

**EXHIBIT 14**

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MEMORANDUM

TO: Chris Hayashi  
FROM: Daniel B. Steiner *DS*  
SUBJECT: Impacts Due to Intervening Diversions  
DATE: September 26, 1994

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At your request, I have developed Table 1 to illustrate the hydrologic and water supply impacts that may be caused by an additional depletion (diversion) below Hetch Hetchy Water and Power Project facilities, such as the proposed diversion by Fahey.

The upper block of data in Table 1 illustrates an example of the status quo. Four different days of hydrologic conditions are illustrated. For example, Day 1 illustrates a day when the unimpaired flow (2,300 cfs) is less than the maximum rights and entitlements of the Districts (2,416 cfs). On this day the Districts are entitled to the full amount of unimpaired flow (2,300 cfs). However, San Francisco has the right to divert the unimpaired flow as long as it has a "positive" balance in its New Don Pedro Water Bank account. The amount of water that is "debited" or "credited" to the account is the difference between the Districts' rights and entitlements and the inflow to New Don Pedro Reservoir. In this instance, 1,000 cfs (inflow to New Don Pedro Reservoir) minus 2,300 cfs (the Districts' rights and entitlements). This negative difference (-1,300 cfs, which equals 2,579 acre-feet) is debited from San Francisco's Water Bank Account balance.

Day 2 illustrates a day when the unimpaired flow is greater than the Districts' maximum rights and entitlements. The credit or debit to the Water Bank Account is always equal to the difference between the Districts' rights and entitlements and the inflow to New Don Pedro Reservoir, and in this instance the Districts' rights and entitlements are capped to 2,416 cfs. Since inflow is less than the Districts' rights and entitlements, a debit of 1,416 cfs (2,809 acre-feet) occurs to San Francisco's Water Bank Account balance.

Day 3 illustrates unimpaired flow conditions the same as Day 1; however, San Francisco causes inflow to New Don Pedro Reservoir to equal 2,500 cfs. The rights and entitlements of each of the entities remain the same as Day 1; however, San Francisco builds a 200 cfs credit (397 acre-feet) in the Water Bank Account since inflow is greater than the Districts' rights and entitlements.

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Day 4 illustrates unimpaired flow conditions the same as Day 2, with inflow to New Don Pedro Reservoir exceeding the Districts' rights and entitlements. Again, San Francisco builds a credit (84 cfs, which equals 167 acre-feet) to the Water Bank Account balance.

The lower block of data in Table 1 illustrates the effect of a diversion of water above New Don Pedro Reservoir. In this example, a diversion of 20 cfs is assumed. The effect of the 20 cfs diversion first appears as a reduction in New Don Pedro Reservoir inflow. Unimpaired runoff and the rights and entitlements of the Districts and San Francisco remain the same; however, since San Francisco's credit or debit to the Water Bank Account is the difference between the Districts' rights and entitlements and inflow to New Don Pedro Reservoir, a reduction in inflow will result in either a lesser credit or a greater debit to the Water Bank Account balance. In both circumstances, San Francisco's water supply is depleted.

The above described examples illustrate that the proposed diversion by Fahey would deplete water from the account of San Francisco in either the "advance releases" (credit) circumstance or the debit circumstance. Therefore, Fahey's proposal to replace only inflow which is depleted during the period when "advance releases" occurs does not fully mitigate his depletions during other periods of time when his diversion will also have an effect on the water supply of San Francisco.

Attachment

**Table 1**  
**Example of Water Bank Accounting**

**Without Intervening Diversion**

	Unimpaired Runoff (cfs)	Districts' Cap (cfs)	Districts' Rights & Entitlements (cfs)	Water Available to San Francisco (cfs)	Inflow to New Don Pedro Reservoir (cfs)	Credit or (Debit) to SF Water Bank (cfs)	Water Bank Balance (acre-feet)
Day 1	2300	2416	2300	0	1000	(1,300)	100,000
Day 2	2500	2416	2416	84	1000	(1,416)	97,421
Day 3	2300	2416	2300	0	2500	200	94,613
Day 4	2500	2416	2416	84	2500	84	95,010
							95,176

**With Intervening Diversion of 20 Cubic Feet Per Second**

	Unimpaired Runoff (cfs)	Districts' Cap (cfs)	Districts' Rights & Entitlements (cfs)	Water Available to San Francisco (cfs)	Inflow to New Don Pedro Reservoir (cfs)	Credit or (Debit) to SF Water Bank (cfs)	Water Bank Balance (acre-feet)
Day 1	2300	2416	2300	0	980	(1,320)	100,000
Day 2	2500	2416	2416	84	980	(1,436)	97,382
Day 3	2300	2416	2300	0	2480	180	94,534
Day 4	2500	2416	2416	84	2480	64	94,891
							95,016