

DRAFT
October 8, 1998

PRELIMINARY ASSESSMENT OF WATER SUPPLY BENEFITS OF NEW FACILITIES UNDER
CVPIA (B)(2) ACTIONS (NoName Group Studies)

An additional study with Madera Ranch Groundwater Bank has been completed. The assumptions for the study are discussed below.

Study 4C: Accord + Upstream AFRP Flows + AFRP Delta Actions + Joint Point of Diversion + ISDP + 400 cfs Intertie + Madera Ranch Groundwater Bank

The assumptions for the study are the same as previously completed Study 4A included in the August 20, 1998 package.

The assumptions for modeling the Madera Ranch Groundwater Water Bank have been revised as described below:

(This program is operated in conjunction with CVP system facilities located near the Mendota pool. Characteristics of this program are:

- Maximum storage: 390 TAF
- Initial storage in the bank assumed: 100 TAF
- Monthly recharge rate: 400 cfs (24 TAF/month)
- Monthly pumping rate: 200 cfs (12 TAF/month)

(The annual recharge (put) or pumping (take) decision within the model is linked to CVP south of Delta delivery levels.

(Recharge is triggered when annual deliveries to south of Delta water users is forecasted to be equal to or greater than 98% of the demand. Once this decision is made water for recharge can come from any source i.e. Delta surplus, CVP storage withdrawal, San Luis storage transfer etc. Recharge is allowed for five month period, November through March. If Shasta storage falls below user specified target storage this recharge activity is stopped for that month.

(Surplus water from the Chowchilla Bypass and James Bypass is used to recharge the bank whenever there is storage capacity available, regardless of the delivery level.

(Pumping decision for the year is triggered when south of Delta delivery capability is forecasted to be less than 96% of the demand. This pumping may result in higher delivery for the year or show up as a storage increase in the CVP system. Once pumping decision for the year is made, it is allowed for a 9-month period of March through November. If any given month Delta happens to be surplus and system has unused capacity this pumping decision is changed to recharge.

(Note that a fraction (25 % in this study) of Bank storage is added to system storage for the purpose of making CVP south of Delta delivery decision every year in the simulation process.

RESULTS

- Table 1 shows the comparison of the total system delivery of Studies 4C and 4 as compared to Study 3.
- Figure 1 shows the end-of-month storage for Madera Ranch Groundwater Bank.
- Figure 2 shows the annual recharge of Madera Ranch Groundwater Bank.
- Figure 3 shows the annual storage withdrawal (pumping) from Madera Ranch Groundwater Bank.