

**M. ANALYSIS OF EFFECTS ON THE ENVIRONMENTAL
WATER ACCOUNT (STUDY NO. 7)**

Impact of Monterey on the Environmental Water Account

As described in Section 7.3.1.2, the EWA provides resources to permit flexibility in Delta pumping to provide protection to the fish of the Bay-Delta estuary through environmentally beneficial changes in the operations of the SWP and CVP. These benefits occur by changing project pumping from the Delta, augmenting streamflows, and increasing Delta outflow at times to benefit fish.

The most common action of the EWA Agencies is to reduce pumping at times when fish are most sensitive to the impacts of Delta export pumping. The costs to the EWA program for reductions in pumping are computed as the difference between the permitted pumping rate that otherwise would have occurred and the reduced pumping rate agreed upon by the five EWA agencies at the Banks and C. W. “Bill” Jones pumps for the duration of the curtailment.

The impact of Monterey on EWA will depend on whether there is a higher level of pumping occurring at the Banks pumps as a result of greater water deliveries under Monterey Project conditions at the times that the EWA Agencies initiate pumping reductions at Banks. An impact on EWA can only occur at those times when Delta pumping would otherwise have been cut back to just meet project demands and all SWP storage was full and EWA debt was otherwise paid.

There can be two types of impact during these periods. The first type of impact is an increased cost to EWA because of a higher base pumping level at the Banks pumps during an EWA-initiated pumping curtailment. The second type of impact is a deferral or elimination of EWA’s ability to use Banks capacity to offset prior debt from earlier pumping curtailments. Both types of impact leave EWA with a greater water debt to offset in the future, either through added water purchases or through operational assets.

Figure M-1 provides a graphical guide to determining the times when there could be an impact on the EWA as a result of the Monterey Amendment and other alternatives.

During those times when there could be an impact, the amount of the impact would depend on the duration of an EWA-initiated pumping curtailment (if in effect), the reduced pumping level targeted by the EWA agencies, the distribution of the reduction between the Banks and Jones pumps, contractor requests for deliveries, the baseline Banks pumping rate under the No-Project conditions, the Banks pumping rate under the respective alternatives, and the potential ability for EWA to offset the costs by using operational flexibility at Banks after San Luis Reservoir has been filled and all contractor demands are met.

The complexity of these variables makes estimates of impacts on EWA highly speculative. However, to estimate the frequency with which they might occur, the frequency and duration of the times when there could be an impact can be estimated by review of the historical record from January 1996-December 2004. As noted elsewhere,

there were 12 months during this nine-year period when there would likely have been a higher level of pumping occurring at the Banks pumps as a result of greater water deliveries under Monterey Project conditions. Those months are tabulated below together with a notation of the likelihood that EWA pumping curtailments might have occurred, the maximum estimated pumping difference between the baseline pumping and the Monterey Project pumping, and the likelihood that EWA would repay the cost of the curtailment in the same season using operational flexibility.

In some of those 12 months, EWA would have been able to use the operational flexibility at Banks to pump added water to refill San Luis Reservoir before the start of VAMP and repay the added debt incurred during the earlier fish action. This exercise of operational flexibility, granted in the CALFED ROD, would be dependent on whether the additional pumping would be compatible with fish conditions in the Delta and on the availability of sufficient time prior to the start of VAMP to offset the EWA debt.

An estimate of possible EWA costs is also presented in Table M-1 assuming that all of the curtailment was experienced at Banks and none at Jones; the maximum duration of the EWA action would be two weeks; the maximum daily EWA cost would be 2,000 cfs (about 4,000 acre-feet per day, or 56,000 acre-feet maximum in any month); and that the EWA would use operational flexibility to repay debt whenever the action occurred before March. When the action occurred in March, the potential for repayment exists in the first two weeks of April as well as the last part of March, depending on the exact dates of the action; however, the table notes that such while repayment may be possible, no repayment of the debt is assumed, thereby maintaining a conservative analysis.

Table M-1
Estimated Maximum Impact of Proposed Project on EWA Water Costs

Month/Year of Banks Changes	Banks Diversion Change	EWA Action Likelihood?	Was There an EWA Action?	Initial EWA Impact	Can EWA Offset Any Impact?	Maximum EWA Impact
November 1996	53,000	No	N/A	0	N/A	0
December 1996	2,000	Unlikely	N/A	0	Yes	0
January 1998	110,000	Possible	N/A	56,000	Yes	0
November 1998	40,000	No	N/A	0	N/A	0
December 1998	13,000	Unlikely	N/A	0	Yes	0
January 1999	2,000	Possible	N/A	2,000	Yes	0
February 1999	7,000	Possible	N/A	7,000	Yes	0
March 1999	18,000	Possible	N/A	18,000	Possibly	18,000

Month/Year of Banks Changes	Banks Diversion Change	EWA Action Likelihood?	Was There an EWA Action?	Initial EWA Impact	Can EWA Offset Any Impact?	Maximum EWA Impact
February 2000	119,000	Possible	N/A	56,000	Yes	0
March 2000	13,000	Possible	N/A	13,000	Possibly	13,000
March 2001	46,000	Possible	Yes	46,000	No	46,000
March 2004	30,000	Possible	No	0	Possibly	0

The EWA began operation in December 2000. It should be noted that there was only one fish action (March 2001) that coincided with a time when there could have been an impact of the Monterey Project on EWA from 2000-2004. Whether there was an actual impact on EWA costs in March 2001 depends on the exact timing and duration of the fish action relative to the exact period when the added pumping was occurring. Those variables have not been determined, as the analysis has been conducted using a monthly time step. However, in the 2001 historical case, EWA was unable to use operational flexibility at that time to offset accumulated EWA debt in San Luis Reservoir of 203,000 acre-feet for fish actions from January through March 2001 because pumping curtailments for fish were continued into April.

As noted earlier, during those times when Banks pumping continues at a higher rate under Monterey (such as the twelve months identified earlier), the ability of EWA to use its operational flexibility at Banks to reduce previously accumulated debt in San Luis Reservoir may be reduced. Such events would effectively increase EWA's debt and require greater purchases of water to offset EWA debt. The events in 2001 are illustrative of that type of occurrence. The impact of such events is not possible to estimate absent a daily analysis of the historical period, although the estimates for 2001 above include that aspect of the potential impact.

Based on the above analysis, there could be an impact on EWA costs in roughly one-third of years, with the magnitude depending on a range of factors that are not readily predictable. The average impact in the three years out of nine when it is postulated to occur would be about 26,000 acre-feet. The EWA has averaged about 250,000 acre-feet of pumping curtailments at Banks and Jones combined from 2001-2006. Thus the impact of the added burden on EWA from the times when Banks is pumping at its full permitted rate for a greater amount of time with the Monterey Project than it would pump under No-Project conditions would impact overall EWA actions by about 10% in each of the years when such an impact would occur. As noted above, that impact is postulated to occur in one-third of the years.

The future of the EWA is currently under evaluation in context with the decline in pelagic fish species in the Delta. The EWA Program has allowed a relatively small shift in project pumping to benefit fish (an average of 250,000 acre-feet annually out of as much as 4,500,000 acre-feet pumped at Banks and 3,000,000 acre-feet pumped at Jones). Part of the scientific investigation currently underway is intended to determine causes of

the decline and indicate the relative magnitude and type of resources needed to address the decline. The ultimate role of the EWA or a successor program is not known at this time.

State funding for the EWA is available through 2008 with no state revenue sources identified beyond that time. The CEQA and NEPA coverage for the EWA currently covers the program through December 31, 2007. A supplement to the EWA EIS/EIR is under preparation to allow extension of the current program until a new long-term EWA program is developed and CEQA/NEPA coverage is in place; an equivalent program for fish protection is developed as part of the Bay-Delta Conservation Planning effort, and its CEQA/NEPA coverage is in place; or the EWA program is terminated.

From the federal perspective, Congress has authorized the EWA Program through 2010, and has authorized \$90 million for the program. Annual appropriations are required to continue the program operations.

Thus the continuation of the EWA Program as of the time that this EIR is adopted is uncertain, and the impacts outlined above are estimates based on limited data.

Mitigation Measures

The impacts on EWA can be offset by providing offsetting assets to the EWA or a successor program.

Figure M-1
Evaluation of Potential EWA Impact of Monterey

