

**WY 2002/2003 EWA Accounting Summary**

October 1, 2002 - December 31, 2003

**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>1</sup>		5 <sup>5</sup>					-20 <sup>12</sup>	-10 <sup>5,13</sup>	10 <sup>14</sup>	7 <sup>6</sup>	-15	2			0.398
NOD (non-Oroville)	4.4 <sup>3</sup>	1.7 <sup>3</sup>	0.7 <sup>3</sup>	-5.3 <sup>3</sup>	-1.6 <sup>3</sup>				66 <sup>6</sup>		-19 <sup>14</sup>	-31 <sup>6</sup>	-13 <sup>6</sup>	-2			0.000
SOD (KCWA)	37 <sup>4</sup>				-12 <sup>4</sup>	-15 <sup>4</sup>	-9 <sup>4</sup>										0.000
SOD (MWD)					12 <sup>4</sup>	15 <sup>4</sup>	2		-30 <sup>4</sup>								0.000

		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>13</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>										10 <sup>13</sup>	8 <sup>14</sup>	21 <sup>6</sup>	25 <sup>6,15</sup>				64
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>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>62</b>	<b>0</b>	<b>30</b>	<b>68</b>	<b>45</b>	<b>58</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>311</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							6										6
JPOD using excess flows																	0
JPOD using NOD storage													6 <sup>6</sup>				6
Xfer NOD - Sacramento River <sup>2</sup>				0.497 <sup>3</sup>													0.497
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>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0.497</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>26</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>32</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		-5 <sup>*</sup>		-32 <sup>8</sup>	-89 <sup>9</sup>				-19 <sup>10</sup>	-182 <sup>11</sup>							-327
CVP export cuts																	-26
<b>Total Expenditures</b>		<b>0</b>	<b>-5</b>	<b>0</b>	<b>-32</b>	<b>-89</b>	<b>0</b>	<b>0</b>	<b>-19</b>	<b>-208</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-353</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)	16	-5	0	-32	-89	0	62	-19	-152	68	45	58	50	0.00	0.00	0.00	0.057
CVP in SL	-6	0	0	0.5	0	5.6	0	-26	0	0	0	0	26	0.00	0.00	0.00	-0.202
NOD Storage	21	5	1	0	-2	0	0	0	46	-10	-8	-24	-28	0.00	0.00	0.00	0.398
SOD Storage (non-S.L.)	37	0	0	0	0	0	-7	0	-30	0	0	0	0	0.00	0.00	0.00	0.00
<b>Total Incremental Storage Changes</b>	<b>68</b>	<b>0</b>	<b>1</b>	<b>-32</b>	<b>-91</b>	<b>0</b>	<b>60</b>	<b>-19</b>	<b>-162</b>	<b>58</b>	<b>36</b>	<b>34</b>	<b>48</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.25</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)	16	11	11	-21	-111	-111	-49	-68	-220	-152	-108	-50	0.1	0.06	0.06	0.057	
CVP SL	-6	-6	-6	-6	-6	-6	0	0	-26	-26	-26	-26	-0.20	-0.20	-0.20	-0.202	
NOD Storage (SOD Equivalent)	21	26	27	26	25	25	25	25	70	61	52	28	0	0.40	0.40	0.398	
SOD Storage (non-S.L.)	37	37	37	37	37	37	30	30	0	0	0	0	0.0	0.00	0.00	0.00	
<b>EWA Asset Balance</b>	<b>68</b>	<b>62<sup>*</sup></b>	<b>63<sup>*</sup></b>	<b>31<sup>*</sup></b>	<b>-54</b>	<b>-54</b>	<b>6</b>	<b>-13</b>	<b>-175</b>	<b>-117</b>	<b>-81</b>	<b>-47</b>	<b>0.3</b>	<b>0.25</b>	<b>0.25</b>	<b>0.25</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)		645	783	1037	1554	1856	2003	1886	1674	1396	1052	863	939	962	1123	1317	
Encroachment																	
Total Storage (EWA case)		650	788	1010	1438	1739	1954	1819	1428	1218	918	787	939	962	1123	1317	
MWD Source Shifting																	
<b>Storage (with MWD source shifting)</b>		<b>650</b>	<b>788</b>	<b>1010</b>	<b>1438</b>	<b>1739</b>	<b>1954</b>	<b>1819</b>	<b>1428</b>	<b>1218</b>	<b>918</b>	<b>787</b>	<b>939</b>	<b>962</b>	<b>1123</b>	<b>1317</b>	

<sup>0</sup> 2002 NOD Purchases = 135(YCWA) + 7.1(SGA). 2003 NOD Purchases = 65(YCWA) + 4.9(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).

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 (assumed to be 20% until modeling results indicates otherwise);

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.

Carriage water loss in WY 2003 is 0%.

<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). (MWD, KCWA & EWA participated in a 3-way exchange.)

<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> About 32 taf was expended for 2003 VAMP for the SWP and was 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> The SWP spilled ~ 20 taf of EWA water stored in Oroville during flood control operations.

<sup>13</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>14</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 was still pending.

<sup>15</sup> 25.029 taf = 10.48 Oroville water moved using 500cfs + 14.549 taf Oroville water moved using E/I relaxation