

Exponent[®]

San Joaquin Tributaries Authority Testimony to SWRCB WaterFix Part 2 Proceedings

Exhibit SJTA-305

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Summary of Testimony

- Opinion 1: In below normal, dry and critical water years, very little of the San Joaquin River water that enters the Delta between February 1 and June 30 flows to San Francisco Bay as Delta outflow. Most San Joaquin River water that enters the Delta during this time period is either consumed within or diverted or exported from the Delta.
- Opinion 2: The WaterFix operations show that in dry and critical water years, a large fraction of the water exported from the Delta continues to be exported by the CVP/SWP pumps in the south Delta.

Methods

- DSM2 volumetric fingerprinting model runs conducted for existing conditions (EBC2) and scenario H4
- “Tagged” and tracked the fate of February 1-June 30 San Joaquin River inflows
- Tabulated existing DWR DSM2 volumetric fingerprinting results tracking San Joaquin River inflows for critical, dry, and below normal water years

Opinion 1

In below normal, dry and critical water years, very little of the San Joaquin River water that enters the Delta between February 1 and June 30 flows to San Francisco Bay as Delta outflow. Most San Joaquin River water that enters the Delta during this time period is either consumed within or diverted or exported from the Delta.

Figure 1a. Scenario H4 (1977, critical WY): Daily Mean Flow

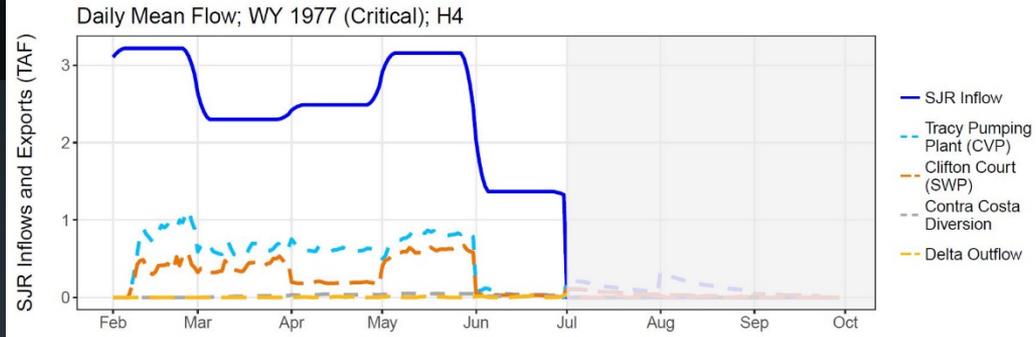


Figure 1b. Scenario H4 (1977, critical WY): Cumulative Flow

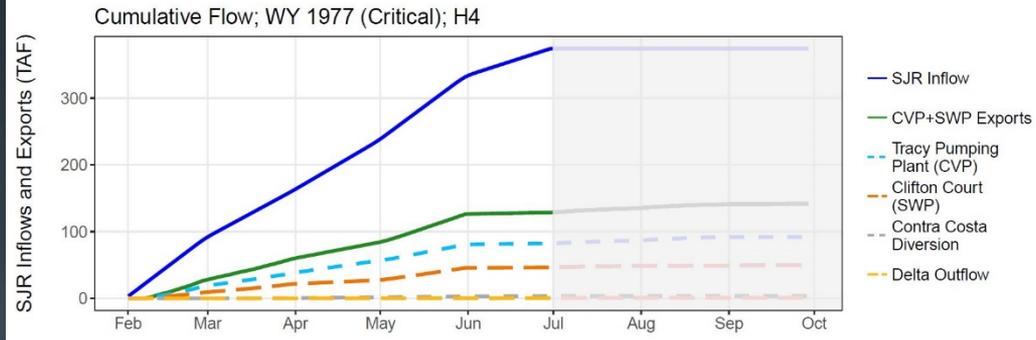


Figure 1c. Scenario H4 (1977, critical WY): Cumulative Percentage

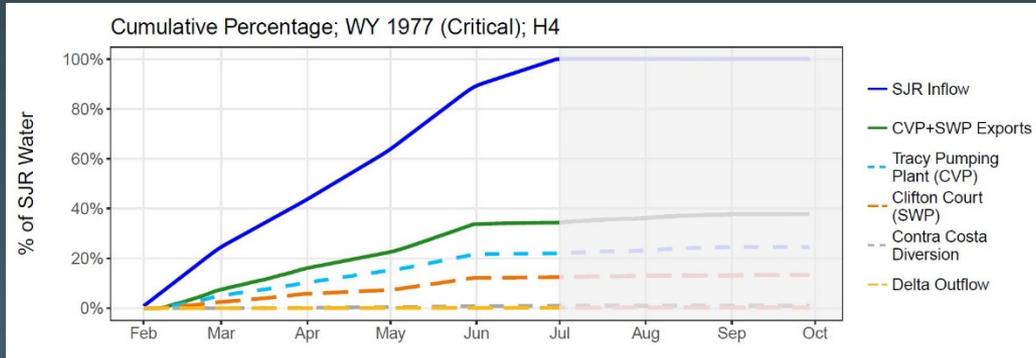


Figure 2a. Scenario H4 (1985, dry WY): Daily Mean Flow

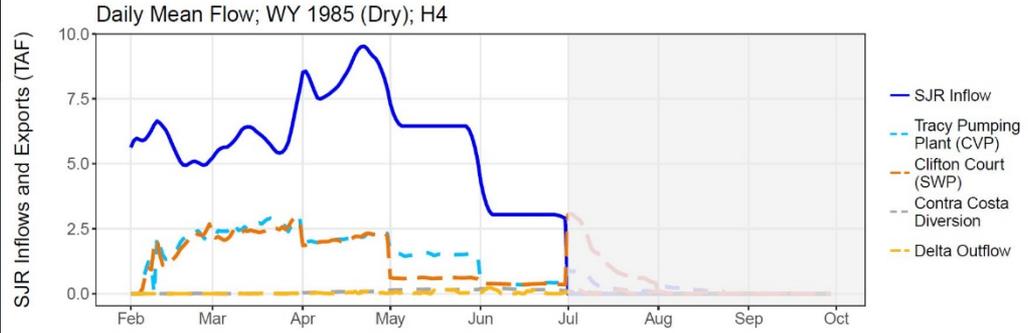


Figure 2b. Scenario H4 (1985, dry WY): Cumulative Flow

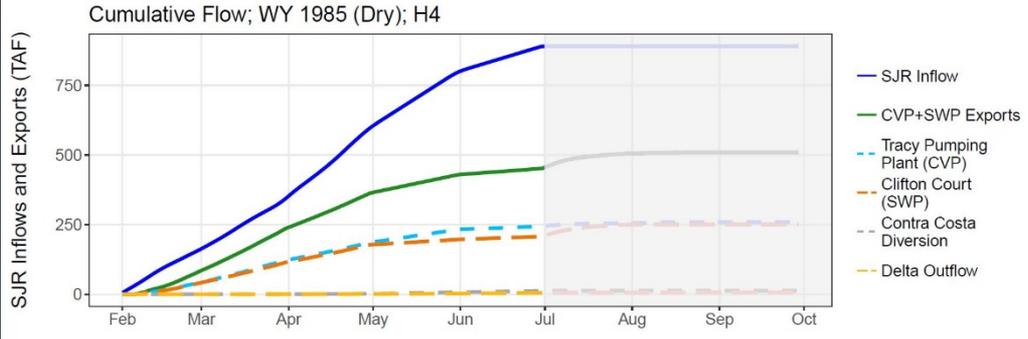


Figure 2c. Scenario H4 (1985, dry WY): Cumulative Percentage

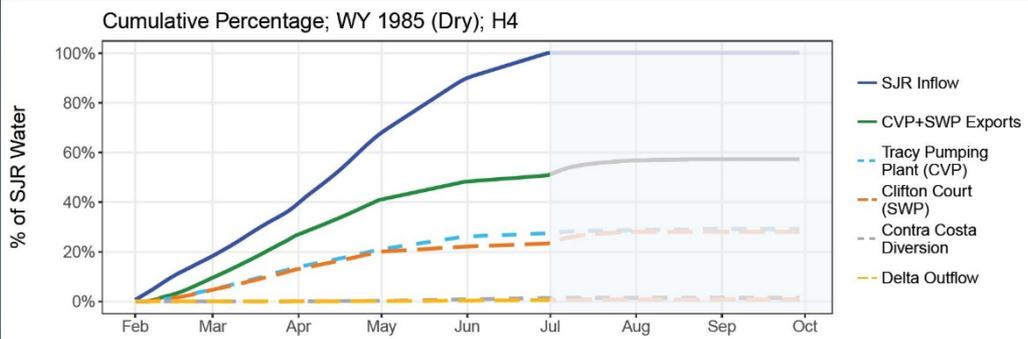


Figure 3a. Scenario H4 (1979 below normal WY): Daily Mean Flow

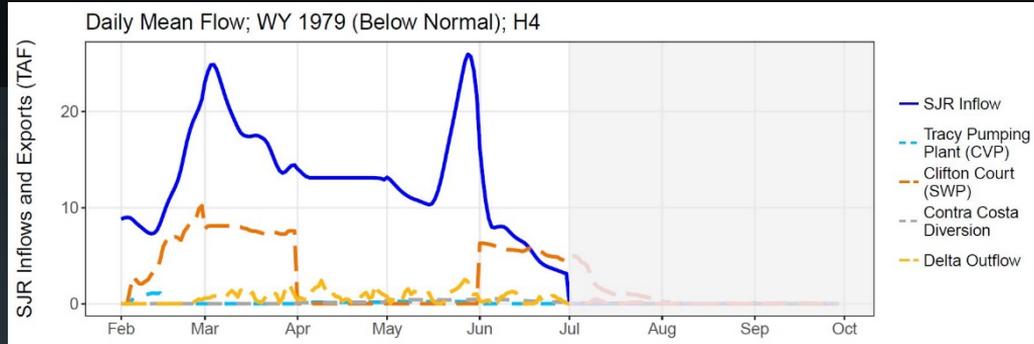


Figure 3b. Scenario H4 (1979 below normal WY): Cumulative Flow



Figure 3c. Scenario H4 (1979 below normal WY): Cumulative Percentage

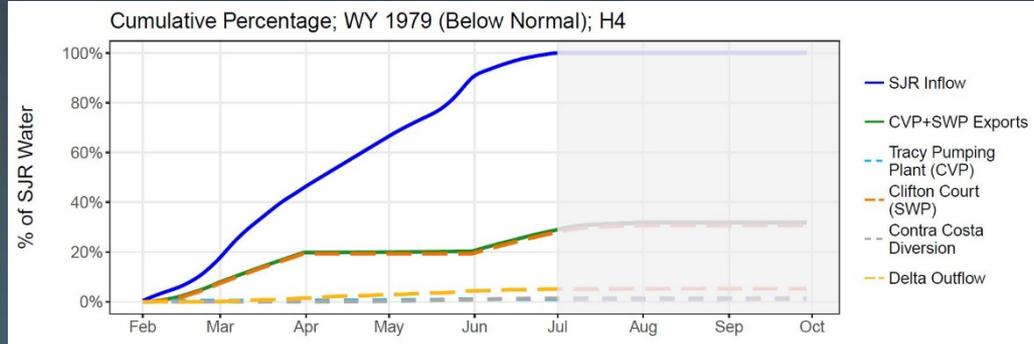


Table 1. Fate of February-June San Joaquin River inflows for WY 1977, WY 1985, and WY 1979

Water Year	Existing Conditions (EBC2): <u>Percent</u> of San Joaquin River water			H4 Scenario: <u>Percent</u> of San Joaquin River water		
	CVP	SWP	Delta Outflow	CVP	SWP	Delta Outflow
1977 (Critical)	39	15	0.1	25	13	0.3
1985 (Dry)	39	38	0.4	29	28	1
1979 (Below normal)	28	32	3.1	1	31	5.3

Figure 4. Annual volume of water exported by the CVP (Tracy Pumping Plant) and the volume of San Joaquin River that is exported by the CVP for existing conditions during critical, dry, and below normal water year types.

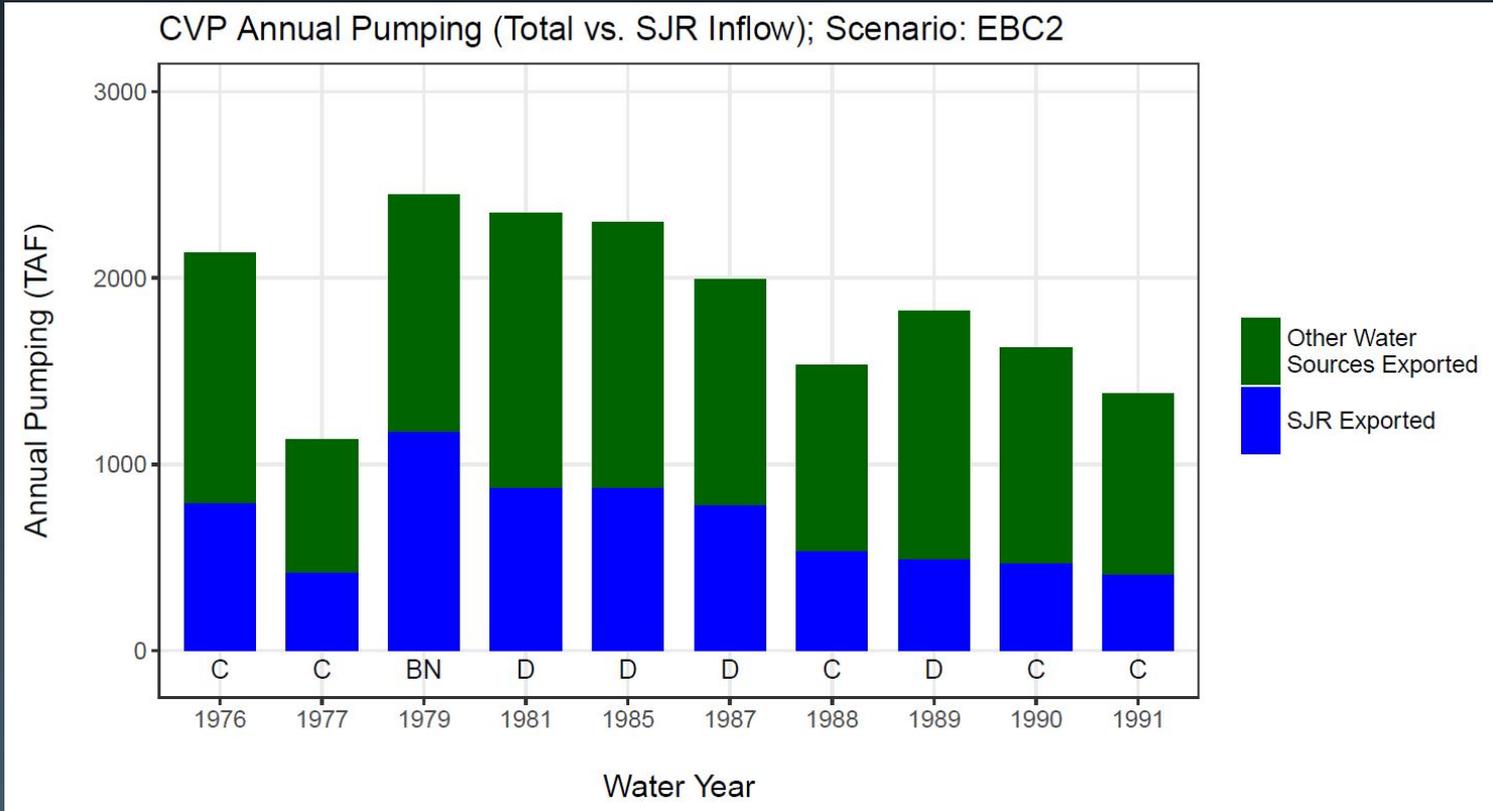
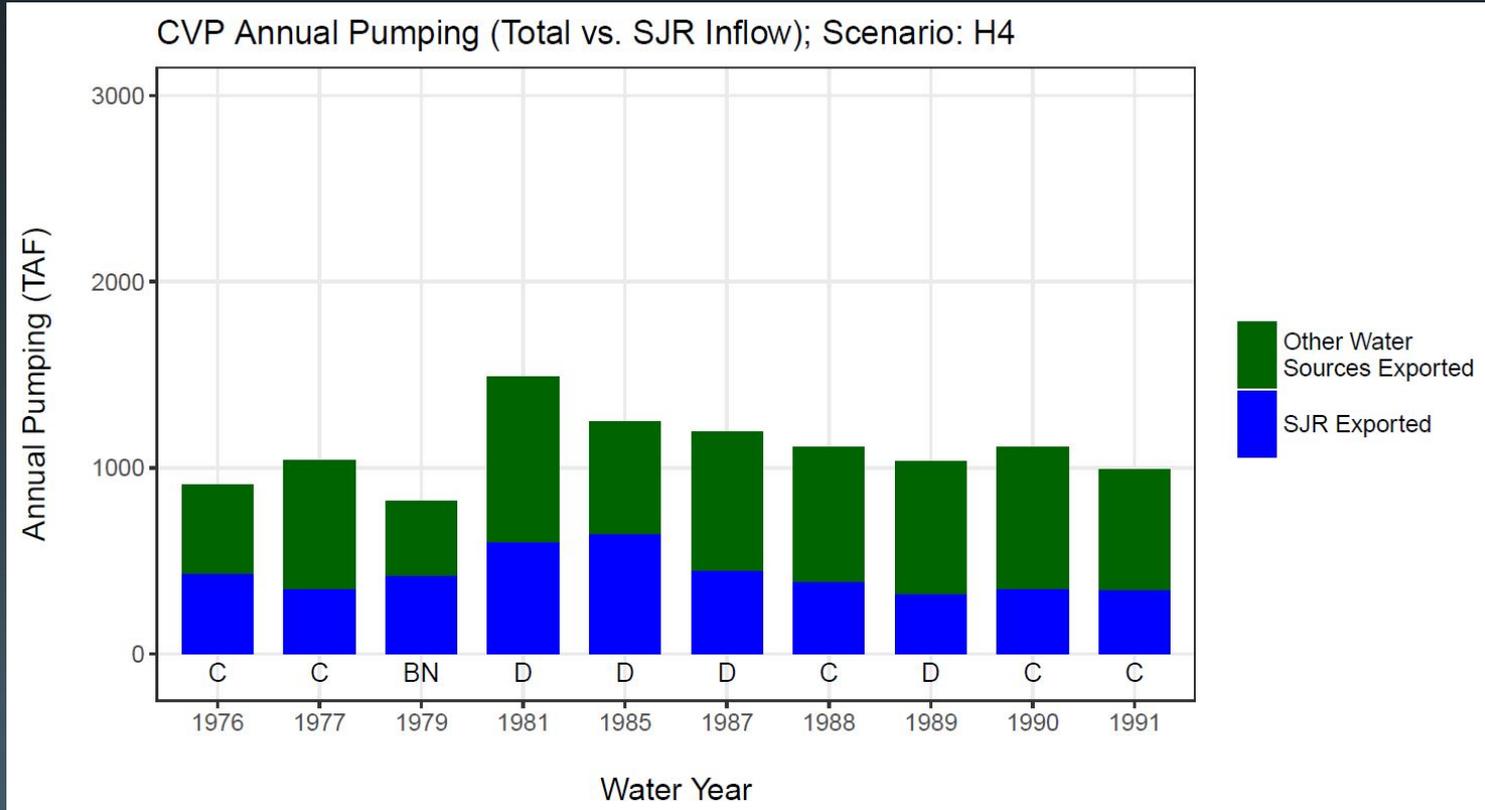
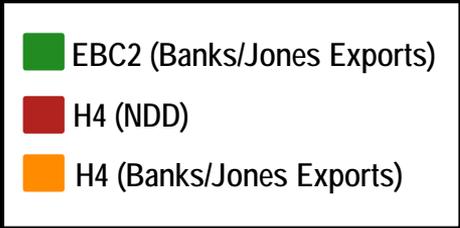


Figure 5. Annual volume of water exported by the CVP (Tracy Pumping Plant) and the volume of San Joaquin River that is exported by the CVP for scenario H4 during critical, dry, and below normal water years.



Opinion 2

The WaterFix operations show that in dry and critical water years, a large fraction of the water exported from the Delta continues to be exported by the CVP/SWP pumps in the south Delta.



Figures 6a and 6b. Simulated monthly average pumping totals (in cfs) during critical and dry water years under the existing condition scenario (EBC2) and scenario H4.

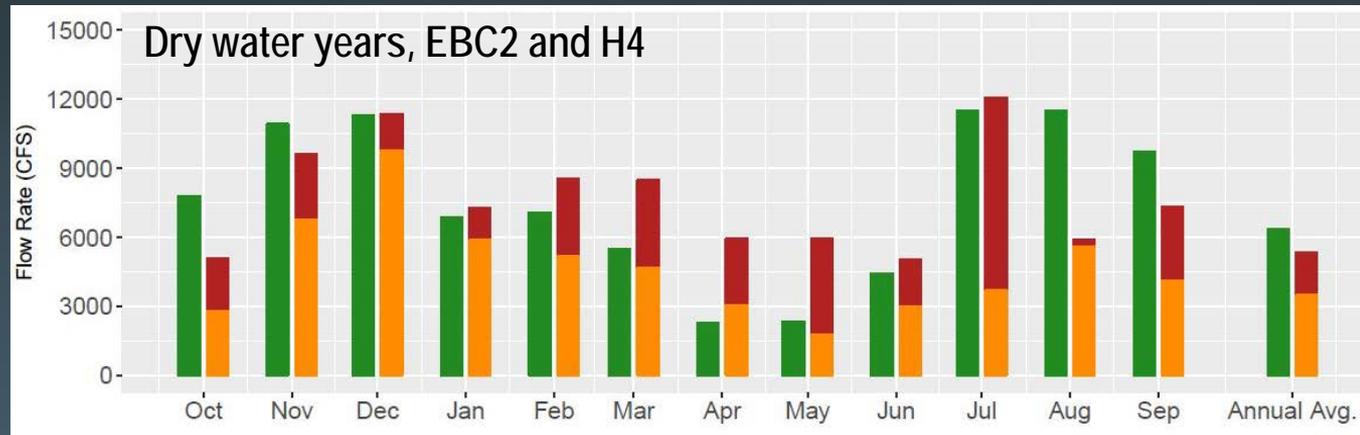
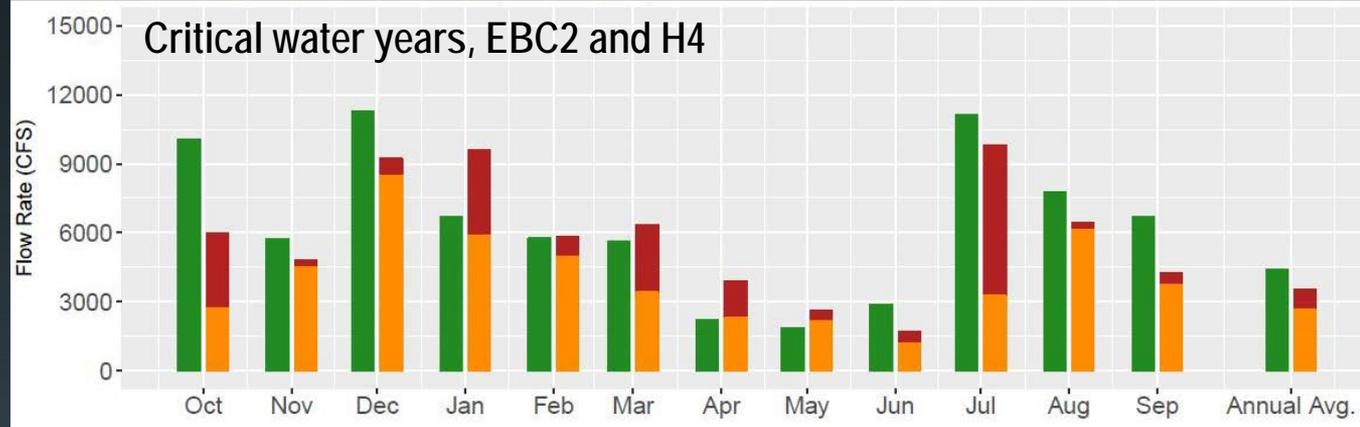
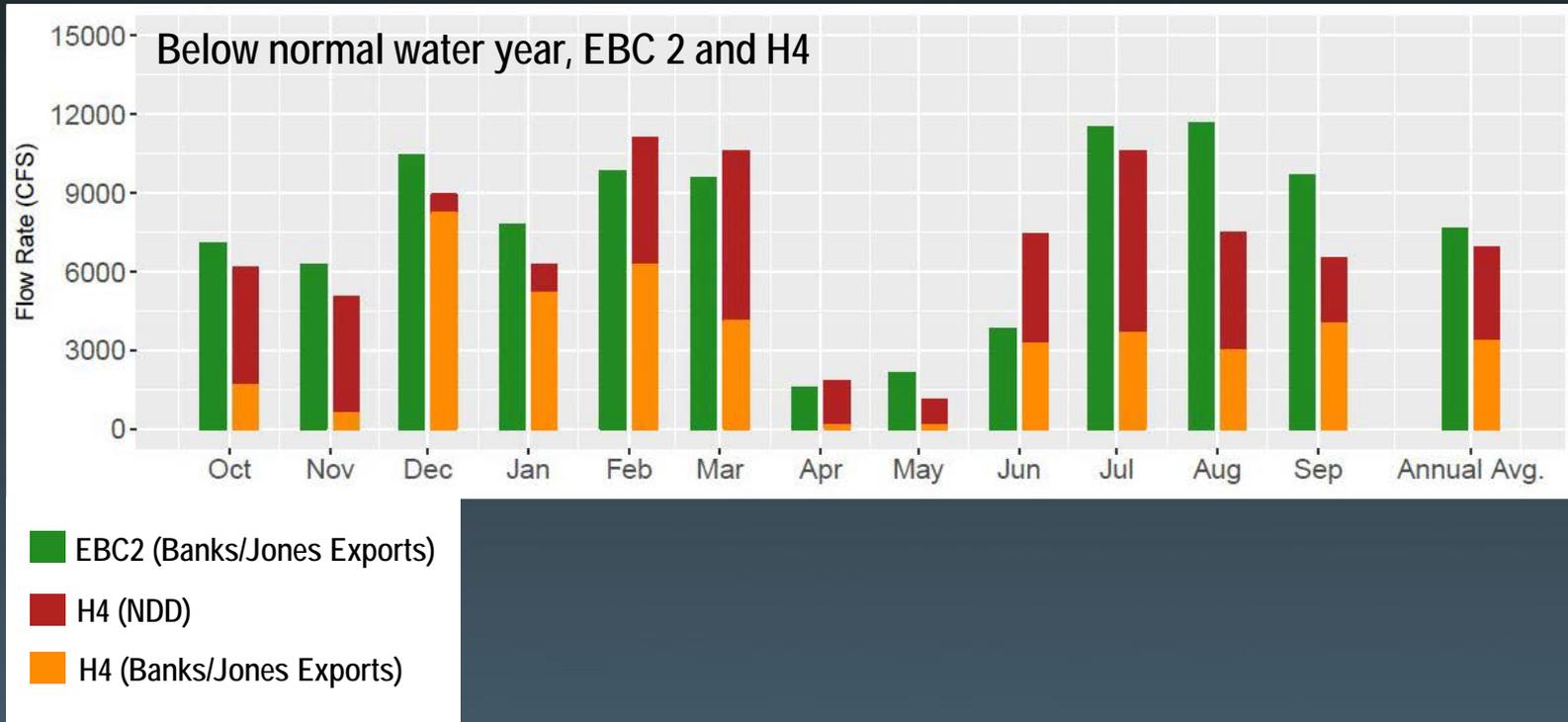


Figure 6c. Simulated average monthly pumping totals (in cfs) during 1979 (below normal water year) under the existing condition scenario (EBC2) and scenario H4.



End of Presentation

