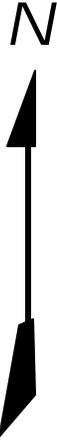


# CALFED OPS GROUP OPERATIONS BRIEFING September 27, 2000



# AVERAGE DELTA WATER QUALITY CONDITIONS

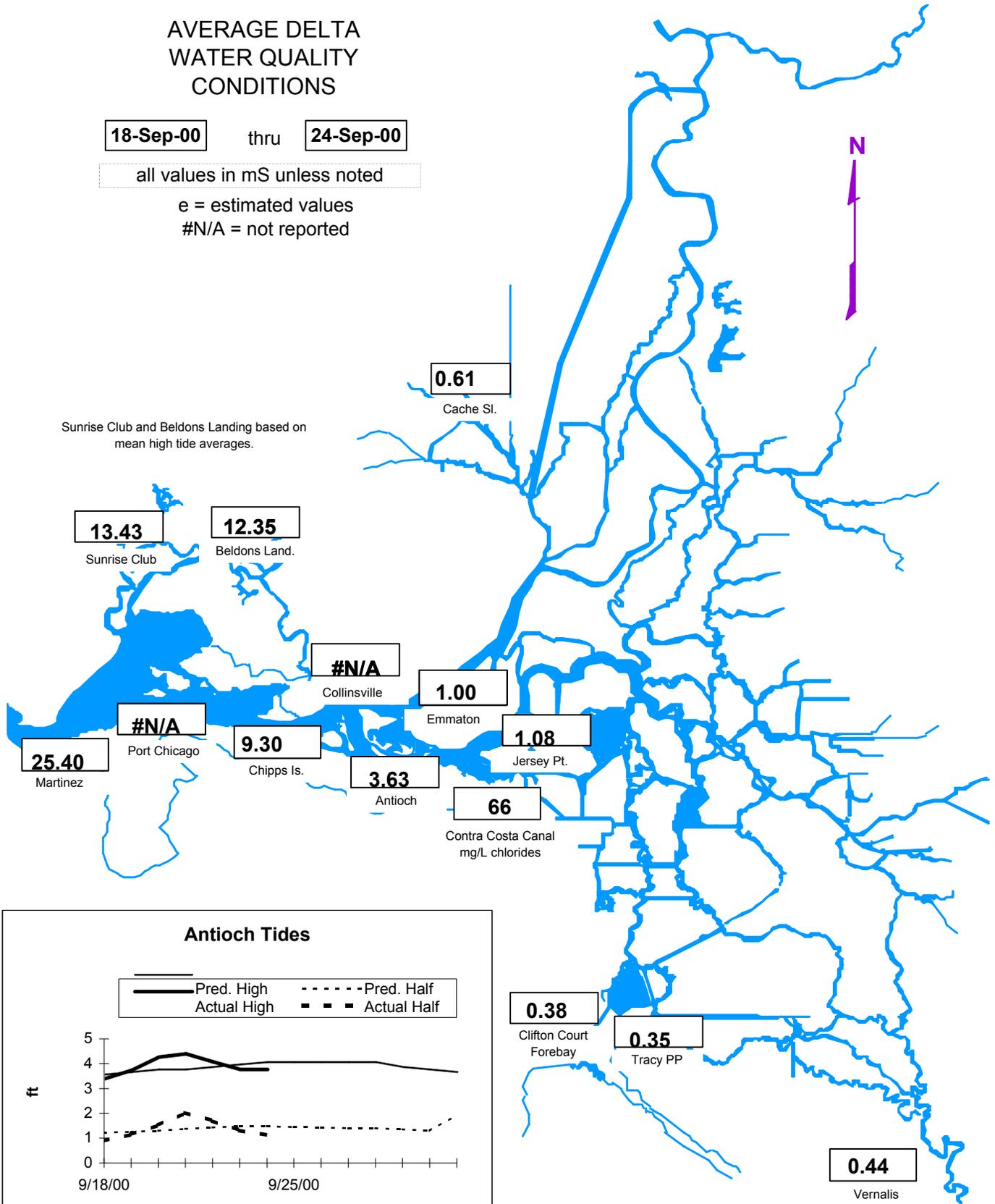
18-Sep-00 thru 24-Sep-00

all values in mS unless noted

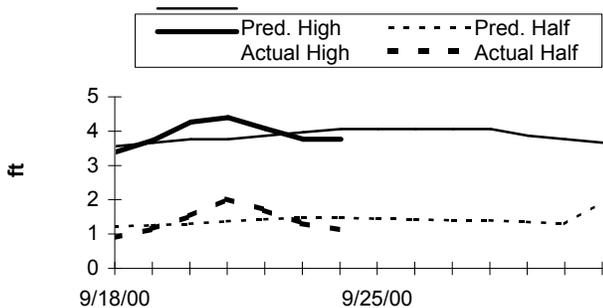
e = estimated values

#N/A = not reported

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

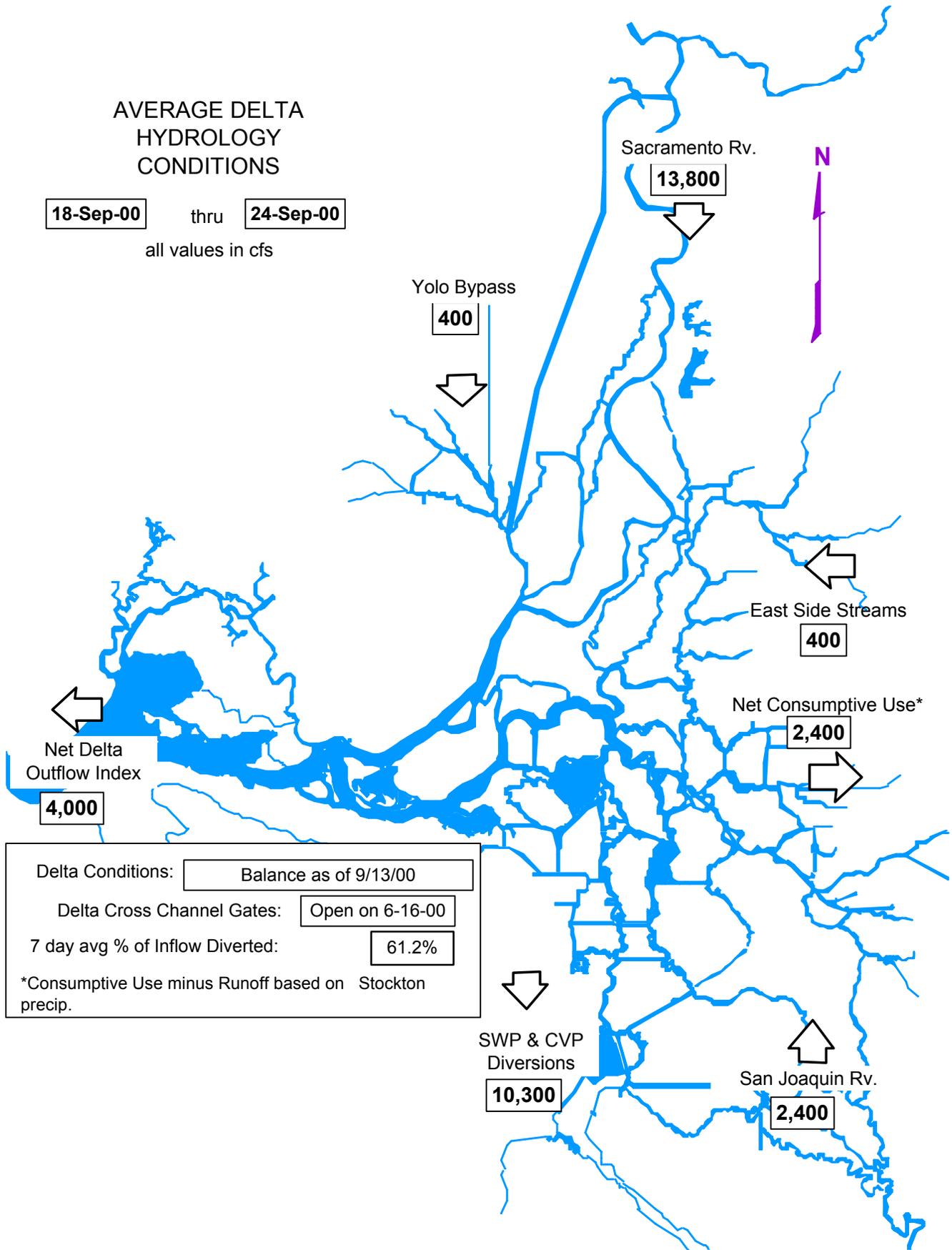


## Antioch Tides



# AVERAGE DELTA HYDROLOGY CONDITIONS

**18-Sep-00** thru **24-Sep-00**  
all values in cfs



Delta Conditions:	Balance as of 9/13/00
Delta Cross Channel Gates:	Open on 6-16-00
7 day avg % of Inflow Diverted:	61.2%

\*Consumptive Use minus Runoff based on Stockton precip.

**DRAFT**

# Bay-Delta Standards

Contained in D-1641

**DRAFT**

CRITERIA	Sep 00	Oct00	Nov 00
----------	--------	-------	--------

**FLOW/OPERATIONAL**

<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 style="padding-left: 20px;">- 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 style="padding-left: 20px;">- 7 day average</li> <li>@ Vernalis: Base -min. mon. avg.</li> <li style="padding-left: 20px;">- 7 day average</li> <li style="padding-left: 40px;">Pulse</li> <li>Delta Cross Channel Gates</li> </ul>			
		65%	
	3000 cfs	4000 cfs	4500 cfs
	2000 cfs	3000 cfs	3500 cfs
	3000 cfs	4000 cfs	4500 cfs
	2000 cfs	3000 cfs	3500 cfs
		*1000 cfs	
		* Up to an additional 28 TAF	
			Conditional

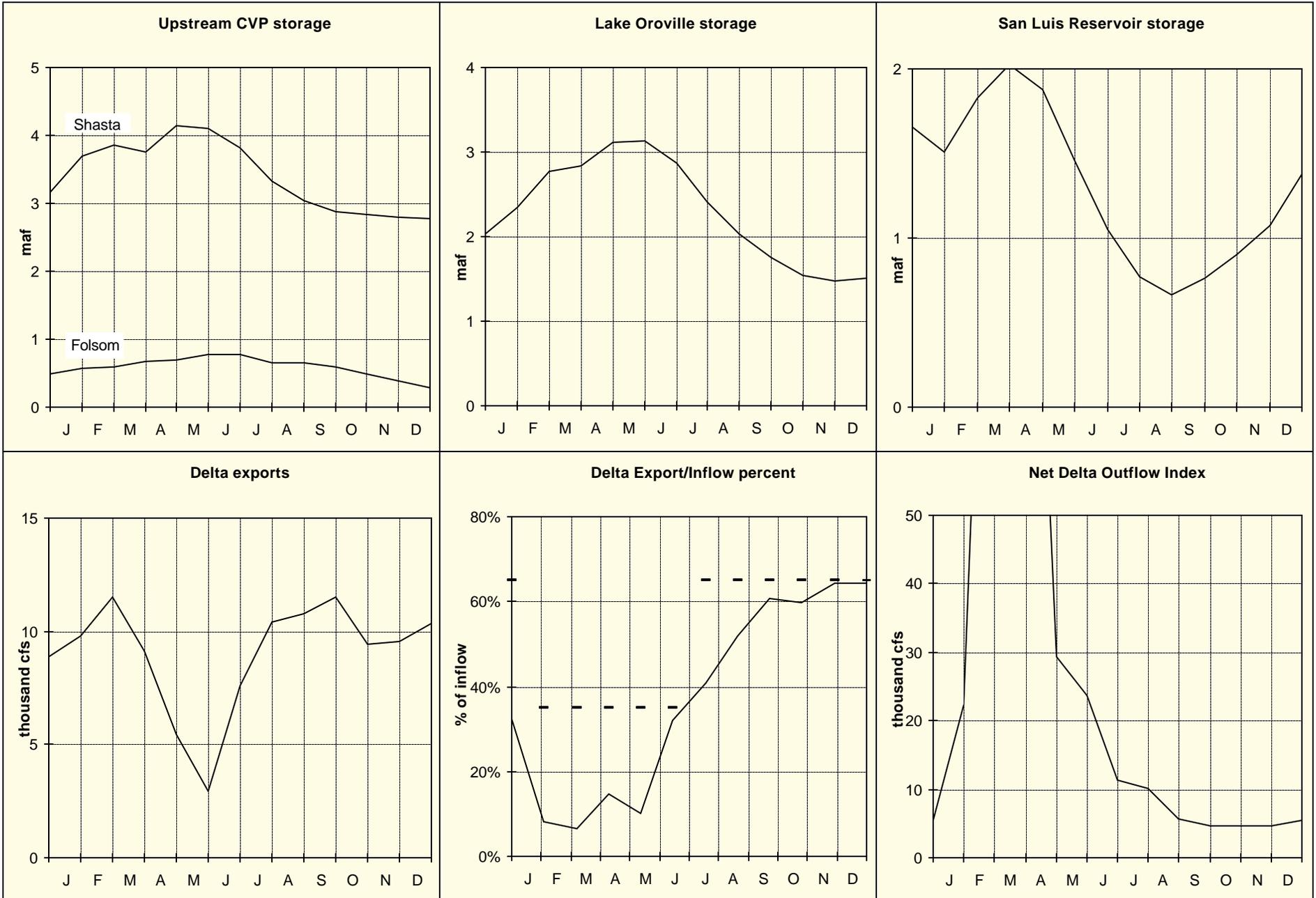
**WATER QUALITY STANDARDS**

<ul style="list-style-type: none"> <li>• Municipal and Industrial</li> <li>All Export Locations</li> </ul>			
		≤ 250 mg/l Cl	
<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>San Joaquin River Salinity</li> <li>Suisun Marsh Salinity</li> </ul>		19 mS/cm	15.5 mS/cm for Eastern / 16.5 for Western Marsh stations

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

SRI (40-30-30 @ 50%) =10.0 (Wet)  
 SJV (60-20-20 @75%) =3.4 (Above Normal)

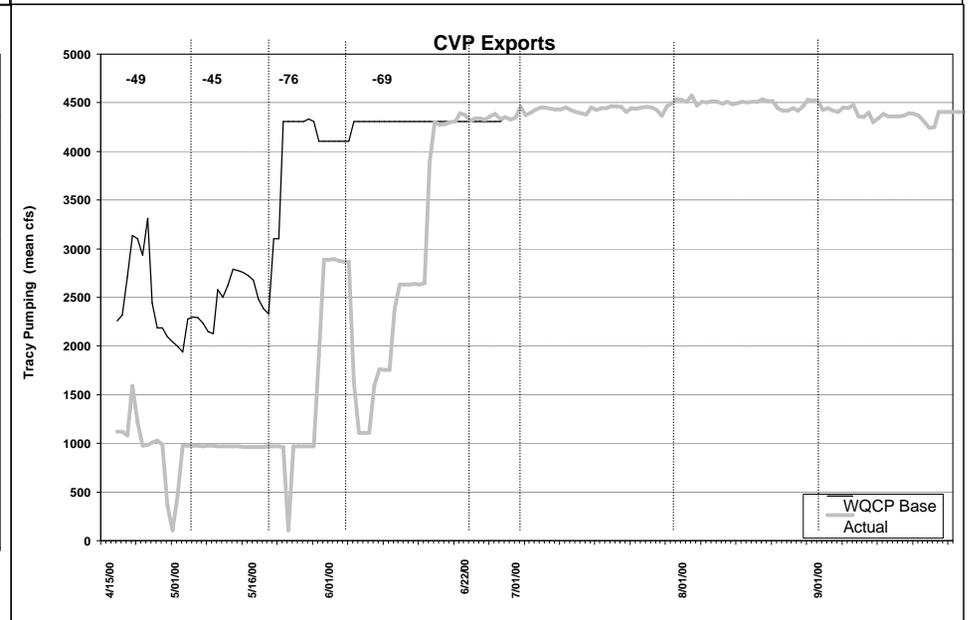
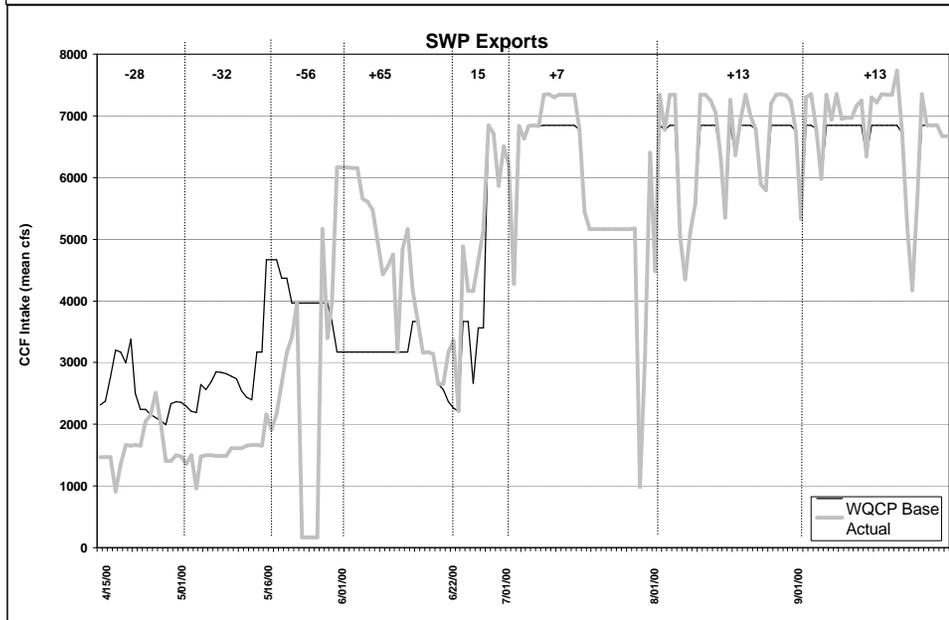
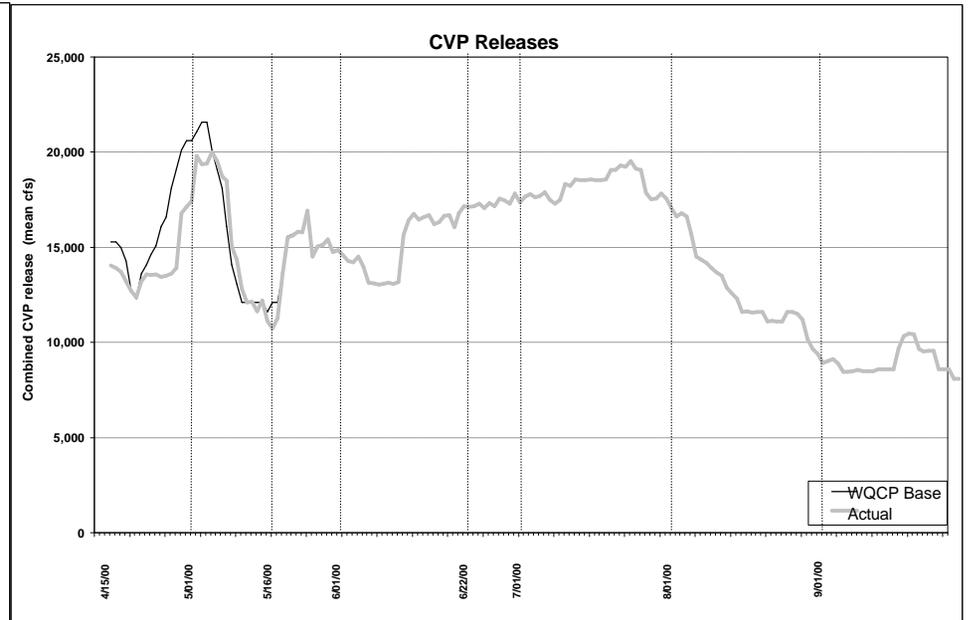
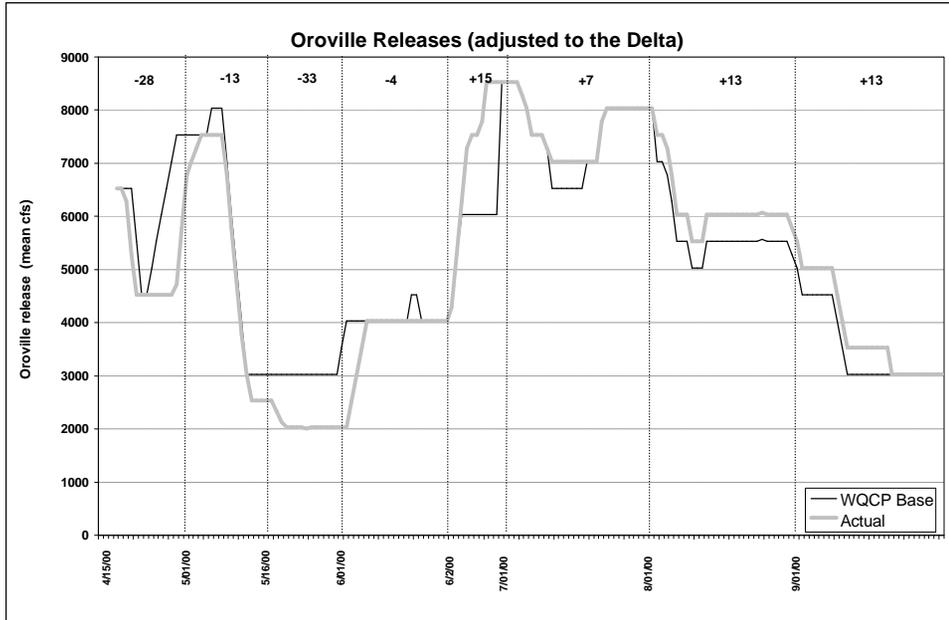
# SWP & CVP CY 2000 Forecasted Operations.



Based on 09/13/00 SWP & 7/00 CVP operations studies. Flows are monthly averages. Actual through Aug. Assumes 90% exceedence hydrology for Sep 2000, and 75% for Oct-Dec 2000.

# Delta Smelt Impact and Recovery

(cfs)



## Year 2000 SWP and CVP Water Supply Impact and Recovery Plan

Based on May 1 - 90% Exceedence Hydrology											Impact Summary
Apr	May 1-15	May 16-31	Jun 1-22	Jun 23-30	Jul	Aug	Sep	Oct	Nov	Dec	
<b>SWP</b>											
<b>b(2) - WQCP</b>											
SWP Export Impacts (b(2) 2000)			-28 <sup>3</sup>								-28
SWP delta smelt B.O. Export Impacts	-28 <sup>1</sup>	-32 <sup>1</sup>	-28 <sup>3</sup>								-88
SWP Export Makeup (b(2) 2000)				28 <sup>5</sup>							28
SWP delta smelt B.O. Export Makeup				37 <sup>5</sup>	15 <sup>6</sup>	7 <sup>7</sup>	13 <sup>7</sup>	13 <sup>7</sup>			85
Net Export Impacts	-28	-32	-56	65	15	7	13	13			-3
Oroville Storage Changes	28 <sup>2</sup>	13 <sup>2</sup>	33 <sup>4</sup>	4 <sup>5</sup>	-15 <sup>6</sup>	-7 <sup>7</sup>	-31 <sup>7</sup>	-16 <sup>7</sup>			9
Negotiated 1999 SWP Makeup									35 <sup>8</sup>	35 <sup>8</sup>	70
<b>CVP</b>											
<b>b(2) - WQCP</b>											
Cum. CVP Storage Changes (Oct - Jan)											-6 <sup>9</sup>
CVP Flow Impacts (Feb.-Sep)	-51	-7	-3		0	0	0				-78 <sup>9</sup>
CVP Export Impacts	-52	-78	0		0	0	0				-273 <sup>9</sup>
Sub total											-357 <sup>9</sup>
<b>WQCP - Base</b>											
Cum. CVP Storage Changes (Oct - Jan)											0 <sup>9</sup>
CVP Flow Impacts (Feb.-Sep)	-166	-137	13		-71	81	49				-233 <sup>9</sup>
CVP Export Impacts	-19	-25	6		27	-100	-100				-210 <sup>9</sup>
Sub total											-443 <sup>9</sup>
Grand Total											-800
<b>CVP Water Supply Augmentation Actions</b>											
Potential Use for JPOD											0
Water Purchases south of the Delta						44	19	9			72

<sup>1</sup> Impacts for dropping SWP exports from 50% of Vernalis base flow (2367 cfs) to actual exports (1404 cfs) which averaged greater than the SWP share of the delta smelt biological opinion export objective (1165 cfs). Therefore there were no SWP impacts attributed to b(2) during the pulse flow period.

<sup>2</sup> Most of the reduced SWP exports were backed into Oroville. Approximately 19 taf of impact occurred during a period of excess conditions, (May 9 - 15), and were not backed upstream.

<sup>3</sup> 56 taf of excess flow was lost due to curtailments in the latter part of May. 28 taf was for a b(2) action. The other 28 taf was for export reductions associated with exceeding the delta smelt red-light salvage level. Some water was backed into Oroville in late May as result of the reduced pumping.

<sup>4</sup> Although the Delta was in excess conditions during this period, increased pumping by the SWP and CVP under the base case operation would have resulted in a balanced Delta condition which would have required a portion of the exports to be supported by releases from Oroville. The net result is an increase in Oroville storage as compared with the base case operation.

<sup>5</sup> May b(2) impacts (28 taf), late May ESA impacts (28 taf) and some of the pulse flow period impacts (24 taf) were made up by pumping surplus CVP releases that resulted from CVP b(2) export curtailments in early June and by pumping greater than 35% E/I ratio (15 taf) in the end of June. Reduced pumping in the end of May resulted in a slight overall net increase in Oroville storage over the base case.

<sup>6</sup> SWP increased pumping to greater than 35% E/I ratio at the end of June. This increased export was supported by an increase in Oroville releases.

<sup>7</sup> Approximately 7 taf of additional pulse flow export impact was recovered in July, 13 taf in August, and 13 taf in September by utilizing the 500 cfs increase at CCF intake. These additional exports were supported by additional Oroville releases. Some of the increased releases were lost due pumping curtailments at Banks. Utilization of the 500 cfs is no longer available due to the breaching of the south Delta agricultural barriers and concern with exceeding the E/I ratio.

<sup>8</sup> Additional SWP export supported by CVP upstream releases in October and November. The 70 taf was negotiated between DOI and DWR for 1999 make up.

<sup>9</sup> CVP b(2) impact summary is for the period Oct. '99 through Sep. '00.