

1983 Wet Year

Concern	Tools	System Status		Priority	
		Historic	1A Baseline WQCP	Action	Evaluation
Yearling salmon migrants Oct-Jan	• Increase inflow	>>50 kcfs outflow	>>50 kcfs outflow	B	• Peaks in salvage in mid and late November, early December with outflow and export rises, but probably are hatchery fish.
	• Reduce export	7000>>10000	3000-5000		
	• Close DCC	Closed after late Nov.	Closed		
Winter run survival Dec-Mar	• Increase inflow			OK	Few winter run sized
	• Reduce export				
	• Close DCC				
Delta Smelt Adults Jan-Mar	• Reduce export	10000	1500	B	• FMWT Index = 600 • Take medium > low Dec-Mar
Steelhead Feb-May X2 Feb - June	• Reduce export			OK	• Some late May covered by VAMP
	• Increase inflow			OK	
	• Reduce export				
Salmon Fry Feb-Mar		Outflow 150-400 kcfs	Outflow 150-400 kcfs	B	• 100-500/TAF
DS Young Apr-Jul	• Increase outflow			OK	
	• Reduce exports				
San Joaquin smolts Apr-Jun	• Reduce exports	3000	1500>>5,000 Jun	A/B	• B - Extend VAMP 30days later • A - 3000 cfs mid April-mid May
	• Increase SJ flow	>25,000	>25,000		
	• Close HOR	Open	Open		
Striped Bass Young	• Increase outflow	< 50 km	<50 km	C	No Index High take August
	• Increase Sac flow	>50000cfs	>50000cfs		
	• Reduce exports	8000	10000		
Splittail May-Jul				B	Peak take May-Jun - 1000/TAF

1983 Gaming

- SWP can take advantage of Keswick summer temp releases - not in COA.
- No upstream b(2) costs.
- Upstream flows and storage change from historic because of new flood control curves.
- San Luis was nearly full.
- Cut DWRSIM demands

Old 1A

Fall Oct-Jan:

1. Action: restrict exports early Dec. Hit is b(2) = 0 TAF. (note likely to reduce delivery allocations.) Purpose: protect salmon yearlings.

Spring April-June:

2. Action: One month VAMP. Plus extension of VAMP into June up to the b(2) limit. 909 TAF b(2) hit on San Luis storage.

End Condition: San Luis at end of September was down by entire CVP amount unless JFOD was used. Energy costs were high.

New 1B-1983

- Initial conditions: storages high - near flood control. Base releases higher than AFRP targets through January.
- No anticipated upstream AFRP actions, so full 800 TAF for Delta export reductions under b(2).
- Full deliveries/demands of 4.9 MAF compared to historic of 2.5 MAF.
- San Luis fills by early December. Exports match deliveries December through September.
- Oct-Nov expanded Banks 15 kcfs fills San Luis.
- Upstream AFRP Costs: 0
- Delta WQCP b(2): 0.
- In-Delta b(2) export reductions: 700 TAF.

October	No Actions.
November	B(2) Actions: hold exports to 7000 cfs. 392 TAF cost
December	B(2) Actions: hold exports to 5000 cfs. 50 TAF cost
January	B(2) Actions: hold exports to 5000 cfs. Cost 0.
February	B(2) Actions: hold exports to 5000 cfs. Cost 0.
March	B(2) Actions: hold exports to 5000 cfs.
April	B(2) Actions: 1. VAMP export restriction to 3000 cfs 16 th on. 2. Hold exports to 5000 cfs for first 15 days. 111 TAF Cost
May	B(2) Actions: 1. VAMP export restriction to 3000 cfs through 15 th - Cost 88 TAF 2. Late May actions to limit export to 7500 cfs has no cost to b(2) only b(1).
June	B(2) Actions: Cut exports in June to 7500 cfs. 76 TAF cost to b(2).
July	No Actions. Note: 100 TAF of b(2) left over and not used - exports rose from 7500 cfs to 15,000 cfs on July 1.
August	No Actions.
September	No Actions.

Upstream AFRP Costs: 0

Delta WQCP b(2): 0.

In-Delta b(2) export reductions: 700 TAF.

Summary of Year:

Exports: 5.8 MAF (Historic 4.4 MAF)

Deliveries: 4.9 MAF (Historic 2.4 MAF)

Outflow: 61.5 MAF (historic 64.3 MAF)

Storage: no change

Fish Template priorities: All A's and B's fully met. C priority for striped bass in August not met.

Performance of Assets:

- Delta storage allowed earlier fill of San Luis reduced b(2) cost in winter. Full at end of water year.
- Expanded Banks and JPOD also helped to fill San Luis earlier and thus improved water supply reliability and fish protections with unknown water quality implications.
- Enlarged Shasta had no added benefit in such a wet year as 1983; except there was an additional 290 TAF at the end of the water year.
- Same for groundwater.

EWA suggestions:

Some borrowing power would benefit fish by allowing more protections. Otherwise b(2) provides all the necessary protections per the fish template.

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