

# **WATER SUPPLY IMPACTS**

## **Rebuttal Testimony of Ali Shahroody**

### **1. CALCULATION OF RELEASE REQUIREMENTS FOR CALTROUT'S "3A2" AND "3A2 ADJUSTED FOR DRY YEARS"**

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The Cachuma Contract Renewal EIR/EIS (1995) states that Alternative 3A2 involves operations of Lake Cachuma to provide the following flows in the downstream areas:

- 48 cfs February 15 to April 14, then
- 20 cfs to June 1, then
- 25 cfs for one week, then
- ramp releases to 10 cfs by June 30, then
- hold at 10 cfs to October 1, then
- 5 cfs for the rest of the year (until February 14).

The above flows are to be maintained at both San Lucas and Alisal Bridges under Alternative 3A2. CalTrout recommends Alternative 3A2 with a modification for dry years. The adjustment for dry years described in the written testimony of Mr. Jim Edmonston (Exhibit CT90, Appendix 1) as reducing the passage flows of 20-48 cfs to 5 cfs in the "dry years" which are defined as occurring 20% of the time. Figure 1-1 and Figure 1-2 show the flow requirements for "3A2" and "3A2" in dry years, respectively. In the written testimony of Mr. Edmonston, they are referred to as "3A2 Normal" and "3A2 Dry", respectively.

The average annual amounts of Project water needed to meet the "3A2 Normal" and "3A2 Dry" are estimated by CalTrout to be 7,878 and 3,766 acre-feet per year, respectively (Exhibit CT90). These estimates contain several errors and they are discussed below:

1. Conversions from cfs to acre-feet underestimate the required volume of water by using a factor of 1.9 instead of 1.9835. In addition, corrections were made for number of days for flow intervals and ramping for June.