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Decision No. 92604

JAN 21 1981

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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of)
CALIFORNIA WATER SERVICE COMPANY, a)
corporation, for an order authorizing)
it to increase rates charged for water)
service in the Bakersfield District.)

Application No. 59660
(Filed May 16, 1980)

McCutchen, Doyle, Brown and Enersen, by A. Crawford
Greene, Attorney at Law, for applicant.
Robert Cagen, Attorney at Law, Dana Gardner, and
Mendi Kadpour, for the Commission staff.

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O P I N I O N

Statement of Facts

California Water Service Company (Cal-Water), a California corporation, with gross operating revenues in 1979 of approximately \$54,000,000, is owned by 7,700 shareholders. It has \$231,000,000 invested in utility plant (including plant under construction). Employing 495 persons statewide, it is engaged in the business of supplying and distributing water for domestic and industrial purposes to 305,000 customers in communities within the State of California.

Operating through 20 local districts, Cal-Water maintains its principal place of business in the city of San Jose. From there it provides centralized billing, accounting, engineering, and water quality control functions to its respective local districts. A central meter repair facility is located in the city of Stockton. Cal-Water's operating districts are not integrated one with another, and except for allocation of General Office common expenses and

rate base to the respective districts, the revenues and expenses of each district are not affected by operations in the other districts. For ratemaking purposes, therefore, each district is considered a distinct, separate entity, and it is the responsibility of this Commission to fix reasonable rates to be applicable to each district (Section 728 of the Public Utilities Code). Rates are reasonable when they provide sufficient revenues to cover the total costs (such as operating expenses, depreciation charges, taxes, and return on investment) properly incurred in furnishing the required service.

Asserting a necessity to offset increases in its operating expenses, rate base, and cost of money, on May 16, 1980 Cal-Water filed separate applications for six of its districts, including the instant application for the Bakersfield District, to obtain authority to increase its rates. In order to minimize the adverse effects of anticipated operational and financial attrition upon the company, applicant proposed annual step increases over the next three-year period. As requested by Cal-Water, these step increases would increase annual revenues (over those in effect at the time this application was filed) in the Bakersfield District by \$1,454,000 (19.0 percent) in 1981, and by additional amounts each year of \$331,600 (3.6 percent) in 1982, and \$339,100 (3.5 percent) in 1983. (However, during the subsequent hearing on this matter, staff called the Commission's attention to the fact that applicant's expenses for purchased power and water would be substantially increased in the test years and beyond as a consequence of FG&E's April 29, 1980 rate increase. This increase occurred after filing of the Notice of Intent but before filing of the application in this matter. Applicant had filed an advice letter to offset the increase but staff preferred that appropriate compensating revenue for this additional expense be

provided in our decision in this matter instead. Staff estimates of the additional costs for 1981 and 1982 are \$382,700 and \$390,800 respectively.)

Pursuant to provisions of the Commission's "Regulatory Lag Plan" (adopted by Commission Resolution No. M-4705 dated April 24, 1979), and following bill insert notice mailed to each of the utility's customers in the district, an informal public meeting was conducted by the Commission staff in the Council Chambers at the Bakersfield City Hall at 7:30 p.m. on May 29, 1980. Eight customers attended. No service complaints were expressed. The Commission received three letters protesting the proposed increases; one noted that conservation had merely resulted in demands for higher rates to replace revenue, and another urged connection fees for new developments.

In that they contained common issues relating to corporate General Office expenses, corporate financing and rate of return on common equity, the six applications were consolidated for public hearing, and after due notice public hearings were held in San Francisco on September 15, 16, 17, 19, and 22, 1980 before Administrative Law Judge John B. Weiss (ALJ). None of the applicant's Bakersfield customers attended any of the hearings. At the outset of the hearing on September 15, 1980 applicant presented evidence of compliance with the requirements for notice, service, and publication as set forth in the Commission's Rules of Practice and Procedure relative to this class of application. During the public hearings following, applicant presented testimony and exhibits through its president, three vice presidents, and its assistant chief engineer; and the staff of the Commission presented testimony and exhibits through a project engineer, a rate of return research analyst, and three utility engineers. The matter was submitted at close of hearing September 22, 1980 with provision for an October 14, 1980 filing of concurrent closing briefs.

Discussion

Service Territory, System and Service Quality

Applicant's Bakersfield District comprises most of the incorporated city of Bakersfield as well as adjacent unincorporated areas of Kern County. The utility also maintains and operates the city's water system under contract. The elevation of the service territory varies between 365 to 850 feet. Most of the water produced by the district is obtained from 1 leased and 137 company-owned wells, with the balance, approximately 28 percent in 1979, being purchased from the Kern County Water Agency.

Most of the wells are sited in the flat, lowest elevation portion of the district. All well pumps are automatically controlled and electrically operated, discharging directly into the 597.7 miles of interconnected distribution system and into storage. Apart from the flat, lowest elevation city area, there are 12 separate pressure zones requiring the use of 53 booster pumps to provide service in the adjoining hilly areas. The company maintains 1 elevated tank, 1 earth-covered, concrete-lined reservoir, and 39 surface tanks, with a total storage capacity of 33,457,000 gallons. Ninety percent of this storage capacity is located in the upper areas of the system.

The utility currently is engaged in installing a supervisory control and data acquisition system (SCADA) with design capability of monitoring its 140 individual sites by means of up to 256 terminals. Ultimately SCADA will electronically forward data to the utility's Bakersfield central office concerning operation of the entire system (including information on tank levels, system pressures, flow meter readings, and the status of pumps). It will also maintain chronological logs and prepare summary reports.

During 1979 the applicant logged 457 complaints from customers. There were also 131 during the first four months of 1980.

The matters complained of included water quality, low pressure, and leaks. According to our staff, such complaints were investigated and resolved by the utility within a reasonable time after notification. Judging from the lack of response on this matter to the instant application, it would appear that service is generally satisfactory in this district.

Conservation

The applicant presented evidence of its continuing efforts to promote conservation. Responsibility has been delegated to all district managers to speak to schools and to civic organizations on the subject. In addition the district continues to maintain a conservation office display and to offer free water-saving kits, as well as informational brochures. Apart from bill inserts featuring conservation messages the Company provides billing information to enable consumers to compare current usage with usage for a previous year comparable billing period. In the interest of power conservation the utility has also instituted a pump-efficiency testing program, scheduling those pumps found deficient for maintenance. It has furnished the staff with data which show that the Bakersfield District pumps are within or above the fair range established in Decision No. 88466 dated February 7, 1978 in Case No. 10114. One of the benefits anticipated from the installation of SCADA is acquisition of an ability to utilize pumps in a manner calculated to take best advantage of PG&E's time-of-use rate schedules.

How effective current conservation efforts are in this district perhaps may be reflected by the fact that sales in 1979 in Bakersfield had returned to pre-drought levels. The nonspecific generalized statements by the utility's witness relative to current conservation efforts in this district tend to reinforce the impression gained by our ALJ that the company's local conservation efforts, unlike those in some other districts, reflect a modestly "safe" level of effort, but one somewhat short of an aggressively active interest.

Accordingly we would urge that management pump renewed vigor into current implementation of this vital program.

Present and Proposed Rates

The Bakersfield District of Cal-Water in 1979 served an average of 9,897 general metered services, 34,266 residential flat rate services, and 274 private fire protection services. The last general rate increase for this district was authorized by Decision No. 85847 dated May 18, 1976 in Application No. 55053. The present rates, reflecting interim offset increases and other adjustments, became effective on April 15, 1980 by Resolution No. W-2624. By the instant application Cal-Water proposes to increase general metered and residential flat rate service rates. A comparison of present and proposed charges follows for: (1) an average commercial customer with a 3/8 x 3/4-inch meter using 4,800 cu.ft. of water per month; (2) an average industrial customer with a 4-inch meter using 470 Ccf of water per month; and (3) an average residential flat rate customer with premises falling within the 6,001 to 10,000 sq.ft. area and a service connection not exceeding 1 inch.

TABLE A

Cal-Water Service Co. - Bakersfield District
Comparison Of Average Monthly Charges

<u>Class</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
<u>Average Commercial Customer</u>			
Present Monthly Charge	\$ 14.22	\$ 14.22	\$ 14.22
Proposed by Applicant	16.50	17.12	17.68
Increase over Present:			
Amount	2.28	2.90	3.46
Percent	16.0%	20.4%	24.3%
<u>Average Industrial Customer</u>			
Present Monthly Charge	\$130.92	\$130.92	\$130.92
Proposed by Applicant	156.79	162.93	168.81
Increase over Present:			
Amount	25.87	32.01	37.89
Percent	19.8%	24.5%	28.9%
<u>Average Flat Rate Customer</u>			
Present Monthly Charge	\$ 11.59	\$ 11.59	\$ 11.59
Proposed by Applicant	13.80	14.25	14.75
Increase over Present:			
Amount	2.21	2.66	3.16
Percent	19.1%	23.0%	27.3%

Results of Operations

As part of its application Cal-Water submitted summaries of operating revenues and expenses incurred in the Bakersfield District for the 5-year period 1975 through 1979. From these it projected operating revenue and expense estimates for the test years at issue, using the latest known purchased water, purchased power, and

groundwater extraction rates. The staff analyzed these projections, examining both district and general office operations of the applicant. While in the main conceding that Cal-Water's estimates were reasonable, the staff differed on some items. After discussion with staff, applicant adopted some of the changes proposed by staff. When the hearings began the issues still unresolved centered on the impact upon operating results of differing forecasts of future sales to certain customer classes; proposed transfer to Plant Held For Future Use of one well site; deletion of the planned purchase of another well site from the 1980 budget; elimination of approximately \$15,000 each year in nonspecific expenditures from the 1980, 1981, and 1982 construction budgets; and deletion of the \$150,000 proposed in the 1982 budget to complete Phase III of SCADA.

In the interest of expediting the hearings, applicant then proposed to adopt those changes advocated by the staff where the financial impact would not be particularly significant. It did this even though it made it clear that it did not agree that the staff-proposed deletions were reasonable. However, on two issues, applicant concluded that it could not yield. These issues were: (1) the estimates of operating revenues to be derived from the differing estimates of future sales to industrial, public authority, and other metered sales, and (2) whether Phase III of SCADA, proposed by applicant to be included in its 1982 budget, should be included, or as proposed by staff, deleted.

The results of this distillation of issues are graphically shown in the converging comparisons set up, step by step, in the two pages of Table B below, covering test years 1981 and 1982. It should be noted that the Operating Expenses set forth therein include the cost of an increase for purchased power from PG&E made effective

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April 29, 1980. After filing the instant application, on August 14, 1980 Cal-Water filed Advice Letter No. 747 seeking authority to increase Bakersfield District water rates by \$343,200 annually to offset the increased cost of purchased power from PG&E. Cal-Water's filing was returned rejected by the staff on October 17, 1980. At the hearing Cal-Water was told that the Commission would allow an appropriate amount of revenue to compensate for this additional expense in the instant decision. This will be provided for in the rates we authorize.

Cal Water Service Co. - 3 Kingsfield District - Test Years 1/31
Comparison - Applicant And Staff's Summary Of Earnings
(Dollars In Thousands)

	Applicant's Estimates			Co. Adjusted Estimate	All Issue	Staff Adjusted Estimate	Staff Estimates	
	Original Co.	Co. Adjustments 4/27/80 P&E	Other Co.				Staff Adjustments 4/27/80 P&E	Original Staff
Present Rates								
Operating Revenues	\$ 7,637.6	\$ -	\$ 31.5	\$ 7,669.1	\$ 31.7	\$ 7,701.0	\$ -	\$ 7,701.0
Operating Expenses								
Purchased Power	1,513.3	376.7	17.7	1,907.7	12.3	1,920.0	382.7	1,537.3
Purchased Water	561.0	-	74.0	635.0	-	635.0	74.0	561.0
Groundwater Charges	818.9	-	9.8	828.7	6.8	835.5	-	835.5
Purchased Chemicals	2.0	-	(0.2)	1.8	0.2	2.0	-	2.0
Payroll - District	74.5	-	-	74.5	-	74.5	-	74.5
Other O&M	667.9	-	-	667.9	-	667.9	-	667.9
Other Adj & Misc.	(164.3)	-	-	(164.3)	-	(164.3)	-	(164.3)
All Valores Taxes - District	254.7	-	-	254.7	-	254.7	-	254.7
Payroll Taxes - District	71.0	-	-	71.0	-	71.0	-	71.0
Depreciation	727.1	-	(2.2)	724.9	-	724.9	-	724.9
All Valores Taxes - G.O.	3.7	-	-	3.7	-	3.7	-	3.7
Payroll Taxes - G.O.	17.0	-	-	17.0	-	17.0	-	17.0
Other Prorates - G.O.	664.3	-	(8.7)	655.6	-	655.6	-	655.6
Del. Acct. - Adj.	(111.7)	111.7	-	-	-	-	-	-
Subtotal	5,971.4	484.4	91.4	6,557.2	17.3	6,574.5	456.7	6,132.8
Uncollectibles	38.6	-	0.2	38.8	0.2	39.0	-	39.0
Local Franchise Tax	106.9	-	0.4	107.3	0.4	107.7	0.5	107.2
Income Taxes Before ITC	114.9	(250.0)	(33.7)	(170.8)	71.3	17.5	(226.6)	127.1
Investment Tax Credit	(138.4)	-	3.8	(134.6)	-	(134.6)	-	(134.6)
Total Oper. Expenses	6,652.4	238.4	57.1	6,890.9	71.2	6,962.1	230.6	6,731.5
Net Operating Revenues	1,584.4	(238.4)	(27.6)	1,318.4	(57.5)	1,258.9	(230.6)	1,489.5
Rate Base	19,918.2	-	(152.7)	19,765.5	-	19,765.5	-	19,765.5
Rate of Return	7.95%	(1.20)%	(0.04)%	6.67%	(0.30)%	6.37%	(1.17)%	7.54%
Proposed Rates								
Operating Revenues	\$ 7,011.6	\$ -	\$ 19.4	\$ 7,031.2	\$ 20.2	\$ 7,056.7	\$ -	\$ 7,056.7
Operating Expenses								
Subtotal	5,971.4	484.4	91.4	6,557.2	17.3	6,574.5	456.7	6,132.8
Uncollectibles	46.0	-	0.1	46.1	0.2	46.3	-	46.3
Local Franchise Tax	127.2	-	0.3	127.5	0.5	128.0	0.7	127.3
Income Taxes Before ITC	84.7	(250.0)	(41.8)	557.1	71.3	628.4	(226.7)	833.1
Investment Tax Credit	(128.4)	-	1.8	(126.6)	-	(126.6)	-	(126.6)
Total Oper. Expenses	6,811.1	238.4	52.8	7,092.3	91.3	7,183.6	230.7	6,952.9
Net Operating Revenues	2,200.7	(238.4)	(33.4)	1,928.9	(57.8)	1,851.1	(230.7)	2,141.8
Rate Base	19,918.2	-	(152.7)	19,765.5	-	19,765.5	-	19,765.5
Rate of Return	11.05%	(1.20)%	(0.09)%	10.15%	(0.29)%	9.80%	(1.17)%	11.04%

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Water Rates Co. - 1981
 Comparison - Original and Staffing
 (Dollars in thousands)

	Original Co.	Proposed Rates Co.	Change	Staffing	Original Staff	Proposed Staff
Present Rates						
Operating Revenues	1,543.1	1,543.1	0.0			
Operating Expenses:						
Purchase Power	541.0	541.0	0.0			
Purchase Water	631.9	631.9	0.0			
Chemicals	2.1	2.1	0.0			
Payroll - District	1,065.6	1,065.6	0.0			
Other O&M	736.9	736.9	0.0			
Other AMI & Misc.	(182.6)	(182.6)	0.0			
AM Valores Rates - District	283.0	283.0	0.0			
Payroll Taxes - District	78.3	78.3	0.0			
Depreciation	801.7	801.7	0.0			
AM Valores Taxes - G.O.	3.8	3.8	0.0			
Payroll Taxes - G.O.	18.3	18.3	0.0			
Other Prorates - G.O.	719.3	719.3	0.0			
Bul. Acct. - ALJ.	(113.8)	(113.8)	0.0			
Subtotal	6,357.6	6,357.6	0.0			
Uncollectibles	37.4	37.4	0.0			
Local Franchise Tax	109.1	109.1	0.0			
Income Taxes Before ITC	(30.1)	(30.1)	0.0			
Investment Tax Credit	(214.7)	(214.7)	0.0			
Total Op. Expenses	6,281.0	6,281.0	0.0			
Net Operating Revenues	1,535.3	1,535.3	0.0			
Rate Base	20,816.1	20,816.1	0.0			
Rate of Return	7.36%	7.36%	0.00%			
Proposed Rates						
Operating Revenues	1,543.1	1,543.1	0.0			
Operating Expenses:						
Subtotal	6,357.6	6,357.6	0.0			
Uncollectibles	48.6	48.6	0.0			
Local Franchise Tax	134.5	134.5	0.0			
Income Taxes Before ITC	883.7	883.7	0.0			
Investment Tax Credit	(214.7)	(214.7)	0.0			
Total Op. Expenses	7,209.1	7,209.1	0.0			
Net Operating Revenue	2,406.2	2,406.2	0.0			
Rate Base	20,816.1	20,816.1	0.0			
Rate of Return	11.55%	11.55%	0.00%			

Based on the utility's 1981 actual financial statements and the use of preferred stock.

Estimates of Operating Revenues

Looking to the first issue to be resolved, that of estimated sales for the various classes of customers, which in turn impact upon operating revenues, we note that while staff accepted as reasonable applicant's estimate of the number of customers anticipated for each class in the test years, staff differed with applicant in estimating normalized consumption in the classes. The resulting differences projected into estimated operating revenues are set forth in Table C following:

TABLE C

Cal-Water Service Co. - Bakersfield DistrictEstimated Operating Revenues

(Dollars in Thousands)

Items	Test Year 1981			Test Year 1982		
	Staff	Utility	Difference*	Staff	Utility	Difference*
<u>Present Rates</u>						
<u>Metered Revenues</u>						
Commercial	\$1,900.7	\$1,872.2	\$-28.5	\$1,957.0	\$1,927.6	\$-29.4
Industrial	89.7	82.7	-7.0	89.7	82.7	-7.0
Public Authority	326.0	306.4	-19.6	329.2	305.8	-23.4
Other Metered	30.8	25.7	-5.1	33.6	26.2	-7.4
Total Metered	<u>2,347.2</u>	<u>2,287.0</u>	<u>-60.2</u>	<u>2,409.5</u>	<u>2,342.3</u>	<u>-67.2</u>
<u>Flat Rate Revenues</u>						
Commercial	5,251.6	5,251.5	-0.1	5,348.0	5,348.9	0.9
Private Fire Protection	35.8	34.7	-1.1	38.5	37.0	-1.5
Public Fire Protection	60.0	58.2	-1.8	64.3	61.7	-2.6
Other	6.4	6.4	0.0	6.4	6.4	0.0
Total Flat Rate	<u>5,353.8</u>	<u>5,350.8</u>	<u>-3.0</u>	<u>5,457.2</u>	<u>5,454.0</u>	<u>-3.2</u>
Total Operating Revenues	<u>7,701.0</u>	<u>7,637.8</u>	<u>-63.2</u>	<u>7,866.7</u>	<u>7,796.3</u>	<u>-70.4</u>
<u>Proposed Rates</u>						
<u>Metered Revenues</u>						
Commercial	2,262.5	2,241.2	-21.3	2,424.9	2,405.7	-19.2
Industrial	101.9	94.9	-7.0	104.8	97.7	-7.1
Public Authority	378.0	360.1	-17.9	394.2	372.5	-21.7
Other Metered	37.5	31.5	-6.0	42.8	33.6	-9.2
Total Metered	<u>2,779.9</u>	<u>2,727.7</u>	<u>-52.2</u>	<u>2,966.7</u>	<u>2,909.5</u>	<u>-57.2</u>
<u>Flat Rate Revenues</u>						
Commercial	6,264.6	6,264.8	0.2	6,596.1	6,596.3	0.2
Private Fire Protection	35.8	34.7	-1.1	38.5	37.0	-1.5
Public Fire Protection	60.0	58.2	-1.8	64.3	61.7	-2.6
Other	6.4	6.4	0.0	6.4	6.4	0.0
Total Flat Rate	<u>6,366.8</u>	<u>6,364.1</u>	<u>-2.7</u>	<u>6,705.3</u>	<u>6,701.4</u>	<u>-3.9</u>
Total Operating Revenues	<u>9,146.7</u>	<u>9,091.8</u>	<u>-54.9</u>	<u>9,672.0</u>	<u>9,610.9</u>	<u>-61.1</u>

* Utility over staff.

We recognize that estimating future water consumption cannot be an exact science. However, there are statistical techniques available to assist us, and in the instant proceeding both applicant and staff used modifications of the Bean Method,^{1/} in part to arrive at their estimates.

The Commercial classes in Bakersfield include the largest number of customers and produce the largest segment of operating revenues. Applicant and staff produced estimates of consumption for these classes, which when projected into estimated operating revenues are very close percentagewise. At the hearing, as part of its contribution toward an expeditious hearing, applicant accepted most of the staff's estimates applicable to these classes. The differences left are minor. We will adopt the staff estimates.

However, in estimating Industrial, Public Authority, and Other Metered classes' consumption, and projecting resulting operating revenues for the test years, the differences between applicant and staff estimates are more significant, and produce issues we must resolve.

Applicant's Industrial and Public Authority operating revenue estimates were based on separate estimates of average service and total sales. In estimating total sales it used linear regression analysis (Least Squares trending) to trend recorded data from 1974 through 1979, and 1972 through 1979, respectively (excluding the two drought years), and then used the trended values for 1979 as total sales for 1981 and 1982. It also adjusted for the impact of a small number of individual Industrial and Public Authority customers with abnormally high consumption. For Other Metered Sales (mostly construction purposes) applicant used an average sales total over the past three years.

The staff, on the other hand, developed a use per customer for each class based on an average use per customer over a 13-year average

^{1/} The "Modified Bean Method" is a regression analysis using, as independent variables, time, precipitation, and temperature to predict normalized consumption.

of recorded annual sales per service data, and then multiplied this product by the estimated number of customers in the class to arrive at its sales estimate for the class.

Starting with differing estimates for the Industrial class, neither party is satisfied with the other's technique. Applicant argues, with some justification, that staff's method does not adjust for some few customers with very high usage, and also ignores trends. Staff asserts that applicant's methods produce unacceptably low estimates and are statistically inaccurate. On balance, we are inclined to find staff's arguments the more persuasive as they relate to the individual sales revenue projections. First, we believe that staff's use of a 13-year average is just statistically more sound. The period used by Cal-Water is rather short, given all the considerations at play here, to produce statistically reliable results. With the highest coefficient of determination (R^2) achieved being only 0.64, its trend line is not significant. We further note that after a fairly steady decline, which appears pragmatically speaking to have bottomed out during the drought years 1977-78, total industrial sales for 1979 had bounced back to almost the same level as 1976, the last pre-drought year (347.5 KCcf in 1979 v. 354.5 KCcf in 1976). While we are aware that the recorded sales data introduced by the staff for the first six months of 1980 posted a very small decline from 1979 (March 1980 - 339.6 KCcf, June 1980 - 336.8 KCcf v. 347.5 KCcf for 1979), we are also aware that 1980 spring and summer were very cool. This would tend to depress water consumption. In addition, we have been experiencing an economic recession in 1980. These two factors alone would dampen sales of Carnation and Pepsi Cola products - the two largest industrial customers of Cal-Water in Bakersfield - and would impact on all other industrial sales. Finally, the 1980 recently recorded data stated above still tends to indicate that industrial sales are nonetheless increasing toward staff estimates; not declining toward applicant's estimates.

Looking next at Public Authority projections, again we find the staff position to be the more persuasive. 1979 recorded consumption shows usage bouncing back to 1975-1976 levels after apparently bottoming out in the two drought years. This observation pertains whether or not one factors out the nine largest public authority consumers (5 schools, 3 parks, and 1 housing authority) accounting for 25 percent of public authority consumption. Furthermore, every recorded year since 1972 (except the two drought years) showed consumption in the public authority class to be above applicant's estimates for the two test years! And in 1980, the four most recent months of recorded data show consumption each month above applicant's test year estimates (March - 1,172.6 KCcf; April - 1,176.0 KCcf; May - 1,183.5 KCcf; June - 1,163.4 KCcf vs. applicant's test year estimates: 1981 - 1,144.0 KCcf and 1982 - 1,139.1 KCcf).

Finally, while a first inspection of Other Metered estimates shows the staff estimate higher than recorded consumption for any of the past ten years, and well above applicant's estimate, there was a rational explanation which inclines us to the staff projection. Both staff and applicant agree that the number of these Other Metered services will be up substantially in each of the test years. Staff therefore applied the average Ccf per service consumption for the past two years to the agreed-upon higher number of such services anticipated in each of the test years to arrive at its estimate. On the other hand, for each test year applicant merely adopted an average of the past three years' consumption. We find staff's approach more realistic.

Accordingly, as indicated in our foregoing analysis relating to each class of service at issue, we will adopt staff's estimates of operating revenues at both present and proposed rates. These are set forth above in Table C for each test year.

Estimates of Operating Expenses

Operating Expenses properly included in a Summary of Earnings include those costs incurred in operating a utility to provide service to the customers. Included here are the costs of purchased water, groundwater extraction,^{2/} power to pump and boost, payroll, materials and supplies, postage, and transportation. The costs for purchased power, water, and chemicals necessarily will vary with the amounts of water delivered to the system. Here, the staff analyzed applicant's estimated operating expenses and found them reasonable as far as they went.

However, as noted earlier under Estimates of Operating Revenues, staff had estimated and used higher water consumption figures than did applicant in making its projections for the industrial, public authority, and other metered classes, and we adopted the staff estimates. Consequently, we must now add to operating expenses the additional charges for purchased power, groundwater extraction, and purchased chemicals that these higher consumption estimates involve. These additional expenses for purchased power, groundwater extraction charges, and chemicals are respectively, \$12,300, \$6,800, and \$200 for 1981, and \$14,600, \$8,100, and \$200 for 1982. These items are set forth under the "At Issue" column on pages 1 and 2 of Table B.

Staff analysis of applicant's estimated maintenance, administrative, and general expenses for both 1981 and 1982 developed no issues, the staff having determined they were reasonable after applicant adopted staff's minor adjustments to applicant's General Office insurance, office supply, and pension expense estimates.

Similarly, the allocations were found by the staff to be reasonable.

No issues were developed in review by the staff of applicant's estimates of ad valorem and payroll taxes. Differing estimates of

^{2/} Since July 1, 1975 Kern County Water Agency levies an annual assessment on all groundwater produced by company-owned wells in the Bakersfield District.

Uncollectibles, Local Franchise, and Income taxes, shown in the "At Issue" column on pages 1 and 2 of Table B, arise out of differing estimates of Operating Revenues derived from the various customer classes, as discussed above, rather than out of differing methodology or philosophy. Applicant's and staff's ad valorem tax estimates are both based on the 1979-80 full cash value shown on the utility's property tax bill, and the increased 9.6 percent state corporate franchise tax rate has been used for both test years. Both parties used the full flow-through method of computing the depreciation deduction in calculating both federal and state income taxes. The investment tax credit was determined by using a 3-year average at a 10 percent rate for the test years.

Having earlier adopted the staff's estimates of high operating revenues derived from higher consumption estimates than applicant's, we are now constrained to here adopt the staff's conjunctive adjusted estimates pertaining to expenses, as set forth in Table B for each of the test years.

Rate Base

In developing its rate base projections for the test years, applicant, in accord with Commission practice, used estimated weighted average balances. Included in applicant's development of test year average depreciated rate base were projections for utility plant, adjustments to utility plant, working capital, depreciation reserves, and general office allocated rate base. The staff independently prepared its own report and arrived at estimates of depreciated rate base differing by \$152,700 for 1981 and \$240,900 for 1982 from applicant's.

In its development of weighted average plant in service, staff noted that in 1979, \$97,000 was unspent (\$84,700 of SCADA Phase 1 and \$12,300 for a well), and was being pushed into the 1980

budget. Unconvinced that test years 1981 and 1982 would not also contain "bow wave" spill-overs, staff deleted the \$97,000 from applicant's 1980 budget. Staff also deleted \$20,400 representing seven unused parcels transferred to nonplant accounts; \$6,000 for additional nonspecific well sites, and \$25,000 for one specific well site scheduled for purchase in 1980, from the 1980 budget. This resulted in a 1981 weighted average of plant in service of \$37,555,900.

In considering applicant's 1981 and 1982 budgets, staff would disallow \$14,700 and \$165,000, respectively, for utility financed additions. Each year applicant prepares a detailed estimate of construction to be financed for the next year. Forecasted 1980, 1981, and 1982 budgets were substantially higher than the 1979 budget. Concerned over the increases proposed and to assure that applicant proposes spending no more than necessary to provide reliable service, staff performed a thorough job of analyzing applicant's construction budgets. That analysis showed that applicant proposed to purchase 11 more well sites in 1981 and 1982, and to construct 3 wells in 1980 and 2 each in 1981 and 1982. As of January 1, 1980, after transfer of 6 undeveloped sites to nonplant accounts, applicant still retained 3 undeveloped sites in its plant account. Considering that only 7 wells in all were scheduled for construction during the test years, staff considered the proposed buildup in site inventory to be excessive. Instead, staff proposed transfer of another already owned site to nonplant, and deletion of 1 specific and 3 nonspecific site acquisitions from the test year construction budgets. Staff also proposed to delete \$150,000 from the 1982 budget - funds earmarked to complete Phase III of SCADA, suggesting that completion of the balance of the computer system be delayed until its cost-effectiveness could be shown. We will return to this important item later.

In considering Additions of Contributed Plant to Weighted Average Utility Plant in Service, applicant and staff agree that staff's estimates, based as they are on access to more recent recorded data than that available when applicant made its projections, are more realistic. Staff determined that the 1981 and 1982 contributions should be \$65,100 higher each year than those estimated by applicant.

Staff accepts as reasonable all other items forming part of the Weighted Average Utility Plant in Service account as estimated by applicant. Accordingly, after balancing higher contributed additions against deleted additions to be funded by the utility, staff's estimate of Weighted Average Utility Plant in Service would exceed applicant's estimate by \$61,900 in 1981 and, if we include the computer cost, \$112,100 in 1982. We will adopt the staff's position except as regards the computer.

In determining Adjustments to Utility Plant, staff and applicant agree on estimates for the Reserve for Amortization of Intangibles, and General Office Allocated Rate Base, but differ on Customers' Advances for Construction, and Contributions in Aid of Construction. Based on more recent data available staff determined that the customers' advances would be \$5,500 higher than that estimated by the utility for each test year, and that contributions in aid of construction would exceed applicant's estimates by \$221,800 and \$282,100, respectively, for 1981 and 1982.

Under Working Capital, staff and applicant agree on estimates for Material Supplies, and Minimum Bank Cash Deposits, but not on Working Cash Allowances. In estimating the latter, both parties used the detailed "lead-lag" method, but staff, by reason of its different estimates on revenues, expenses, and rate of return, arrived at a higher estimate. Staff exceeds applicant by \$13,800 and \$15,700 for 1981 and 1982.

Finally, in computing estimated Depreciation Reserves there were minimal differences between the parties' results, staff exceeding applicant by \$1,100 and \$3,700 for the two years. These differences derived out of differing underlying estimates for additions to Plant Advances and Contributions.

Except for the SCADA item of \$150,000 in the 1982 budget, this completes the area of difference pertaining to Weighted Average Rate Base. While not agreeing with the reasonableness of certain of the staff's proposed adjustments to its figures, applicant does accept others, and albeit reluctantly, in the interest of expediting this proceeding, it agreed to accept the staff's rate base adjustments as set forth. These concessions, therefore, result in downward adjustments of \$152,700 for 1981 and \$163,500 for 1982. They are so set forth in the column titled "Co. Adjustments" on pages 1 and 2 of Table B.

We determine these adjustments to be appropriate and prudent under the circumstances and adopt them as our own.

We now return to the area of major issue concerning Utility Plant - Phase III of SCADA. Applicant strongly argues for the \$150,000 budgeted for 1982 to complete SCADA (this works down to \$77,400 actually because 1982 additions to plant have approximately a 50 percent weighting factor in rate base). SCADA is just what its full name implies: supervisory control and data acquisition. Its purpose is to provide supervisors with real time data. Concomitantly with the event, it transmits operational data over leased telephone lines, using frequency shift tone transmissions, to the utility's central office. There the data can be analyzed and instantly be made available for timely decisions. In some instances the system's microcomputers

can themselves activate corrective action.^{3/} It also logs data and sends alarms.

The central office monitoring equipment for the system is already all installed. As leased lines are added, field sites are being hooked up (to save money Cal-Water is performing its own installation. This also provides training experience in house). There are approximately 140 sites to be hooked up ultimately in the Bakersfield District. Many of these sites are now being monitored by 24-hour day-to-day electronic charting instruments. But these daily graphs must be picked up at each site daily and delivered to the Central Office before any use can be made of them. Many of the stations in the flat, or low area, where most of the pumps are located, operate now on individual pressure switches, and there is less real time information available about operations in the low zone than about the hill zones. With central control management argues that it would be able to coordinate operation of all pumps to use them in the best combinations possible as circumstances change. Emergencies would be instantly known, and remedial action could be immediately taken. At present all the pumps are controlled individually. With the coordination SCADA would make possible operations could be rotated, and it would make it feasible for the utility to take maximum advantage of electrical minimums applicable to many of the pumps. Each percent saved on the utility's power bill would translate to about \$15,000, although the company today is unable to quantify possible savings.

The first hookups to SCADA are at the 15 hill zone sites where most of the storage is located and where many of the booster stations are located. This is because the company wants as soon as possible to monitor the Kern County purchased water which is introduced there. Flow is now being reversed in many areas, and optimal control

^{3/} Such as start up or stop pumps, based on line pressures or tank levels.

can be exercised only if the company knows what is going on. This is not possible until most of the lower zone wells are also tied into the control system.

The staff has no objection to hookup of the hill zones, but objects to Phase III which would connect the low areas to the system. It contends that customers in the flat areas will get no better service; that potential savings have not been quantified; and therefore concludes that adequate service does not depend upon hooking up the low areas of the system. Staff would not authorize Phase III until it can later be shown to be cost-effective.

We have difficulty reconciling staff's position on Phase III with its endorsement of Phases I and II. As noted in our description of the Bakersfield District service territory and system, this is an integrated water system. The wells are located mostly in the flat zones, the storage capacity in the hill zones. The wells, producing 72 percent of the water currently, discharge directly into 597 miles of interconnected mains. The Kern County Water District water, comprising the other 28 percent of the water used, is introduced up in the hill area. There are 12 separate pressure zones. Water must be pumped between them, shifted about, stored, and delivered as required throughout this multi-level system. Only by tying in all facilities, wherever located - in the hills or on the flat areas - can meaningful control ultimately be exercised. Indeed, in the context of this large complex water system, SCADA could have justification only as a coordinated complete control entity, operating to collect real time data and to provide timely and effective response throughout the system. It has no justification if operated as fragmented, incomplete segments being employed merely to perform uncoordinated electro-mechanical babysitting functions in parts of the integrated system.

It is just not cost-effective to have a \$175,000 central computer installation available but use only 1/3 of its available potential.

On balance, in this instance we conclude that Cal-Water has proved a case for the computer's completion. We will therefore approve retention of the \$150,000 budgeted in the 1982 budget to complete Phase III of SCADA. The enhanced operational control it will afford management should enable the company to obtain maximum utilization of its existing facilities, reduce the duration and damage of emergency shutdowns, lessen the need for as many additional future wells, and promote personal safety.^{4/}

Rate of Return

Historically, rates of return actually realized by this utility have consistently fallen short of the rates of return authorized by this Commission. The cause for this shortfall in recent years has been attributable to operational and financial attrition. Operational attrition, generally the largest source of any overall decline in earnings, is the deterioration experienced in a utility's realized rate of return on rate base between test periods. It is caused by reduced sales and revenues, increased expenses, and increases in rate base. Financial attrition is the deterioration in the return to common equity holders due to an increase in a utility's weighted cost of long-term debt and preferred stock. It can occur even when the rate of return on rate base remains constant. It is caused by

^{4/} It is a sad commentary on our times that a collateral benefit anticipated from completion of SCADA will be the reduced need for night-time routine physical checking of meters and facilities by operational personnel. Such night visits will become necessary only where trouble shows up on the monitoring system. On several recent occasions, night operators on routine checking and inspection missions have been physically attacked and robbed at the sites. Indeed, the situation has deteriorated to the point that if there is a night emergency and a crew must be dispatched, at least 2 men are sent to the yard to pick up the truck.

the issuance of new debt or the retirement of senior securities, and is also affected by change in the utility's capital structure.

Until 1979, financial attrition was primarily the concern of management. Extended period rates were designed and authorized by the Commission with the intent of dealing mostly with operational attrition. Step or averaged rates were uniformly designed to maintain a level rate of return on all investments, leaving utility shareholders to absorb the results of the increasing cost of embedded debt between test periods. Financial attrition between test periods was treated as part of the risk inherent in a regulated enterprise. However, in the last several years the relentless deprecations of inflation have served to accelerate the upward movement in the cost of money, and financial attrition has assumed proportions which no longer can be left solely to the shareholders.

By Decision No. 90425 dated June 19, 1979 in Application No. 58093 (a decision involving 6 other districts of this utility), this Commission recognized the need to provide for predictable financial attrition. Departing from past practice, we adopted an innovative approach proposed by the staff, which, while holding a constant rate of return on equity, lets the return on rate base vary (in the instance of Cal-Water, total capitalization is the substantial equivalent of rate base). We also announced our intention of extending this approach to all of Cal-Water's other districts in future proceedings. The most recent such application was in Decision No. 91537 dated April 2, 1980 in Application No. 58781 (involving 5 additional districts of applicant). In this latter decision we made reference to our extensive discussion of the financial attrition problem in our preceding decision on this utility, and then, with minor modification, we proceeded with the new approach. In that latter decision we

determined that a constant 13.2 percent rate of return on common equity would be reasonable, and that it would result in a return on total capitalization of 10.28 percent in 1980, 10.46 percent in 1981, and 10.58 percent in 1982. Accordingly, increased revenues and rates to produce these revenues were authorized.

Having obtained rate relief in the above-mentioned decisions applicable to other districts, on April 1980 Cal-Water filed Notices of Intent for increased rates to be applicable in 6 additional districts, including the district at issue herein. In these filings, consistent with its past practice, the company used its most recently known interest rate on financing,^{5/} and projected its future indicated financing costs against the then known financial market. Over the period 1981-1983 the utility estimates that financial requirements will be \$67.6 million. It planned to generate \$24.6 million of this internally (\$9.2 million through retained earnings,^{6/} and \$15.4 million through depreciation provisions). The remaining \$43 million must be raised in the money market: \$7 million in 1981; \$5 million in 1982; and \$31 million in 1983.^{7/} It is applicant's intention, after discussions with its financial advisors, to finance this \$43 million through issuance of long-term debt. While preparing the Notices of Intent and subsequent applications early in 1980 it anticipated obtaining this financing at a cost of 12 percent.

^{5/} 10.14 percent was the effective interest rate of Cal-Water's Series X bonds, then its most current commitment.

^{6/} Based upon the assumption that it will be able to produce an average dividend payout ratio at 62 1/2 percent each year, a level that approximates recent company experience.

^{7/} Included in the \$31 million is \$25 million in Series T 8 3/4 percent bonds maturing November 1, 1983 which must be rolled over.

However, over the short span of months between starting work on the filings and the act of filing, the money market had drastically deteriorated, and by the time of our fall hearing matters were worse. Inflation rates had surged for several months as the economic outlook worsened. The now volatile bond markets fell into a state of disarray as the cost of money spurted higher, and the price of bonds fell. While on August 26, 1980 Cal-Water obtained a commitment on its planned 1980 issue of \$6 million of Series Y bonds for 13.1 percent; as October closed, new A-rated utility bonds were listed at 14.

The company's initial filing assumed that all financing during 1981-1983 would be achieved through issuance of 12 percent debt. At the hearing its vice president treasurer, while retaining the utility's request for a return on common equity of 15 percent, amended its position to project an increase in financing costs from 12 percent to 13.1 percent, using end-of-year amounts to determine costs, and reflecting the commitment cost of new debt for 1980 as represented by the Series Y bonds.

The staff's report (submitted at the hearing) had assumed issuance of preferred stock rather than debt for the 1981 external financing, and, using average capital costs (beginning and end of year rather than year-end costs), had assumed an effective interest rate of 12 percent on the 1980 bond financing, and a decline to 11 percent for the debt issues planned for 1982 and 1983. It also had assumed a fixed return on common equity of 13.2 percent, consonant with the return on common equity authorized in April, 1980 in Decision No. 91537. At the hearing the staff's rate of return and cost of capital witness, while amending the staff report to accept the 1980 financing of the Series Y bonds at the 13.1 percent cost, continued to assume an 11 percent financing cost for 1982 and 1983 financing.

Table D, which follows, is a comparison of applicant and staff positions on rate of return:

TABLE D
Rate Of Return Comparison

	<u>Applicant</u>			<u>Staff*</u>		
	<u>Capital Ratio</u>	<u>Cost Factor</u>	<u>Wgt'd. Cost</u>	<u>Capital Ratio</u>	<u>Cost Factor</u>	<u>Wgt'd. Cost</u>
1981						
Long-term debt	54.1%	9.32%	5.04%	50.0%	8.83%	4.42%
Preferred stock	4.3	6.50	.28	8.0	8.03	.64
Common stock	<u>41.6</u>	15.00	<u>6.24</u>	<u>42.0</u>	13.20	<u>5.54</u>
Total	100.0		11.56	100.0		10.60
1982						
Long-term debt	54.3	9.54	5.18	50.0	8.97	4.49
Preferred stock	4.0	6.46	.26	8.0	8.79	.70
Common stock	<u>41.7</u>	15.00	<u>6.26</u>	<u>42.0</u>	13.20	<u>5.54</u>
Total	100.0		11.70	100.0		10.73
1983						
Long-term debt	54.7	10.86	5.94	50.0	9.39	4.70
Preferred stock	3.7	6.42	.24	8.0	8.79	.70
Common stock	<u>41.6</u>	15.00	<u>6.24</u>	<u>42.0</u>	13.20	<u>5.54</u>
Total	100.0		12.42	100.0		10.94

*Staff assumed constant capitalization rates throughout the 3-year test period to allow step rates for financial attrition, based on an average for the 3 years.

The principal difference between applicant and the staff is the level of return to be allowed on common equity. However, there are also two subordinate issues which preliminarily we must address: first, whether preferred stock rather than debt financing should be imputed for the planned 1981 financing; and second, the projected cost of financing new capital in the test years.

Preferred Stock or Debt Financing: As was noted previously, applicant is faced over the next several years with the necessity of obtaining substantial external financing. Its ability to sell its bonds at competitive interest rates will depend to a substantial degree upon whether it will be able to retain the A-rating presently assigned it by the rating agencies.

One of the important yardsticks^{8/} commonly used by these agencies to determine the rating to be assigned a company is the ratio of interest coverage a company is able to maintain. Interest coverage is measured both before and after provision for taxes. Rating agencies use the pre-tax interest coverage figure. Applicant's financial witness testified that Standard and Poor's looks for before-tax coverage of 2 1/2 to 3 times before assigning an A-rating. Over the 1974 to 1979 period applicant's pre-tax coverage declined from 3.4 times to 2.63 times. For the most recent 12-month period, ending July 31, 1980, it was 2.46 times (this converts to 2.06 times after taxes. Hereafter, for ease of calculation, we will refer to after-tax coverage). Averaged over 1975-1979 post-tax coverage was 2.11 times.

^{8/} Other factors affecting bond ratings include management, financial history, service areas, future capital requirements, the utility's ability to secure prompt offset relief for increases in specific expenses and ability to obtain prompt general rate relief regularly.

Comparable period averages reported by staff for Class A California water utilities and regional water utilities were 2.61 and 2.22, respectively.^{9/}

Assuming that: (1) as planned, applicant relies on debt financing through the test period for all financing; (2) as anticipated, it must pay 13.1 percent for such debt financing; and (3) it were to be authorized the 15 percent rate of return on equity it asks; post-tax coverage is estimated at 2.29, 2.36, and 2.09, respectively, for 1981, 1982, and 1983.

On the other hand, staff observes that interest coverage can be improved in the short term other than by raising the return on common equity as applicant asks. Staff is concerned lest the Commission be put into a position where, in order to maintain Cal-Water's interest coverage to protect the utility's bond rating, it might have to authorize rates of return on common equity higher than those granted other water utilities. Staff argues that Cal-Water could revise its current external financing plans and substitute preferred stock for the \$7 million debt issue planned for 1981. According to the staff such a substitution would improve after the coverage from 2.29 to 2.40 times without any need to increase the return on common equity above the 13.2 percent authorized in Decision No. 91537, our most recent decision on Cal-Water. Staff is aware that the company disagrees strongly and while it does not ask that the utility be required to make the substitution, for ratemaking

^{9/} However, all the utilities compared are substantially smaller than Cal-Water. Of the California utilities, only 2 compare; of the regional utilities, only 4 compare. Five-year averages are:

Southern California Water Co.	2.23
San Jose Water Works	2.54
Hackensack Water Co.	2.01
Indianapolis Water Co.	2.55
Elizabethtown Water Co.	1.92

purposes only it does recommend that we impute issuance of preferred stock for the \$7 million involved in the 1981 external financing.

The company strongly disagrees. With some justification it contends that it would be grossly unfair to its stockholders for the Commission to constrain it to change its financing in mid-course. It points out that in the first two decisions in this trilogy round of Cal-Water general rate cases, we did not require or impute use of preferred stock over debt for the forthcoming 1981 financing although the financing requirements were then known. Rates of return were set predicated on use of debt financing and the company is locked in until the next general rate round. It argues that a 1981 \$7 million issue of preferred stock would carry a \$910,000 annual dividend requirement and that unlike its planned debt financing, this would result in no tax deduction since preferred dividends are not tax deductible as is bond interest. It points out that until such a dividend requirement could be built into the rate structure of all its 20 districts, common shareholders would have to carry the loss.

In turn this added drain would serve to sharply reduce the level of earnings now counted upon as a source for reinvestment to help meet forthcoming financing, thereby merely adding to the total external financing the company would have to seek.^{10/}

The staff accepts that under its approach the bond tax deduction would be lost, but argues that ratepayers would fare substantially better if preferred stock is issued rather than debt. It estimates that the difference in gross costs between the 15 percent

^{10/} The company depends upon the common shareholder reinvesting 37 1/2 percent of earnings in excess of dividends. But cash dividends now paid shareholders provide only an approximate 9 1/2 percent return (based on the current \$3.30 per share dividend on a market price of about \$34.50 per share). To add a dividend requirement on preferred stock would reduce earnings, further depressing market value of the company's stock, already selling at a 23 percent discount of book value.

return requested by the company and the 13.2 percent return recommended by the staff would be about \$814,000, assuming we were to authorize the full increase requested. The company's response is that this is an oversimplification and ignores other factors. It goes on to point out that the terms would be set by certain institutional investors (who comprise the best market for such a small preferred offering as would be involved) and would include a requirement for a sinking fund. This would result in a much shorter term for the issue, making it not a true permanent equity, and one offering less protection to First Mortgage bondholders. This would make the combination of interest and preferred dividend coverage requirements of considerable interest to investors, and in this instance it appears that the combination, if financing is done through bonds or preferred stock at the same assumed interest or dividend rate, would result in no difference.

The utility also disputes staff's assertion that over the near term Cal-Water cannot continue to issue long-term debt without severely straining interest coverage. It argues that its present high common equity ratio permits further reliance on issuance of long-term debt; that even at the end of 1983, under its planned financing, its long-term debt ratio would be only 54.7 percent. It presented testimony to the point that this is acceptable to rating agencies and investors; a conclusion derived from discussions with Standard and Poor's and Dean Witter, Reynolds and Company. The former reportedly would find a 55 percent debt ratio reasonable for water utilities. The latter would be satisfied with a bond ratio between 55 to 60 percent of total capitalization. In a corroboration of its view, the company compares its 5-year average 41.77 percent common

equity ratio with the 35.78 percent 5-year average reported for regional water utilities.

On balance, after full consideration of the detailed and able presentations provided by both parties to this proceeding, we do not conclude that a sufficient case has been made to induce us to resort to the drastic device of imputation to impose upon the management of this utility for ratemaking purposes the constraints of a financial program which management does not support, a program which places an unfair burden upon its shareholders, an uncertain burden upon its customers, and does not solve the coverage problem. While we are well aware of our responsibilities under the provisions of Section 816 et seq. of the Public Utilities Code to assure that a reasonable, prudent, and sufficient basis of financial responsibility underpins a utility under our jurisdiction, generally we believe that so long as it is not unreasonable, imprudent, or insufficient, the determination of what is appropriate in the financial structurization of the utility is the primary responsibility of its management. Imputation carries with it a legal attribution of censure.^{11/} But this applicant has an excellent record of service

^{11/} As precedent to impute a capital structure staff relies on the recent Pacific Telephone rate case, Decision No. 90642 issued July 31, 1979 in Application No. 58223. In that case, among many other matters, Pacific was concerned that its debt issues had been downgraded by recognized rating agencies over the past several years; that its after-tax interest coverage had declined to where it was the lowest in the Bell system; and that its debt ratio had risen, resulting in its having the lowest common equity ratio in the Bell System. Nonetheless, the company currently was proposing several additional long-term debt issues. The staff proposed, and we adopted, imputation of a common stock issue for one of the long-term debt issues in this unusual circumstance.

and a reputation for responsible management behind it. Where, as here, the applicant proposes to proportion its total capitalization structure for the immediate future within parameters which on their face cannot be said to be unreasonable, imprudent, or insufficient, and which clearly have been shown not to be out of line with those maintained by comparable regional water utilities, we will not intervene, absent exigent circumstances not present here, to induce the utility by the drastic device of imputation to substitute staff's judgment for its own. Certainly interest coverage is important, not only to the company, but also to the ratepayers; but as the company itself recognizes, the ultimate responsibility to maintain its rating must rest with management. While we will review the return on equity to see that interest coverage remains adequate and that common shareholders are receiving an adequate return compared to the returns required by bondholders, we will not, merely to protect a bond rating, authorize rates of return disproportionate to those we would authorize to other comparable utilities under similar situations. Here we will not impute.

Cost of Financing New Capital 1981-1983: In Decision No. 91537 we adopted estimates of financing costs for debt issues projected for 1980, 1981, and 1982, applying our judgment to the best

11/ (Continued)

This imputation, when related to the recommended rate of return, served to produce an improved after-tax interest coverage, maintained the existing long-term debt ratio, and was in accord with Pacific's stated goal of decreasing its long-term debt ratio. In determining the return on equity which we would approve, we made this unusual imputation, noting that despite being aware of the staff's recommendation and its own statements of its financial structure goals, Pacific had still proceeded to privately place issues of both long-term debt and preferred stock.

information available late in 1979. At the time applicant had filed its application in that matter, it projected bond financing to be at 9 3/4 percent. But thereafter the bond market together with the general economy declined. It became readily apparent that 9 3/4 percent was unrealistic. Shortly after the company was able to obtain a commitment at 10.14 percent for its Series X bonds. The staff then updated its estimate to 10 percent.^{12/} We adopted 10 percent for all financing projected for 1980, 1981, and 1982, as well as for the final attrition allowance adopted in Decision No. 91537.

Unfortunately in the intervening months leading to the instant application, increasing inflation and mushrooming interest costs took a far greater turn than anticipated by the earlier projections. Long-term bond markets fell into a state of disarray and bond prices dropped as interest rates soared. Earlier this year the best Cal-Water could apparently do was obtain a commitment for its fall 1980 \$6 million Series Y bonds at 13.1 percent, a 31 percent higher cost for 1980 financing than that projected in Decision No. 91537.

In the instant application, Cal-Water based its original request on the assumption that new financing for the 1980-1983 period could be completed at 12 percent; but after obtaining the 13.1 percent commitment on the Series Y bonds and a review of economic trends, it revised its request, and assumed financing costs for 1981-1983 at 13.1 percent. However, staff continues to project 1981-1983 costs at 11 percent, the staff financial witness testifying that this

^{12/} The staff's financial witness testified that its recommendation of the 10 percent cost of financing adopted for the three-year period in Decision No. 91537 was merely a coincidence; that it does not look at the last coupon rate obtained by a utility and thereupon extrapolate a forecast interest rate. In that instance, the staff insists it was purely a staff judgment to recommend 10 percent.

largely is in reliance upon econometric-based forecasts from Data Resources, Incorporated, a Lexington, Massachusetts, economic research firm.^{13/}

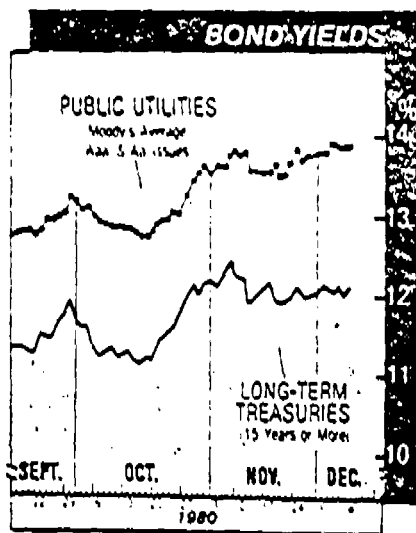
We fully appreciate the difficulties of projecting future interest costs in these times, but we are also aware that neither the company nor staff in their estimates for test years in rate cases since 1976 have adequately anticipated the degree of inflation and interest increases. Cal-Water's actual return on average common equity for the 12 months ending July 31, 1980 was 10.43 percent, a full 21 percent below the 13.2 percent return last authorized by

^{13/} Data Resources purportedly forecast interest rates for the period between 1980 and 1983 as ranging between 10 and 12 percent with a median forecast of 11 percent. Staff adopted this 11 percent. This is, however, an instance of economic reality overtaking economic projection in a period of rapid and unexpected deterioration of the bond market.

Otto Eckstein, Harvard economics professor and president of Data Resources, was quoted in the Wall Street Journal of October 29, 1980 as stating:

"You've got to realize that buying a bond is taking a gamble that the inflation rate will improve, and that isn't a gamble I would take."

The graph at the right, taken from the Wall Street Journal of December 9, 1980, depicts bond yields for the latter part of 1980.



this Commission in Decision No. 91537. Indeed, it was even lower than the 11.4 percent return found reasonable as far back as 1975. If we were to adopt staff's projection of future financing costs at 12 percent for 1980, and 11 percent for 1981 through 1983, and we approved the lesser amount recommended for financial attrition by the staff, the company would be unable to recover more than that amount even if interest rates continue above the 11 percent level, as they show every indication of doing for that period. We will adopt applicant's projection of financing costs at 13.1 percent for 1981-1983. ✓

The Level of Rate of Return to be Authorized: With the preliminary issues disposed of, we return to a determination of the level of return on common equity which we should authorize. In this proceeding applicant and staff have supported their respective viewpoints with extensive presentations and testimony. The company seeks a 15 percent return on common equity. Authorization of this 15 percent would allow for an increase in the return on total capitalization from 10.43 percent as of July 31, 1980, to a return of 11.56 percent,

producing (after adjustment to reflect the fact that the 6 districts reflected in this application cover 44.8 percent of the total company rate base as of December 31, 1979) a total companywide return of 10.95 percent. On the other hand, the staff's 13.2 percent recommendation on common equity would allow only a 10.60 percent (adjusted to 10.52 percent companywide) return on rate base. The company argues that a 15 percent return on common equity would raise the combined interest and preferred dividend coverage to levels found reasonable in Decision No. 91537, whereas staff's recommended 13.2 percent would actually result in a slightly lower combined coverage. Applicant contends that the upward thrust in interest rates must result in some enhancement of earnings for common equity also. It points out that in Decision No. 91537 our 13.2 percent allowance on common equity provided approximately 320 basis points over the 10 percent cost of long-term debt at that time. Today the staff continues to recommend 13.2 percent, only 10 basis points over the 13.1 percent interest cost for long-term debt (the cost of Series Y bonds). The company notes that based on historical differences, a return on common allowance of at least 300 basis points over long-term interest rates would suggest a return on common allowance today in the 16 to 17 percent area. Nonetheless, the company asks for 15 percent, stating that it believes that level would provide a fair and reasonable return to the common shareholder vis-a-vis returns available in other forms of investment. Also, it notes, were it able to earn 15 percent on common stock, its common stock would sell close to book value (based on the average bid price in the third quarter of 1980, its shares are selling 23 percent below book value).

The determination of a fair rate of return necessarily is an imprecise art. It is aimed at attaining a viable balance between

the divergent interests of the utility's consumers and its investors. A fair rate of return depends upon the facts of the particular situation, and in the final reckoning, comes down to an application of informed judgment. Rates must be determined which protect the short-term interest of the consumer in obtaining the lowest possible charges, while assuring maintenance of good service over the long run. However, these same rates must also produce enough revenue to pay proper and reasonable operating expenses, maintain credit, attract capital, pay reasonable dividends, and provide reasonable additions to surplus. A reasonably economically healthy utility is essential. Risk capital undoubtedly will be required in the future, and risk capital is not only timid, but it is mobile. After consideration of all the evidence and arguments produced by the parties to this proceeding, we conclude that the company's proposed 15 percent return on equity would be too high, and that the staff's 13.2 percent would be too low. For these times and circumstances we have concluded that 13.7 percent return on common equity would be just and reasonable for this utility. As shown in Table E, a 13.7 percent return on common stock should produce an overall return on capitalization for 1981, 1982, and 1983, respectively, of 10.89 percent, 11.08 percent, and 11.50 percent, and commensurate after tax interest coverage of 2.21, 2.17, and 2.08.

TABLE E

Cal-Water Service Company - Adopted Rate of Return

<u>Component</u>	<u>Capitalization Ratio</u>	<u>Cost Factor</u>	<u>Wgt'd. Cost</u>	<u>After Tax Interest Coverage</u>
Average Year 1981				
Long-Term Debt	54.2%	9.07%	4.92%	2.21 ✓
Preferred Stock	4.2	6.50	.27	
Common Equity	<u>41.6</u>	13.70	<u>5.70</u>	
Total	100.0		10.89	
Average Year 1982				
Long-Term Debt	54.2	9.43	5.11	2.17
Preferred Stock	4.2	6.48	.27	
Common Equity	<u>41.6</u>	13.70	<u>5.70</u>	
Total	100.0		11.08	
Average Year 1983				
Long-Term Debt	54.2	10.20	5.53	2.08
Preferred Stock	4.2	6.44	.27	
Common Equity	<u>41.6</u>	13.70	<u>5.70</u>	
Total	100.0		11.50	

Assumptions:

- (1) To allow undistorted step rates and provide for financial attrition, we assumed a constant capitalization ratio for the 3-year period; computing it as the average of each year's average.
- (2) Average beginning and year-end capital costs were used.
- (3) Financing through long-term debt at 13.1% in the 1981-1983 period.
- (4) Return on common equity was held constant at 13.7%.

Authorized Revenue Increases: Table F, our adopted Summary of Earnings, follows. It reflects our resolution of the issues pertaining to operating revenues and expenses, including the impact of external financing through use of long-term debt at 13.1 percent, and sets forth **operating revenues which would be provided at present rates and those which will be required to produce the 13.7 percent rate of return on common equity we are authorizing for the test years.**

TABLE F
Cal-Water Service Co. - Bakersfield District
Adopted Summary of Earnings
(Dollars in Thousands)

	<u>Test Year 1981</u>	<u>Test Year 1982</u>
<u>At Present Rates</u>		
Operating Revenues	\$ 7,701.0	\$ 7,866.7
<u>Operating Expenses</u>		
Subtotal	6,589.5	6,969.5
Uncollectibles	39.0	39.8
Local Franchise Tax	107.7	110.1
Income Taxes Before ITC	(152.2)	(307.8)
Investment Tax Credit	(194.6)	(210.6)
Total Operating Expenses	<u>6,389.4</u>	<u>6,601.0</u>
Net Operating Revenue	1,311.6	1,265.7
Rate Base	19,765.5	20,652.6
Rate of Return	6.64%	6.13%
<u>At Rate Levels Adopted</u>		
Operating Revenues	\$ 9,456.0	\$ 9,999.6
<u>Operating Expenses</u>		
Subtotal	6,589.5	6,969.5
Uncollectibles	47.8	50.6
Local Franchise Tax	132.3	139.9
Income Taxes Before ITC	728.8	761.3
Investment Tax Credit	(194.6)	(210.6)
Total Operating Expenses	<u>7,303.8</u>	<u>7,710.7</u>
Net Operating Revenue	2,152.2	2,288.9
Rate Base	19,765.5	20,652.6
Rate of Return	10.89%	11.08%

(Red Figure)

Contrasting the operating revenues set forth in Table F, it is apparent that the rates of return which we are authorizing will produce additional gross revenues of \$1,755,000 in 1981, an increase of 22.8 percent over the revenues which the existing rates would produce. In 1982 an additional \$340,100 will be produced, an increase of 3.5 percent. These authorized increases will provide for costs derived from the April 29, 1980 FG&E increase. In conformity with our previously stated preference that districts of Class A water utilities not file general rate applications more frequently than once each three years, a third set of rates in the form of a step increase will be authorized for 1983 to allow for attrition, both operational and financial, after 1982. Following methodology used in our most recent decisions in similar applications (Decisions Nos. 92244 and 91537 in Cal-Water Livermore and Southern Cal-Water Metropolitan, respectively), the operations component, as indicated by the decline in the rate of return at present rates from 6.64 percent in 1981 to 6.13 percent in 1982 (See Table F) is 0.51 percent. The financial component is represented by the difference of 0.42 percentage points between the rates of return we adopted (See Table E) for 1982 and 1983, respectively, 11.08 percent and 11.50 percent. To offset this combined 0.93 percent (0.51 percent + 0.42 percent) operational and financial attrition we will authorize a 1983 step rate increase of \$401,100.^{14/}

On or after November 15 in the years 1981 and 1982, applicant will be authorized to file advice letters (with appropriate work papers) to justify implementation of the step rate increases herein postulated for each of these years. These supplemental filings will permit review

^{14/} Using the formula: Rate Base x Rate of Combined Attrition x Net to Gross Multiplier = Step Increase, we find:
 $20,652,000 \times 0.93 \text{ percent} \times 2.0883 = \$401,000.$

of achieved rates of return before each step rate increase is authorized.

Table F and Appendix C will provide a basis for review of these future advice letter requests. The purchased water cost used is the Kern County Water Agency annual payment which became effective July 1, 1980, and the power cost portion of the payment to the agency is based upon the composite rate of 5.999 cents which became effective April 29, 1980. ✓

The purchased power rate utilized is the composite PG&E rate of 6.718 cents per kWh which became effective April 29, 1980. The composite effect of the assumed rates for purchased water and power and groundwater extraction charge is an average cost of \$0.1588 and \$0.1584 per Ccf of water sold during 1981 and 1982. The Bakersfield District effective ad valorem tax rate is 0.995 percent of estimated beginning-of-year net plant plus materials and supplies. The corresponding rate for prorated general office ad valorem taxes is 1.109 percent of beginning-of-year net plant plus materials and supplies. The local franchise tax rate is the 1979 rate of 1.399 percent of gross revenues. The income tax rates are the current 9.6 percent state and 46 percent (with intermediate steps) federal rates.

Rate Design

After determination of total revenue requirements, the next step is to provide an equitable distribution of these increases among the components in the rate schedules.

Applicant would hold lifeline rates constant until such time as the total revenues in the district since January 1, 1976 have been increased 25 percent, and then would increase lifeline rates by the same percentage as total revenues are increased. Applicant also

would change the structure of the general metered service in this district from a 2-block quantity structure (0-5 Ccf, and over 5 Ccf) to a 3-block quantity structure (0-3 Ccf, 4 to 300 Ccf, and over 300 Ccf). Applicant also proposes to increase residential flat rates percentagewise equal to the overall percentage revenue increase requested in its application. Further, applicant would make increases in the monthly service charges in the general metered schedule (except for the basic 5/8 x 3/4-inch meter charge) of twice the overall percentage revenue increase approved.

The staff, while accepting most of applicant's proposed lifeline proposals, and the proposed establishment of a 3 Ccf block in the general metered schedule, would also retain the present monthly service charge for the basic 5/8 x 3/4-inch meter until the total district revenues have increased 25 percent, and then after reaching that point, would spread the authorized increases equally to service charges and quantity charges. The staff also opposes the creation of a 3rd block in the general metered schedule, preferring retention of a 2-block structure with the 1st block reduced to 3 Ccf. Staff would hold the service charge increases to the same percentage increase applicable to the quantity rates. Staff argues that there is increased incentive to the customer to conserve only if we keep the service charge low and get the required revenue from the commodity charge, contending that the company's proposal gives little incentive to save water because much of the customer's bill would be predetermined, whether he saves water or not, by a comparatively high service charge. On the other hand, as applicant pointed out during the hearing leading to Decision No. 91537 (on applicant's Livermore District), its proposed service charge rates follow cost of service studies made pursuant to procedures set forth in Commission Standard Practice U-20. A

substantial part of applicant's revenue increases in recent years was authorized through advice letter offsets. In these only commodity rates were increased, leaving service charges to produce an ever-decreasing proportion of total revenues.

While applicant disagrees with staff's rate design recommendations it nonetheless makes it clear that so long as the required revenue is produced, it would not object to adoption of staff's recommendations. While there is merit to both parties' proposals, we believe that staff's proposals, particularly with regard to retention of the 2-block general metered structure, are those most likely to promote conservation. Accordingly, they will be adopted.

Appendix A to this decision sets forth the rate structure approved to be made effective for the year 1981. Appendix B contains the step increases in rates authorized for future years. In that rates are almost certain to be revised through advice letter offsets in the period ahead, it is doubtful that schedules for 1982 and 1983 predicated upon rates to be authorized for 1981 would be the correct rates at the time the step rate filing is to be made. Therefore, the increases contained in Appendix B can be added to the rates that would otherwise be effective on the date the step increase is to go into effect in order to develop the appropriate rates for filing.

Other Issues

Elimination of Private Fire Protection Rates: Following the January 25, 1979 hearing in Marysville during which the local fire chief recommended elimination of private sprinkler protection

rates as a way to spur sprinkler installations,^{15/} by Ordering Paragraph No. 4 in Decision No. 90491 dated July 3, 1979 in Application No. 58094, we directed applicant to prepare a study into the equity and advisability of such a step.

Applicant complied with this directive, submitting a short but to the point study, Exhibit 5 in the instant proceeding. Therein applicant noted that while there is some public benefit to be derived from private systems, the principal beneficiaries would be the owners or lessees of the specific private structures protected. They would obtain free service.

But some one must pick up the cost, small as it may be (depending on size and ownership the charge varies from \$1.17 to \$3.00 per month per inch of diameter of service). Although if passed on to the general service customer, the additional charge would be small, ranging from 3 cents to 33 cents per month per customer; depending upon the nature (residential or industrial) of the service territory involved, equity does not justify general customers subsidizing private enterprise. Furthermore, current sprinkler water service charges are insignificant compared to the other considerations which determine the economic feasibility of installing sprinkler systems, namely installation costs and significant insurance savings.^{16/}

^{15/} Interestingly, Marysville had no ordinance or building code regulations requiring fire sprinkler systems. It appears to us that a more appropriate and effective way to induce installations than by giving free fire sprinkler water service would be to adopt the Uniform Building Code and/or the Uniform Fire Code (which in appropriate circumstances would require such installations.

^{16/} Net savings resulting from typical situation installations require from 8.1 to 13.2 years for the cumulative savings to pay for the investment, according to the study. Elimination of charges to the owner or lessee would shorten this period only to a range of 7.9 to 12.2 years.

As the study indicates, installation of sprinklers results in considerably lower fire insurance premiums. These savings are a much stronger incentive to install sprinklers than would be the elimination of charges for private fire protection service.

We conclude that it is equitable that private fire protection customers should continue to pay the present rates.

Wage and Price Standards: By Resolution No. M-4704 dated January 30, 1979, the Commission ordered all utilities requesting general rate increases to submit an exhibit to accompany their applications to show whether the requested increase complies with the voluntary Wage and Price Standards issued by the federal Wage and Price Stability Council. Applicant complied and its Exhibit No. 6 in this proceeding shows that (1) wage increases granted by applicant and (2) the requested rate increases, together with step increases in other districts, are within the established guidelines. However, in addition to approval of a major portion of the increases requested by the company in its application, at the recommendation of staff we are providing in our adopted rates for the additional costs of purchased power and water derived from the very significant April 29, 1980 PG&E energy increase. This pass-through of specific costs accords with Commission policy, and while it may serve to place applicant technically out of compliance with the general price declaration standards of the Council, not to approve the exception would result in gross inequity and could unreasonably and detrimentally handicap the utility in its critical forthcoming refinancing of large volumes of long-term debt.

Effective Date of Order: The rates of return found reasonable in this matter were determined and based upon the effect of the rate increase for full year 1981. Anything else will only serve to distort results. Accordingly, in that the only active participants to the

proceeding are applicant and the Commission staff, the resulting order should be effective on the date of signature.

Findings of Fact

1. Applicant's service territory is efficiently served with satisfactory results, and the water quality is satisfactory.

2. Applicant's conservation program is losing momentum and should be reinvigorated. However, its pump efficiency program meets or exceeds standards.

3. Applicant requires additional revenues, but the rates it proposes would produce an unjustified rate of return.

4. To avoid a duplicity of effort we should provide in the rates we adopt herein for the additional purchased power and water costs derived from the April 29, 1980 PG&E increase.

5. Staff's projections of anticipated water consumption, class by class, insofar as they differ from those of applicant, are more reasonable than applicant's. Accordingly, staff's estimates of operating revenues and expenses at present and proposed rates, as derived from these projections, should be adopted over those of applicant.

6. Staff's adjustments, other than computer, to estimated rate base, totaling \$152,700 for 1981 and \$163,000 for 1982 less than applicant's estimates, are reasonable and should be adopted.

Applicant reluctantly concurred.

7. Applicant's proposal to complete Phase III of SCADA in 1982 is reasonable, and the \$150,000 budgeted for the project by applicant should be accepted.

8. The adopted estimates of operating revenues, operating expenses, and rate base for the test years 1981 and 1982, and a decline of 0.51 percent in rate of return into 1983 as a consequence of operational attrition at the authorized rate level reasonably indicates the results of applicant's operations in the immediate future.

9. At this point in time applicant's capitalization structure and general financial circumstances do not preclude reliance upon long-term financing through the test period for all financing anticipated herein.

10. Applicant's estimate of 13.1 percent as the anticipated cost of such debt financing is reasonable.

11. Rates of return of 10.89, 11.08, and 11.50 percent, respectively, on applicant's rate base for 1981, 1982, and 1983 are reasonable. The related return on common equity each year is 13.7 percent. This will require an increase of \$1,755,000, or 22.8 percent in annual revenues for 1981, a further increase of \$340,100, or 3.5 percent in 1982, and a further increase of \$401,100, or 4.0 percent in 1983.

12. The adopted rate design is reasonable.

13. The increases in rates and charges authorized herein are justified; the rates and charges authorized herein are reasonable; and the present rates and charges, insofar as they differ from those prescribed herein, are for the future unjust and unreasonable.

14. The further increases authorized in Appendix B should be appropriately modified in the event the rate of return on rate base, adjusted to reflect the rates then in effect and normal ratemaking adjustments for the 12 months ended September 30, 1981 and/or September 30, 1982, exceeds the lower of (a) the rate of return found reasonable by the Commission for applicant during the corresponding period in the most recent rate decision or (b) 10.89 percent for 1981, and 11.08 percent for 1982.

15. Applicant's private fire protection service rates do not act as a deterrent to the installation of fire sprinkler systems in private buildings, and it would be neither equitable or reasonable to

eliminate all private fire protection service rates with the resulting transfer in costs to applicant's general service customers.

Conclusions of Law

1. The application should be granted to the extent provided by the following order, the adopted rates being just, reasonable, and nondiscriminatory.

2. The effective date of the following order should be the date of signature since there is an immediate need for the rate increase.

O R D E R

IT IS ORDERED that:

1. After the effective date of this order, applicant, California Water Service Company, is authorized to file for its Bakersfield District the revised rate schedules attached to this order as Appendix A. Such filing shall comply with General Order No. 96-A. The effective date of the revised schedules shall be four days after the date of filing. The revised schedules shall apply to service rendered on and after the effective date hereof.

2. On or after November 15, 1981 applicant is authorized to file an advice letter, with appropriate work papers, requesting the step rate increases attached to this order as Appendix B, or to file a lesser increase which includes a uniform cents per hundred cubic feet of water adjustment from Appendix B in the event that the Bakersfield District rate of return on rate base, adjusted to reflect the rates then in effect and normal ratemaking adjustments for the twelve months ended September 30, 1981, exceeds the lower of (a) the rate of return found reasonable by the Commission for applicant during the corresponding period in the then most recent rate decision, or (b) 10.89 percent. Such filing shall comply with General Order No. 96-A. The requested step rates shall be reviewed and approved by the Commission prior to becoming effective. The effective date of the revised schedule shall be no earlier than January 1, 1982, or

thirty days after the filing of the step rate, whichever is later. The revised schedule shall apply only to service rendered on and after the effective date thereof.

3. On or after November 15, 1982 applicant is authorized to file an advice letter, with appropriate work papers, requesting the step rate increases attached to this order as Appendix B or to file a lesser increase which includes a uniform cents per hundred cubic feet of water adjustment from Appendix B in the event that the Bakersfield District rate of return on rate base, adjusted to reflect the rates then in effect and normal ratemaking adjustments for the twelve months ended September 30, 1982, exceeds the lower of (a) the rate of return found reasonable by the Commission for applicant during the corresponding period in the then most recent rate decision, or (b) 11.08 percent. Such filing shall comply with General Order No. 96-A. The requested step rates shall be reviewed and approved by the Commission prior to becoming effective. The effective date of the revised schedule shall be no earlier than January 1, 1983, or thirty days after the filing of the step rates, whichever is later. ✓

The revised schedule shall apply only to service rendered on and after the effective date thereof.

The effective date of this order is the date hereof.

Dated JAN 21 1981, at San Francisco, California.

John E. Byron
President
Michael D. ...
...

Commissioners

APPENDIX A
Page 1 of 2

SCHEDULE NO. BK-1

Bakersfield Tariff Area

GENERAL METERED SERVICE

APPLICABILITY

Applicable to all metered water service.

TERRITORY

Bakersfield and vicinity, Kern County.

RATES

Service Charge:	Per Meter Per Month
For 5/8 x 3/4-inch meter	\$ 3.50
For 3/4-inch meter	4.40
For 1-inch meter	6.00
For 1 1/2-inch meter	8.00
For 2-inch meter	11.00
For 3-inch meter	20.00
For 4-inch meter	27.00
For 6-inch meter	45.00
For 8-inch meter	67.00
For 10-inch meter.....	83.00

Quantity Rates:

For the first 300 cu.ft., per 100 cu.ft.	\$.219
For all over 300 cu.ft., per 100 cu.ft.286

The Service Charge is a readiness-to-serve charge which is applicable to all metered service and to which is to be added the monthly charge computed at the Quantity Rates.

APPENDIX A
Page 2 of 2

SCHEDULE NO. BK-2R

Bakersfield Tariff Area
RESIDENTIAL FLAT RATE SERVICE

APPLICABILITY

Applicable to all flat rate residential water service.

TERRITORY

Bakersfield and vicinity, Kern County.

RATES

	<u>Per Service Connection</u> <u>Per Month</u>
For a single-family residential unit, including premises having the following areas:	
6,000 sq. ft. or less	\$12.90
6,001 to 10,000 sq. ft.	14.35
10,001 to 16,000 sq. ft.	18.45
16,001 to 25,000 sq. ft.	23.95
For each additional single-family residential unit on the same premises and served from the same service connection	8.35

SPECIAL CONDITIONS:

1. The above flat rates apply to service connections not larger than one inch in diameter.
2. All service not covered by the above classifications shall be furnished only on a metered basis.
3. For service covered by the above classifications, if the utility or the customer so elects, a meter shall be installed and service provided under Schedule No. BK-1, General Metered Service.

APPENDIX B

Each of the following increases in rates may be put into effect on the indicated date by filing a rate schedule which adds the appropriate increase to the rate which would otherwise be in effect on that date.

	Effective Dates	
	<u>1-1-82</u>	<u>1-1-83</u>
<u>Service Charge</u>		
For 5/8 x 3/4-inch meter	+0.10	+0.15
For 3/4-inch meter	0.20	0.20
For 1-inch meter	0.20	0.25
For 1 1/2-inch meter	0.30	0.40
For 2-inch meter	0.50	0.50
For 3-inch meter	1.00	1.00
For 4-inch meter	1.00	1.00
For 6-inch meter	2.00	2.00
For 8-inch meter	3.00	3.00
For 10-inch meter	3.00	3.00
<u>Quantity Rates:</u>		
For first 300 cu.ft., per 100 cu. ft.	0.009	0.011
For all over 300 cu.ft., per 100 cu.ft.	0.011	0.012
<u>Flat Rates:</u>		
6,000 sq. ft. or less	0.45	0.55
6,001 to 10,000 sq. ft.	0.50	0.60
10,001 to 16,000 sq. ft.	0.65	0.75
16,001 to 25,000 sq. ft.	0.85	1.00
<u>Additional Single-Family Residential</u>		
Unit on the same premises and served from the same service connection	0.30	0.35

APPENDIX C
Page 1 of 3

ADOPTED QUANTITIES

Company: California Water Service Co.
District: Bakersfield

	<u>1981</u> Ccf(1000)	<u>1982</u> Ccf(1000)		
1. <u>Water Production:</u>	23,206.7	23,698.9		
Wells:	18,197.3	18,689.5		
Purchased Water:	5,009.4	5,009.4		
2. <u>Electric Power:</u>	1.232 kwhr per Ccf	Supplier: PGE	Date: 4-29-80	
Kwhr:	28,579,500	29,135,600		
Cost:	\$1,920,000	\$1,960,700		
Cost per kwhr:	\$.06718	\$.06718		
3. <u>Purchased Water:</u>				
Cost:	\$635,000	\$635,000		
\$/AF:	\$ 25.00	\$ 25.00		
4. <u>Ground Water Extr. Charge:</u>				
Cost:	\$835,500	\$858,100		
\$/AF:	\$ 20.00	\$ 20.00		
5. <u>Ad Valorem Taxes:</u>	\$254,700	\$283,600		
Tax Rate:	0.995%	0.995%		
6. <u>Net-to-Gross Multiplier:</u>	2.0883			
7. <u>Local Franchise Tax Rate:</u>	1.399%			
8. <u>Uncollectible Rate:</u>	0.506%			
9. <u>Metered Water Sales Used to Design Rates:</u>				
	<u>Range-Ccf</u>	<u>Usage - Ccf</u>		
		<u>1981</u>	<u>1982</u>	
Block 1	0-3	350,990	361,407	
Block 2	3	<u>7,321,710</u>	<u>7,510,193</u>	
Total Usage		7,672,700	7,871,600	

10. Number of Services:

	<u>No. of Services</u>		<u>Usage - Ccf</u>		<u>Avg. Usage-Ccf/yr.</u>	
	<u>1981</u>	<u>1982</u>	<u>1981</u>	<u>1982</u>	<u>1981</u>	<u>1982</u>
Commercial - Metered	10,091	10,391	5,972.9	6,150.4	591.9	591.9
Commercial - Flat Rate	35,772	36,436	13,677.5	13,931.4	382.4	382.4
Industrial	59	59	359.0	359.0	6,085.0	6,085.0
Public Authority	317	320	1,228.1	1,239.7	3,874.2	3,874.2
Other	<u>46</u>	<u>50</u>	<u>112.7</u>	<u>122.5</u>	<u>2,450.0</u>	<u>2,450.0</u>
Subtotal	46,285	47,256	21,350.2	21,803.0		
Private Fire Protection	323	347				
Public Fire Protection	<u>48</u>	<u>52</u>				
Total	46,656	47,655				
Water Loss <u>8%</u>			<u>1,856.5</u>	<u>1,895.9</u>		
Total Water Produced			<u>23,206.7</u>	<u>23,698.9</u>		

APPENDIX C
Page 3 of 3

INCOME TAX CALCULATIONS

	<u>1981</u>	<u>1982</u>
	(Thousands of Dollars)	
Operating Revenues	\$9,456.0	\$9,999.6
O&M Expenses	5,719.0	6,001.8
Taxes Other than Income	325.7	361.9
Transp. Depr. Adj.	- 34.4	- 39.4
G.O. Depr. Adj.	- 9.6	- 9.8
Soc. Sec. Taxes Capitalized	15.9	17.4
Interest	980.2	1,063.8
Total Deduction	<u>6,996.8</u>	<u>7,395.7</u>
State Tax Depreciation	1,051.3	1,135.3
Net Taxable Income	1,407.9	1,469.9
State Corp. Franch. Tax @ 9.6%	135.2	141.1
Federal Tax Depreciation	1,017.7	1,098.9
State Income Tax	135.2	141.0
Preferred Stock Div. Credit	5.9	5.9
Net Taxable Income	1,300.4	1,359.3
Federal Income Tax	598.2	625.0
Less: Grad. Tax Adj.	- 2.4	- 2.4
Adj. Invol. Conversion	- 2.2	- 2.1
Investment Tax Credit	-194.6	-210.6
Total Federal Income Tax	399.0	410.2