

COLORADO RIVER INDIAN RESERVATION, ARIZ.

Year	Acreage irrigated	Measured diversions	1,000 acre-feet		
			Measured return flows	Estimated consumptive use ¹	Water unaccounted for ²
1957-----	31,041	320.9	159.1	124.2	37.6
1958-----	31,381	367.5	208.8	125.5	33.2
1959-----	30,471	378.0	212.5	121.9	43.6
1960-----	30,616	412.8	227.4	122.5	62.9
1961-----	30,755	438.6	267.7	123.0	47.9
1962-----	31,710	466.8	288.6	126.8	51.4
1963-----	31,008	484.5	298.5	124.0	62.0
1964-----	31,998	455.7	275.7	128.0	52.0
1965-----	31,940	414.6	253.1	127.8	33.7
1966-----	36,919	461.7	259.8	147.7	54.2

¹ Using value of 4 acre-feet for acre irrigated.

² Unmeasured return flow plus phreatophyte losses.

For the Cocopah Indian Reservation in Arizona and the Yuma Indian Reservation in California the diversions and return flows are encompassed in the records for the Yuma Project which include both Indian and non-Indian lands. For the past three years the diversions by these reservations have been determined to be as follows:

[In thousands of acre-feet]

Year	Diversions	
	Cocopah, Ariz.	Yuma, Calif.
1964-----	2.9	43.5
1965-----	2.7	39.9
1966-----	3.7	47.3

Mr. HOSMER. Mr. Secretary, late in your statement, around page 24, you alleged that with the existing system of large storage reservoirs, there is no utilizable water from the Colorado River escaping to the sea. Early in the paper, around page 5, you said even during the earlier years, there will be dry periods when low river flow will decrease pumping requirements with the CAP.

I am wondering in the context of all the storage you have on the river, why the variation in the water supply could not be handled on the basis of storage regulations so you pump the same amount of water in CAP each year?

Mr. DOMINY. May we have that chart that shows the annual fluctuations of the Colorado River? If we could operate in terms of averages over a 62-year period of hydrology and assume we would have that average at any given time, then we could assume a constant even flow in the aqueduct. Unfortunately, you can see the wide disparity on an annual basis of the flows of this river. We talk about the droughts since the thirties on the Colorado River, but, as you can see, even there we have years that are well above the median.

The high years are not grouped in consecutive periods. That is what is needed to fill the big reservoirs to provide carryover storage.

Mr. HOSMER. In short, the annual variations may be so great as to—

Mr. DOMINY. That is right, the reservoirs have to be designed for long cyclical periods of drought.

Mr. HOSMER. I understand in connection with the sizing of the CAP at 2,500 cubic feet per second, there was a considered need in some