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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the matter of the Application of the SOUTHERN CALIFORNIA WATER COMPANY for an order authorizing it to increase the rates for water service in its Big Bear District.	Application 60735 (Filed July 15, 1981)

O'Melveny & Myers, by Guido R. Henry, Jr., Attorney at Law, for Southern California Water Co., applicant.
John Gutwein, for himself, interested party.
Philip Scott Weismehl, Attorney at Law, for the Commission staff.

I N D E X

OPINION

By this application Southern California Water Company (SoCal) requests authority to increase rates for water service in its Big Bear District by $584,400, or 46.7% in 1981 over its present rates, by $227,100, or 11.9% in 1982, by $189,500, or 8.6% in 1983, and by $138,500, or 5.8% in 1984. SoCal estimates that the proposed rates will produce a return on rate base of 11.54% in 1981, 11.84% in 1982, and 12.11% in 1983. These returns on rate base are based on its request for a constant return on common equity of 16.0% for years 1981-1983. SoCal's revenue requirement for 1984 is based on attrition in rate of return between 1982 and 1983 at present rates. Its estimate of operational attrition is 0.65%, and for financial attrition it is 0.27%.

The foregoing proposed increases exclude the effects of the Economic Recovery Tax Act of 1981 (ERTA). However, in this connection applicant supplemented the information on this application provided in the notice of hearing mailed on October 30, 1981 to its customers as follows:

> "NOTE The increase in rates requested are further increased by a total of 19.3% in 1982 and 19.0% in 1983 to reflect 'The Economic Recovery Tax Act of 1981' signed into law on August 13, 1981."

The last general rate proceeding for SoCal's Big Bear District was based on test year 1977 where rates of return of 8.0% on rate base and 10.34% on common equity were found reasonable.[1/]

1/ Decision (D.) 87708, dated August 16, 1977 in Application (A.) 56339.

SoCal's present rates in the Big Bear District became effective April 18, 1980 under the provisions of Resolution W-2628 (Advice Letter 568-W).

Public hearings in this proceeding were held on a consolidated record with A.60736 and 60737 before Administrative Law Judge (ALJ) John Lemke in Los Angeles November 16 through 19. Public witness testimony was taken on November 10 before the ALJ at Big Bear Lake. This public witness hearing was conducted for the purpose of receiving comments from customers in the district concerning water service and rates. 25 customers testified at this proceeding. All complained that the service is poor and/or the rates are excessive. John Linder, chief of the Big Bear Lake Fire Department, stated that a number of fire hydrants in the district were bad or inoperative; that in his opinion there was danger of a conflagration in this heavily forested mountain area. In all, approximately 100 people attended the public witness hearing.

An informal public meeting on the application was held at Big Bear Lake September 14, 1981. This meeting was conducted by Sung Han for the Commission staff (staff) and with SoCal officials to explain the rate increase application. Approximately 110 people attended this meeting. A number of residents from the district's Sugarloaf area complained about water outages during winter, leaking mains, lack of fire protection in the area, water lost through bleeders, and the lack of SoCal's response to complaints. There were a number of complaints about low water pressure, dirty water, and main leaks throughout the Big Bear service area. William Caveney, president of SoCal and Roscoe Anthony, vice president - operations, speaking for SoCal acknowledged that problems exist within the district. They explained that SoCal spends about $140,000 to $160,000 annually

to replace approximately 8,000 feet (ft.) of main, and that total length of main within the district is about 800,000 ft., approximately 490,000 ft. of which is under 4 inches in diameter and considered undersized. If all undersized mains were to be replaced, it would cost about $24 million, resulting in water bills for each customer in excess of $100 per month. It was also stated that SoCal is planning to build a water storage tank to help meet fire-flow requirements in the Big Bear Lake area. They also explained that bleeding of the mains in the Sugarloaf area, resulting in runoff problems, is necessary to prevent the water in the mains from freezing because the pipes were buried too close to the surface when originally installed by previous owners.

The public meeting, the public witness hearing, and the evidentiary hearings were all noticed by SoCal to each customer in the district in accordance with the Commission's Rules of Practice and Procedure.

General Information

SoCal currently owns and operates water systems in 19 separate operating districts within California. Its main office is located in Los Angeles. There, its administrative, engineering, general accounting, customer billing, data, rate and valuation, purchasing, and personnel functions are conducted. SoCal maintains a construction department in Hawthorne.

As of December 31, 1980 SoCal had an investment in utility plant of $147,467,000, served 216,389 water customers, employed 380 persons, and had gross operating revenues for 1980 of $36,527,000. It has 1,987,636 shares of common stock outstanding. Ownership is shared by more than 5,000 individuals and institutional shareholders. SoCal has 200,400 shares of preferred stock outstanding, all of which is held by institutional investors. Table 1 depicts the percentages used by SoCal to allocate common costs to its 19 operating districts, based on its 1980 operations.

TABLE 1

SOUTHERN CALIFORNIA WATER COMPANY

Derivation of Percentages Used to Allocate
Common Costs Based on 1980 Operations

(Dollars in Thousands)

Districts	Utility Plant		Customers		Expenses		Labor		Total	Average
	$	%	Number	%	$	%	$	%	%	%
Arden-Cordova	5,412.3	3.73	8,552	3.42	287.4	1.17	97.6	2.32	10.64	2.66
Barstow	7,411.6	5.11	7,200	2.88	695.8	2.82	126.5	3.01	13.82	3.46
Bay	1,798.3	1.24	2,806	1.12	227.2	0.92	78.7	1.87	5.15	1.29
Big Bear	7,728.1	5.33	10,127	4.06	603.7	2.45	225.3	5.36	17.20	4.30
Calipatria-Niland	1,441.3	1.00	1,030	0.41	142.5	0.58	57.0	1.36	3.35	0.84
Clearlake	1,228.8	0.85	1,971	0.79	156.0	0.63	71.2	1.69	3.96	0.99
Cowan Heights	1,409.7	0.97	1,324	0.53	323.2	1.31	42.7	1.01	3.82	0.95
Desert	2,782.9	1.92	3,432	1.37	444.6	1.80	206.1	4.90	9.99	2.50
Los Osos	1,625.9	1.12	2,242	0.90	175.3	0.71	70.9	1.69	4.42	1.11
Metropolitan	46,624.3	32.14	87,265	34.94	8,576.2	34.77	1,347.0	32.04	133.89	33.47
Ojai	1,890.1	1.30	2,452	0.98	253.8	1.03	70.6	1.68	4.99	1.25
Orange County	21,498.2	14.82	34,584	13.85	2,849.1	11.55	411.9	9.79	50.01	12.50
Pomona Valley	7,370.8	5.08	8,595	3.44	1,432.7	5.81	201.7	4.80	19.13	4.78
San Bernardino Valley	2,078.6	1.43	3,786	1.52	374.1	1.52	90.1	2.14	6.61	1.65
San Dimas	11,009.2	7.59	22,004	8.81	1,726.8	7.00	301.9	7.18	30.58	7.65
San Gabriel Valley	4,363.7	3.01	11,040	4.42	744.9	3.02	179.8	4.28	14.73	3.68
Santa Maria	5,511.0	3.80	14,168	5.67	662.2	2.68	145.0	3.45	15.60	3.90
Simi Valley	5,198.9	3.59	9,828	3.94	1,019.7	4.13	117.7	2.80	14.46	3.61
Wrightwood	1,622.8	1.12	2,069	0.83	156.6	0.63	84.7	2.01	4.59	1.15
Total Water Districts	138,010.5	95.15	234,475	93.88	20,851.8	84.53	3,926.4	93.38	366.94	91.74
Bear Valley Electric	7,035.3	4.85	15,282	6.12	3,815.8	15.47	278.5	6.62	33.06	8.26
Total Utility	145,045.8	100.00	249,757	100.00	24,667.6	100.00	4,204.9	100.00	400.00	100.00

Big Bear Service District

The Big Bear District history begins with the approval of a franchise issued to the Bear Valley Utility Company in 1924. The present district is the result of customer growth and the acquisition of several water companies through the years. This district is part of SoCal's Eastern Division. District headquarters is located in Big Bear Lake. This office handles matters relating to service, collections, and inquiries, and serves as field headquarters for operations and construction work and for warehousing of materials and supplies.

SoCal's Big Bear District serves five separate areas. These are Big Bear Lake, Fawnskin, Lake Williams, Rimforest, and Sugarloaf. Elevation at Big Bear Lake is approximately 6,750 ft. There is very little industrial development within the district, the business enterprises being mainly those associated with a resort area. As of December 31, 1980 there were 10,125 customers in the district. Of these, 99.5% are residential and business customers.

The water supply for the Big Bear Lake area is obtained from four wells at the Lake Plant, six at the Division Plant, two at the Lassen Plant, one at the Sand Canyon Plant, and three springs and 13 slant wells in the Moonridge area.

The Fawnskin water supply is obtained from three wells at the Northshore Plant, three slant wells, and a spring. In Lake Williams water is obtained from three wells, one each at the Onyx, Montevista, and Skyview Plants. Water supply facilities in the Rimforest area include three wells and a connection to the Crestline-Lake Arrowhead Water Agency. In the Sugarloaf area, water is obtained from seven wells. Storage facilities located in the district total 2,936,500 gallons.

Service and Conservation

At the public meeting and the public witness hearing, as mentioned above, there were many complaints from customers concerning the low pressure within certain areas of the district, and lack of adequate fire protection. In addition, many customers complained about the high level of SoCal's rates when compared with those of customers who are served by a nearby mutual district. Cavency explained that the lower rates paid by the customers of this mutual district are because the district pays neither federal nor state income taxes and has no need to earn a profit on its utility plant.

Staff Exhibit 28 § 12.6 states as follows:

> "Numerous leaks along with utility's massive bleeder program to prevent freeze-ups during cold weather has resulted in estimates for unaccounted water in the range of 32 to 41% per year of total water supply. Typically, it has been staff's knowledge that unaccounted for water, for most water utilities, is in the range of 10-15%. The utility's percentage is unacceptable, especially in light of the Commission's recent concerns about water conservation."

Nevertheless, the company does maintain a public information program for customer water conservation. Richard Gruszka, SoCal's vice president of revenue requirements enumerated the following features of this program:

> "1. Quarterly mailings urging customers to conserve, and describing how to achieve water savings.
>
> "2. Mailing of brochures describing landscaping conservation techniques.
>
> "3. Numerous talks to various groups concerning faucets, toilet tanks, hose connections, sprinklers, and soaking of lawns.
>
> "4. A continuing program of newspaper advertisements, urging customers to conserve water.

"5. Mailing of brochures to Big Bear residents annually, urging customers, when they close down their cabins for the year, to drain their water system to prevent freezing of pipes."

Recent Big Bear District Leakage and Rate History

D.87708, dated August 16, 1977, ordered SoCal to spend at least $200,000 per year for main replacements from 1978 through 1982. This was because of the massive leakage problem which had existed for many years. When SoCal bought this system in 1962 it was already old and had many problems. (Testimony of witness Anthony.) SoCal generally complied with our directive to spend at least $200,000 for main replacements except for one year, 1980, when it would have had to replace an inordinate amount of street surface, based upon an order from CalTrans, in order to replace some main in the Big Bear Lake area. It spent only $132,850 in 1980.

A letter dated October 8, 1981 from SoCal to the staff, contained in Exhibit 16, states that several hundred leaks in the district have been repaired over the past three years. But Anthony testified that in spite of SoCal's ongoing main replacement program, there has been no reduction in the number of leaks. Leaks are repaired by SoCal in order of importance and hazard.

Information in the October 8 letter shows that for each $100,000 of investment in the district, $27,190 is required in new revenues. Based upon an average of 10,320 customers this new revenue requirement results in average annual service charge increases of $2.65, or 22 cents (¢) per month. Using these costs, SoCal furnished investment and revenue requirements with corresponding increased customer annual and monthly rate increases under alternate main replacement plans. These are set forth in Table 2.

TABLE 2

	Alternate 1		Alternate 2
	$5,000,000 Per Year	$1,000,000 Per Year	$200,000 Per Year
Investment Per Year	$5,000,000	$1,000,000	$200,000
Increase in Revenue Requirement Per Year	1,359,500	271,900	54,380
Increase Per Customer Each Year			
Annual	131.73	26.35	5.27
Monthly	10.97	2.20	.44
Three-Year Increase Monthly	32.91	6.60	1.32

Anthony testified that in his opinion the quality of the service in Big Bear is generally good. He admitted the leakage problem and stated that SoCal is continuing its program to repair these leaks.

However, Anthony mentioned two specific problems that SoCal has addressed in its 1982 capital budget. One of these is represented by a group of customers consisting of about 50 people. The location involved is the Knight Avenue Area, situated on the south side of the Big Bear system. During peak weekends customers in this area have very poor water service. SoCal's solution to the problem is to build a separate pressure zone. Anthony stated this work will be done in 1982. It will consist of a booster station and some pipe and will apply within an area comprising five or six streets one block in length. When this work is completed these customers will have a standard of service as prescribed by General Order (GO) 103.

The second area is referred to as Highland Avenue. Customers in this area characterize their problem as low water pressure on peak weekends. SoCal's investigation disclosed that

the problem was not low water pressure but rather small-size pipe. This resulted in their not getting the amount of water needed. SoCal's solution to this problem is a pipeline replacement program above and beyond the $200,000 mandated by the Commission. This will also be completed in 1982. There are other problem areas mentioned in the October 8 letter contained in Exhibit 16, concerning locations scattered throughout the system. These include about 30 homes that do not receive today's GO 103 standard of service, but do receive the level of service which the company refers to as the pre-1975 GO 103 standards. As the individual main replacement program continues, these customers will eventually receive current GO 103 levels of service.

Fire-Flow Requirements

Anthony described the Big Bear Lake area as one built principally by developers, started many years ago when there was no government control over the water system nor over the fire hydrants, if any existed at that time. Fires were controlled originally by fire trucks carrying water with them. However, the local fire departments wanted fire hydrants, and some of those hydrants were installed on substandard mains.

Linder testified that there have been situations where fire hydrants in the district have been out of service and inaccessible for one year. He stated that part of the reason for these long delays is due to the fact that SoCal has several different type fire hydrants, requiring different parts for repair. Linder believes if SoCal has hydrants for which it is unable to get parts, that instead of letting them be out of service for such a long period, it would be better to update the hydrant. That is, a newer type of hydrant, for which parts are readily available, should be used. Linder requested that a condition for any increase should be that SoCal must provide adequate parts and/or replacement

hydrants on standby so that hydrant maintenance can be performed in a timely manner. Linder further testified that there have been instances in Big Bear Lake where replacements or extensions have been made in the system which have not been adequately sized for fire-flow purposes. He cited as an example main replacement in the Moonridge area on Rathburn Street which serves commercial property and is served by a 6-inch main, which is the minimum requirement for fire flow under GO 103. Linder believes this 6-inch line might not meet fire-flow needs for commercial property, which is 2,500 gallons per minute (gpm). Linder requests that there be some sort of check and balance system instituted to make sure that SoCal is in fact sizing its mains to meet the requirements of GO 103.

Linder introduced Exhibit 2 listing out-of-service hydrants in the Big Bear Lake area. According to this exhibit dated November 8, 1981, there are nine fire hydrants which Linder stated are, to the best of his knowledge, still out of service. The oldest reported out-of-service date is June 29, 1981. Another hydrant was reported out-of-service as of August 26 and two, as of September 23, 1981. Anthony testified that seven of these nine out-of-service hydrants actually belonged to SoCal, two being private hydrants. Anthony further testified that as of Monday, November 16, 1981, all of the hydrants shown on Exhibit 2 were repaired except one.

Insurance Rates

Testimony was offered by Steve Keveson, a resident of Big Bear. He appeared on behalf of the Big Bear Homeowners Association. He testified concerning the relationship between the water system and residential and commercial insurance rates. He spoke from material taken from the Insurance Service Organizational Rating Manuals, referred to as the "ISO." The

manuals separate service areas into rate classes, ranging from 1 to 10. Ten is considered a very high hazard area. Two principal factors are analyzed in setting ratings, Keveson testified. One of these factors relates to the Fire Department serving the area; the other, to the water system serving the community. He stated that the Big Bear Area is rated in Classes 7, 9 and 10. Class 7 area includes a portion of the community adjacent to the lake, following the general contour of what is known as the Village along Big Bear Boulevard toward the Gold Mine ski area. There are several pockets of Class 9 areas. One is between Big Bear Boulevard and the lake, bordered by Ninth Street. Keveson stated that according to the ISO, this is a result of the low water pressure in the area.

He stated that based on the ISO manual, the Big Bear Fire Department is comparable with other fire departments in the San Bernardino Mountains. These departments consist of a primary cadre of firemen who are professional, fulltime paid firemen, augmented by volunteer firemen.

Keveson testified that the ISO ratings are used to determine the fire insurance rates paid by homeowners and mercantile businesses. He requested that the Commission be mindful of the long-term needs of the community, inasmuch as insurance rates can have a dramatic effect on the cost of doing business in the community. By way of comparison, he testified that a homeowner's policy for a $100,000 dwelling located in the San Gabriel Valley area, rated at Class 4, would run about $300 a year; while the same coverage for an equivalent home in Big Bear, rated at Class 7, would cost $390. Keveson is concerned that the ratings in parts of the community might go higher due to the poor

condition of the water system. He testified that a reduction from a Class 7 to a Class 6 ISO rating would result in a saving of approximately 10% on a homeowner's policy but that similar reductions on commercial buildings are much greater than 10%.

Customer Testimony

Elizabeth Clinton testified on behalf of the Gibraltar Talmadge Lakeview Park Homeowners' Association. She stated that her group has initiated passage of an ordinance to moderate the growth of Big Bear Lake in order to preserve the quality of the environment and the natural character of the community. She stated that while other customers have complained about excessive chlorine in their particular areas, the water in the Talmadge area where she resides has a flavorful mountain spring taste and offered her congratulations to SoCal. However, she also testified concerning a massive leak in the Red Ant Hill area of the district. She spoke to the manager of SoCal about the leak, which emanates from an 8-inch line affording the only fire protection in the area. She stated that the leak is presently so bad that it has filled two driveways with water and was spreading at the bottom of Red Ant Landing, traveling down the other side of Spruce Street, angling down Spruce and going down Big Bear Boulevard. She believes that if there is a freeze, there would be a sheet of ice on much of the pavement.

Bob MacDonald testified as a private citizen and as a member of the Planning Commission of the City of Big Bear Lake. He testified about his concerns relating to backflow prevention, fire protection, overdraft of water source availability, and replacement of mains. He stated that there have been several incidents where there have been negative water pressure conditions, resulting in air being drawn back into the main service line. As

a result, he stated, the danger of water contamination is a very real possibility. MacDonald also testified that many of the structures in the district are very old, built between the turn of the century and the 1930s before the advent of modern building codes. Many of these buildings do not have fire retardant or fire resistant walls.

MacDonald is also concerned about the plans of SoCal to take water directly from Big Bear Lake in order to meet future needs of customers in the area. The building of a filtration and treatment plant will be financially very burdensome, he believes. He asks that the Commission keep this in mind when reviewing SoCal's unaccounted-for water, which ranges from 32% to 41%. He, too, stated that much of the unaccounted-for water is lost through leaks in substandard mains. MacDonald believes that the company should have replaced the mains by now, without having to be ordered to do so by the Commission. He fully agrees with the recommendation from the staff that SoCal be directed to spend $500,000 in 1982 and $1,000,000 thereafter for replacement of mains. He has spoken with several other customers concerning this project, pointing out the average customer cost of approximately $1.55 per month per million dollars of expenditure for these improvements.

Joe Shuff appeared and testified on behalf of Gold Mine Ski and Recreation Area (Gold Mine). His company is located in the Moonridge area. In the summertime Gold Mine provides golfing, scenic chair rides, and a swimming pool for visitors. It also provides the property on which the county maintains a zoo, horseback riding and hiking in the summer, and an alpine slide in the winter. In the winter its primary business is providing skiing and snowmobile activities for the public. Gold Mine is the primary industrial customer in the district.

Shuff testified that about five years ago Gold Mine had difficulty in securing water from SoCal on weekends. The problem was determined to be mainly connected with storage, and for that reason Gold Mine built a reservoir adjacent to the SoCal tanks adjoining its property so that SoCal could deliver water to Gold Mine at off-peak times when they had excess water flowing into its tanks. Gold Mine could then take the water directly into its own reservoir, to be used for watering the golf course and providing additional fire protection in the summer, and making snow in the winter. At that time they were paying about 20¢ per Ccf (750 gallons) for water. Shortly after that, SoCal requested and received a rate increase, raising the price of water to 87¢. This made it impossible for Gold Mine to water its golf course during the summer. Gold Mine initiated a complaint with the Commission, resulting in a rate reduction to 43¢. Last winter the price was again increased, this time to 58¢. Gold Mine then began to obtain water from a stream, and pumped 27,000,000 gallons back up a hill into their own reservoir. Shuff stated that his company will ultimately use in excess of 200,000,000 gallons a year. He said Gold Mine currently employs about 200 people, and hopes eventually to have between 450 and 600 on its payroll if they can operate their businesses successfully. He believes that the only way the winter business can be successful is by having the ability to make snow. Shuff testified that if Gold Mine were to pump its own water from the same water basin which SoCal uses, the resultant loss of Gold Mine as a customer would put an additional burden on SoCal's residential and commercial customers in the district. He requested that the Commission consider its particular needs and authorize the establishment of an irrigation rate for this heavy industrial user. He understands that the

Commission may not wish to consider a special rate for a unique or individual customer; but he also points out that there are special rates (the present tail block) for the public school, the park, and Gold Mine. He stated that if Gold Mine is required to pay more than 40¢ per Ccf for water, it would have to consider other means for securing its water.

Results of Operations

SoCal and the staff have different recommendations concerning three matters. These concern (1) SoCal's proposed new water treatment plant, (2) its main replacement program, and (3) the production of gravity water.

New Treatment Plant

Robert J. Gregg is SoCal's chief engineer. He testified as follows with respect to SoCal's plans to build a water treatment plant in the Big Bear District:

1. All the water presently produced in the Big Bear Valley is ground water. The only source of replenishment for that ground water is water termed "natural recharge."

2. Recognizing that the area was growing quite rapidly, and that there were definite limitations on the replenishment of the ground water supply, a joint study was undertaken in 1978 by SoCal and the Big Bear Community Services District.

3. The first objective of the study was to determine the estimated sustained ground water yield (that which can be achieved indefinitely) for the valley. That study was completed by geologists employed by Leroy Crandell and Associates and by a geologist employed by SoCal. The figure developed from that study is about 3,100 acre feet per year.

4. Another purpose of the study was to estimate the population growth in the valley. Forecasts on growth were developed by such agencies as the Southern California Association of Governments, and the San Bernardino County Association of Governments.

5. It was estimated that the whole valley including SoCal's district would require approximately 3,550 acre-feet per year in 1980 to meet projected demands; in fact, the 1980 total ground water production was 3,850 acre-feet.

6. SoCal is experiencing new customer growth at a rate slightly in excess of 300 customers per year.

7. The number of permanent residents in the district, as opposed to weekend residents, is increasing. As a consequence, the consumption pattern is changing.

8. Based upon forecasts and actual experience, it is expected that an additional source of water will be required to meet the demands of SoCal's customers in 1984.

9. By 1984 SoCal's customer demand in this district will be 3,200 acre-feet.

10. The most economical and reliable source of additional water supply is Big Bear Lake.

Gregg described the actual construction plans for the new plant: The plant will involve a sedimentation and filter process followed by disinfection. At this time it is expected that the disinfection will consist only of chlorination. In addition, booster pumps will be needed to make the water available at some pressure. The intake structure for the plant will require deep water. The structure itself will likely consist of a screened intake facility in the lake with pumping capability and a water pipeline to transport the water from the intake to the plant itself. The components of the plant will consist of the site work, the construction of a sedimentation basin or basins, installation of filters, construction of chemical storage facilities, construction of a laboratory to test water quality, booster pumps, electrical equipment, and controls.

Gregg was asked on cross-examination whether, if the water loss rate were reduced from the present 31%-42% range to about 15%, there would still be the need to construct the filtration plant in order to meet future needs of customers. He stated that much of the unaccounted-for water returns to the ground water basin. He noted that the geologic studies conducted did not fully take into account the effect of a reduction in water loss upon sustained yield. In other words, the impact of loss reduction would be a reduction in safe yield since the safe yield study is based upon a review of historical ground water levels. Another consideration, he stated, is that it takes a long time to accomplish a significant reduction in water loss of the type associated with SoCal's Big Bear District. He believes that although a reduction in unaccounted-for water is currently being achieved, there will still be a need for an additional supply source by 1984, based upon the studies mentioned. He stated SoCal is proposing to construct a treatment facility in such a fashion that it may be expanded as need arises, and that SoCal is not proposing to build a lot of excess capacity into a facility that may never be used. However, Gregg stated that the annual production from the facility could vary from 500 acre-feet on up, depending upon actual customer demands. That is, the annual figure of 500 acre-feet is a minimum and could be increased. Gregg testified that the plant will be designed to produce at an instantaneous rate the equivalent to 1,500 gpm. If that rate were sustained for 24 hours per day, every day of the year, it would result in a total water production for the year of approximately 2800 acre feet. However, SoCal does not anticipate that kind of volume production.

On another matter Gregg testified that SoCal will complete in 1982 a 1,000,000-gallon reservoir in the district. As a result, in the Red Ant Landing and Lakeview areas, where existing fire flow is about 2,000 gpm, the flow will be increased to 3,600 gpm after

the completion of the reservoir. Flow after construction of the reservoir and with the new pipelines will be increased to about 4,400 gpm. In another area near the reservoir the flow will be increased from 900 gpm to 5,000 gpm upon completion of the reservoir and new pipelines. Gregg testified that the reservoir is expected to be completed no later than July 1982.

Discussion on SoCal's Service and Main Replacement Program

By D.87708, dated August 16, 1977 in A.56339, SoCal was ordered to spend at least $200,000 per year for main replacements from 1978 through 1982. SoCal was ordered to file annual reports describing its main replacement program and, if desired, to file a request for a rate increase to earn on the added costs of such replacements. Previously, in 1972 when the Commission granted SoCal a general rate increase, it ordered SoCal to spend $100,000 annually for main replacements. Each year after 1972 SoCal spent more than $100,000. The orders pertaining to main replacements were due to the high water loss rate which was, in turn, related to the leakage problem and to the need to bleed the system continually during the winter months. The principal cause underlying the orders for main replacements was that during the middle of the week throughout much of the year, there were only about 10,000 people residing in the district, but on weekends--and especially on long weekends--the population could increase to between 75,000 and 100,000, creating a severe demand on the system.

Because of the magnitude of the problems in the district at this time, the staff believes that the main replacement program should be accelerated. The staff has recommended increasing expenditures for main replacements to $500,000 in 1982 and $1,000,000 annually thereafter. SoCal asserts that in order to eliminate all leaks and bring fire flows up to current standards, about 459,000 ft.

out of the system total of about 800,000 ft. of mains needs to be replaced. SoCal's estimate of this total replacement cost is about $25 million. The staff states in Exhibit 28 that SoCal has replaced 20,585 ft. of main during the period 1978 through 1980--an average of 6,800 ft. per year. At this rate it would take 67 years to complete the replacement program, and staff considers this time period excessive.

Staff recommended in its Exhibit 28 that the filtration plant costs not be included in SoCal's capital budget because of a lack of definite information concerning the siting of the plant. (At the time the application was filed, SoCal had not made a decision concerning the precise location of the plant.) Furthermore, the original figures made available to the staff by SoCal were a mere $75,000 for land and $100,000 for the plant itself. During the hearing Caveney testified that the land would cost $200,000 for a one-acre parcel, plus an option to purchase an adjacent second acre for another $200,000. Anthony explained the underestimate as simply poor judgment on his part. He had not consulted with local realtors concerning property values before making his original estimate.

While the cost for plant construction was originally estimated at $100,000, SoCal presented new information on this point at the hearing. We are now informed that Phase I of the program will cost $400,000. This phase will include the intake and pipeline. The total plant, Gregg estimates, will cost $1.5 million. Additionally, there will be other costs of an indirect nature, e.g., engineering, design, overhead, which were not included in the original estimate. Thus, the revised SoCal figure for total plant cost would be in the neighborhood of $2,000,000 rather than $175,000 as originally estimated.

The staff had opportunity neither to investigate the land purchase due to the indecision surrounding the siting of the plant, nor to validate the data relating to projected water needs vis-a-vis plant capacity and revised plant costs.

Gregg has testified that current customer growth is a little over 300 customers per year. This is only 3.4% per year, (300÷10,320 customers), or a little over 10% during the three-year period or rate life covered by this proceeding. SoCal's Exhibit 14 confirms this expected growth rate when it shows that water produced will increase from 1,175.9 kCcf (recorded) in 1980 to 1,302.6 kCcf in 1983.

We are convinced that a need for water in addition to that available from ground sources will exist sometime in the future, based upon projected residential and customer growth. However, we cannot lightly endorse the outlay of costly new funds of the magnitude required - particularly in view of the circumstances surrounding this request - until the staff has been afforded reasonable opportunity to appraise and verify the need for a plant which will more than double its capacity, and to determine whether the capital cost for it is prudent. Had the staff been afforded this opportunity, we could have adequately weighed the recommendations and estimates.

Instead, we will recommend to SoCal that it consider, at its convenience, the filing of a rate base offset application for the specific purpose of allowing the staff opportunity to investigate the new plant proposal.

Anthony's remedy for some of the system problems is to spend more than $200,000 annually for main replacements. He would have SoCal spend $337,225, $320,400, and $310,000 in 1981, 1982, and 1983, respectively (Exhibit 15). Staff and others urge that step increases authorized in this proceeding for 1983 and 1984 be conditioned upon completion of staff's suggested expenditures for main replacements.

In light of the testimony by customers and SoCal witnesses concerning excessive leakage and fire flow, the staff recommendation

is reasonable and will be adopted. It is clear that an adequate solution to the massive leakage and fire flow problems is replacement of as much undersized and worn out pipe as may be financially practical.

While a total remedy for the leakage and fire flow problems will of necessity be a long time in coming, we believe SoCal must institute a much larger program in the area of main replacement. Therefore, we will condition step-rate increases for 1983 and 1984 upon the completion of main replacement totaling at least $500,000 in 1982 and $1,000,000 in 1983, and will order that $1,000,000 be spent in 1984 for this purpose. We expect that the anticipated customer growth rate in the district (300 per year) will provide a greater base over which to spread the costs associated with our adopted program.

We directed SoCal in D.87708 to lock all above-ground bleeders to avoid manipulation by vandals. This would reduce, to some extent, the unaccounted-for water factor. Anthony testified, however, that bleeders are not locked and that SoCal does experience some difficulty with children playing with bleeder valves. We will once more direct SoCal in this decision to lock all above-ground bleeders.

One further point on the plant construction program merits comment. Elizabeth Clinton raised the issue at the hearing whether it is legally permissible for SoCal to withdraw water from Big Bear Lake. Counsel for staff and SoCal were requested by the ALJ to review certain information provided by Clinton bearing on this issue. The staff has made no determination on this point, and does not plan to because of its recommendation that the plant not be constructed at this time. But SoCal's counsel has furnished us with a letter dated December 15, 1981 (Exhibit A in his brief) from

the Big Bear watermaster, stating that the Big Bear Municipal Water District has the right to store water in Big Bear Lake and use that water in any manner it chooses, including the sale of lake water to SoCal.

Production of Gravity Water

Gravity water is that which flows from slant wells and springs, requiring no pumping, and thus representing a savings in purchased power cost. The amount of gravity water available fluctuates with rainfall. SoCal, in arriving at its estimate of gravity water, averaged the water available during the previous five years, which included two drought and three wet years. The staff estimate used only the wet years and did not take into account the drought years. Its estimate was considerably higher than SoCal's. It appears from Exhibit 19, a graph of recorded rainfall and gravity water production 1975-1981, that the gravity water production resulting from the wet years is declining sharply. Since neither estimate was prepared based on long-term analysis, SoCal's gives better recognition to varying climatic conditions. SoCal's estimate is 23,000 Ccf, the staff's 34,000 Ccf per month. Adoption of SoCal's estimate would equate to an increase in purchased power cost of $21,900 per year above the staff estimate.

In the circumstances, we believe SoCal's estimate is more reasonable since it gives effect to a broader range of experience, offsetting the three wet years with the two drought years. We will adopt SoCal's estimate for available gravity water.

Rate of Return

SoCal requests for the years 1982 through 1984 a constant rate of return on common equity of 16%. This equates to returns on rate base of 11.84% in 1982, 12.11% in 1983, and 12.41% in 1984.

Staff recommended a range for return on common equity of 14.50 to 15.0%. Staff's return on rate base would be 11.08% for 1982, 11.35% for 1983, and 11.67% for 1984, based upon the mid-point of the staff-recommended return on equity factor of 14.75%.

In support of SoCal's recommended rates of return, Caveney testified and sponsored Exhibit 11. Exhibit 11 shows, among other

things, how SoCal's investment has been financed: by bonds, debentures, bank loans, preferred stock, and common equity. The exhibit shows that currently about 37% of SoCal's financing is accomplished through equity financing. Staff concurs with this ratio. Caveney notes that during the years 1971 through 1975, common equity of SoCal was in the neighborhood of 36%. It declined and stayed at about 31% or 32% from 1976 to 1979 and then increased in 1980 to about 37%. That increase was a result of a major issue of common equity by SoCal in August 1980. Caveney characterizes the issuance as the single most dramatic change in SoCal's financing in many years.

Caveney testified that the stock issuance was necessary because the earnings position of SoCal was such that its coverages were low. He stated that SoCal could not finance with debt or preferred stock and meet the coverages, and that the step was taken out of necessity and with the staff urging the infusion of additional common equity into SoCal. He states that the new equity financing was done somewhat reluctantly because of the dilution to the value of the shares of the existing shareholders and because of the relatively low price which SoCal got for the new stock compared to its book value.

Page 2 of Exhibit 11 shows SoCal's actual return on common equity from 1971 through 1980. The highest returns were earned in 1977 and 1978 when it was 11.61% and 11.33%; but it declined in 1980 to 7.99%. However, Caveney observes, even up through 1979, the return realized was far lower than any recommended return on common equity authorized by the Commission during those years. The very low return on equity in 1980 was due principally, of course, to the infusion of the new equity. It constituted that much more equity over which the earnings had to be allocated.

Exhibit 12 is SoCal's Calculation of Financial Charges as of October 31, 1981. Caveney testified when addressing this exhibit that SoCal could barely finance a $5 or $6 million bond issue. He

stated that the required coverage is two times the interest, i.e., the adjusted income for coverage purposes has to be twice the interest on the present debt plus that of the additional bonds. He noted that coverages on $6,000,000 of new bonds, even at an assumed low interest rate of 15%, come to only 2.19. Caveney asserts that there are two important factors involved in this area. One is a requirement of its existing first mortgage bondholders that bonds may not be issued unless SoCal is able to meet the two-times interest requirement. The other is the problem of inducing a pension fund, or insurance company, to buy the bonds. There is a similar requirement, Caveney states, applicable in connection with SoCal's funded debt, i.e., term notes. Again, the coverages here are very thin, and he notes that SoCal today could not meet the two-times interest coverage on a $6 million debenture or term note at 18%. SoCal could barely meet two-times interest at 17%. Coverages could be met for $5 million at 18%; however, Caveney states it is a fact of life that although a firm may be legally allowed to issue new debt it must still find a lender who will offer money at the types of coverages computed.

Testifying further with respect to Exhibit 11, Caveney said that the information shown on Table 3 of that exhibit concerning capitalization ratios reflected SoCal's estimated debt costs based upon information available in April 1981. But those forecasts were absolutely wrong, he states; and as of the date of the hearing SoCal is accepting the capitalization ratios reflected in staff Exhibit 27. However, he differs with the staff's projected debt cost of 15% on a proposed bond issue of $6 million in 1982. He believes 15% is too low. In 1983 the staff has projected a bond cost of 14% in connection with another $6 million issuance. Caveney also believes 14% is too low; and in connection with a proposed bond issue of $5 million in 1984, Caveney states that the rate of 13.5% estimated by

the staff is too low. He believes that 13.50%, estimated by the staff in connection with preferred stock to be issued in 1984, is too low. Finally, in connection with Table 14 of staff Exhibit 27, Caveney believes that the staff estimate of 15% in connection with bank loans in 1983 is too low.

Caveney stated that all of these estimates are, of course, matters of judgment on his part as well as the staff's; that both parties have been wrong in the past on numerous occasions. However, he states there is currently a great reservoir of companies badly in need of debt financing, waiting to jump into the long-term bond market. He notes that the federal government predicted a deficit some months ago of about $42 billion but that the estimate has now increased to well over double the original prediction. And while admittedly this is a judgment matter, nevertheless, with the heavy needs for money placed upon the money markets by the combined demands of government and industry, Caveney does not see any way in which debt estimates as shown by the staff will materialize.

Caveney is recommending a 16% rate of return on common equity so that SoCal can finance the many dollars of debt it is going to need in the future. He believes that if the Commission is not willing to depart from the staff recommendation--a range of 14 1/2% to 15%--it should adopt the high end of that range, particularly in view of the recent history of SoCal where return on equity has always been far below that authorized by the Commission.

The staff's recommended capitalization ratios and rates of return are shown as follows:

TABLE 3

Staff's Recommended Rates of Return

Component	Capitalization Ratios (a)	Cost (b)	Weighted Cost (c)
Average Year 1982			
Long-Term Debt	44.00%	7.82%	3.44%
Bank Loans	2.00	17.50	.35
Term Note	5.00	17.75	.89
Preferred Stock	12.00	7.85	.94
Common Equity	37.00	14.75 1/	5.46
Total	100.00%		11.08%
Average Year 1983			
Long-Term Debt	44.00%	8.82%	3.88%
Bank Loans	2.00	15.00	.30
Term Note	5.00	15.38	.77
Preferred Stock	12.00	7.86	.94
Common Equity	37.00	14.75 1/	5.46
Total	100.00%		11.35%
Average Year 1984			
Long-Term Debt	44.00%	9.55%	4.20%
Bank Loans	2.00	14.00	.28
Term Note	5.00	14.50	.73
Preferred Stock	12.00	8.34	1.00
Common Equity	37.00	14.75 1/	5.46
Total	100.00%		11.67%

1/ Midpoint of Staff's recommendation.

In support of her recommendation staff witness Linda Gori testified essentially as follows:

1. She assumed no long-term debt financing in 1981, whereas SoCal has included a $6 million issue at an interest rate of 15.78%.
2. SoCal is currently precluded from issuing long-term debt due to indenture-coverage restrictions. In lieu of long-term debt SoCal's bankers have advised SoCal to consider intermediate financing--specifically, a 3- to 4-year term note--to meet its ongoing capital requirements.
3. Her estimates of long-term debt financing reflect SoCal's updated financing plan through 1984.
4. Her estimates of the costs associated with proposed 1982 through 1984 financing is based in part on a review of trends in interest rates, yields on recent issues of Class A bonds, and forecasts of interest rates published in Data Resources, Inc. (DRI). Gori's estimates of debt cost of 15% for 1982, 14% for 1983, and 13.5% for 1984 differ from SoCal's estimates of 16%, 15%, and 15% for 1982, 1983, and 1984, respectively.

Gori arrived at her recommendation of 14.50% to 15.0% after analyzing many factors affecting the cost of common equity. She stresses that there are no definitive mathematical formulas that can calculate, with accuracy, the cost of equity capital for future periods. It is of necessity a judgment determination considering the requirements of each individual utility. Gori was guided in her analysis by standards established by U. S. Supreme Court decisions and prior decisions of this Commission.[1/] She summarizes these guidelines as follows:

1/ FPC v Hope Natural Gas (1943) 320 U.S. 591, 603.
Bluefield Water Works and Improvement Co. v West Virginia Public Service Commission (1933) 262 U.S. 677, 692-693.
Decision 74917 Pacific Telephone and Telegraph Company (1968) 69 CPUC 53, 67-68.

"1. The return to the equity holders should be commensurate with returns on investments in other enterprises having similar risks.

"2. The return should be sufficient to enable the utility to attract capital at reasonable rates and to assure confidence in the utility's financial integrity.

"3. The return should balance the interests of both investors and ratepayers."

Table 7 in Exhibit 27 summarizes data Gori considered concerning SoCal's common stock book value, dividends, and earnings for 1971 through 1980. She used this information in arriving at her recommended capital costs. She notes that during this period the book value of SoCal's common stock increased approximately $12.6 million. Earnings available for common equity totaled approximately $22.7 million, of which $16.2 million was paid out in dividends.

Gori relied upon the following additional factors to support her recommendation:

1. SoCal is a regulated public utility engaged in a business which affects the public interest and must provide service at reasonable rates.
2. Fair and reasonable rates must balance the interests of both the ratepayers as well as investors.
3. Interest coverage requirements.
4. Capital requirements.
5. SoCal's capital structure, capital costs, and financial history.
6. Economic conditions - the effects of continued inflation and increases in embedded costs of capital.

Gori believes that while current market data are important, expected market conditions are even more significant during the period rates will be in effect. She states that while her recommended return

for equity may seem low under today's market conditions when compared with the current cost of long-term debt, such a range will be appropriate for the period 1982 through 1984. She believes that the rate of return sought by an investor in common stock must exceed by some amount the rate of return he could obtain on a risk-free investment. She states that required risk premiums obviously depend on the degree of risk which investors perceive--the greater degree of perceived risk, the greater the risk premium--and conversely, the lesser degree of perceived risk, the smaller the risk premium. She also observes that during times of great uncertainty, risk premiums can be negative. Furthermore, she believes that water utilities can generally be considered less risky when compared with other utilities, and, therefore, require a smaller risk premium. Some of the reasons leading to the latter conclusion are:

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 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 concurrently 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.

Table 4 is a tabulation of rates of return authorized, common equity ratios, and rates for common equity we have authorized to water utilities between October 1978 and December 1981.

TABLE 4

SOUTHERN CALIFORNIA WATER COMPANY

Rates of Return Authorized
By the California Public Utilities Commission
For Class A Water Utilities

Month	Company	Decision Number (a)	Rate of Return Authorized (b)	Common Equity Ratio (c)	Rate Per Common Equity (d)
1978					
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
1979					
April	Jackson Water Works-Citizens Utilities Company	90153	9.10	64.17	10.21
June	Calif. Water Service Co.-Various Districts	90435 et al	10.00	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	9.38	34.01	13.00
August	So. Calif. Water Co. - Calipatria - Hilaml	90660	9.29	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
1980					
March	Santa Clarita Water Company	91372	10.10	-	11.05
April	California Water Service Co. - Various Districts	91537	10.28	42.02	13.30
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	PGandE - Tuolumne Water System	92490	9.00	39.08	11.49
1981					
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	11.40
February	Southwest Suburban Water - San Jose-Whittier 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	13.40
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
September	Southwest Suburban Water - IA Mirada	93539	11.73	45.50	14.00
December	California Water Service Co. - Bear Gulch	93845	11.58	43.00	14.50

Questioned regarding the disparities between authorized and allowed returns realized by SoCal over the last several years, Caveney stated that there are a number of reasons which contribute to this result. The first is that SoCal is a multidistrict utility, and each ratemaking district is considered separately. This means that SoCal must have individual authority for each district before that district's rates can be increased. With 19 districts, this cannot be accomplished by either SoCal or the staff on an annual, or even on a biennial, basis. Caveney noted that most large utilities have a single ratemaking area and are able to justify a general rate increase every two years. He cited underestimating by staff of the cost of money as another principal factor contributing to the shortfall in realized, as opposed to authorized, rates of return on rate base and equity.

Concerning rates of return authorized for water utilities, we stated recently in D.93845, dated December 15, 1981, in A.60567:

> "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 (CWIP) 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 that utilities 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."

The information shown in Table 5 shows staff-recommended capitalization ratios, cost factors, and earnings at three points in the common equity range recommended by the staff. It also shows returns on rate base at each of these three points and after tax-interest coverages which would be realized at the common equity points of 14.50%, 14.75%, and 15.0%.

TABLE 5

SOUTHERN CALIFORNIA WATER COMPANY

Recommended Range for Rate of Return
Average Years 1982, 1983, and 1984

Component	Capital Ratios (a)	Cost Factors (b)	Earnings Rate on Common Stock Equity 14.50% (c)	14.75% (d)	15.00% (e)
			Weighted Cost Totals		
1982					
Long-Term Debt	41.00%	7.82%	3.41%	3.41%	3.41%
Bank Loans	2.00	17.50	.35	.35	.35
Term Note	5.00	17.75	.89	.89	.89
Preferred Stock	12.00	7.85	.94	.94	.94
Common Stock Equity	37.00		5.37	5.46	5.55
Total	100.00%		10.99%	11.08%	11.17%
			1/ 2.35x	2.37x	2.39x
1983					
Long-Term Debt	41.00%	8.82%	3.88%	3.88%	3.88%
Bank Loans	2.00	15.00	.30	.30	.30
Term Note	5.00	15.38	.77	.77	.77
Preferred Stock	12.00	7.86	.94	.94	.94
Common Stock Equity	37.00		5.37	5.46	5.55
Total	100.00%		11.26%	11.35%	11.44%
			1/ 2.27x	2.29x	2.31x
1984					
Long-Term Debt	41.00%	9.55%	4.20%	4.20%	4.20%
Bank Loans	2.00	11.00	.28	.28	.28
Term Note	5.00	14.50	.73	.73	.73
Preferred Stock	12.00	8.34	1.00	1.00	1.00
Common Stock Equity	37.00		5.37	5.46	5.55
Total	100.00%		11.58%	11.67%	11.76%
			1/ 2.22x	2.24x	2.26x

1/ Implicit after-tax interest coverage.

Adopted Rates of Return

We believe that for the purposes of this proceeding a fair return on equity to allow SoCal during 1982-1984 will be the highpoint of the staff recommendation, or 15%.

We are showing in the following table our adopted cost of money figures compared with those recommended by SoCal and the staff.

TABLE 6

	1982			1983			1984		
	Staff	Company	Adopted	Staff	Company	Adopted	Staff	Company	Adopted
New Bonds	15.00	17.00	15.5	14.00	15.00	14.5	13.50	15.00	14.0
Bank Loans	17.50	17.00	17.0	15.00	15.00	15.0	14.00	15.00	14.5
Term Note	17.75	17.25	17.25	15.38	15.38	15.38	14.50	15.50	15.0
New Preferred							13.50	15.00	14.0
Common Equity	14.75 1/	16.00	15.0	14.75 1/	16.00	15.0	14.75 1/	16.00	15.0

1/ Mid-point of staff recommendation.

Adoption of the above cost figures will result in cost factors, interest coverages, and rates of return as set forth in Table 7.

TABLE 7

SOUTHERN CALIFORNIA WATER COMPANY

Adopted Rate of Return

	Capital Ratios	Cost Factors	Weighted Costs	After Tax Interest Coverages
1982				
Long-Term Debt	44.00%	7.86	3.46	
Bank Loans	2.00	17.00	.34	
Term Note	5.00	17.25	.86	
Preferred Stock	12.00	7.85	.94	
Common Stock Equity	37.00	15.00	5.55	
Total	100.00%		11.15	2.39
1983				
Long-Term Debt	44.00%	8.95	3.94	
Bank Loans	2.00	15.00	.30	
Term Note	5.00	15.38	.77	
Preferred Stock	12.00	7.86	.94	
Common Stock Equity	37.00	15.00	5.55	
Total	100.00%		11.50	2.30
1984				
Long-Term Debt	44.00%	9.71	4.27	
Bank Loans	2.00	14.50	.29	
Term Note	5.00	15.00	.75	
Preferred Stock	12.00	8.38	1.01	
Common Stock Equity	37.00	15.00	5.55	
Total	100.00%		11.87	2.24

In adopting the foregoing we are mindful of the fact that the equity allowance of 15.0% will be one-half percentage point higher than that authorized recently for four districts of a comparable public utility water company operating under our jurisdiction. (D.93845 in A.60567, et al.) But we are also acutely aware of the special circumstances underlying this request, i.e., the need to be able to finance the main replacement program we are ordering in this decision in addition to the rest of SoCal's capital budget items.

The 15.5%, 14.5%, and 14.0% new bond costs we are estimating for 1982, 1983, and 1984, respectively, fairly balance SoCal's trading ability and interest coverage requirements against the debt cost we recently estimated for Pacific Gas and Electric Company (PG&E) for 1982 and 1983 in D.93887, dated December 30, 1981 in A.60153.

There is a rather long and narrow course over which SoCal must travel if its customers are to benefit from any significant lessening in the leakage and fire-flow problems. Once having determined the wisdom of undertaking the course, it is no less our responsibility to provide SoCal with the opportunity to obtain the wherewithal to finance the venture.

SoCal is receiving a return on equity which is one-half percentage point higher than that allowed in companion districts in order to finance the main improvement program. In the event that the improvements are not completed as ordered we will reduce the return on equity to that granted SoCal's other districts this year, 14.5%. We will also order a refund representing the one-half percentage point to the customers of SoCal's Big Bear District. SoCal shall file a report by October 15, 1982 indicating the status of the ordered improvements. At that time it shall also file a report indicating whether or not it has developed an ongoing fire hydrant maintenance program which provides that all its fire hydrants are consistently reliable. A satisfactory report would show the concurrence of the Fire Chief of the Big Bear Lake Fire Department with SoCal's maintenance program. In the event that the Commission finds that SoCal has neither made the ordered improvements by December 31, 1982 nor adequately maintained its fire hydrants and orders a refund and a lowering of

rates, these lowered rates shall remain in effect until SoCal complies with our order. Also, only at that time is SoCal entitled to the step increase authorized in this decision for 1983. The same procedure shall apply for the following year. SoCal shall report to us by October 15, 1983 of its progress in completing the improvements for that year. In the event that it had retained a 15% return on equity but had not completed that year's scheduled improvements, its return on equity shall be reduced to 14.5% and a refund of the one-half percentage point shall be made to its customers. The lowered rates shall remain in effect until SoCal completes the improvements.

We recently gave effect to the Economic Recovery Tax Act of 1981 (ERTA) by issuing our D.93848 in Order Instituting Investigation (OII) 24 on December 15, 1981. Water utilities will now be using the conventional normalization method for treating depreciation and investment tax credit, thus increasing their cash flow considerably. We found in D.93848 that normalization improves various financial indicators such as debt-equity ratio, times-interest coverage, and embedded costs of debt, and is therefore properly taken into account in setting rate of return.

Caveney voiced his awareness of the additional cash flow resulting from the next tax law. He quantified these companywide increases as follows: $1 million in 1982, $1.5 million in 1983, and $2 million in 1984. These figures assume that the Commission will allow normalization for all of SoCal's districts during 1982.

We note with approval SoCal's decision to issue new common stock as testified to by Caveney and shown in Exhibit 11. During the period 1976 through 1979 common equity represented only about 31% to 32% of SoCal's total capitalization. We believe the present common equity ratio of about 37% together with a long-term debt ratio of 44% is more reasonable, balancing safety and economy.

Summary of Earnings

The information shown in Tables 8 and 9 reflects SoCal's adjusted estimates, the staff's estimates, the effect of disputed issues, ERTA, and adopted revenues and expenses for test years 1982 and 1983. The effect of ERTA in the adopted summary of earnings is a $334,500 increase in the revenue requirement for 1982, a $359,400 increase in 1983 (or a $24,900 incremental revenue requirement increase over 1982).

We have recently adopted a general policy guideline for larger water utilities, of authorizing no rate increase greater than 50% during any single year to mitigate the effect of large increases to customers. Without this guideline we would authorize in this proceeding an increase of 63.9% or $848,000 in 1982, and additional increases of 10% or $226,300 in 1983, and 6.9% or $175,000 in 1984. By holding the first year increase to 50% we will be granting SoCal a revenue increase of $663,700 in 1982. The adjusted difference in revenue between increases of 50% and 63.9%, plus interest at the adopted rate of return for 1982, we will add to the new revenue we are granting SoCal for 1983. This will ensure that the total amount of new revenue granted over the three-year period 1982-1984 will not be diminished. The calculations showing these adjustments are set forth in Appendix E.

SoCal had sought in its application revenue increases through 1982 of $811,000 and $189,500 for 1983. SoCal did not technically file an amended application to request additional revenues. While we cannot authorize more in revenues than requested, in this case we believe an exception is warranted. We are required by federal law to set rates recognizing tax expenses imposed by ERTA or have SoCal run the risk of losing its eligibility for accelerated depreciation. This application was filed before passage of ERTA and so did not include its effects. When the effects became known, SoCal furnished notice to its ratepayers and produced witnesses and testimony in support of the increased amount. SoCal should also have amended its application to reflect the increased revenue requirement but it did not. It would be administratively cumbersome to require it to do so now. However, since notice has been provided to customers (and SoCal has supported the additional request) we will authorize it without requiring amendment of the application.

TABLE 8

Southern California Water Company
Big Bear District

COMPARISON STAFF AND UTILITY SUMMARY OF EARNINGS

Item	Test Year 1982		Test Year 1983	
	Staff	Utility	Staff	Utility
	(Dollars in Thousands)			
Present Rates				
Operating Revenues	$1,327.4	$1,296.0	$1,386.1	$1,339.5
Operating Expenses				
Purchased Water	3.3	3.3	3.3	3.3
Purchased Power	142.8	179.2	150.7	185.3
Payroll	229.0	262.5	248.4	305.7
Purchased Services	168.9	166.6	185.8	189.7
Other O&M Expenses	82.3	86.5	89.8	100.4
A&G Expenses	113.8	125.8	122.2	140.9
G.O. Allocation	65.9	69.3	71.2	78.5
Depreciation Expense	175.6	175.6	208.2	202.4
Taxes Other Than Income	69.2	73.6	78.1	86.2
Subtotal	1,050.8	1,142.4	1,157.7	1,292.4
Uncollectibles	3.7	7.8	3.9	8.0
Local Franchise Tax	11.6	11.4	12.2	11.8
CCFT	(21.4)	(27.4)	(38.2)	(45.6)
FIT before ITC	(56.3)	(30.4)	(105.9)	(69.7)
ITC	-	-	-	-
FIT	(56.3)	(30.4)	(105.9)	(69.9)
Total Operating Expenses	988.4	1103.8	1029.7	1196.9
Net Operating Revenues	339.0	192.2	356.4	142.6
Rate Base	6614.3	6515.1	7672.9	6974.8
Rate of Return	5.13%	2.95	4.64	2.04
Proposed Rates				
Operating Revenues	2470.0	2496.0	2740.3	2793.2
Operating Expenses				
Subtotal	1,050.8	1,142.4	1,157.7	1,292.4
Uncollectibles	6.9	11.1	7.7	12.1
Local Franchise	21.7	22.0	24.1	24.6
CCFT	87.0	86.4	90.3	92.3
FIT before ITC	413.3	463.4	450.7	527.8
ITC	-	-	-	-
FIT	413.3	463.4	450.7	527.8
Total Operating Expenses	1579.7	1725.3	1730.5	1949.2
Net Operating Revenues	890.3	770.7	1009.8	844.0
Rate Base	6614.3	6515.1	7672.9	6974.8
Rate of Return	13.46%	11.83%	13.16%	12.10%

(Negative Figure)

1/ Include additional revenue requirements due to Economic Recovery Tax Act of 1981.

TABLE 9

Southern California Water Company
Big Bear District

ADOPTED SUMMARY OF EARNINGS

Item	Test Year 1982	Test Year 1983
	(Dollars in Thousands)	
Present Rates		
Operating Revenues	$1,327.4	$1,386.1
Operating Expenses		
Purchased Water	3.3	3.3
Purchased Power	164.7	172.4
Payroll	229.0	248.4
Purchased Services	168.9	185.8
Other O&M Expenses	82.3	89.8
A&G Expenses	113.8	122.2
G.O. Allocations	65.9	71.2
Depreciation Expenses	175.6	208.2
Taxes Other Than Income	69.2	78.1
Subtotal	1,072.7	1,179.4
Uncollectibles	3.8	4.0
Local Franchise Tax	11.8	12.4
CCFT	(23.5)	(40.3)
FIT before ITC	(65.5)	(115.1)
ITC	-	-
FIT	(65.5)	(115.1)
Total Operating Expenses	999.3	1,040.4
Net Operating Revenues	328.1	345.7
Rate Base	6,614.3	7,672.9
Rate of Return	4.96%	4.51%
Proposed Rates		
Operating Revenues	2,175.9	2,498.4
Operating Expenses		
Subtotal	1,072.7	1,179.4
Uncollectibles	6.2	7.1
Local Franchise	19.3	22.2
CCFT	57.0	65.2
FIT before ITC	283.2	342.1
ITC	-	-
FIT	283.2	342.1
Total Operating Expenses	1,438.4	1,616.0
Net Operating Revenues	737.5	882.4
Rate Base	6,614.3	7,672.9
Rate of Return	11.15%	11.50%

(Negative Figure)

The 11.15% and 11.50% returns on rate base we are authorizing for 1982 and 1983 will result in revenue increases of 63.9% or $848,000 and 10.0% or $226,300, respectively. The 11.87% return on rate base for 1984 will give effect to financial attrition of 0.37%.

Net-to-Gross Multiplier

Staff's net-to-gross multiplier of 2.073 is based on the following percentages:

California Corporate Franchise Tax Rate	9.6%
Federal Income Tax Rate	46.0
Uncollectible Rate	0.279
Franchise Rate	0.88

The net-to-gross multiplier represents the change in gross revenues required to produce a unit change in net revenues, i.e., a change in net revenues of $1.00 requires a change in gross revenues of $2.073.

Operational Attrition in Rate of Return

SoCal has requested step rates for the years 1983 and 1984 based on test years 1982 and 1983. To compute operational attrition, the staff estimated both 1982 and 1983 revenues at present rates and estimates operational attrition in the rate of return of 0.45%. Recognition of an adjusted rate of attrition between 1983 and 1984 of 0.30% will provide SoCal with revenues adequate to compensate for the increase in main replacement program from $500,000 to $1,000,000 in 1983 and 1984 which we are ordering in this decision.

Total Attrition Allowance

Total attrition allowance for 1984 is 1.12% on 1983 rate base. Application of a net-to-gross multiplier of 2.073% will produce further revenue increase in 1984 of 6.9% or $175,000 over the 1983 authorized revenues.

Rate Design

SoCal's present rates in the Big Bear District apply generally for metered service. The exception is the flat rate service provided in the Fawnskin area of the district. Its tariffs also have rates for public fire hydrant service. Table 10 which follows shows SoCal's present rate structure within the Big Bear District both for quantity rates and service charges.

TABLE 10

SOUTHERN CALIFORNIA WATER COMPANY

Present Rates

Schedule No. BB-1

Big Bear District

GENERAL METERED SERVICE

APPLICABILITY

Applicable to general metered water service.

TERRITORY

Within the established Big Bear District.

RATES

	Per Meter Per Month	Fire Protection Surcharge Per Meter Per Month
Quantity Rates:		
First 500 cu.ft., per 100 cu.ft.	$ 0.25	-
Next 14,500 cu.ft., per 100 cu.ft.	0.833	-
Over 15,000 cu.ft., per 100 cu.ft.	0.587	-
Service Charge:		
For 5/8 x 3/4-inch meter	$ 6.21	$0.12
For 3/4-inch meter	9.20	0.15
For 1-inch meter	13.00	0.20
For 1-1/2-inch meter	17.00	0.26
For 2-inch meter	23.00	0.36
For 3-inch meter	41.00	0.64
For 4-inch meter	55.00	0.86
For 6-inch meter	91.00	1.40
For 8-inch meter	135.00	2.08

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

The rates for quantities of water used above 500 cu.ft. include an amount per 100 cu.ft. granted as offset rates as shown below:

Advice Letter Number	CPUC Resolution Number	Date Rate Effective	Offset Supply Cost Increase	Offset Included in Rates
568-W	W-2628	4-18-80	10.4c	10.4c

The present rate structure is a lifeline design, specifying a charge per 100 cu.ft. (Ccf) for the first 500 Ccf. SoCal proposes to terminate the lifeline design and name as quantity rates one flat rate for all water delivered per 100 Ccf.

Han testified for the staff with respect to rate design. His recommendations are contained in Chapter IV of Exhibit 28. He states that the majority of the customers in the Big Bear District are weekend vacationers with second homes. He notes that the average monthly consumption per customer is only about 6 Ccf, compared with typical monthly use in the southern California area of 20-25 Ccf. Han testified that variable expenses related to water production account for only about 16% of total expenses, excluding income taxes and return. He further notes that plant investment related to water production amounts to 14% of the total net depreciable plant in service, and therefore approximately 84% of the expense and 86% of the plant investment relating to water production is fixed. Currently, Han states that the service charges in the rate structure provide about 65% of the revenue requirement with the quantity charges providing the remaining 35%. Han believes that in the Big Bear District it is proper to allocate more of the fixed costs to the service charge portion of the rate structure. He recommends that the rates be designed to produce 75% of the revenues from the service charges, and 25% from quantity charges. SoCal concurs with this recommendation.

With respect to SoCal's proposal, that the current three-block quantity rate structure be redesigned into a single block, Han believes that such a simple structure would not provide the flexibility necessary to produce fair recovery of cost of service from different classes of customers. He recommends that the current

three-block structure be retained. He further recommends that in order to provide a differential of 25% between the lifeline and average rates, there be no increase over the present 25¢ per Ccf for the first 3 Ccf.

We have commented recently in other proceedings with respect to the negative effects upon conservation efforts of rate designs which allocate larger portions of the rate structure to the fixed charges. (See for example D.93845, dated December 15, 1981, in A.60567.). However, we believe, in light of the circumstances surrounding this district, that the recommendations from staff and SoCal with respect to the greater allocation of rate responsibility to fixed charges should be adopted, chiefly because vacation homeowners will then bear a more equitable portion of the responsibility for the fixed costs required for the system to operate successfully and to be modernized.

We find that the single-block commodity rate structure recommended by SoCal would not provide sufficient flexibility to produce fair recovery of cost of service from the different classes of customers and that the three-tier system presently set forth in SoCal's tariffs should be retained. Furthermore, as recommended by the staff, in order to provide a differential of 25% between the lifeline and average rates, we will authorize no increase for the first 3 Ccf of water, and will adopt uniform percentage increases to be applied thereafter.

The same percentage increases applied to the metered service over 3 Ccf for the metered customers should be applied to the Fawnskin area where flat rates are named in SoCal's tariff.

In the circumstances the staff rate design is reasonable and will be adopted in this proceeding.

Findings of Fact

1. Although SoCal's water quality is satisfactory, the service territory in its Big Bear District is not efficiently served.

2. Unaccounted-for water in the district is estimated to range between 32% and 41% per year of total water supply.

3. The high rate of unaccounted-for water is due to numerous leaks and to SoCal's bleeder program, which is necessary in order to prevent freezing in the pipes during cold weather.

4. A number of fire-flow problems have been experienced in the district. The principal problem--low pressure--is due to leaks and undersized pipes installed by predecessor operators of the system.

5. In order to eliminate all leaks and bring fire flows up to current GO 103 standards, about 459,000 of the system total of 800,000 ft. of main needs to be replaced. Total cost of this main replacement would be about $25 million.

6. SoCal has replaced about 6,800 ft. of main per year during the three-year period 1978 through 1980. At this rate it would take 67 years to complete the replacement program.

7. Staff recommends that SoCal spend $500,000 during 1982 and $1,000,000 per year after 1982 for main replacements.

8. Adoption of the staff-recommended main replacement schedule will enable SoCal to more effectively continue its program for remedying the leakage and fire-flow problems.

9. A study was commenced in 1978 to determine the estimated safe-sustained ground-water yield available in Big Bear Valley. This study also projected population growth and water demands for the valley.

10. The results of the study indicate that SoCal will have a need for a water source, in addition to available ground water, at some time in the not too distant future in order to meet the demands of the projected increased number of customers.

11. SoCal determined that it would be necessary to use Big Bear Lake as the source from which to provide the additional water necessary to meet increased customer demands. In this connection SoCal initiated plans for the purchase of land and construction of a filtration and treatment plant.

12. The costs for land and plant were originally estimated by SoCal to be $75,000 and $100,000, respectively. It was not until a few days before the hearing that the staff was informed of a drastic upward revision in the estimated costs.

13. The combined costs for land and plant are currently estimated to be between $1.5 million and $2 million. The plant would more than double SoCal's water-producing capacity in its Big Bear District.

14. The staff has not been afforded adequate opportunity to investigate the need for a filtration and treatment plant of the capacity contemplated by SoCal, nor to determine whether the associated costs for land and plant construction are reasonably prudent.

15. SoCal may file a separate application for a rate base rate increase, which will give the staff time to properly study the need for and projected costs of the proposed plant.

16. The SoCal projected gravity water production in the Big Bear District is more reasonable than the staff's since it is based on a broader range of experience than the staff's estimate.

17. The recommendation that SoCal be ordered to use fire hydrants for which it can expeditiously obtain replacement parts is reasonable.

18. SoCal has not locked bleeding valves as ordered in D.87708. SoCal has experienced tampering with these valves since D.87708 was issued in August 1977.

19. Capitalization ratios set forth in Table 7, together with cost factors, weighted costs, and after tax interest coverages, fairly portray estimated debt and equity costs SoCal will experience during the period 1982-1984.

20. A constant rate of return of 15.0% on common equity during 1982-1984 will afford SoCal opportunity to earn returns on rate base of 11.15%, 11.50%, and 11.87% during 1982, 1983, and 1984, respectively.

21. SoCal is receiving a return on equity which is one-half percentage point higher than that allowed in comparable districts in order to finance the main improvement program ordered in this decision.

22. Due to our order in this decision that SoCal spend $1,000,000 for main replacement during 1984, SoCal will suffer operational attrition between 1983 and 1984 of 0.75% and financial attrition during the same period of 0.37%.

23. Information shown in Tables 8 and 9 properly reflect the consequences of ERTA and of our decision in OII 24.

24. The majority of customers in SoCal's Big Bear District consists of weekend visitors with second homes. Average use per month is only about Ccf.

25. Variable expenses account for only about 16% of total expenses, excluding income taxes and return. Approximately 84% of expenses are related to fixed costs.

26. Current service charges provide 65% of district revenue requirements. Staff believes, and SoCal concurs, that the rate structure should be designed to produce 75% of revenues from the service charges. Such a design would more equitably allocate fixed costs between permanent residents and vacation homeowners.

27. Retention of the current three-block quantity rate structure will provide the flexibility to produce fair recovery of costs of service from the different classes of customers.

28. The staff recommends that in order to provide a differential of 25% between lifeline and average rates, no increase be authorized for the first 300 Ccf.

29. Allowance of operational attrition of 0.30% between 1983 and 1984 will provide SoCal with the income to finance $1,000,000 in main replacement during 1984.

Conclusions of Law

1. Revenue increases of $848,500 or 83.9% for 1982, $220,300 or 10.0% for 1983, and $175,000 or 6.9% for 1984 are reasonable based upon adopted results of operations for SoCal's Big Bear District. It is also reasonable in this proceeding to limit increases in any single year to 50%. Increases thus granted will amount to $663,700 in 1982, $580,100 in 1983, and $17,200 in 1984, and will mitigate the effect on customers of large increases without diminishing the total new revenues we are granting SoCal during the period 1982-1984.

2. In order to ensure that the leakage and fire-flow problems found to exist in the Big Bear District are remedied within a reasonable time frame, SoCal should be ordered to spend at least $500,000 during 1982, $1,000,000 in 1983, and $1,000,000 in 1984 for main replacements.

3. If by the end of 1982 SoCal does not complete the improvements ordered in this decision for 1982, its authorized return on equity should be reduced from 15% to 14.5%, rates in SoCal's Big Bear District should be reduced to reflect this lower return on equity, and revenues already collected attributable to the difference between a 14.5% and 15% return on equity should be refunded. The lower rates will remain in effect until the improvements are completed and SoCal receives authorization to charge the step rate increase authorized in this decision.

4. If SoCal receives the step rate increase for 1983 authorized in this decision reflecting a 15% return on equity but fails to complete the improvements for 1983 ordered in this decision by the end of 1983, its return on equity should be reduced from 15% to 14.5%, rates should be reduced to reflect this lower return on equity, and revenues collected in 1983 attributable to the difference between a 14.5% and 15% return on equity should be refunded. The lower rates will remain in effect until the improvements are completed and

SoCal receives authorization to charge the step rate increase authorized in this decision.

5. SoCal should not be allowed to include any expenses, including cost of land, in its 1982, 1983, or 1984 capital budgets which might be incurred in connection with its proposed filtration and treatment plant until it may be so authorized by subsequent order of this Commission.

6. SoCal should be authorized to file the rate schedules attached as Appendixes A and B, subject to the conditions set forth in Conclusions 7 and 11.

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

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

9. 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, 1982 and/or September 30, 1983, exceed 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) 11.15% for 1982 and 11.50% for 1983.

10. SoCal's projected gravity water projection for its Big Bear District should be adopted.

11. SoCal should use fire hydrants in its Big Bear District for which it can expeditiously obtain replacement parts.

12. SoCal should lock all above-ground bleeding valves in its Big Bear District.

13. The step rate increases authorized by this decision for 1983 and 1984 should be conditioned upon SoCal's completion of at least $500,000 in main replacements in 1982 and $1,000,000 in main replacements in 1983.

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

O R D E R

IT IS ORDERED that:

1. Southern California Water Company (SoCal) is authorized to file for its Big Bear District, effective today, the revised rate schedules in Appendix A. The filing shall comply with General Order (GO) 96-A. The revised schedules shall apply only to service rendered on and after their effective date, subject to refund provided below.

2. By October 15, 1982 and 1983 SoCal shall file progress reports with the Commission describing the improvements ordered in this decision for those two years. It shall also file a report describing its fire hydrant maintenance program. If, upon review of SoCal's reports for 1982 the Commission finds that SoCal has not completed the improvement plan as ordered, the Commission shall by further order reduce SoCal's return on equity from 15% to 14.5% and require SoCal to refund $19,500

to its Big Bear District customers and to reduce its rates by that amount. If the Commission finds that SoCal has not completed the improvements for year 1983 it shall reduce SoCal's return on equity from 15% to 14.5% and require it to refund $28,600 to its Big Bear District customers and to reduce its rates by that amount.

3. On or after November 15, 1982, SoCal 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 100 cubic feet of water adjustment from Appendix B in the event that the Big Bear 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 SoCal during the corresponding period in the then most recent rate decision, or (b) 11.15%. This filing shall comply with GO 96-A. The requested step rates shall be reviewed by the staff to determine their conformity with this order and shall go into effect upon the staff's determination of conformity. But the staff shall inform the Commission if it finds that the proposed step rates are not in accord with this decision, and the Commission may then modify the increase. 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.

4. On or after November 15, 1983 SoCal 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 Big Bear 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 SoCal during the corresponding period in the then most recent rate decision, or (b) 11.50%. Such filing shall comply with GO 96-A. The requested step rates shall be reviewed by the staff to determine their conformity

with this order and shall go into effect upon the staff's determination of conformity. But the staff shall inform the Commission if it finds that the proposed step rates are not in accord with this decision, and the Commission may then modify the increase. 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.

5. The step rate increases authorized in Ordering Paragraphs 2 and 3 shall not become effective unless SoCal completes the portions of its main replacement program described in Conclusions 2 and 11. SoCal shall file appropriate workpapers evidencing completion of these portions of the program with its advice letter filings for step rate increases.

6. SoCal shall keep locked all above-ground bleeding valves in its Big Bear District.

7. SoCal shall only use fire hydrants in its Big Bear District for which it can expeditiously obtain replacement parts.

8. By May 1, 1982, SoCal shall mail to all its customers in this district a bill insert notice as shown in Appendix D.

This order is effective today.

Dated March 16, 1982, 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. Bodovitz, Executive Director

APPENDIX A
Page 1

Schedule No. BB-1

Southern California Water Company
Big Bear District

GENERAL METERED SERVICE

APPLICABILITY

Applicable to general metered water service.

TERRITORY

Within the established Big Bear District.

RATES

Quantity Rates	Per Meter Per Month	
First 300 cu.ft., per 100 cu.ft.	$0.250	(I)
Next 14,700 cu.ft., per 100 cu.ft.	0.771	
Over 15,000 cu.ft., per 100 cu.ft.	0.510	
Service Charge:		
For 5/8 x 3/4-inch meter	10.90	
For 3/4-inch meter	14.00	
For 1-inch meter	23.00	
For 1-1/2-inch meter	30.00	
For 2-inch meter	40.00	
For 3-inch meter	72.00	
For 4-inch meter	96.00	
For 6-inch meter	160.00	(I)
For 8-inch meter	236.00	

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

Schedule No. BEF-2

Southern California Water Company
Big Bear District

Fawnskin Tariff Area

FLAT RATE SERVICE

APPLICABILITY

Applicable to all flat rate water service.

TERRITORY

Community of Fawnskin, San Bernardino County.

RATES

	Per Service Connection Per Month	
For each single unit of occupancy	$11.40	(I)
For each additional unit of occupancy on same premises and served from same service connection	8.40	(I)

SOUTHERN CALIFORNIA WATER COMPANY

Schedule No. BB-5

Big Bear Tariff Area

PUBLIC FIRE HYDRANT SERVICE

APPLICABILITY

Applicable to all fire hydrant service furnished to municipalities, organized fire districts and other political subdivisions of the State.

TERRITORY

Within the established Big Bear District.

RATES	PER MONTH
For each hydrant	No Charge

(END OF APPENDIX A)

APPENDIX B

Southern California Water Company
Big Bear District

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.

BB-1 General Metered Service	Effective Date 1-1-83	1-1-84
Service Charges		
For 5/8 x 3/4-inch meter	$ 2.75	$0.00
For 3/4-inch meter	4.20	0.00
For 1-inch meter	7.80	0.00
For 1½-inch meter	11.00	0.00
For 2-inch meter	14.00	0.00
For 3-inch meter	24.00	0.00
For 4-inch meter	32.00	0.00
For 6-inch meter	55.00	0.00
For 8-inch meter	79.00	0.00
Quantity Rates		
For the first 300 cu.ft., per 100 cu.ft.	0.000	0.000
Next 14,700 cu.ft., per 100 cu.ft.	0.288	0.027
Over 15,000 cu.ft., per 100 cu.ft.	0.217	0.027
BBF-2 Flat Rate Service		
For a single unit of occupancy	2.30	0.00
For each additional unit	1.70	0.00

(END OF APPENDIX B)

APPENDIX C
Page 1

ADOPTED QUANTITIES

Company: Southern California Water Co.
District: Big Bear District

		1982	1983
1. Water Production:	Ccf(1000)	1,144.3	1,192.4
Wells:		858.5	906.6
Purchased Water:		4.4	4.4
Surface Water:		281.4	281.4
2. Purchased Power			
Electric Cost :		Supplier: SCE	Date: 9-1-1981
Kwh:		26,956	26,956
$ per Kwh:		$ 0.060760	$ 0.060760
Quantity Cost:		$ 1,638	$ 1,638
Fixed Cost:		$ 240	$ 240
Total SCE Cost:		$ 1,878	$ 1,878
Electric Cost:		Supplier: So.CW	Date: 6-17-1979
Kwh:		2,022,579	2,135,356
$ per Kwh:		$ 0.076385	$ 0.076385
Quantity Cost:		$ 155,364	$ 163,109
Fixed Cost:		$ 5,160	$ 5,160
Total SCW Cost:		$ 160,524	$ 168,269
Propane Cost:		$ 2,675	$ 2,675
Gal:		3,123	3,123
$ per Gal:		$ 0.856	$ 0.856
Total Power Cost:		$ 165,100	$ 172,800
3. Purchased Water Expenses:			
Crestline-Lake Arrowhead WD.			Date: 7-1-1978
Acre-Feet:		10.1	10.1
$ per AF:		$ 325	$ 325
Cost:		$ 3,300	$ 3,300
4. Ad Valorem Taxes:		$ 50,400	$ 57,900
Tax Rate:		4.32%	4.32%

ADOPTED QUANTITIES

5. Number of Service-Meter Size:	1982	1983
5/8 x 3/4	9,719	10,187
3/4	433	453
1	82	85
1½	43	46
2	62	65
3	5	5
4	4	4
6	-	-
8	-	-
	10,348	10,845

6. Metered Water Sales	1982		1983
Range Ccf		Usage-Ccf	
0 - 3	183,944		192,728
4 - 150	494,029		516,697
Over 150	123,027		125,275
	801,000		834,700

7. Number of Service	No. of Services 1982	No. of Services 1983	Usage-KCcf 1982	Usage-KCcf 1983	Avg. Usage-Ccf/yr. 1982	Avg. Usage-Ccf/yr. 1983
Comm.-Metered	10,316	10,813	684.4	717.3	66.3	66.3
Public Authority	25	25	31.5	31.5	1,260.0	1,260.0
Industrial	4	4	37.5	37.5	9,380.0	9,380.0
Other	3	3	47.6	48.4		
subtotal	10,348	10,845	801.0	834.7		
Comm. Flat*	527	537				
Private Fire Prot.	16	16				
Total	10,891	11,398				
Water Loss: 30.0%			343.3	357.7		
Total Water Produced			1,144.3	1,192.4		

*Flat Rate Service: Additional units 32 for 1982 & 1983.

APPENDIX C
Page 3

INCOME TAX CALCULATION

Item	1982	1983
	(Dollars in Thousands)	
Operating Revenues	$2,175.9	$2,498.4
Operating Expenses Subtotal	1,072.7	1,179.4
Uncollectibles @ 0.279%	6.2	7.1
Local Franchise @ 0.88%	19.3	22.2
Total Expenses Excluding Income Taxes	1,098.2	1,208.7
Net Before Income Taxes	1,077.7	1,289.7
Plus: Depreciation - Book	175.6	208.2
Less: Interest Deduction	308.0	398.5
Net Before Tax Depreciation	945.3	1,099.4
State Corporate Franchise Tax		
Less: State Tax Depreciation	351.4	420.3
State Taxable Income	593.9	679.1
CCFT at 9.6%	57.0	65.2
Federal Income Tax		
Less: CCFT	57.0	65.2
Federal Tax Depreciation	269.6	287.4
Preferred Stock Dividend Credits	0.4	0.4
Federal Taxable Income	618.3	746.4
FIT at 46%	284.4	343.3
Grad. Tax. Adj.	(1.2)	(1.2)
ITC	-	-
Total FIT	283.2	342.1

(Negative Figure)

Net to Gross Multiplier: 2.07253

(END OF APPENDIX C)

APPENDIX D

Bill Insert for SoCal Customers
(Big Bear District)

Of the $848,500 annual rate increase recently granted to SoCal for its Big Bear District by the Public Utilities Commission, $334,500 was attributable to President Reagan's Economic Recovery Tax Act of 1981, which requires the Public Utilities Commission to charge ratepayers for the expense of taxes which are not now being paid to the Federal Government and which may never be paid. This expense may increase in the future.

(END OF APPENDIX D)

APPENDIX E

1982	Adopted	Adjustments (Dollars in Thousands)	Distribution
Present Rates	$1,327.4		$1,327.4
Adopted Rates	2,175.9		1,991.1
Increase	848.5 (63.9%)		663.7 (50%)
1983			
1982 Authorized Rates	2,272.1		2,079.2
Adopted Rates	2,498.4	(146.3[a] + 14.6[b])	2,659.3
Increase	226.3		580.1
1984 Attrition Allowance			
Adopted	178.1	(160.9)	17.2

a/ Deferred amount $848.5 - $663.7 = $184.8

For 9.5 months $\frac{(9.5)}{(12)}$ = $146.3

b/ Interest

1982 $146.3 x 11.15% x $\frac{10.75 \text{ mo.}}{12 \text{ mo.}}$ = $14.6

(END OF APPENDIX E)