

Decision 93845 December 15, 1981

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 its Bear Gulch District.)

ORIGINAL
Application 60567
(Filed May 20, 1981)

McCutchen, Doyle, Brown & Enersen, by
A. Crawford Greene, Attorney at Law, and
Donald Houck, for California Water Service
Company, applicant. ✓
Steven Weissman, Attorney at Law, and Mehdi G.
Radpour, for the Commission staff.

INTERIM OPINION

By this application California Water Service Company (CWS) seeks authority to increase the rates for water service in its Bear Gulch District to produce annual revenue increases of 15.9% or \$755,200 in 1982, and by additional amounts of 5.8% and 5.7% or \$318,800 and \$330,400, respectively, in 1983 and 1984.

Evidentiary hearings were held in this matter on a consolidated record with Applications (A.) 60568, 60569, and 60570 before Administrative Law Judge John Lemke in San Francisco, September 21 through September 24, 1981. Public witness testimony was heard in this proceeding on September 21, immediately prior to commencement of the evidentiary hearings. One person appeared at the public witness hearing to protest the application. The public witness testimony and evidentiary hearings were preceded by an informal public meeting held at Menlo Park on July 14, 1981. The meeting was sponsored by CWS and the Commission staff (staff) in

order to receive public comment on CWS' water service and the proposed rate increase. No customers attended that meeting. This proceeding was submitted upon the filing of concurrent briefs which were received October 16, 1981.

Notice of the meeting, the public witness testimony, and public hearings was provided by mailing bill inserts to each customer in the district.

General Information

CWS owns and operates water systems in 20 operating districts within California. Each district is operated separately with accounting and separate tariff schedules maintained for each service area. The general office of CWS is located in San Jose. Preparation of customers' bills for all districts is handled at the San Jose office. Overall functions such as accounting, engineering, and water quality control are also centralized at the San Jose headquarters. CWS maintains a water meter repair facility in Stockton.

As of December 31, 1980, CWS had a statewide investment in utility plant of \$246,143,935 (including utility plant under construction), served 308,455 customers, and employed 490 persons. Gross operating revenue for the 12-month period ended December 31, 1980 was \$60,467,962. Stock ownership of CWS is widely distributed, with about 7,600 shareholders, the largest of whom owns approximately 8.8% of the outstanding shares. The ten largest shareholders own approximately 28.6%.

Bear Gulch Service Area

The area served by the Bear Gulch District includes the Cities of Atherton and Menlo Park, the Towns of Portola Valley and Woodside, and unincorporated portions of San Mateo County adjacent to those communities. Elevations in the service area range from approximately sea level to more than 1,000 feet above sea level. Total population served in the area is estimated at 63,300.

CWS uses two sources of supply in serving the Bear Gulch District. Water is purchased from the San Francisco Water Department at seven metering points in the territory. One of these connections is from the dual 60-inch San Francisco pipelines, three are from the 36-inch Palo Alto feeder, and the remaining three connections are from the dual 72-inch Bay Division No. 3 and the 84-inch Bay Division No. 4 pipelines. The maximum hourly delivery capacity is 40,940 gallons per minute (gpm). Diversion of water for distribution and storage from Bear Gulch Creek by two dams furnishes a surface supply. During periods of runoff, all water is transported by means of a 16-inch transmission main to storage at Bear Gulch Reservoir. Treatment facilities are located adjacent to the Bear Gulch Reservoir. At this location the water is chlorinated, filtered, and pumped into the station tanks from which it either flows by gravity or is pumped into the distribution system. The transmission and distribution system consists of 277 miles of mains ranging in size up to 24 inches in diameter. Information contained in CWS' report on the results of operations (Exhibit 8) concerning active service connections is as follows: Insofar as metered services are concerned, there were 15,983 commercial connections, 7 industrial connections, 94 public authority connections, and 20 other connections, for a total of 16,104. There were 53 private fire protection connections and 1,528 public fire protection connections.

Customer Service and Conservation

Customer service complaints for 1980 and partial 1981 were reviewed by the staff. A total of 122 complaints was registered during this period. 117 of these related to the presence of algae in San Francisco Water Department's Moccasin Reservoir during August and September 1980; the remaining five had to do with water quality. The staff determined that all the complaints were investigated and resolved by the utility within a

reasonable period after notification. During an inspection of CWS' facilities, the procedure for handling customer service in the Bear Gulch District was reviewed and found to be satisfactory.

CWS introduced a comprehensive water conservation program in Exhibit 32. Through leak detection and continuing main replacement programs for all districts, the percentage of unaccountable water loss companywide during 1980 was approximately 6.4%, allegedly well below the industry average. The loss rate for Bear Gulch during 1980 was only 5.0%. Further efforts to reduce water loss have been implemented through an ongoing program of testing, repairing, and replacement of meters, monitoring of the district's operations through telemetering and through computerized control, which is now on line in the Bear Gulch and Bakersfield Districts. Greater efficiency in power use and in other internal conservation efforts have been pursued through a motor repair and replacement program.

CWS asserts that customer support for water conservation has been somewhat more difficult during the past three years as memories of the 1976-1977 drought have faded. Despite a continuing program of conservation education directed at customers, water use has risen substantially over the high conservation year 1977 when the drought was at its peak and media attention the greatest. However, CWS has continued a varied program of conservation through the following procedures:

1. Conservation brochures are distributed providing tips to customers on water conservation inside and outside the home.
2. Billing envelopes often feature a conservation message on the backside.
3. Water conservation kits, including water bags for displacement in toilet tanks, leak detection pills, shower restrictors, and CWS' brochure on use are distributed regularly.

4. There is an ongoing program of advertising, waste of water notices, office displays, and energy conservation show participation at fairs, etc., designed to promote the conservation ethic upon the public.

Results of Operations

The last general rate increase in this district was authorized by Decision (D.) 90437 dated June 19, 1979, in A.58091. In addition, three advice letter offset increases and two step rate increases have since been authorized, resulting in the present rates.

CWS has provided recorded revenues and expenses for the years 1976 through 1980, and from this information has projected revenues and expenses for 1981 and for test years 1982 and 1983. The staff has made its own projections, which vary in part from CWS'. In some of these differences CWS had concurred with the staff and amended its summary of earnings. Those areas still in dispute are discussed below.

Payroll Expenses

The staff has estimated, through the testimony of Mark Pocta, that payroll expenses would increase at a rate of 10% in 1982 and at 9.5% in 1983; whereas, Donald Houck for CWS has estimated increases of 11.5% in 1982 and 10% in 1983. The staff relied upon the following factors at arriving at its recommendation:

1. Labor Department statistics indicating annual increases in labor contracts averaging 9.5% through June 1981.
2. A major California water utility (San Jose Water Works) having a firm 9.5% wage increase in 1982, and the fact that CWS' employees belong to the same union.
3. The inflation rate developed by the Economic Unit of the Revenue Requirements Division as of June 1981.

Houck testified that he believes the staff also relied upon a memorandum from the Revenue Requirements Division suggesting that wage and price estimates used for Pacific Gas and Electric Company be used as guidelines for other utilities. In that memorandum a 10.4% wage increase was projected in 1982 and a 9.4% increase for 1983. Pocta was aware of this memorandum and testified that the staff did give it some consideration, but that it was only one factor considered.

Houck testified that CWS' 1981 wage contract was for only 8.5%, putting its employees below the average before the start of 1982. He stated that a wage increase for a single water utility, for a single year, should not be the criteria by which all water utilities are judged. Houck attested that CWS had awarded wage increases to its employees in the range of 7% for 1977 through 1979, 10% in 1980, and 8.5% in 1981. He believes that inasmuch as these increases were below the rate of inflation for those years, CWS will be required to provide wage increases for 1982-1983 as suggested in its estimates.

An issue of this type is difficult to resolve with pinpoint accuracy. We must be governed by the evidence presented, all of which admittedly is based upon estimates. We believe an increase of 10.5% in 1982 and 10% in 1983 would present a balanced projection for payroll expenses based upon the evidence presented.

Transportation Expense

CWS in its application had estimated increases in transportation expense of 24% per year from 1981 through 1983. The staff had estimated 10% increases per year for the same period. CWS at the hearing revised its estimates for this expense to 13.9% per year for 1981 through 1983, based upon actual increases for the

first six months of 1981 compared with the same period for 1980. The staff has based its estimates on the fact that gasoline prices increased by 9.2% in June 1981 over June 1980, and also on an inflation rate developed by the Economic Unit of the Revenue Requirements Division as of July 1981. The staff also considered information determined from Data Resources, Incorporated (DRI), estimating that fuel costs will rise 3.4% in 1982 and 9.2% in 1983. The staff further relied upon information supplied by DRI predicting rises in all industrial commodities of 8.4% in 1982 and 9.5% in 1983.

CWS' estimate is based upon data contained in Exhibit 7 which are derived from its Transportation Clearing Account, reflecting information on an systemwide basis--that is, the information is reflected in expenses incurred in all 20 districts. Witness Pocta testified that he had developed information from CWS' workpapers for each individual district, for the years 1976 through 1978, which was considerably lower than the clearing account increases presented by CWS. Inasmuch as we are considering here individual district costs and rate increases, it would be appropriate to give effect to particular information developed with respect to individual districts rather than systemwide expenses. As information becomes available with respect to other individual districts, we will give effect to recorded increases for those districts. In the circumstances, an increase of 10% per year in transportation expense for the districts involved in this proceeding is appropriate and will be adopted.

Amortization of
Tank Painting Expenses

CWS must periodically repaint its storage tanks to guard against corrosion and maintain a neat and clean appearance. There is no dispute between the staff and CWS regarding the amount of

painting expense involved. CWS has totaled the estimated costs for the three years and included one-third of that total in each year's expense estimates. The staff has amortized most of the total expense over six years. CWS maintains this would result in its not recovering the 1982-1984 costs until the end of 1987. The staff contends it is necessary to base the amortization schedule on the historical useful life of the tank painting involved. It states that an amortization method similar to the one it proposes here was adopted by the Commission recently in connection with A.59867 - Dominguez Water Company (D.92708, February 18, 1981). The staff acknowledges that its recommendation was not contested and the specific issue not addressed in that decision. CWS insists that this tank painting is an operating expense and not capitalized, constituting an item which ought to be recovered in the period where the expense occurs. It states that the staff has treated it as a capital item with a long-term amortization proposal and without any allowance for the cost to the investor supplying the funds. CWS' argument is persuasive. These painting expenses are recurring operating expenses, not of a capital nature, and therefore, not of the type which CWS would earn a return on beyond the test year. To deprive CWS of recovery of this expense beyond the three years involved in this proceeding would be unreasonable. Also, in about three years we will probably again be reviewing this expense in a rate proceeding.

Main Replacement

CWS has included in its proposed construction budgets \$50,000 a year for 1982 and 1983 to replace 500 feet of a 20-inch riveted steel transmission main in each of those years. The staff believes that total main replacement expenses are higher in these test years than in recent years. It believes CWS should defer this Bear Gulch replacement program until other expenses are lower; that there is no hurry to get this particular main replaced. The staff further points out that there are two independent sources of water

to serve Bear Gulch, i.e., treated water from a reservoir and water purchased from the San Francisco Water Department. The staff alleges that even if the Bear Gulch main were out of service, purchased water would be available in sufficient quantities to serve Bear Gulch customers. CWS relies upon information shown in its Exhibit 10 relating to construction costs in the Bear Gulch District since 1977. From the data in this exhibit, CWS developed costs of main replacements each year at 1982 dollar levels. It states that current test year budgets for main replacements are modest compared to those of recent years.

CWS relied in part upon the testimony of its assistant chief engineer responsible for the system design who states that the commencement of this particular main replacement is necessary now. This witness, Jack Prendergast, testified that the pipe in question was probably installed prior to 1920. He testified that these pipes tend to blowout in large sections and in order to repair them they cannot simply patch the section involved, but must go far back from the rupture to the point where the pipe is in good condition and then cut in a section of new pipe.

It appears to us in light of the evidence offered by CWS that it is reasonable to begin replacement of this main immediately. If CWS were to be governed by the staff recommendation and only replace portions of the main in low main replacement expense years, it could conceivably take a great many years to replace the entire main. That would obviously be an unreasonable schedule for replacement of a main which is already at least 60 years old.

Federal Income Taxes

Since CWS filed this application on May 20, 1981, the Federal Economic Recovery Tax Act of 1981 (ERTA) has been signed into law. The effect of this new law will be an increase in federal income tax expenses for ratemaking purposes. This is due to the elimination of the full flow-through effect of accelerated depreciation and investment tax credit on utility plant additions placed in service after December 31, 1980. CWS has introduced Exhibit 31, setting forth the impact of FERT. The staff has not introduced any evidence with respect to the new FERT because of the status of the Commission's Order Instituting Investigation (OII) 24, an investigation concerning the proper treatment of the normalization method of accounting for new utility property. CWS is recommending the use of an option under the Internal Revenue Code which reduced income taxes by the amount of the annual amortization of investment tax credit, but does not provide for a reduction in rate base for the unamortized portion. The effect of CWS' recommendation, if adopted, would be to increase revenue requirements by approximately \$150,000 in 1982 and \$157,000 in 1983.

Since we have just acted with respect to OII 24 as of today, it is difficult for us to suddenly apply a different method for treating income tax expense in this decision. Therefore, this decision will be interim. For this interim decision we will calculate income tax expense as we have in the past. Using this method there is no difference between staff and CWS. CWS and staff should file the revenue requirement effect of applying our OII 24 decision so we can reexamine revenue requirement and make any rate changes with a final order.

Fire Protection

CWS seeks a 100% increase for the cost of private fire protection service. Mehdi Radpour of the staff concurs in this proposal but suggests that this increase be spread over a three-year period to minimize the impact of the increase and deemphasize the

difference in charges between the districts affected by this proceeding and other districts which will not be affected by a similar change until future years. The tariff rate for fire protection is currently \$1.50 per inch of pipe diameter. The rates have not been increased for several years. Radpour would allow one-half of the increase in 1982, and one-quarter each in 1983 and 1984. We agree with the three-year period for increasing the charges and will adopt per-inch increases of \$1 in 1982, 25¢ in 1983, and 25¢ in 1984 as reasonable for the purposes of implementing the total 100% increase; except the 1983 and 1984 increases for the 1½-inch connection will be 40¢ and 35¢, respectively, in the interests of tariff simplicity.

The increases authorized, under the provisions of our Resolution L-213, will incorporate the present public fire protection surcharge. No refund is necessary.

Summary of Earnings

The information shown in Tables I and II reflects CWS' adjusted estimates, the staff's estimates, the effect of disputed issues, and adopted revenues and expenses for test years 1982 and 1983.

Table I

CALIFORNIA WATER SERVICE COMPANY
Bear Gulch District

COMPARISON - CWS AND STAFF - SUMMARY OF EARNINGS

	<u>Test Year 1982</u>		<u>Test Year 1983</u>	
	<u>CWS</u>	<u>Staff</u>	<u>CWS</u>	<u>Staff</u>
	(Dollars in Thousands)			
<u>Present Rates</u>				
Operating Revenues	\$ 4,844.0	\$ 4,844.0	\$ 4,868.8	\$ 4,868.8
Operating Expenses				
Purchased Power	244.4	244.4	245.7	245.7
Purchased Water	1,223.7	1,223.7	1,231.2	1,231.2
Purchased Chemicals	19.5	19.5	21.1	21.1
Payroll - District	524.0	517.1	577.7	567.2
Other Oper. & Maint.	428.7	390.9	454.9	414.3
Other Admin. & Gen. & Misc.	39.5	39.5	39.9	39.9
Ad Valorem Taxes - District	133.5	133.5	139.3	139.1
Payroll Taxes - District	36.3	35.8	39.6	38.9
Depreciation	345.0	345.0	364.5	363.4
Ad Valorem Taxes - G.O.	1.7	1.7	1.7	1.7
Payroll Taxes - G.O.	8.2	8.1	8.8	8.7
Other Prorates - G.O.	350.7	347.0	383.4	378.5
Subtotal	<u>\$ 3,355.2</u>	<u>\$ 3,306.2</u>	<u>\$ 3,507.8</u>	<u>\$ 3,449.7</u>
Uncollectibles	6.3	6.3	6.3	6.3
Local Franchise Tax & Bus. Lic.	38.9	38.9	39.1	39.1
Income Taxes Before ITC	322.1	349.7	214.6	251.8
Investment Tax Credit	(68.8)	(67.1)	(67.2)	(63.8)
Total Operating Expenses	<u>\$ 3,653.7</u>	<u>\$ 3,624.0</u>	<u>\$ 3,700.6</u>	<u>\$ 3,683.1</u>
Net Operating Revenues	1,190.3	1,210.0	1,168.2	1,185.7
Rate Base	12,286.6	12,263.5	12,702.1	12,629.6
Rate of Return	9.69%	9.87%	9.20%	9.39%
<u>Proposed Rates</u>				
Operating Revenues	\$ 5,601.5	\$ 5,601.5	\$ 5,950.2	\$ 5,950.2
Operating Expenses				
Subtotal	3,355.2	3,306.2	3,507.8	3,449.7
Uncollectibles	7.3	7.3	7.7	7.7
Local Franchise Tax & Bus. Lic.	44.9	44.9	47.7	47.7
Income Taxes Before ITC	706.2	733.8	763.0	800.2
Investment Tax Credit	(68.8)	(67.1)	(67.2)	(63.8)
Total Operating Expenses	<u>\$ 4,044.8</u>	<u>\$ 4,025.1</u>	<u>\$ 4,259.0</u>	<u>\$ 4,241.5</u>
Net Operating Revenues	1,556.7	1,576.4	1,691.2	1,708.7
Rate Base	12,286.6	12,263.5	12,702.1	12,629.6
Rate of Return	12.67%	12.85%	13.31%	13.53%

(Red Figure)

Table II

CALIFORNIA WATER SERVICE COMPANY
Bear Gulch District

ADOPTED SUMMARY OF EARNINGS

	<u>Test</u> <u>Year 1982</u>	<u>Test</u> <u>Year 1983</u>
	(Dollars in Thousands)	
<u>At Present Rates</u>		
Operating Revenues	\$ 4,844.0	\$ 4,868.8
Operating Expenses		
Purchased Power	244.4	245.7
Purchased Water	1,223.7	1,231.2
Purchased Chemicals	19.5	21.2
Payroll - District	519.5	572.4
Other Oper. & Maint.	417.2	440.6
Other Admin. & Gen. & Misc.	39.5	39.9
Ad Valorem Taxes - District	133.5	139.3
Payroll Taxes - District	36.0	39.2
Depreciation	345.0	364.5
Ad Valorem Taxes - G.O.	1.7	1.7
Payroll Taxes - G.O.	8.2	8.8
Other Prorates - G.O.	347.8	380.3
Subtotal	<u>\$ 3,336.0</u>	<u>\$ 3,484.8</u>
Uncollectibles	6.3	6.3
Local Franchise Tax & Bus. Lic.	38.9	39.1
Income Taxes Before ITC	332.5	226.1
Investment Tax Credit	(68.8)	(67.2)
Total Operating Expenses	<u>\$ 3,644.9</u>	<u>\$ 3,683.3</u>
Net Operating Revenues	1,199.1	1,185.5
Rate Base	12,286.6	12,702.1
Rate of Return	9.76%	9.29%
<u>At Rate Level Adopted</u>		
Operating Revenues	\$ 5,306.6	\$ 5,602.2
Operating Expenses		
Subtotal	3,336.0	3,484.8
Uncollectibles	6.9	7.3
Local Franchise Tax & Bus. Lic.	42.6	45.7
Income Taxes Before ITC	567.1	597.8
Investment Tax Credit	(68.8)	(67.2)
Total Operating Expenses	<u>\$ 3,882.8</u>	<u>\$ 4,067.8</u>
Net Operating Revenues	1,422.8	1,534.4
Rate Base	12,286.6	12,702.1
Rate of Return	11.58%	12.08%

(Red Figure)

Rate of Return

CWS requests a constant rate of return on equity for test years 1982 and 1983 and for attrition year 1984 of 16.0%. This would produce returns on rate base of 12.11%, 12.69%, and 13.23% for 1982, 1983, and 1984, respectively, under its recommended capitalization ratios.

The staff through Edwin Quan of the Revenue Requirements Division has recommended that return on equity in this proceeding be set in the range of 14.25% to 14.75%. This is the highest return on equity yet recommended by the staff or authorized by the Commission for a major water company. Quan has demonstrated in Exhibit 36 that his recommended return on equity would allow for after-tax interest coverage of approximately 2.3 times in 1982. Quan explained why the risk premium applied to return on equity should not be as great for a water utility as for an energy utility, as follows:

1. Water utilities are not as capital intensive. Construction programs are much smaller and are financed to a large degree by advances for construction and contributions in aid of construction.
2. Water companies do not capitalize interest on construction projects. Construction work in progress is included in the rate base which results in a better quality of earnings and better cash flow.
3. Water utilities are allowed offset increases in costs such as purchased water and power by advice letter filings concurrent with such increases. Energy companies, however, face a lag between the time fuel cost increases are experienced and offsetting rates are authorized.

4. Water companies are not faced with risks such as fuel costs, source of supply, nuclear generation, technological changes, competition, etc.
5. Water utilities do not have to raise large amounts of equity capital in order to maintain balanced capital structures because of better cash flows and lesser capital requirements for construction. For example, during the five-year period 1976-1980, there were only two issues of common stock by water utilities for a total of \$7 million; whereas, during the three-year period 1978-1980, for energy companies alone, there were 20 issues for a total of \$1.6 billion.

CWS had requested that the cost of new debt be set at 14.5% for each of the years involved in this proceeding. Starting with an assumed average 1981 debt cost of 16%, the staff has projected an average annual debt cost for 1982-1984 at 14.5%, 14%, and 13.5%, respectively, resulting in an average cost of 14% for the three years. Staff does not agree that a levelized debt cost should be used for the three years in question. It believes that past levelized increases were merely the result of projections that interest rates would not vary significantly during test years.

The staff has used DRI's interest projections as a guide in reaching its estimate concerning debt cost. Staff observes that DRI now predicts a downward trend in interest rates over the next few years. This is a departure from past projections.

CWS notes that rates of return actually realized over the past several years have consistently fallen short of that authorized by the Commission. It states that although Commission decisions have allowed for operational attrition for many years, the rate of inflation reflected in increased expenses and additions to rate base has been far greater than anticipated by the decisions.

CWS also asserts that financial attrition, consisting of increases in effective costs of long-term debt and preferred stock and corresponding reductions in the return earned by common equity holders, has been more severe than projected in recent Commission decisions. CWS notes that the Commission has adopted a program dating back to 1979 of holding rates of return on equity constant, while letting returns on rate base vary to some extent. It notes that this procedure has continued through D.92604 dated January 31, 1981, which involved eight districts of CWS. There we authorized a constant 13.7% return on common equity, producing overall returns on rate base for 1981, 1982, and 1983 of 10.89%, 11.08%, and 11.50%, respectively.

Table III shows the differences alleged by CWS between allowed and realized returns on rate base and equity experienced between 1975 and 1981. Table IV is a presentation from staff Exhibit 36 showing rates of return on rate base and equity authorized for water utilities by this Commission between 1978 and 1981.

TABLE III

CALIFORNIA WATER SERVICE COMPANY
RATES OF RETURN
1975-1981

	Rate of Return on Rate Base			Rate of Return on Common Equity		
	Allowed by PUC ^{1/}	Realized by Company	Deficiency	Allowed by PUC ^{1/}	Realized by Company ^{2/}	Deficiency
1975	7.85%	7.48%	(5%)	11.4%	10.0%	(12%)
1976	9.70%	8.87%	(9%)	12.63%	10.9%	(14%)
1977	9.85%	8.00%	(19%)	12.78%	8.6% ^{3/}	(33%)
1978	9.95%	8.51%	(14%)	12.81%	10.0%	(22%)
1979	10.08%	8.93%	(13%)	13.0%	10.8% ^{3/}	(15%)
1980	10.28%	9.29%	(10%)	13.2%	11.2% ^{3/}	(15%)
1981	10.89%			13.7%		

^{1/} On general rate case decisions effective during year or most recent preceding year.

^{2/} Average common equity for year.

^{3/} Excluding gains on sale of nonutility property.

CALIFORNIA WATER SERVICE COMPANY
 Rates of Return Authorized
 By the California Public Utilities Commission
 For Class A Water Utilities

A. 50567 / ALJ/kem

Month	Company	Decision Number	Rate of Return Authorized	Common Equity Ratio	Rate Per Common Equity
		(a)	(b)	(c)	(d)
<u>1978</u>					
October	San Jose Water Works	89529	9.17	41.51	12.25
December	Dominguez Water Corporation	89709	10.20	41.83	12.85
December	Cal-American Water Co.-Duarte District	89762	9.60	53.04	10.39
<u>1979</u>					
April	Jackson Water Works-Citizens Utilities Company	90153	9.10	64.17	10.31
June	Calif. Water Service Co.-Various Districts	90125 et al	10.08	41.47	13.00
July	Cal-Cities Water Company - Clearlake District (SoCal Water)	90495	9.28	33.36	13.00
July	Park Water Company	90575	9.90	57.81	10.25
July	Tustin Water Works	90590	9.80	34.13	12.68
August	CP National Corp. - Susanville District	90650	9.50	38.89	12.21
August	Cal-Cities Water Co. - Los Osos District	90659	9.28	34.01	13.00
August	So. Calif. Water Co. - Calipatria - Hilland	90660	9.27	34.01	13.00
September	Azusa Valley Water Company	90780	10.35	53.76	12.54
October	Cal-American Water Co. - Coronado District	90925	10.06	52.50	11.25
November	San Gabriel Valley Water Co. - Los Angeles County District	90979	9.57	42.40	13.25
November	So. Calif. Water Co. - Ojai District	91024	9.23	33.36	13.00
December	Del Este Water Company	91120	11.40	54.17	13.00
<u>1980</u>					
March	Santa Clarita Water Company	91372	10.10	-	11.05
April	California Water Service Co. - Various Districts	91537	10.28	42.02	13.20
September	Cal-American Water Co. - Various Districts	92237 et al	10.19	52.90	11.50
September	So. Calif. Water Co. - Metropolitan Division	92244	9.85	37.00	13.40
December	ICandE - Toluome Water System	92490	9.00	39.08	11.49
<u>1981</u>					
January	California Water Service Co. - Various Districts	92604 et al	10.89	41.60	13.70
January	So. Calif. Water Co. - Pomona Valley District	92605	9.83	37.00	13.40
February	Southwest Suburban Water - San Jose-Mittler District	92666	11.48	48.50	13.50
February	Dominguez Water Corporation	92708	10.97	43.00	14.00
February	San Jose Water Works	92719	10.02	45.00	13.30
July	Cal-American Water Co. - Coronado District	93263	10.96	52.00	13.00
August	So. Calif. Water Co. - Orange County District	93427	10.44	36.00	14.35

During the period 1982-1984 CWS estimates total financial needs of \$62.8 million. It plans to generate \$25.8 million internally (\$10.0 million through retained earnings and \$15.8 million through depreciation provisions). The remaining \$37 million must be raised externally through financial markets; \$4 million in 1982, \$29 million in 1983, and \$4 million in 1984. CWS intends to finance the \$37 million through the issuance of long-term debt. Although CWS had projected this financing cost at 14.5%, since the time of filing its applications and the hearing in this proceeding, it asserts that money markets for long- and short-term financing have deteriorated.

CWS points out that the Commission in a 1980 decision (D.91537) adopted estimated financing costs of 10% for bond issues for 1980-1982 and that the 10% rate was used in determining the allowance for financial attrition. However, actual interest costs for its 1980 \$6 million Series Y bonds were 13.1%. CWS further notes that the Commission used the 13.1% rate in projecting financing costs for years 1981-1983 in D.92604. Harold Ulrich, CWS' chief financial officer, testified that (at the time of the hearing) interest rates for new A-rated utility bonds currently exceed 17%; and Quan concurred. Quan expects, however, that CWS could complete its 1981 financing later in the year at a cost of approximately 16%. CWS believes that because of the deficiency between the 10% and 13.1% projected financing costs used by the Commission in the 1980 and 1981 decisions and actual costs, the current 17% cost should be used in projecting financing costs for 1982-1984 if financial attrition allowances are to be adequate. It alleges that this would not work to the detriment of ratepayers since future step rates could be adjusted, if necessary, to reflect the lower rate. CWS is particularly concerned about this financing cost at the present time because it will be refinancing \$25.1 million in Series T bonds in 1983. This particular Series T bonds refinancing represents approximately 30% of CWS' entire outstanding bonds.

As mentioned, Quan relied in part upon interest rate forecasts published by DRI. CWS takes issue with the dependability of the DRI projections. It points out that in September 1980, DRI projected a rate decline for AA-rated utility bonds in the third-quarter of 1981 to 11%, whereas rates actually rose to over 17%, a difference of at least 600 basis points.

CWS suggests that if the Commission were to adopt a lower rate for financing costs through 1984, the decision in this proceeding should provide that when refinancing of the Series T bond is completed in 1983, CWS should be allowed to include in its step rate filings the effect of the higher refinancing costs.

CWS notes that the current staff midpoint recommendation of 14.50% for common equity provides no risk premium over its optimistic forecast of 14.5% long-term debt cost for 1982. In fact, CWS points out such an equity allowance represents a negative risk premium of 250 basis points compared with current long-term interest costs of 17%. It further points out that, based on historical differentials, a return on common equity of 300 basis points over long-term interests rates suggests an equity allowance of about 19% or 20%, which is in fact the return currently being earned on its common stock based on purchases at today's market price, which is about 30% below book value. CWS states that if it were allowed to earn 16% on equity, its common stock would sell at a price closer to book value, enabling it to raise new capital at a price fairer to existing shareholders.

We agree with the staff that water utilities, for the reasons enunciated in the staff presentation, have different needs with respect to capital requirements than do other types of utilities. They are not as capital intensive, and our traditional allowance in their rate base of short-term construction work in progress makes

for better earnings and cash flow. Neither do water utilities face the same venture risks and problems confronted by energy utilities, such as those associated with drastically increasing fuel costs and nuclear power plants.

A fair rate of return is essentially the return a utility must have an opportunity to earn to continue operations - the return a utility must hold out to investors to induce them to provide the funds the utility needs to purchase the plant and equipment necessary to provide adequate service. We note from the information contained in Table IV that the returns on equity we have authorized since 1978 to various water companies have trended steadily upward as inflation and interest rates have risen. Were we to grant the 16.0% on equity sought by CWS, it would constitute an increase of 165 basis points over the highest return shown in Table IV (14.35% Southern California Water Company, D.93427).

We believe that for the purposes of this proceeding and the three related applications, a fair return on equity to allow CWS during 1982-1984 will be 14.50%. The reasons for this conclusion are due in part to consideration of the factors presented by witness Quan, supra, relating to differences in risks between water utilities and energy utilities. In addition, authorization of 14.50% on equity will do the following:

1. Recognize the current cost of A-rated utility bonds and of CWS' need to refinance \$25 million in debt during the period covered by the test years and current trends in interest rates.

2. Give attention to the fact that the DRI estimates, relied upon in part by the staff, concerning projected debt costs, have fallen far short of actual experienced costs.
3. Acknowledge that CWS has afforded a high level of service - as expected - to the customers in its Bear Gulch and the other three districts heard on a common record with this application.

We also believe a reasonable estimate of debt cost to CWS in the period 1982-1984, in light of the evidence offered by CWS and the staff, would be an average annual debt cost of 15%, 14% and 13.5%, respectively.

A constant return on equity of 14.50%, assuming financing through the above long-term debt costs in the 1982-1984 period, would produce returns on rate base and after tax interest coverages for 1982-1984 as shown in Table V.

TABLE V

CALIFORNIA WATER SERVICE COMPANY - AUTHORIZED RATE OF RETURN

	<u>Capitalization Ratio</u>	<u>Cost Factor</u>	<u>Weighted Cost</u>	<u>After Tax Interest Coverage</u>
Average Year 1982				
Long-term debt	53.0%	9.58	5.08%	2.28
Preferred stock	4.0	6.46	.25	
Common equity	<u>43.0</u>	14.50	<u>6.24</u>	
Total	100.0%		11.58%	
Average Year 1983				
Long-term debt	53.0%	10.52	5.58	2.16
Preferred stock	4.0	6.41	.26	
Common equity	<u>43.0</u>	14.50	<u>6.24</u>	
Total	100.0%		12.08%	
Average Year 1984				
Long-term debt	53.0%	11.71	6.02%	2.08
Preferred stock	4.0	6.36	.25	
Common equity	<u>43.0</u>	14.50	<u>6.24</u>	
Total	100.0%		12.51%	

The 11.58% and 12.08% returns on rate base we are authorizing for 1982 and 1983 will result in rate increases of 9.6% or \$462,600 and 5.0% or \$268,400 respectively. The 12.51% return on rate base for 1984 will give effect to financial attrition of 0.43%. Application of a net to gross multiplier of 2.06778 will produce a further revenue increase in 1984 of 4.5% or \$ 249,500.

It was agreed between the staff and CWS that operational attrition should be based upon the adopted rates. In this district operational attrition has been calculated at 0.52%. Table 2 and Appendix C provide a basis for review of future advice letter requests.

Rate Design

CWS' present and proposed tariffs for this district consist, in part, of a two-tier commodity rate structure. The first tier applies for the first 300 cubic feet, the second tier for all

use in excess of 300 cubic feet. To this commodity rate charge is added the service charge - a readiness-to-serve charge.

Shown in Table VI is CWS' present tariff schedule for Bear Gulch.

Table VI

	<u>Per Meter Per Month</u>	<u>Fire Protection Revenue Loss Surcharge</u>
Service Charge		
For 5/8 x 3/4-inch meter	\$ 4.35	\$0.10
For 3/4-inch meter	7.25	0.15
For 1-inch meter	10.00	0.19
For 1½-inch meter	14.00	0.30
For 2-inch meter	17.00	0.36
For 3-inch meter	33.00	0.73
For 4-inch meter	45.00	0.98
For 6-inch meter	74.00	1.57
For 8-inch meter	110.00	2.32
For 10-inch meter	137.00	2.89
Quantity Rates		
For the first 300 cu.ft., per 100 cu.ft. ....	.628	
For all over 300 cu.ft., per 100 cu.ft. ....	.820	

CWS' rate design, as originally proposed in Exhibit 8, recommended a percentage increase in service charge revenues based on the total 1982 revenue increase divided by revenues at present rates, less the cost of purchased water and power. However, CWS introduced Exhibit 13, an alternate rate design, proposing that fixed charges should cover about two-thirds of the water utility's fixed costs, with the remainder of total revenue requirements being collected through commodity rates. The basis for CWS' request is that fixed costs constitute about 68% of its total costs, but that only about 27% of its current revenue derives from its fixed rates, i.e., its present

service charge. CWS, under its rate spread recommendation, would have about 35% of district revenues come from the service charge during 1982, 37% during 1983, and 40% commencing in 1984.

The staff proposes that any rate increases resulting from this proceeding be spread to maintain the present relationships between customer service and commodity charges. Staff feels that the change in rate emphasis proposed by CWS may serve as a disincentive to conservation efforts, and that overall charges to metered customers would be less responsive to the level of consumption. CWS maintains that there is no price response which affects the level of water consumption. Radpour of the staff disagrees, pointing to the fact that historically price-sensitive metered customers have used less water, while price-insensitive flat rate customers have used more. He believes that a rate spread such as recommended by CWS would place an unfair burden on below average level water users. The accumulated increases in revenue since January 1, 1976 have exceeded 25%. Therefore, any increase in revenue authorized in this proceeding could be applied to lifeline rates.

It is apparent that water utilities are dependent primarily upon residential water rates to provide the revenues required to meet their expenses. As a result, water companies relying heavily on commodity rates experience greater fluctuations in earnings as climatic conditions fluctuate. The staff has generally relied upon the need for conservation as a basis for its recommendations that revenue increases be spread evenly between service charges and commodity rates. From the information available to us, it does appear that residential water rates are somewhat sensitive to price change. Radpour testified that information contained in Exhibit 19 shows that in CWS' Oroville district, flat rate customer usage has increased steadily since 1974. But the metered customers in the same district are using less water now than in 1974, as rates have constantly risen.

CWS has steadily demonstrated a willingness to cooperate with our policy that conservation be a part of each public utility water system's ongoing efforts. (See discussion along these lines, supra.) It can be argued that to adopt a rate structure which seems to fly in the face of these conservation efforts is counterproductive. It would seem to us proper to center the responsibility for payments of fixed costs where they are expressed in the tariff - in the service charge portion of the rate structure. This method would reduce to some extent, the serious fluctuations in earnings which can result from the whims of the weather. We adopted the CWS approach to a slightly lesser extent recently in D.93687 dated November 3, 1981 in A.60498 (Park Water Co.) where we authorized 31% of revenue requirements to be recovered through service charges.

However, on the record before us in this proceeding, there is a lack of information concerning the impact of CWS' recommended rate spread upon the average residential monthly bill or the average commercial bill. There is also little evidence concerning the reasons and conditions surrounding the presently effective and proposed tariff structures. Such information was alluded to by Houck in his reference to a report presented at a meeting conducted in August 1981, by the California Water Association before the Commission. CWS offered to present the report as a late-filed exhibit, but the staff counsel objected because he would have no opportunity to cross-examine. CWS did not pursue the issue.

Before we adopt a rate design significantly different from one currently in effect, we require substantial information from parties concerning the impact of the new design on all users. We will also require concrete data concerning the price elasticity of water and historical and projected results relating to the effects of radical rate design changes upon conservation.

Indeed, the information available on this record seems to indicate a definite positive effect upon conservation of the present metered structure in the Bear Gulch District. (Exhibit 8, Chart 4-A, where water usage has diminished as rates have risen between 1974 and 1980.) It also appears to show a negative effect upon conservation, as attested by Radpour, where flat rates are in effect. (Exhibit 19, Chart 4-A, where water usage has steadily increased in spite of increasing rates between 1974 and 1980.)

Further, a rate design of the type proposed by CWS would have the effect of guaranteeing income to CWS to a greater extent than under its present tariff structure. This reduced risk ought to be reflected in somewhat lesser authorized rates of return.

In the circumstances, the staff rate design recommendation, i.e. applying revenue percentage increases evenly throughout the structure, is proper and will be adopted in this proceeding.

Findings of Fact

1. Estimates of payroll expenses based on Labor Department statutes, comparison with another utility, and inflation factors justify increases of 10.5% in 1982 and 10% in 1983. These are reasonable and should be adopted. ✓
2. The estimate of a 10% increase in transportation expenses for 1982 and 1983 is based on an estimate for this individual district. It is reasonable and should be adopted. ✓
3. Projected tank painting expenses will occur over the three-year period, 1982-1984, covered by this proceeding and it is reasonable to amortize them over three years.
4. Main replacement is scheduled for pipes which were installed before 1920. The estimated costs of \$50,000 for 1982 and \$50,000 for 1983 are reasonable.
5. There is not sufficient evidence on this record to reflect the consequences of the FERT in our adopted results of operations.
6. CWS will suffer operational attrition of 0.52% and financial attrition of 0.43% between 1983 and 1984.

7. A constant rate of return of 14.50% on common equity will result in returns on rate base of 11.58% in 1982, 12.17% in 1983, and 12.70% in 1984 and is reasonable for the purpose of this proceeding. A projected debt cost of 15%, 14% and 13.5% for 1982, 1983 and 1984 respectively is reasonable.

8. There is not adequate evidence on the record to adopt a rate design of the type proposed by CWS. The design recommended by the staff spreads the revenue requirement between service charge and commodity charge and is reasonable.

Conclusions of Law

1. Revenue increases of \$462,600 or 9.6% for 1982 and \$268,400 or 5.0% for 1983 are reasonable based on adopted results of operations. A further increase in 1984 of \$249,500 or 4.5% is reasonable based upon operational attrition of 0.52% and financial attrition of 0.43%.

2. CWS should be authorized to file the rate schedules attached as Appendixes A and B, subject to the conditions set forth in Conclusion of Law 7.

3. This proceeding should remain open to receive evidence of the financial effects of FERT.

4. The staff's rate design recommendation is reasonable and should be adopted.

5. The adopted rates are just, reasonable, and nondiscriminatory.

6. Because of the imminent need for additional revenue, the following order should be effective the date of signature.

7. The further increases authorized in Appendix B should be appropriately modified in the event the rates of return on rate base, adjusted to reflect the rates then in effect and normal ratemaking adjustments for the 12 months ending September 30, 1982, and/or September 30, 1983, exceed the lower of (a) the rate of return found reasonable by the Commission for CWS during the corresponding periods in the most recent rate decision, or (b) 11.58% for 1982 and 12.08% for 1983.

8. The present fire protection rates should be increased \$1 in 1982, .25¢ in 1983, and .25¢ in 1984, except the 1-1/2-inch connection charges for 1983 and 1984 should be increased by .40¢ and 35¢, respectively, for tariff simplicity.

INTERIM ORDER

IT IS ORDERED that:

1. California Water Service Company (CWS) is authorized to file for its Bear Gulch District, effective January 1, 1982, the revised rate schedules in Appendix A. The filing shall comply with General Order 96-A. The revised schedules shall apply only to service rendered on and after their effective date.

2. On or after November 15, 1982, CWS is authorized to file an advice letter, with appropriate workpapers, 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 Bear Gulch District rate of return on rate base, adjusted to reflect the rates then in effect and normal ratemaking adjustments for the 12 months ending September 30, 1982, exceeds the lower of (a) the rate of return found reasonable by the Commission for CWS during the corresponding period in the then most recent rate decision, or (b) 11.58%. Such filing shall comply with General Order 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 30 days after the filing of the step rate, whichever is later. The revised schedule shall apply only to service rendered on and after its effective date.

3. On or after November 15, 1983 CWS is authorized to file an advice letter, with appropriate workpapers, 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 Bear Gulch District rate of return on rate base, adjusted to reflect the rates then in effect and normal ratemaking adjustments for the 12 months ending September 30, 1983, exceeds the lower of (a) the rate of return found reasonable by the Commission for CWS during the corresponding period in the then most recent rate decision, or (b) 12.08% . Such filing shall comply with General Order 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, 1984, or 30 days after the filing of the step rates, whichever is later.

This order is effective today.

Dated DEC 15 1981, at San Francisco,
California.

JOHN E. BRYSON
President
RICHARD D. GRAVELLE
LEONARD M. GRIMES, JR.
VICTOR CALVO
PRISCILLA C. GREW
Commissioners

I CERTIFY THAT THIS DECISION
WAS APPROVED BY THE ABOVE
COMMISSIONERS TODAY.


Joseph E. Bolovick, Executive Director

APPENDIX A
Page 1

Schedule No. BG-1
Bear Gulch Tariff Area
GENERAL METERED SERVICE

APPLICABILITY

Applicable to all metered water service.

TERRITORY

The communities of Atherton, Menlo Park, Portola Valley, Woodside, and vicinity, San Mateo County.

RATES

Per Meter
Per Month

Service Charge:

For 5/8 x 3/4-inch meter	.....\$	4.85
For 3/4-inch meter	.....	8.10
For 1-inch meter	.....	11.20
For 1 1/2-inch meter	.....	15.70
For 2-inch meter	.....	19.00
For 3-inch meter	.....	37.00
For 4-inch meter	.....	50.00
For 6-inch meter	.....	83.00
For 8-inch meter	.....	123.00
For 10-inch meter	.....	153.00

Quantity Rates:

For the first 300 cu.ft., per 100 cu.ft.	.....	0.687
For all over 300 cu.ft., per 100 cu.ft.	.....	0.893

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 2Schedule No. BC-4
Bear Gulch Tariff Area
PRIVATE FIRE PROTECTION SERVICEAPPLICABILITY

Applicable to all water service furnished for privately owned fire protection systems.

TERRITORY

The communities of Atherton, Menlo Park, Portola Valley, Woodside, and vicinity, San Mateo County.

RATES

	<u>Per Month</u>
For each 1½-inch connection	\$ 3.75
For each 2-inch connection	5.00
For each 3-inch connection	7.50
For each 4-inch connection	10.00
For each 6-inch connection	15.00
For each 8-inch connection	20.00
For each 10-inch connection	25.00

SPECIAL CONDITIONS

1. The fire protection service facilities will be installed by the Utility at the cost of the applicant. Such cost shall not be subject to refund. The facilities paid for by the applicant shall be the sole property of the applicant.
2. If a distribution main of adequate size to serve a private fire protection system in addition to all other normal service does not exist in the street or alley adjacent to the premises to be served, then a service main from the nearest existing main of adequate capacity will be installed by the Utility at the cost of the applicant. Such cost shall not be subject to refund.
3. Service hereunder is for private fire protection systems to which no connections for other than fire protection purposes are allowed and which are regularly inspected by the underwriters having jurisdiction, are installed according to specifications of the utility, and are maintained to the satisfaction of the Utility. The Utility may require the installation of a detector check valve with meter for protection against theft, leakage, or waste of water.
4. For water delivered for other than fire protection purposes, charges will be made therefor under Schedule No. BC-1, General Metered Service.
5. The Utility will supply only such water at such pressure as may be available from time to time as a result of its normal operation of the system.

(END OF APPENDIX A)

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.

<u>Service Charge</u>	<u>Effective Dates</u>	
	<u>1-1-03</u>	<u>1-1-04</u>
For 5/8 x 3/4-inch meter	\$0.25	\$0.25
For 3/4-inch meter	0.40	0.30
For 1-inch meter	0.50	0.40
For 1 1/2-inch meter	1.00	0.90
For 2-inch meter	1.00	1.00
For 3-inch meter	2.00	2.00
For 4-inch meter	3.00	2.00
For 6-inch meter	4.00	4.00
For 8-inch meter	6.00	6.00
For 10-inch meter	8.00	7.00

Quantity Rates:

For the first 300 cu.ft., per 100 cu.ft.	0.035	0.032
For all over 300 cu.ft., per 100 cu.ft.	0.045	0.042

Private Fire Protection Service

For each 1 1/2-inch Connection	0.40	0.35
For each 2-inch Connection	0.50	0.50
For each 3-inch Connection	0.75	0.75
For each 4-inch Connection	1.00	1.00
For each 6-inch Connection	1.50	1.50
For each 8-inch Connection	2.00	2.00
For each 10-inch Connection	2.50	2.50

(END OF APPENDIX B)

APPENDIX C
Page 1

ADOPTED QUANTITIES

Company: California Water Service Co.
District: Bear Gulch

	<u>1982</u> Ccf(1000)	<u>1983</u> Ccf(1000)
1. <u>Water Production:</u>	4,716.1	4,740.4
<u>Purchased Water :</u>	3,956.4	3,980.7
<u>Surface Supply :</u>	759.7	759.7
2. <u>Electric Power :</u>	0.768856 KWh per Ccf	Supplier: PG&E Date: <u>6-21-81</u>
KWh :	3,626,000	3,644,700
Cost :	\$ 244,400	\$ 245,700
Cost per KWh :	\$.067408	\$.067408
3. <u>Ad Valorem Taxes:</u>	\$133,500	\$139,300
Tax Rate:	0.926%	0.926%
4. <u>Net-to-Gross Multiplier:</u>	2.06778	
5. <u>Local Franchise Tax Rate:</u>	0.8032%	
6. <u>Uncollectible Rate:</u>	0.13%	
7. <u>Metered Water Sales Used to Design Rates:</u>		

	<u>Range-Ccf</u>	<u>Usage - Ccf</u>	
		<u>1982</u>	<u>1983</u>
Block 1	0-3	563,638	566,443
Block 2	300	<u>3,899,862</u>	<u>3,920,057</u>
Total Usage		4,463,500	4,486,500

APPENDIX C
Page 2

8. Number of Services:

	<u>No. of Services</u>		<u>Usage-KCcf</u>		<u>Avg. Usage-Ccf/Yr.</u>	
	<u>1982</u>	<u>1983</u>	<u>1982</u>	<u>1983</u>	<u>1982</u>	<u>1983</u>
Commercial-Metered	16,137	16,217	4,236.0	4,257.0	262.5	262.5
Industrial	7	7	12.7	12.7	1,814.3	1,814.3
Public Authority	100	101	169.4	170.4	1,694.0	1,687.1
Other	<u>18</u>	<u>18</u>	<u>45.4</u>	<u>46.4</u>	2,522.2	2,577.8
Subtotal	16,262	16,343	4,463.5	4,486.5		
Private Fire Pnt.	58	59				
Public Fire Pnt.	8	8				
Total	16,328	16,410				
Water Loss 5.36%			252.6	253.9		
Total Water Produced			4,716.1	4,740.4		

9. Number of Services (by meter size)

<u>Meter Size</u>	<u>1982</u>	<u>1983</u>
5/8" x 3/4"	11,406 services	11,462 services
3/4"	24	24
1"	3,703	3,723
1½"	793	797
2"	288	289
3"	32	32
4"	10	10
6"	5	5
8"	1	1
10"	-	-
Total	<u>16,262</u>	<u>16,343</u>

APPENDIX C

Page 3

INCOME TAX CALCULATION

Item	1962	1963
<u>State Franchise Tax</u>		
Operating Revenue	\$5,306.6	\$5,602.2
<u>Expenses</u>		
O&M	2,871.0	2,994.2
Taxes Other Than Income	169.5	178.5
Subtotal	3,040.5	3,172.7
<u>Deductions & Adjustments</u>		
Transportation Depr. Adj.	(17.1)	(18.6)
G.O. Depr. Adj.	(4.5)	(4.6)
Soc. Sec. Taxes Capitalized	7.0	7.6
Interest	618.2	708.8
Subtotal Deduction	603.6	693.2
State Tax Depreciation	558.4	572.0
Net Taxable Revenue	1,104.1	1,164.3
CCRT at 9.6%	106.0	111.7
<u>Federal Income Tax</u>		
Operating Revenue	5,306.6	5,602.2
Expenses	3,040.5	3,172.7
Deductions	603.6	693.2
FIT Depreciation	545.5	558.9
Preferred Stock Div. Cr.	3.7	3.7
State Income Tax	106.0	111.7
Taxable Revenue	1,007.3	1,062.0
FIT at 46%	463.4	488.4
Graduated Tax Adj.	(1.5)	(1.5)
Adj. for Invol. Conver.	(0.8)	(0.8)
Investment Tax Credit	(60.8)	(67.2)
FIT	392.3	418.9

Red Figure

(END OF APPENDIX C)