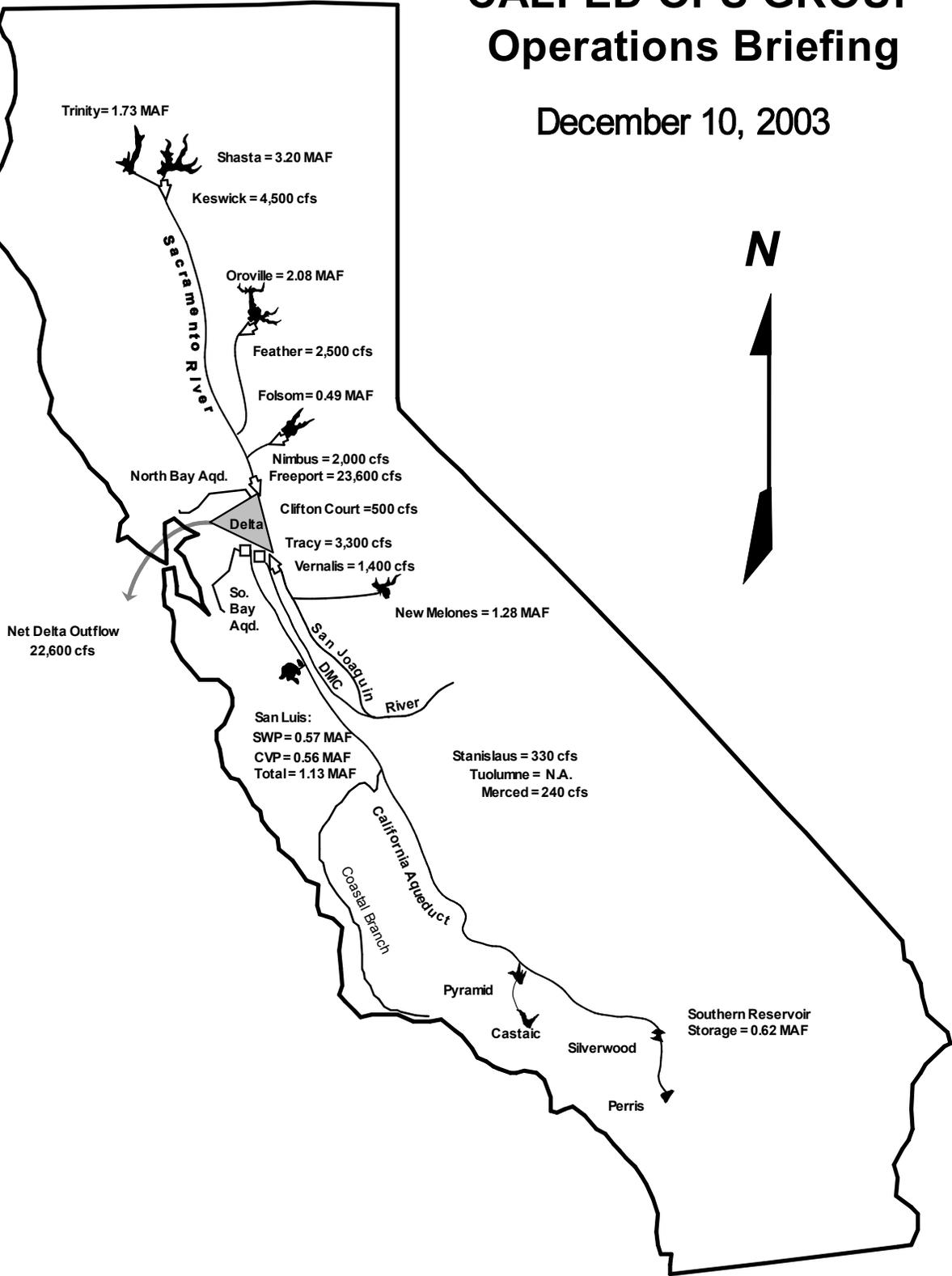


# CALFED OPS GROUP Operations Briefing

December 10, 2003

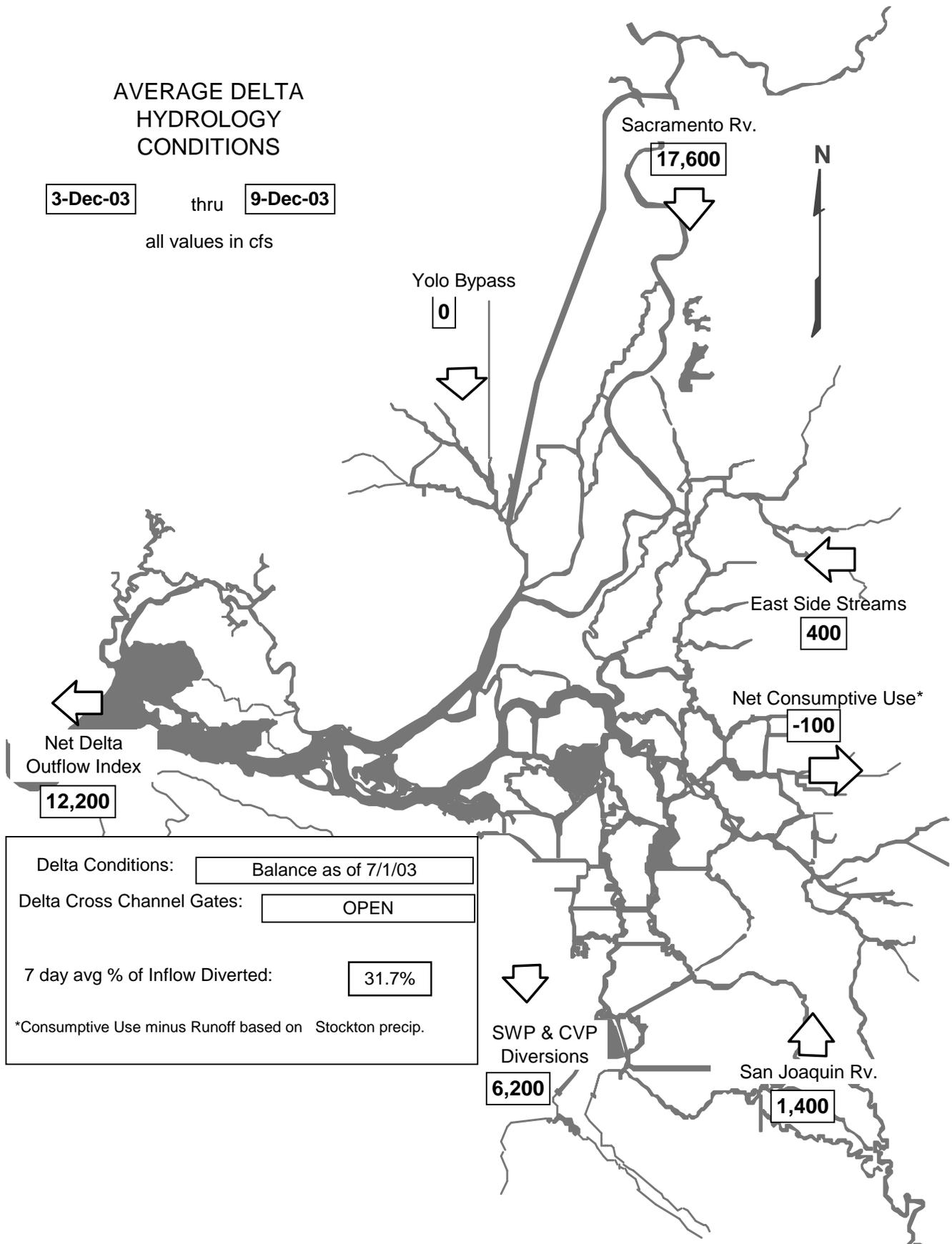


**CURRENT SWP/CVP OPERATIONAL STATUS**

DATA AS OF  
December 10, 2003

# AVERAGE DELTA HYDROLOGY CONDITIONS

**3-Dec-03** thru **9-Dec-03**  
all values in cfs



|   |                      |
|---|----------------------|
| Delta Conditions:                                       | Balance as of 7/1/03 |
| Delta Cross Channel Gates:                              | OPEN                 |
| 7 day avg % of Inflow Diverted:                         | 31.7%                |
| *Consumptive Use minus Runoff based on Stockton precip. |                      |

# AVERAGE DELTA WATER QUALITY CONDITIONS

**3-Dec-03** thru **9-Dec-03**

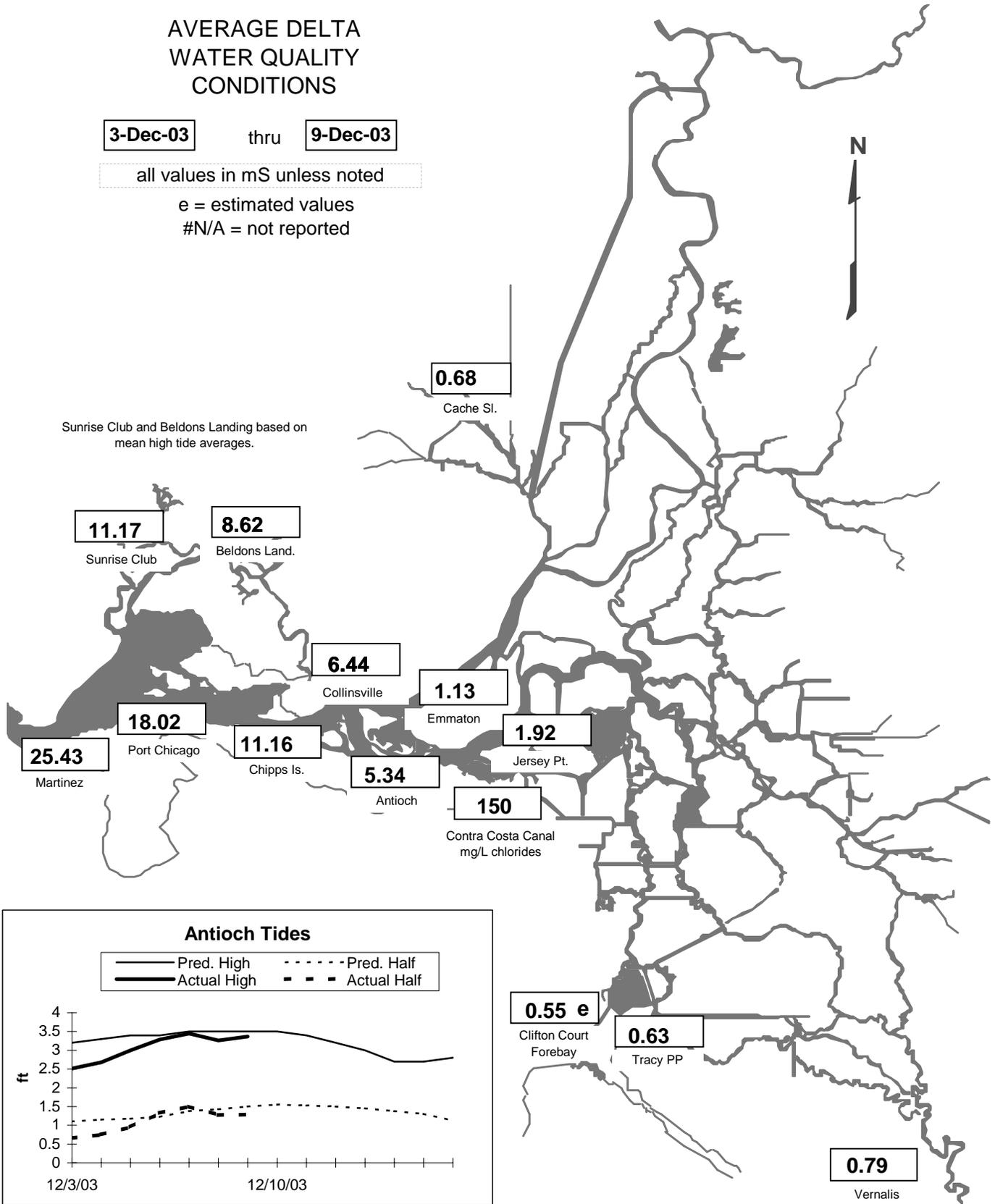
all values in mS unless noted

e = estimated values

#N/A = not reported

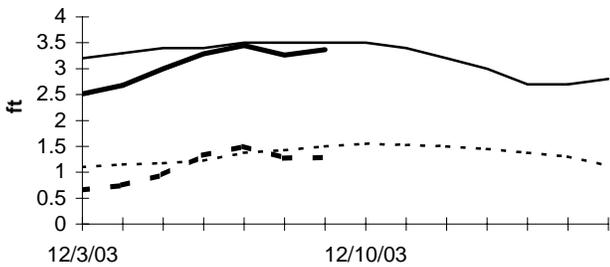


Sunrise Club and Beldons Landing based on mean high tide averages.



## Antioch Tides

— Pred. High      - - - - - Pred. Half  
 — Actual High      - - - - - Actual Half



**DRAFT**

# Bay-Delta Standards

Contained in D-1641

**DRAFT**

| CRITERIA   | Nov 03  | Dec 03   | Jan 04   |
|--|---|----------|----------|
| <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.</li> <li>    - 7 day avg.</li> <li>  Striped Bass Survival</li> <li>  Suisun Marsh</li> <li>  Habitat Protection Outflow, X2</li> <li>  River Flows:</li> <li>    @ Rio Vista - min. mon. avg.</li> <li>      - 7 day average</li> <li>    @ Vernalis: Base -min. mon. avg.</li> <li>      - 7 day average</li> <li>    Pulse</li> <li>  Delta Cross Channel Gates</li> </ul> |   |          |          |
|  | <b>65%</b>  |          |          |
|  | 4500 cfs  | 4500 cfs | 4500 cfs |
|  | 3500 cfs  | 3500 cfs | 3500 cfs |
|  |   |          |          |
|  | 4500 cfs  | 4500 cfs |          |
|  | 3500 cfs  | 3500 cfs |          |
|  |   |          |          |
|  | Conditional: For the Nov-Jan period, DCC gates may be closed for up to a total of 45 days |          |          |

| <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> |  | <= 250 mg/l Cl                                  |            |
|  |  | <= 150 mg/l for 190 days (days have been met)   |            |
| <ul style="list-style-type: none"> <li>• Agriculture</li> <li>  Southern Delta</li> </ul>  |  | 30-day running average EC <= 1.0 mS             |            |
|  | <ul style="list-style-type: none"> <li>• Fish and Wildlife</li> <li>  Suisun Marsh Salinity</li> </ul> | 15.5 mS/cm for Eastern / 16.5 for Western Marsh | 15.5 mS/cm |

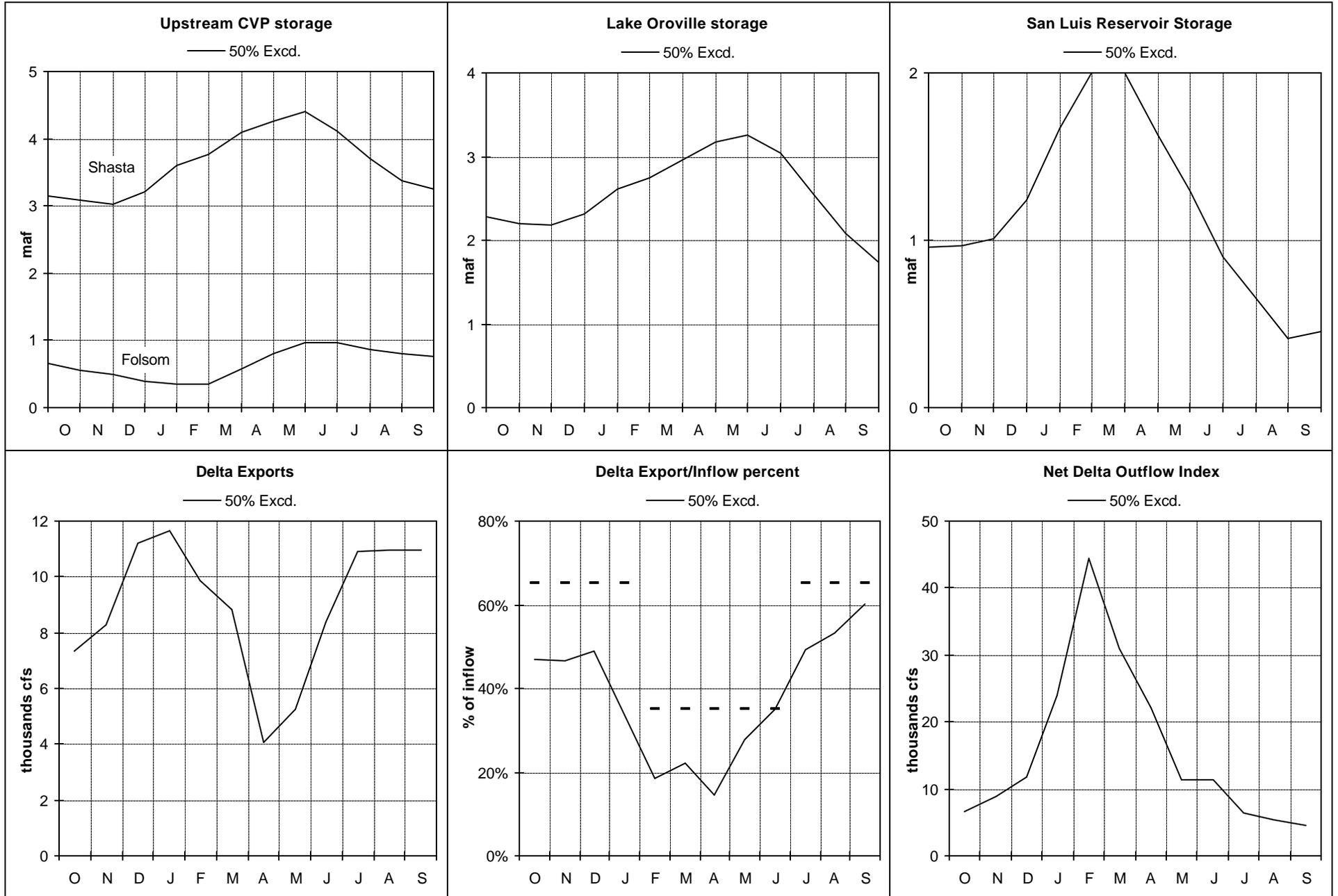
**Water Year Classification: (Dec 1 forecast)**

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 11/01/03 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) <sup>0</sup>                               | 17 <sup>*</sup> | 3 <sup>3</sup>    |                   | 5 <sup>4</sup>    |                  |                  |                 |     |     | -20 <sup>13</sup> | -10 <sup>5,14</sup> | 10 <sup>15</sup>  | 7                | -15              | 2   |     | 0     |
| NOD (non-Oroville)  | 7 <sup>3</sup>  | -1.6 <sup>3</sup> | -0.7 <sup>3</sup> | -4.6 <sup>3</sup> |                  |                  |                 |     |     | 66 <sup>6</sup>   |                     | -19 <sup>15</sup> | -31 <sup>5</sup> | -14 <sup>5</sup> | -2  |     | 0     |
| SOD (KCWA)  | 37 <sup>4</sup> |                   |                   |                   | -12 <sup>4</sup> | -15 <sup>4</sup> | -9 <sup>4</sup> |     |     |                   |                     |                   |                  |                  |     |     | 0     |
| SOD (MWD)   |                 |                   |                   |                   | 12 <sup>4</sup>  | 15 <sup>4</sup>  | 2               |     |     | -30 <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                                     |     |     |     |     |     |     | 35             |     |                 | 22 <sup>14</sup> |                 |                 | 8                  |     |     |     | 66    |
| 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 <sup>2</sup>           |     |     |     |     |     |     |                |     |                 | 8 <sup>14</sup>  | 8 <sup>15</sup> | 21 <sup>6</sup> | 25 <sup>8,17</sup> |     |     |     | 63    |
| Xfer NOD - San Joaquin River <sup>2</sup>          |     |     |     |     |     |     |                |     |                 |                  |                 |                 |                    |     |     |     | 0     |
| SOD SWP Surface/GW Purchases                       |     |     |     |     |     |     | 7 <sup>4</sup> |     | 30 <sup>4</sup> | 36 <sup>7</sup>  | 36 <sup>7</sup> | 36 <sup>7</sup> | 17 <sup>7</sup>    |     |     |     | 162   |
| Exchange of EWA assets                             |     |     |     |     |     |     |                |     |                 |                  |                 |                 |                    |     |     |     | 0     |
| Groundwater pumping SOD                            |     |     |     |     |     |     |                |     |                 |                  |                 |                 |                    |     |     |     | 0     |
| Exchange from CVP to SWP in SL                     |     |     |     |     |     |     |                |     |                 |                  |                 |                 |                    |     |     |     | 0     |
| <b>Total Monthly EWA Assets</b>                    |     | 0   | 0   | 0   | 0   | 0   | 62             | 0   | 30              | 67               | 45              | 58              | 50                 | 0   | 0   | 0   | 310   |

| 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 <sup>5</sup>  |     |     |     | 6     |
| Xfer NOD - Sacramento River <sup>2</sup>  |     |     |     | 0.5 <sup>3</sup> |     |     |     |     |     |     |     |     |                 |     |     |     | 0     |
| Xfer NOD - San Joaquin River <sup>2</sup> |     |     |     |                  |     |     |     |     |     |     |     |     |                 |     |     |     | 0     |
| SOD CVP Surface/GW purchases              |     |     |     |                  |     |     |     |     |     |     |     |     | 20 <sup>7</sup> |     |     |     | 20    |
| Exchange of EWA assets                    |     |     |     |                  |     |     |     |     |     |     |     |     |                 |     |     |     | 0     |
| Groundwater pumping                       |     |     |     |                  |     |     |     |     |     |     |     |     |                 |     |     |     | 0     |
| Exchange from SWP to CVP in SL            |     |     |     |                  |     |     |     |     |     |     |     |     |                 |     |     |     | 0     |
| <b>Total Monthly EWA Assets</b>           | 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                      |     | -5 <sup>*</sup> |     | -32 <sup>5</sup> | -89 <sup>6</sup> |     |     |     | -19 <sup>10</sup> |     |     |     | -182 <sup>11</sup> |     |     |     | -327  |
| CVP export cuts                      |     |                 |     |                  |                  |     |     |     |                   |     |     |     | -26 <sup>11</sup>  |     |     |     | -26   |
| <b>Total Expenditures</b>            | 0   | -5              | 0   | -32              | -89              | 0   | 0   | -19 | -208              | 0   | 0   | 0   | 0                  | 0   | 0   | 0   | -353  |

| 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)             | 16  | -5  | 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) <sup>12</sup>   | 17  | 3   | 0   | 5   | 0   | 0   | 0   | 0   | -20  | -10 | 10  | 7   | -15 | 2   | 0   | 0   | 0     |
| SOD Storage (non-S.L.)                       | 37  | 0   | 0   | 0   | 0   | 0   | 7   | 0   | -30  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| <b>Total Incremental Storage Changes</b>     | 64  | -2  | 0   | -26 | -89 | 0   | 60  | -19 | -228 | 57  | 55  | 65  | 61  | 2   | 0   | 0   | -1    |

| 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)                  | 16  | 11  | 11  | -21 | -111 | -111 | -49 | -68 | -220 | -153 | -109 | -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) <sup>12</sup>        | 17  | 20  | 20  | 25  | 25   | 25   | 25  | 25  | 5    | -5   | 5    | 13  | -2  | 0   | 0   | 0   |       |
| SOD Storage (non-S.L.)                            | 37  | 37  | 37  | 37  | 37   | 37   | 30  | 30  | 0    | 0    | 0    | 0   | 0   | 0   | 0   | 0   |       |
| <b>EWA Asset Balance</b>                          | 64  | 62  | 62  | 35  | -54  | -54  | 6   | -13 | -241 | -184 | -128 | -63 | -3  | -1  | -1  | -1  |       |

| 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>18</sup> |     | 645 | 783 | 1037 | 1554 | 1856 | 2007 | 1897 | 1686 | 1406 | 1052 | 861 | 957 | 871 | 1087 | 1367 |       |
| Encroachment                            |     |     |     |      |      |      |      |      |      |      |      |     |     |     |      |      |       |
| Total Storage (EWA case)                |     | 650 | 788 | 1010 | 1438 | 1740 | 1958 | 1829 | 1440 | 1227 | 917  | 784 | 956 | 870 | 1086 | 1366 |       |
| MWD Source Shifting                     |     |     |     |      |      |      |      |      |      |      |      |     |     |     |      |      |       |
| Storage (with MWD source shifting)      |     | 650 | 788 | 1010 | 1438 | 1740 | 1958 | 1829 | 1440 | 1227 | 917  | 784 | 956 | 870 | 1086 | 1366 |       |

<sup>0</sup> 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.  
<sup>\*</sup> 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).  
<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). The majority of this asset was used for instream flow benefits.  
<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> 2003 SOD Transfers (SWP Place of Use) - 125 TAF from KCWA and 20 TAF from SCWWD  
<sup>8</sup> About 32 taf was expended for the December portion of the 12/27/02 - 1/2/03 curtailment.  
<sup>9</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>10</sup> The VAMP cost is estimated to be about 32 taf for the SWP and is based upon the 4/30 estimate of base flows.  
<sup>11</sup> The cost for VAMP shoulders is about 169 taf for the SWP; and 26 taf for CVP.  
<sup>12</sup> 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.  
<sup>13</sup> The SWP spilled ~ 20 taf of EWA water stored in Oroville during flood control operations.  
<sup>14</sup> E/I relaxation: ~22 taf of surplus Delta flow pumped June 16-23. ~9.5 taf OWID and SWP water pumped from Oroville June 29-30.  
<sup>15</sup> Early July, ~8.5 taf was released from Oroville and moved thru 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.  
<sup>16</sup> Based upon the 10/1/2003 DWR's 50% study.  
<sup>17</sup> 25.029 taf = 10.48 Oroville water moved using 500cfs + 14.549 taf Oroville water moved using E/I