ALJ/JCG/fs *

ORIGINAL

Decision 89 07 057 JUL 19 1989

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of CALIFORNIA-AMERICAN WATER COMPANY (U 210 W) for an order authorizing it to increase its rates for water service in its DUARTE DISTRICT.	Application 88-09-042 (Filed September 21, 1988)

Steefel, Levitt & Weiss, by Lenard G. Weiss, Attorney at Law, for California-American Water Company, applicant.
Edward Duncan, for himself, intervenor.
Lawrence O. Garcia, Attorney at Law, and Willem R. Van Lier, for the Water Utilities Branch.

O P I N I O N

California-American Water Company (applicant or Cal-Am) seeks authority to increase rates in its Duarte District.

The applicant's proposed increase was designed to produce increased revenues of return in 1989, 1990, and 1991 as follows:

Year	Annually (Dollars in Thousands) Increase	Percent	Cumulative (Dollars in Thousands) Increase	Percent
1989	$302.9	11.56%	$302.9	11.56%
1990	221.3	7.39	524.2	19.80
1991	233.5	7.20	757.7	28.42

At present rates, the monthly charge for 2,037 cubic feet is $21.13, (the average domestic consumption) and would be as follows at proposed rates:

Year	Amount	Increase	% Increase
1989	$21.97	$ .84	3.97%
1990	23.54	2.42	11.44
1991	25.26	4.14	19.58

New Rates

We have considered the evidence presented by applicant, by the Water Utilities Branch (Branch) of the Commission Advisory and Compliance Division (CACD), and by the Division of Ratepayer Advocates (DRA). Based on that evidence, we will grant a rate increase and establish new rates for water service. The domestic customer who now pays $21.13 for 2,037 cubic feet will pay: $22.93 per month for the remainder of 1989; $23.51 per month for 1990 and $23.97 per month for 1991. The dollar amount of the increases we are granting are $174,100 or 6.64% for 1989 on an annualized basis, $63,600 or 2.25% for 1990 and $68,800 or 2.35% for 1991.

History

California-American Water Company acquired all of the water properties of the California Water and Telephone Company (Decision (D.) 70418, dated March 8, 1966, and June 8, 1966). The acquisition was accomplished on April 1, 1966. The acquisition included this District.

The last rate increase proceeding for this District was D.86-03-011 in Application (A.) 85-05-101. The rates now in effect are at the third level authorized in that decision.

Cal-Am maintained office/operation centers as follows:

Baldwin Hills	Field Office	4634 W. Slauson Avenue, Los Angeles
Duarte	Field & Customer Service Office	1101 S. Oak Avenue, Duarte
San Marino	General Office	2020 Huntington Dr., San Marino
	Operations Center	8657 E. Grand Avenue, Rosemead

Local management, engineering, accounting, and commercial functions are provided from the general offices for each district, or multi-district, operation. The operations centers consist of

warehouses, yard facilities, meter testing facilities, garages, etc. required for operation and maintenance of the systems.

1. Legal services are provided as required by various firms for both corporate purposes and local district matters.

2. Price Waterhouse and Co. is retained for the annual independent audit of Cal-Am's records.

3. Computerized processing of Cal-Am's general and subsidiary ledgers is done by American Water Works Service Company, Inc. data processing center in Voorhees, New Jersey.

4. Management Contract. On January 1, 1971, an agreement was executed by and between American Water Works Service Company, Inc. and California-American Water Company whereby Cal-Am contracted for management services to be provided at cost by the service company in the areas of administration, engineering, customer, public and employee relations, accounting, corporate secretarial, treasury, insurance, data processing, and customer billing.

Service Area

The service area of the Duarte District lies at the northern edge of the San Gabriel Valley and extends into the foothills of the San Gabriel Mountains, providing domestic water service to the cities of Bradbury and Duarte, and portions of Irwindale, Monrovia, and vicinity, Los Angeles County.

The majority of the 63 irrigation service customers are in the City of Bradbury.

Elevations within the service area range from 375 feet above sea level on the southwest to 1,200 feet at the northern edge.

The domestic system is supplied by eight wells which feed directly into the distribution pipeline system. Because of the

wide variation in elevations within the service area, the system is divided into six pressure zones.

Historically, the supply of water for irrigation service has been diversion of surface water from the San Gabriel River and Fish Canyon. In rare instances of extremely low river flow, water from wells can be delivered to the irrigation customers. Raw water from the surface sources is not suitable for domestic use.

Proceedings

An informal meeting was held in Duarte on the evening of November 4, 1988, with representatives of utility, staff, and nine customers in attendance. A utility executive explained the basis for the proposed increase. A Branch representative explained the staff's function and that of the Commission's Public Advisor office.

One customer believed that the service charge portion of his bill was in the nature of rental on the meter. A company representative explained how service charges for various types of meters are fixed.

Another asked about the company's policies concerning replacement of mains. A company representative explained the impact of Los Angeles County fire flow requirements. He also mentioned the company's policy of replacing old mains with long-lived PVC pipe. Another customer argued that PVC mains had developed leaks. The Branch representative requested that the utility report on leak experience with the PVC mains.

One customer noted that parts of the system were financed by subdividers. Cal-Am's representative explained that contributed plant is excluded from rate base.

One final customer question gave the utility a chance to explain that since the utility employed its own construction crew, overall costs to consumers are substantially reduced.

The public participation hearing on January 23, 1989 was well attended. A representative of the City indicated that a

city-employed consultant might make a presentation during the evidentiary hearings.

Most customers came to oppose any attempt to eliminate irrigation service, such as the utility proposed in A.85-05-092. It is not proposed by any party in this proceeding.

One customer had a larger than normal meter for domestic service. He paid the extra charges to maintain pressure while his neighbors were sprinkling. He complained about the amount of and the proposed increase in charges for larger meters.

Another customer compared applicant's proposed rates with the lower rates of a mutual system.

Several criticized Cal-Am's policy of not allowing any new or reconnected customers for its irrigation service.

Evidentiary hearings were held at various locations in the Los Angeles area on a common record with A.86-08-041 (Baldwin Hills District) and A.86-08-042 (San Marino District). All three matters were taken under submission on March 3, after the filing of a joint late-filed comparison exhibit and briefs. The ALJ's Proposed Decision was issued May 19, 1989. Comments were filed by applicant Cal-Am, Branch, and Duncan. Except where specifically noted, the comments do not require discussion.

Discussion

The tables which appear in Appendix A-DU compare applicant's and Branch's initial positions with the adopted figures. (The discussion relies on decisions reached in D.86-03-011 in A.85-05-092, the last rate case for Cal-Am's Baldwin Hills, San Marino and Duarte Districts. It also relies on the most recent Monterey District rate case, D.89-02-047. Finally, we have referred to our Regulatory Lag Plan (RLP) for water utilities, adopted by Resolution M-4705 in 1979).

The text below summarizes those issues which still remain in dispute between Branch or DRA and applicant. Our analysis and resolution of those issues which affect all Districts are explained in summary only. The full analysis is found in the decision in A.88-09-040. This decision analyzes the rate design issue and two other issues that affect this District only.

Disposition of Major Issues[1]

We have adopted Cal-Am's recommended number of employee positions, 56 in 1989 and 57 thereafter. This includes an additional employee to perform additional testing, a cross-connection supervisor and a management trainee in both test years. We have rejected Staff's cost estimate for this item which assumed that the historical number of vacancies would continue during the test years. We have instead adopted an arbitrary 2% reduction for vacancies as proposed by applicant.

In all Districts, our utility plant estimates are based on:

1. A rate base which includes Construction Work in Progress (CWIP), rejecting applicant's proposal to instead allow it an Allowance for Funds Used During Construction (AFUDC).

2. Service lives of 4 years for autos and light trucks, as proposed by applicant.

3. An allowance for all utility-planned replacements of pumps and motors

4. Adoption of staff-recommended adjustment to the estimate for furniture and carpets.

We have adopted (with the exception of the lab employee) the same level of expenses for the general office allowed in the Monterey decision, D.89-02-067 in A.88-03-047, California-American Increase Rates, Monterey District. (This accepts a Branch recommendation.)

In calculating income tax, we have followed the methodology proposed by the applicant; this excludes interest

---

1 The decision in A.88-09-041 lists all of the issues between Branch and applicant which are no longer contested.

charges in AFUDC; it also excludes the effect of the interest on unamortized portion of acquisition adjustment.

We have postponed considering the non-labor cost components of applicant's proposed new Los Angeles lab. This action is dictated by the Monterey decision, which held that examination of the costs should await the availability of actual costs.

We have adopted a rate base which includes Materials and Supplies, using Staff's proposed allowance. We have found that applicant needs additional water supply in this District and that the best alternative to satisfy this need is to drill two new wells in an area where uncontaminated water is available. Applicant is to recover the cost of the study to select the most promising alternative, and of the preliminary tests needed to determine whether the project should go forward to full development. While noting the dispute over the need for treatment for pitting of copper pipes in newer subdivisions, we have concluded that the ratemaking effect, if any, of that problem should be considered in another pending case.

We have adopted a rate of return on equity of 12.25%. This is the top of DRA's range of recommended rates, and is the same rate of return adopted in the Monterey rate case, supra.

Minor Issues

With the exception of the furniture issue, the parties did not brief the issues noted below. The furniture issue involves a very small sum.

In all Districts, there were differences in the allocation factors to be used to distribute certain labor-related costs between Districts. We have adopted the staff factor as being less arbitrary than applicant's.

In all Districts, Branch recommended that we not escalate costs of liability insurance, as proposed by applicant. The Branch

approach seems preferable, pending final implementation of Proposition 103 insurance reform.

In calculating income taxes, Branch did not deduct out non-deductible employee expenses. Since Branch did not explain, we will adopt the company position.

The Branch and applicant each used a different weighting factor in deriving weighted average rate base. We have adopted the Branch figure.

All "unexplained variances" shown on the tables have been resolved in applicants favor.

We have adopted the Branch recommendations on furniture, which were primarily based on a hands-on inspection. Cal-Am did not effectively refute the Branch conclusions that replacement was premature.

Pitting of Copper Pipe

Several newer subdivisions in applicant's Duarte service territory have experienced pinhole leaks in copper pipes on the customer's side of the meter. Applicant is convinced that the quality of its water is not the cause. Nevertheless it may be faced with a requirement to install wellhead caustic soda treatment equipment to remedy the situation.

This problem is now being considered in Case (C.) 87-08-057, City of Duarte v Cal-Am. That complaint is now inactive pending completion of certain tests.

Applicant seeks authority to file an advice letter to cover the cost of testing. It also seeks authority to file an advice letter offset for capital and operating costs, if it is required to supply a remedy. According to company witnesses, the capital outlay for caustic soda treatment could total $700,000 to $875,000 with annual operating costs of roughly $250,000.

The Branch brief did not treat this as a disputed issue. However, Branch is generally in favor of postponing such questions. In this particular instance, we have a pending proceeding in which

we will determine whether the project is needed, the estimated amount of capital required, and the estimated operating expenses associated with the project. Consequently, postponing consideration of the project's rate effect is especially suitable here.

Consequently, we conclude that it is premature to consider the ratemaking effects of constructing and operating a caustic soda treatment facility. If we later determine that the project should be constructed, and, when it nears completion, applicant should file a formal application for offset rate relief.

Proposed New Wells (Duarte)

The Duarte system serves roughly 6,900 domestic customers within the cities of Bradbury and Duarte as well as portions of Irwindale and Monrovia. If all of the system's eight current wells could be relied on for full-time operation, the utility would have sufficient water supply to meet maximum day non-irrigation demand until 1995. However, this leaves no excess for equipment failures. Conventional practice calls for enough supply to meet peak day demands with one well out of service.

Moreover, one of the eight wells, the Mountain Avenue well, is so contaminated with tri-chloro-ethane (TCE) that it can be used only in severe emergencies and under stringent conditions. (Another well, the Crownhaven well in the past has produced water with excessive methane and carbon dioxide content. These contaminants probably come from an abandoned landfill site. A recent project to recover methane from this source has somewhat ameliorated the situation, according to the applicant's consultant.)

In D.85-03-011, supra, Duarte supply problems were considered at length. Applicant at that time proposed the construction of a filter plant to treat surface water from the San Gabriel River to augment the existing well supply. This would have terminated irrigation service. The existing irrigation customers

would have been able to obtain only treated water at domestic rates.

There were no findings concerning the supply shortfall since all parties agreed that it existed. Branch recommended two alternative solutions, one of which was to drill a new well in the Fish Canyon area, well away from the pollution which affects the Mountain Avenue and Crownhaven wells. The other would have required the construction of a stripping tower at the Mountain Avenue well. This solution was rejected in part because of the air pollution it would cause.

The Commission did not believe that the company proposal was the best means to solve the problem. It characterized the proposal to replace contaminated groundwater supplies with treated surface water, as a short-term solution to a long-term problem. It was also concerned that the alternative had been selected in haste without full consideration of its cost. Finally it was concerned about the effect on irrigation customers, who had not been adequately notified of the proposal to abandon service. Instead, it "invited" the company to re-evaluate all alternative means to solve the problem.

The decision rejected Branch's well-drilling alternative because of doubts that wells could produce enough water.

In preparation for a second attempt to win Commission approval, the utility engaged a consultant. The consultant evaluated the following alternatives:

1. Purchasing treated water from MWD.
2. Treating the Mountain Avenue well to remove contaminants.
3. Interconnections with adjacent water suppliers.
4. Constructing a joint treatment facility with Azusa Valley Water Company.

5. Constructing a filter plant to treat surface water.

6. Drilling new wells.

7. Conservation.

The consultant found that Alternative 1 was unacceptable because of high cost. One of the most significant cost elements was the need for connections costing more than $2.7 million. The consultant also noted that the transmission line would pass through environmentally sensitive areas, making approval doubtful. In addition, the purchase price of MWD water is very high ($230 per acre ft.).

Wellhead treatment is not an acceptable alternative. Leaving aside the very high cost for stripping out the TCE from the Mountain Avenue well, the by-product of the process (gas with high levels of organic compounds) would not be tolerable in a residential area. Also, the well in question has very high nitrate concentration. There is no economical means of removing nitrates, which are recognized as health hazard for very young and elderly customers, at high concentrations. Nitrate concentrations are at their highest during dry conditions, when the well would be most used.

Purchases from neighboring utilities were not seen as an acceptable alternative; according to the utility witness none of the adjacent purveyors have excess water. Alternatives 4 and 5 were rejected because of very high capital costs. Since the last decision, the costs of building a separate filter plant for surface water were greatly increased by new rules of the U.S. Environmental Protection Agency. While new technology is available to comply with these regulations, the plant would now cost $6 million. In addition, the operator of the flood control program for the San Gabriel watershed could reduce the amount of surface water available during summer months. The combination of high plant cost

and potential supply problems led the utility to reject this alternative.

Conservation was not considered a desirable alternative. The shortfall is large enough that heroic conservation measures would be required in summer months. It is not likely that consumers will tolerate such severe measures in non-drought years.

The consultant was optimistic about the amount of additional water which new wells could be expected to supply; he therefore selected Alternative 6 as the most desirable alternative. He recommended sites in the Fish Canyon area as likely to produce large amounts of water and to remain pollution free. Cal-Am has adopted this recommendation; it has consequently requested authorization to spend $1.2 million to buy land, develop and equip the wells recommended by its consultant. There will be an additional $250,000 for design and preliminary engineering costs. (If tests during the development phase do not support the predictions of high production, the company can abandon the project, with sunk costs which are only a small fraction of the cost to complete.)

Because of the well-substantiated opinions of the consultant, the applicant now recommends what was Branch's alternative recommendation in the prior proceeding. Branch, on the other hand decided to abandon its prior recommendation. It notes that the shortfall will occur only during peak demand periods in summer months. It asserts that in 1987, the company was able to supplement its supply by purchasing 9,000 Ccf (0.34% of total production) from the City of Monrovia. It argues that the City is ready to sell additional water to Cal-Am in the future. Branch originally suggested that the Crownhaven well, which produces 1,700 gpm, should be placed back in service. However, Branch now concedes that the Crownhaven well includes enough methane and CO2 that it can be used only under stringent precautions imposed by the Department of Health.

We note that Branch did not adequately explain why it abandoned a proposal which it had supported in the prior proceeding, especially when that position now enjoys such strong support from the consultant. Outside of the information in the consultant's report, there appears to be no new evidence or change in circumstances to justify such a reversal. Nor has there been any criticism of the Branch's work in the prior proceeding.

On brief, Branch contended that decision on this matter should be postponed until the utility is ready to file an advice letter. We cannot fully accept Branch's recommendation since in this instance there have been two full rounds of litigation.

Furthermore, the Commission invited the company to study alternatives. It would be unfair to give Branch a chance to use hindsight to argue that stockholders should pay for the study, or for the tests it recommends.

We now have all the data we need to determine whether the study is worth paying for. Branch does not fault the quality of the study; in fact, it could serve as a classroom example of the kind of alternatives analysis needed to justify a regulatory finding under the Scenic Hudson doctrine. (Scenic Hudson etc. v FPC (1965) 354 F. 2d 608.)

Branch now seems to prefer some combination of Alternatives 1 and 3 above. However, its evidence falls far short of a demonstration that the shortfall will be less than 4.4 million gallons per day (mgd). Nor has it demonstrated that any nearby system has 4.4 mgd to spare in summer months. It relies heavily on a recent purchase of water from the City of Monrovia. However, applicant responded that the only connection to that system is through a 4-inch main. Moreover, there is no testimony concerning the amount of water which the City might be willing to sell in the future.

We should not keep supply augmentation on the back burner for another extended period in the mere hope that applicant can

find and purchase peak day supplies at a reasonable cost. We believe that the question has received adequate study, and doubt that a further review by Branch would justify a different result.

We have adopted findings which authorize applicant to charge the costs of the consultant's study, and of all tests recommended by the consultant, against ratepayers. We have partially adopted Branch's position recommending delay in considering some issues, i.e. those which concern development of a permanent installation. Until the test results are available, we will not consider authorizing applicant to proceed with the development phase of this project.

Applicant's comments indicates some doubt as to what additional steps it should take to win rate base acceptance of the testing costs. To clarify, applicant is specifically authorized to expend the sums needed to test quantity and quality of water at the proposed well sites. These sums should be allowed regardless of whether the tests justify further development. If the tests show that the well sites should not be developed, the testing costs should be amortized rather than rate based. If the test justify proceeding to development, the reasonable testing costs will be added to rate base, with the timing determined under the CWIP in rate base principle.

As set forth in the Findings of Fact, below:

1. There is a 4.4 mgd shortfall in peak day supply which will increase to 5.9 mgd in the year 2000. This excludes the Mountain Avenue well but assumes the Crownhaven well is on line. It also assumes that one other well is temporarily out of service.

2. Alternative 1 is unacceptable in the absence of showing that any nearby system has excess capacity;

3. There is insufficient evidence to support adoption of any alternative other than 1 or 6; there is insufficient evidence to support further delay for the purpose of investigating any of those alternatives.

4. Cal-Am must expend funds to determine if the recommended well sites will provide adequate supplies of good quality water; those expenditures are a legitimate charge against ratepayers.

5. The utility was invited to restudy alternatives. It accepted by hiring a consultant to study alternatives; the quality of the study is exemplary. The cost of that study is a legitimate cost to be borne by ratepayers.

6. Approval of costs of developing and equipping production wells should be postponed until well test results are available. Regardless of the outcome of the well tests, the cost of the study is a proper addition to 1989 rate base.

Rate Design

In Investigation (I.) 84-11-041, D.86-05-064, the Commission adopted a new rate design policy. Under this policy, the lifeline block was to be abolished; all consumption was to be charged for at a single rate, except that up to three quantity blocks were permissible if necessary to establish industrial rates. The service charge was to be set high enough to cover up to 50% of the utility's fixed charges.

Intervenor Duncan (Intervenor) argues that that decision is flawed, claiming that there was no representation for consumer interests in that proceeding. A review of the file shows, however, that TURN, Cal Pirg, and UCAN were given notice and opportunity to participate. None of these organizations filed comments. Moreover, we note that the basis for the new policy came from a Branch recommendation. We will not adopt Intervenor's implicit argument that the Commission Staff did not adequately represent consumer interests. We will therefore apply the current rate design policy.

We find that the rate design established in D.86-05-064 is fair to all classes of consumer, and should be applied here.

Applicant is urged to identify domestic customers who have outsized meters solely for the purpose of countering the

effects of undersized mains. It is encouraged to negotiate special contracts to provide a reduced service charge for such customers. The contract would be rescinded when mains are replaced.

Applicant is also urged to re-examine its rules concerning the availability of irrigation service, when and if it becomes clear that the surface water supply is no longer needed by domestic customers. However, it should also consider the most recent long-term supply projections for surface water.

When it becomes time for such re-examination, it should consult with our Public Advisor to seek participation by, or on behalf of, existing and potential new customers.

Findings of Fact

1. There is a 4.4 mgd shortfall in peak day supply which will increase to 5.9 mgd in the year 2000. This excludes the Mountain Avenue well but assumes the Crown Haven well is on line. It also assumes that one other well is temporarily out of service.

2. Alternative 1 is unacceptable in the absence of showing that any nearby system has excess capacity;

3. There is insufficient evidence to support adoption of any alternative other than 1 or 6; there is insufficient evidence to support further delay for the purpose of investigating any of those alternatives.

4. Cal-Am must expend funds to determine if the recommended well sites will provide adequate supplies of good quality water; those expenditures are a legitimate charge against ratepayers.

5. The utility was invited to restudy alternatives. It accepted by hiring a consultant to study alternatives; the quality of the study is exemplary. The cost of that study ($50,000) is a legitimate charge to be borne by ratepayers.

6. Approval of costs of developing and equipping production wells should be postponed until well test results are available. Regardless of the outcome of the well tests, applicant should be able to include the cost of the study in rate base for 1989.

7. The rates set forth in Appendixes A-DU, B-DU, and C-DU are just reasonable and non-discriminatory for the periods specified. Applicants existing rates insofar as they differ from the Appendix rates are unreasonable.

8. The amounts set forth in Appendix E-DU Adopted Quantities, are reliable and should be used to consider any request for offset relief.

Conclusions of Law

1. It is premature to consider the ratemaking effect of possible expenditures to remedy pipe pitting.

2. We should not postpone identifying the best alternative to solve the water supply problem. We should assure applicant that the reasonable cost of performing all tests recommended by the consultant can eventually be recovered. The costs of the study should also be recovered.

3. If it is decided to develop the well sites, testing costs should be added to rate base as CWIP. If it is decided not to develop, such costs should be amortized.

4. This order should be made effective today to comply as nearly as possible with the rate case plan.

5. Applicant should be authorized to establish the Appendix rates on the dates specified.

O R D E R

IT IS ORDERED that:

1. California-American Water Company is authorized to file on or after the effective date of this order the revised rate schedules for 1989 shown in Appendix B-DU for its Duarte Division. This filing shall comply with General Order 96-A. The revised schedules shall apply only to service rendered on and after their effective date.

2. On or after November 5, 1989, California-American Water Company is authorized to file an advice letter, with appropriate supporting workpapers, requesting the step rate increases for 1990 shown in Appendix C-DU attached to this order, or to file a lesser increase in the event that the rate of return on rate base for its Duarte Division, adjusted to reflect the rates then in effect and normal ratemaking adjustments for the months between the effective date of this order and September 30, 1989, annualized, exceeds the later of (a) the rate of return found reasonable by the Commission for California-American Water Company for the corresponding period in the then most recent rate decision, or (b) 10.82%. This filing shall comply with General Order 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. Staff shall inform the Commission if it finds that the proposed rates are not in accord with this decision, and the Commission may then modify the increase. The effective date of the revised schedules shall be no earlier than January 1, 1990, or 40 days after filing, whichever is later. The revised schedules shall apply only to service rendered on and after their effective date.

3. On or after November 5, 1990, California-American Water Company is authorized to file an advice letter, with appropriate supporting workpapers, requesting the step rate increases for 1991 shown in Appendix D-DU attached to this order, or to file a lesser increase in the event that the rate of return on rate base for its Duarte Division, adjusted to reflect the rates then in effect and normal ratemaking adjustments for the months between the effective date of the increase ordered in the previous paragraph and September 30, 1990, annualized, exceeds the later of (a) the rate of return found reasonable by the Commission for California-American Water Company for the corresponding period in the then most recent rate decision, or (b) 10.82%. This filing shall comply with General Order 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. Staff shall inform the Commission if it finds that the proposed rates are not in accord with this decision, and the Commission may then modify the increase. The effective date of the revised schedules shall be no earlier than January 1, 1991, or 40 days after filing, whichever is later. The revised schedules shall apply only to service rendered on and after their effective date.

This order is effective today.
Dated JUL 19 1989, at San Francisco, California.

G. MITCHELL WILK
President
FREDERICK R. DUDA
STANLEY W. HULETT
JOHN B. OHANIAN
Commissioners

Commissioner Patrick M. Eckert, being necessarily absent, did not participate.

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

Victor Weisser, Executive Director

pc

APPENDIX A-DU
(Page 1)
CALIFORNIA-AMERICAN WATER CO.
(DUARTE)
1989
SUMMARY OF EARNINGS
($000)

Items	Utility		Branch		Adopted	
	Present	Proposed	Present	Proposed	Present	Authorized
Oper. Revenues	$2,621.1	$2,924.0	$2,634.9	$2,943.2	$2,621.0	$2,795.1
Rev. from Contr.	5.3	5.3	6.0	6.0	6.0	6.0
Total Revenues	2,626.4	2,929.3	2,640.9	2,949.2	2,627.0	2,801.1
Expenses						
O & M Expenses	1,306.2	1,306.2	1,227.9	1,227.9	1,284.0	1,284.0
Uncollectibles	11.5	12.8	11.5	12.9	11.5	12.2
Subtotal O & M	1,317.7	1,319.0	1,239.4	1,240.8	1,295.5	1,296.2
A & G Expenses	387.2	387.2	363.9	363.9	384.0	384.2
Franchise	0.0	0.0	0.0	0.0	0.0	0.0
Gen. (W/o Depr.)	168.2	168.2	169.0	169.0	175.0	175.0
Subtotal A & G	555.4	555.4	532.9	532.9	559.0	559.0
Ad Valorem Taxes	53.2	53.2	61.9	61.9	48.8	48.8
Payroll Taxes	35.0	35.0	41.2	41.2	42.5	42.5
Depreciation (+ G.O.)	247.2	247.2	173.5	173.5	255.0	255.0
Ca. Income Tax	21.3	49.4	33.5	62.0	26.6	42.8
Federal Income Taxes	61.3	154.4	100.1	194.9	75.8	129.3
Total Expenses	2,291.0	2,413.6	2,182.5	2,307.2	2,303.2	2,373.6
Net Revenues	335.2	515.7	458.4	642.0	323.8	427.5
Rate Base	4,485.6	4,485.6	3,895.0	3,895.0	3,949.9	3,949.9
Rate of Return	7.47%	11.50%	11.77%	16.48%	8.20%	10.82%

(Negative)

APPENDIX A-DU
(Page 2)
CALIFORNIA-AMERICAN WATER CO.
(DUARTE)
1990
SUMMARY OF EARNINGS
($000)

Items	Utility		Branch		Adopted	
	Present	Proposed	Present	Proposed	Present	Authorized
Oper. Revenues	$2,647.9	$3,172.1	$2,662.6	$3,192.1	$2,649.1	$2,888.7
Rev. from Contr.	4.6	4.6	5.1	5.1	5.1	5.1
Total Revenues	2,652.5	3,176.7	2,667.7	3,197.2	2,654.2	2,893.8
O & M Expenses	1,376.1	1,376.1	1,298.6	1,298.6	1,353.1	1,353.1
Uncollectibles	11.6	13.9	11.6	13.9	11.6	12.6
Subtotal O & M	1,387.7	1,390.0	1,310.2	1,312.5	1,364.7	1,366.7
A & G Expenses	407.0	407.0	380.2	380.2	403.8	403.8
Franchise	0.0	0.0	0.0	0.0	0.0	0.0
Gen Off. (W/o Depr.)	175.9	175.9	176.8	176.8	175.0	175.0
Subtotal A & G	582.9	582.9	557.0	557.0	578.8	578.8
Ad Valorem Taxes	67.2	67.2	64.4	64.4	52.6	52.6
Payroll Taxes + Misc.	38.0	38.0	42.8	42.8	44.0	44.0
Depreciation (+ G.O.)	279.1	279.1	185.0	185.0	270.6	270.6
Ca. Income Tax	4.5	53.0	22.8	71.8	14.0	36.2
Federal Income Taxes	4.6	165.7	64.4	227.1	32.8	106.4
Total Expenses	2,364.0	2,575.9	2,246.7	2,460.7	2,357.5	2,454.4
Net Revenues	288.5	600.8	421.0	736.5	296.7	439.4
Rate Base	5,190.6	5,190.6	4,160.1	4,160.1	4,062.3	4,062.3
Rate of Return	5.56%	11.58%	10.12%	17.70%	7.30%	10.82%

(Negative)

APPENDIX A-DU
(Page 3)
CALIFORNIA-AMERICAN WATER CO.
(DUARTE)
1989
INCOME TAX
($000)

Items	Utility		Branch		Adopted	
	Present	Proposed	Present	Proposed	Present	Authorized
Total Revenues	$2,621.1	$2,924.0	$2,634.9	$2,943.2	$2,621.0	$2,795.1
Expenses						
Operations & Maint.	1,317.7	1,319.0	1,239.4	1,240.8	1,295.4	1,296.1
Admin. & General	387.2	387.2	363.9	363.9	384.0	384.0
Taxes O/T Income	88.2	88.2	103.1	103.1	91.3	91.3
Gen. Off.	168.2	168.2	169.0	169.0	175.0	175.0
Subtotal	1,961.3	1,962.6	1,875.5	1,876.8	1,945.7	1,946.4
Deductions						
CA Tax Depreciation	182.6	182.6	168.8	168.8	170.4	170.4
Interest	245.6	245.6	230.8	230.8	218.6	218.6
CA Taxable Income	229.5	531.1	359.9	666.8	286.3	459.7
CCFT	21.3	49.4	33.5	62.0	26.6	42.8
Deductions						
Fed. Tax Depreciation	201.6	201.6	191.9	191.9	198.4	198.4
Interest	245.6	245.6	230.8	230.8	218.6	218.6
FIT Taxable Income	189.2	462.7	303.3	581.7	231.7	388.9
FIT (Before Adjustment)	64.3	157.3	103.1	197.8	78.8	132.2
Prorated Adjustment	0.0	0.0	0.0	0.0	0.0	0.0
Investment Tax Credit	(3.0)	(2.9)	(3.0)	(2.9)	(3.0)	(2.9)
Net Federal Income Tax	61.3	154.4	100.1	194.9	75.8	129.3

(Negative)

APPENDIX A-DU
(Page 4)
CALIFORNIA-AMERICAN WATER CO.
(DUARTE)
1990
INCOME TAX
($000)

Items	Utility		Branch		Adopted	
	Present	Proposed	Present	Proposed	Present	Authorized
Total Revenues	$2,647.9	$3,172.1	$2,662.6	$3,192.1	$2,649.1	$2,888.7
Expenses						
Operations & Maint.	1,387.7	1,390.0	1,310.2	1,312.5	1,364.6	1,365.6
Admin. & General	407.0	407.0	380.2	380.2	403.8	403.8
Taxes O/T Income	105.2	105.2	107.2	107.2	96.6	96.6
Gen. Off.	175.9	175.9	176.8	176.8	175.0	175.0
Subtotal	2,075.8	2,078.1	1,974.4	1,976.7	2,040.0	2,041.0
Deductions						
CA Tax Depreciation	215.5	215.5	180.3	180.3	183.5	183.5
Interest	306.9	306.9	262.6	262.6	274.7	274.7
CA Taxable Income	48.1	570.0	245.3	772.5	150.9	389.5
CCFT	4.5	53.0	22.8	71.8	14.0	36.2
Deductions						
Fed. Tax Depreciation	236.7	236.7	204.4	204.4	215.2	215.2
Interest	306.9	306.9	262.6	262.6	274.7	274.7
FIT Taxable Income	22.4	495.8	198.4	676.5	105.2	321.6
FIT (Before Adjustment)	7.6	168.6	67.4	230.0	35.8	109.3
Prorated Adjustment	0.0	0.0	0.0	0.0	0.0	0.0
Investment Tax Credit	(3.0)	(2.9)	(3.0)	(2.9)	(3.0)	(2.9)
Net Federal Income Tax	4.6	165.7	64.4	227.1	32.8	106.4

(Negative)

APPENDIX A-DU
(Page 5)
CALIFORNIA-AMERICAN WATER CO.
(DUARTE)
1989
RATE BASE
($000)

Items	Utility	Branch	Adopted
Plant in Service	$8,353.8	$8,001.9	$8,094.1
Work in Progress	0.0	0.0	0.0
Materials & Supplies	16.2	8.5	8.5
Working Cash	295.2	(12.0)	13.7
Method 5 Adj.	38.4	36.4	36.4
Cap. Int. Adj.	0.0	0.0	0.0
Subtotal	8,703.6	8,034.8	8,152.7
Less:			
Depreciation Reserve	2,386.9	2,328.8	2,386.4
Advances	571.9	571.9	571.9
Contributions	1,030.4	1,038.9	1,038.9
Unamortized ITC	0.0	0.0	0.0
Deferred Income Tax	255.4	250.7	256.1
Subtotal	4,244.6	4,190.3	4,253.3
Net District Rate Base	4,459.0	3,844.5	3,899.4
Main Office Allocation	26.6	50.5	50.5
Total Rate Base	4,485.6	3,895.0	3,949.9

(Negative)

APPENDIX A-DU
(Page 6)
CALIFORNIA-AMERICAN WATER CO.
(DUARTE)
1990
RATE BASE
($000)

Items	Utility	Branch	Adopted
Plant in Service	$9,205.9	$8,369.0	$8,399.1
Work in Progress	0.0	0.0	0.0
Materials & Supplies	17.0	9.0	9.0
Working Cash	313.3	(29.2)	0.3
Method 5 Adj.	39.7	38.1	38.1
Cap. Int. Adj.	0.0	0.0	0.0
Subtotal	9,575.9	8,386.9	8,446.5
Less:			
Depreciation Reserve	2,632.1	2,484.5	2,629.8
Advances	507.9	507.9	507.9
Contributions	998.4	1,006.9	1,006.9
Unamortized ITC	0.0	0.0	0.0
Deferred Income Tax	295.8	278.8	290.9
Subtotal	4,434.2	4,278.1	4,435.5
Net District Rate Base	5,141.6	4,108.8	4,011.0
Main Office Allocation	48.9	51.3	51.3
Total Rate Base	5,190.5	4,160.1	4,062.3

(Negative)

(END OF APPENDIX A-DU)

APPENDIX B-DU
(Page 1)

SCHEDULE NO. DU-1

DUARTE DISTRICT TARIFF AREA

GENERAL METERED SERVICE

APPLICABILITY

Applicable to all metered water service.

TERRITORY

Bradbury, Duarte, portions of Irwindale, Monrovia, and vicinity, Los Angeles County.

RATES

SERVICE CHARGE:	PER METER PER MONTH	
For 5/8 x 3/4-inch meter	$ 8.45	(I)
For 3/4-inch meter	10.00	
For 1-inch meter	14.20	
For 1-1/2-inch meter	23.00	
For 2-inch meter	30.00	
For 3-inch meter	44.00	
For 4-inch meter	66.00	
For 6-inch meter	107.00	
For 8-inch meter	168.00	(I)

QUANTITY RATES:		
All water delivered, per 100 cu.ft.	$ 0.711	

The Service Charge is applicable to all service. It is a readiness-to-serve charge to which is added the charge, computed at the Quantity Rate for water used during the month.

CORRECTION

THIS DOCUMENT HAS

BEEN REPHOTOGRAPHED

TO ASSURE

LEGIBILITY

APPENDIX B-DU
(Page 1)

SCHEDULE NO. DU-1

DUARTE DISTRICT TARIFF AREA

GENERAL METERED SERVICE

APPLICABILITY

Applicable to all metered water service.

TERRITORY

Bradbury, Duarte, portions of Irwindale, Monrovia, and vicinity, Los Angeles County.

RATES

SERVICE CHARGE:	PER METER PER MONTH	
For 5/8 x 3/4-inch meter	$ 8.45	(I)
For 3/4-inch meter	10.00	
For 1-inch meter	14.20	
For 1-1/2-inch meter	23.00	
For 2-inch meter	30.00	
For 3-inch meter	44.00	
For 4-inch meter	66.00	
For 6-inch meter	107.00	
For 8-inch meter	168.00	(I)

QUANTITY RATES:	
All water delivered, per 100 cu.ft.	$ 0.711

The Service Charge is applicable to all service. It is a readiness-to-serve charge to which is added the charge, computed at the Quantity Rate for water used during the month.

APPENDIX B-DU
(Page 2)

SCHEDULE NO. DU-3M

DUARTE DISTRICT TARIFF AREA

MEASURED IRRIGATION SERVICE

APPLICABILITY

Applicable to all measured service for irrigation purposes as defined in the special conditions below. Applicable only to premises serviced under Schedule No. DU-3M on a continuous basis on and after January 1, 1969.

TERRITORY

Bradbury, Duarte, portions of Irwindale, Monrovia, and vicinity, Los Angeles County.

RATES

SERVICE CHARGE:	PER METER PER MONTH	
For 5/8 X 3/4-inch meter	$ 14.55	(I)
For 3/4-inch meter	18.45	|
For 1-inch meter	31.00	|
For 1-1/2-inch meter	45.00	|
For 2-inch meter	62.00	|
For 3-inch meter	90.00	|
For 4-inch meter	141.00	|
For 6-inch meter	180.00	|
For 8-inch meter	195.00	(I)

QUANTITY RATES:

A. Pressure Service all water, per 100 cu.ft. ..... $ 0.485

B. Gravity service all water, per 100 cu.ft. ..... $ 0.353

The Service Charge is a readiness-to-serve charge applicable to this service and to which is to be added the monthly usage charge computed at the Quantity Rate.

APPENDIX B-DU
(Page 3)

SCHEDULE NO. DU-4

DUARTE DISTRICT TARIFF AREA

PRIVATE FIRE PROTECTION SERVICE

APPLICABILITY

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

TERRITORY

Bradbury, Duarte, portions of Irwindale, Monrovia, and vicinity, Los Angeles County.

RATES

	PER MONTH	
For each inch of diameter of private fire protection service	$3.95	(I)

The rates for private fire service are based upon the size of the service and no additional charges will be made for fire hydrants, sprinklers, hose connections or standpipe connected to and supplied by such private fire service.

SPECIAL CONDITIONS

1. The fire protection service and connection shall be installed by the utility or under the utility's direction. Cost of the entire fire protection installation excluding the connection at the main shall be paid for by the applicant. Such payment shall not be subject to refund.

2. The installation housing the detector type check valve and meter and appurtenances thereto shall be in a location mutually agreeable to the applicant and the utility. Normally such installation shall be located on the premises of applicant, adjacent to the property line. The expense of maintaining the fire protection facilities on the applicant's premises (including the vault, meter, detector-type check valves, backflow device and appurtenances) shall be paid for the applicant.

(END OF APPENDIX B-DU)

APPENDIX C-DU
(Page 1)

CALIFORNIA AMERICAN WATER COMPANY
DUARTE 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.

SCHEDULE DU-1

Service Charge:	Effective 1990
For 5/8 x 3/4-inch meter	$ 0.45
For 3/4-inch meter	0.50
For 1-inch meter	0.75
For 1-1/2-inch meter	1.00
For 2-inch meter	2.00
For 3-inch meter	2.00
For 4-inch meter	3.00
For 6-inch meter	5.00
For 8-inch meter	8.00
Quantity Rates:	
For all water delivered, per 100 cu.ft.	$ 0.006

SCHEDULE DU-4

Rates:	
For each inch of diameter of private fire protection service	$ 0.12

APPENDIX C-DU
(Page 2)

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 tht date.

SCHEDULE DU-3M

Service Charge:	Effective 1990
For 5/8 x 3/4-inch meter	$ 0.50
For 3/4-inch meter	0.75
For 1-inch meter	1.00
For 1-1/2-inch meter	1.00
For 2-inch meter	1.00
For 3-inch meter	2.00
For 4-inch meter	2.00
For 6-inch meter	3.00
For 8-inch meter	4.00
Quantity Rates:	
A. Pressure service all water, per 100 cu.ft.	$ 0.00
B. Gravity service all water, per 100 cu.ft.	$ 0.00

(END OF APPENDIX C-DU)

APPENDIX D-DU
(Page 1)

CALIFORNIA AMERICAN WATER COMPANY
DUARTE 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.

SCHEDULE DU-1

	Effective 1991
Service Charge:	
For 5/8 x 3/4-inch meter	$0.10
For 3/4-inch meter	0.10
For 1-inch meter	0.25
For 1-1/2-inch meter	0.50
For 2-inch meter	1.00
For 3-inch meter	1.00
For 4-inch meter	2.00
For 6-inch meter	3.00
For 8-inch meter	4.00
Quantity Rates:	
For all water delivered, per 100 cu.ft.	$0.0177

SCHEDULE DU-4

Rates:	
For each inch of diameter of private fire protection service	$0.10

APPENDIX D-DU
(Page 2)

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.

SCHEDULE DU-3M

	Effective 1991
Service Charge:	
For 5/8 x 3/4-inch meter	$0.10
For 3/4-inch meter	0.10
For 1-inch meter	0.10
For 1-1/2-inch meter	0.25
For 2-inch meter	1.00
For 3-inch meter	2.00
For 4-inch meter	3.00
For 6-inch meter	4.00
For 8-inch meter	5.00
Quantity Rates:	
A. Pressure service all water, per 100 cu.ft.	$0.025
B. Gravity service all water, per 100 cu.ft.	$0.020

(END OF APPENDIX D-DU)

APPENDIX E-DU
(Page 1)

CALIFORNIA AMERICAN WATER COMPANY
DUARTE DISTRICT

ADOPTED QUANTITIES

Purchased Power

SCE Effective 7-88

	1989		1990	
	KWH	Cost	KWH	Cost
Wells				
PA-1 (1100 HP)	1,013,305	$ 97,905	1,024,784	$ 98,859
PA-2 (544 KW)	2,213,752	200,964	2,239,650	202,622
Boosters				
PA-1 (200 HP)	13,395	4,004	13,630	4,024
pa-2 (223 KW)	515,000	53,911	521,400	54,465
Irrig Boosters				
PA-1 (105 HP)	117,960	11,590	117,960	11,590
PA-2 (60 KW)	79,785	9,522	79,785	9,522
Total Power Consumption	3,953,197		3,997,209	
Total Power Cost		$377,896		$381,082

Purchased Water

Main San Gab. Ba (7-88)	6,621.0		6,692.9
Total Well Prod. AF	3,231.1		3,046.5
Makeup Water AF	1,717.9		1,974.4
Replenishment AF	1,717.9		1,974.4
Cost:Adm.Asn.$2.5/AF	$16,553.0		$16,732.0
LB.Makeup $3/AF	$14,709.3		$14,155.5
Replen. $158/AF	$271,428.2		$311,955.0
Total Cost	$302,690.5		$342,842.5

APPENDIX E-DU
(Page 2)

CALIFORNIA AMERICAN WATER COMPANY
DUARTE DISTRICT

ADOPTED QUANTITIES

NUMBER OF SERVICES - METER SIZE	1989	1990
5/8 x 3/4	5,802	5,845
3/4	112	112
1	391	399
1-1/2	209	215
2	265	270
3	7	7
4	8	8
6	1	1
	6,795	6,857

NUMBER OF SERVICES

	No. of Services		Usage-KCcf		Avg. Usage Ccf/yr	
	1989	1990	1989	1990	1989	1990
Residential	6,087	6,123	1,487.7	1,496.5	244.4	244.4
Business Norm. Users	560	584	430.9	449.6	769.5	769.5
Business Large Users	20	20	309.4	309.4	15,468.0	15,468.0
Industrial	23	23	55.7	55.7	2,421.7	2,421.7
Pub. Auth. Nor. Users	90	92	89.2	91.2	991.4	991.4
Pub. Auth. Lge. Users	14	14	123.8	123.8	8,844.2	8,844.2
Irrigation	63	63	172.0	172.0	2,730.4	2,730.4
Golf Course	1	1	38.6	38.6	38,600.0	38,600.0
Other			3.7	3.7		
Subtotal	6,858	6,920				
Pvt. Fire Protection	85	87				
Total	6,943	7,007	2,711.0	2,740.5		
Unaccounted for (6.0%)			173.0	174.9		
Total Water Produced			2,884.0	2,915.4		
Wells			2,712.0	2,743.4		
Surface Supply			172.0	172.0		

APPENDIX E-DU
(Page 3)

CALIFORNIA AMERICAN WATER COMPANY
DUARTE DISTRICT

ADOPTED QUANTITIES

	1989	1990
NUMBER OF SERVICES - METER SIZE		
5/8 x 3/4	0	0
3/4	0	0
1	2	2
1-1/2	3	3
2	40	40
3	14	14
4	4	4
6	0	0
Total	63	63
WATER SALES (CCF)		
Irrigation - Gravity	7,700	7,700
Irrigation - Pressure	164,300	164,300
Irrigation - Total	172,000	172,000

APPENDIX E-DU
(Page 4)

CALIFORNIA AMERICAN WATER COMPANY
DUARTE DISTRICT

ADOPTED EXPENSES

	1989 Adopted	1990 Adopted
	(Thousands of Dollars)	
Purchased Power	$377.9	$381.1
Purchased Water	302.7	342.8
Purchased Chem.	2.1	2.2
Payroll (O&M+A&G)	507.0	529.2
O&M Other	242.7	252.6
Emp. Pension & Ben.	87.1	91.6
A & G Other	148.7	157.4
Payroll Tax	42.5	44.0
Ad. Vol. Tax	48.8	52.6
Federal Tax Rate	34.0%	34.0%
State Tax Rate	9.3%	9.3%
Uncollectible Rate	0.437%	0.437%
Franchise Rate	0.0	0.0

(END OF APPENDIX E-DU)

APPENDIX F-DU

CALIFORNIA AMERICAN WATER COMPANY
DUARTE DISTRICT

AT PRESENT AND ADOPTED RATES

FOR A 5/8 X 3/4 INCH METER

1989

Usage Ccf	Present Rates	Adopted Rates	Amount Increase	Percent Increase
0	$ 6.65	$ 8.45	$ 1.89	27.07
3	8.43	10.58	2.15	25.54
5	9.89	12.01	2.11	21.39
8	12.09	14.14	2.05	16.94
10	13.55	15.56	2.01	14.83
15	17.20	19.12	1.91	11.13
20	20.86	22.67	1.81	8.68
20.37 Avg.	21.13	22.93	1.80	8.53
40	35.48	36.89	1.41	3.97
100	79.33	79.55	0.22	0.28

1990

0	$ 8.45	$ 8.90	$ 0.45	5.33
3	10.58	11.05	0.47	4.42
5	12.01	12.49	0.48	4.00
8	14.14	14.64	0.50	3.52
10	15.56	16.07	0.51	3.28
15	19.12	19.66	0.54	2.83
20	22.67	23.24	0.57	2.51
20.37 Avg.	22.93	23.51	0.57	2.50
40	36.89	37.58	0.69	1.87
100	79.55	80.60	1.05	1.32

1991

0	$ 8.90	$ 9.00	$ 0.10	1.12
3	11.05	11.20	0.15	1.39
5	12.49	12.67	0.19	1.51
8	14.64	14.88	0.24	1.65
10	16.07	16.35	0.28	1.72
15	19.66	20.02	0.36	1.86
20	23.24	23.69	0.45	1.95
20.37 Avg.	23.51	23.97	0.46	1.96
40	37.58	38.39	0.81	2.15
100	80.60	82.47	1.87	2.32

(END OF APPENDIX F-DU)

ALJ/JCG/fs

Decision _____

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of CALIFORNIA-AMERICAN WATER COMPANY (U 210 W) for an order authorizing it to increase its rates for water service in its DUARTE DISTRICT.	)))))	Application 88-09-042 (Filed September 21, 1988)

Steefel, Levitt & Weiss, by Lenard G. Weiss, Attorney at Law, for California-American Water Company, applicant.
Edward Duncan, for himself, intervenor.
Lawrence Q. Garcia, Attorney at Law, and Willem R. Van Lier, for the Water Utilities Branch.

O P I N I O N

California-American Water Company (applicant or Cal-Am) seeks authority to increase rates in its Duarte District.

The proposed increase was designed to increased revenues of return in 1989, 1990, and 1991 as follows:

Year	Annually (Dollars in Thousands) Increase	Percent	Cumulative (Dollars in Thousands) Increase	Percent
1989	$302.9	11.56%	$302.9	11.56%
1990	221.3	7.39	524.2	19.80
1991	233.5	7.20	757.7	28.42

At present rates, the monthly charge for 2,037 cubic feet is $21.13, (the average domestic consumption) and would be as follows at proposed rates:

Year	Amount	Increase	% Increase
1989	$21.97	$ .84	3.97%
1990	23.54	2.42	11.44
1991	25.26	4.14	19.58

New Rates

We have considered the evidence presented by applicant, by the Water Utilities Branch (Branch) of the Commission Advisory and Compliance Division (CACD), and by the Division of Ratepayer Advocates (DRA). Based on that evidence, we will grant a rate increase and establish new rates for water service. The domestic customer who now pays $21.13 for 2,037 cubic feet will pay: $22.34 per month for the remainder of 1989; $23.19 per month for 1990 and $23.81 per month for 1991. The dollar amount of the increases we are granting are $145,400 or 5.53% for 1989 on an annualized basis, $84,700 or 3.02% for 1990 and $79,200 or 2.74% for 1991.

History

California-American Water Company acquired all of the water properties of the California Water and Telephone Company (Decision (D.) 70418, dated March 8, 1966, and June 8, 1966). The acquisition was accomplished on April 1, 1966. The acquisition included this District.

The last rate increase proceeding for this District was D.86-03-011 in Application (A.) 85-05-101. The rates now in effect are at the third level authorized in that decision.

Cal-Am maintained office/operation centers as follows:

Baldwin Hills	Field Office	4634 W. Slauson Avenue, Los Angeles
Duarte	Field & Customer Service Office	1101 S. Oak Avenue, Duarte
San Marino	General Office	2020 Huntington Dr., San Marino
	Operations Center	8657 E. Grand Avenue, Rosemead

Local management, engineering, accounting, and commercial functions are provided from the general offices for each district, or multi-district, operation. The operations centers consist of

warehouses, yard facilities, meter testing facilities, garages, etc. required for operation and maintenance of the systems.

1. Legal services are provided as required by various firms for both corporate purposes and local district matters.

2. Price Waterhouse and Co. is retained for the annual independent audit of Cal-Am's records.

3. Computerized processing of Cal-Am's general and subsidiary ledgers is done by American Water Works Service Company, Inc. data processing center in Voorhees, New Jersey.

4. Management Contract. On January 1, 1971, an agreement was executed by and between American Water Works Service Company, Inc. and California-American Water Company whereby Cal-Am contracted for management services to be provided at cost by the service company in the areas of administration, engineering, customer, public and employee relations, accounting, corporate secretarial, treasury, insurance, data processing, and customer billing.

Service Area

The service area of the Duarte District lies at the northern edge of the San Gabriel Valley and extends into the foothills of the San Gabriel Mountains, providing domestic water service to the cities of Bradbury and Duarte, and portions of Irwindale, Monrovia, and vicinity, Los Angeles County.

The majority of the 63 irrigation service customers are in the City of Bradbury.

Elevations within the service area range from 375 feet above sea level on the southwest to 1,200 feet at the northern edge.

The domestic system is supplied by eight wells which feed directly into the distribution pipeline system. Because of the

wide variation in elevations within the service area, the system is divided into six pressure zones.

Historically, the supply of water for irrigation service has been diversion of surface water from the San Gabriel River and Fish Canyon. In rare instances of extremely low river flow, water from wells can be delivered to the irrigation customers. Raw water from the surface sources is not suitable for domestic use.

Proceedings

An informal meeting was held in Duarte on the evening of November 4, 1988, with representatives of utility, staff, and nine customers in attendance. A utility executive explained the basis for the proposed increase. A Branch representative explained the staff's function and that of the Commission's Public Advisor office.

One customer believed that the service charge portion of his bill was in the nature of rental on the meter. A company representative explained how service charges for various types of meters are fixed.

Another asked about the company's policies concerning replacement of mains. A company representative explained the impact of Los Angeles County fire flow requirements. He also mentioned the company's policy of replacing old mains with long-lived PVC pipe. Another customer argued that PVC mains had developed leaks. The Branch representative requested that the utility report on leak experience with the PVC mains.

One customer noted that parts of the system were financed by subdividers. Cal-Am's representative explained that contributed plant is excluded from rate base.

One final customer question gave the utility a chance to explain that since the utility employed its own construction crew, overall costs to consumers are substantially reduced.

The public participation hearing on January 23, 1989 was well attended. A representative of the City indicated that a

city-employed consultant might make a presentation during the evidentiary hearings.

Most customers came to oppose any attempt to eliminate irrigation service, such as the utility proposed in A.85-05-092. It is not proposed by any party in this proceeding.

One customer had a larger than normal meter for domestic service. He paid the extra charges to maintain pressure while his neighbors were sprinkling. He complained about the amount of and the proposed increase in charges for larger meters.

Another customer compared applicant's proposed rates with the lower rates of a mutual system.

Several criticized Cal-Am's policy of not allowing any new or reconnected customers for its irrigation service.

Evidentiary hearings were held at various locations in the Los Angeles area on a common record with A.86-08-041 (Baldwin Hills District) and A.86-08-042 (San Marino District). All three matters were taken under submission on March 3, after the filing of a joint late-filed comparison exhibit and briefs.

Discussion

The tables which appear in Appendix A-DU compare applicant's and Branch's initial positions with the adopted figures. (The discussion relies on decisions reached in D.86-03-011 in A.85-05-092, the last rate case for Cal-Am's Baldwin Hills, San Marino and Duarte Districts. It also relies on the most recent Monterey District rate case, D.89-02-047. Finally, we have referred to our Regulatory Lag Plan (RLP) for water utilities, adopted by Resolution M-4705 in 1979).

The text below summarizes those issues which still remain in dispute between Branch or DRA and applicant. Our analysis and resolution of those issues which affect all Districts are explained in summary only. The full analysis is found in the decision in A.88-09-040. This decision analyzes the rate design issue and two other issues that affect this District only.

Disposition of Major Issues[1]

We have adopted Cal-Am's recommended number of employee positions, 56 in 1989 and 57 thereafter. This includes an additional employee to perform additional testing, a cross-connection supervisor and a management trainee in both test years. We have rejected Staff's cost estimate for this item which assumed that the historical number of vacancies would continue during the test years. We have instead adopted an arbitrary 2% reduction for vacancies as proposed by applicant.

In all Districts, our utility plant estimates are based on:

1. An Allowance for Funds Used During Construction (AFUDC), rejecting a staff proposal to deny all compensation for funds used while projects are under construction.

2. Service lives of 4 years for autos and light trucks, as proposed by applicant.

3. An allowance for all utility-planned replacements of pumps and motors

4. Adoption of staff-recommended adjustment to the estimate for furniture and carpets.

We have adopted (with the exception of the lab employee) the same level of expenses for the general office allowed in the Monterey decision, D.89-02-067 in A.88-03-047, California-American, Increase Rates, Monterey District. (This accepts a Branch recommendation.)

In calculating income tax, we have followed the methodology proposed by the applicant; this excludes interest

1 The decision in A.88-09-041 lists all of the issues between Branch and applicant which are no longer contested.

charges in AFUDC; it also excludes the effect of the interest on unamortized portion of acquisition adjustment.

We have postponed considering the non-labor cost components of applicant's proposed new Los Angeles lab. This action is dictated by the Monterey decision, which held that examination of the costs should await the availability of actual costs.

We have adopted a rate base which includes Materials and Supplies, using Staff's proposed allowance. We have found that applicant needs additional water supply in this District and that the best alternative to satisfy this need is to drill two new wells in an area where uncontaminated water is available. Applicant is to recover the cost of the study to select the most promising alternative, and of the preliminary tests needed to determine whether the project should go forward to full development. While noting the dispute over the need for treatment for pitting of copper pipes in newer subdivisions, we have concluded that the ratemaking effect, if any, of that problem should be considered in another pending case.

We have adopted a rate of return on equity of 12.25%. This is the top of DRA's range of recommended rates, and is the same rate of return adopted in the Monterey rate case, supra.

Minor Issues

With the exception of the furniture issue, the parties did not brief the issues noted below. The furniture issue involves a very small sum.

In all Districts, there were differences in the allocation factors to be used to distribute certain labor-related costs between Districts. We have adopted the staff factor as being less arbitrary than applicant's.

In all Districts, Branch recommended that we not escalate costs of liability insurance, as proposed by applicant. The

Branch approach seems preferable pending implementation of the Supreme Court decision on Proposition 103 insurance reform.

In calculating income taxes, Branch did not deduct out non-deductible employee expenses. Since Branch did not explain, we will adopt the company position.

The Branch and applicant each used a different weighting factor in deriving weighted average rate base. We have adopted the Branch figure.

All "unexplained variances" shown on the tables have been resolved in applicants favor.

We have adopted the Branch recommendations on furniture, which were primarily based on a hands-on inspection. Cal-Am did not effectively refute the Branch conclusions that replacement was premature.

Pitting of Copper Pipe

Several newer subdivisions in applicant's Duarte service territory have experienced pinhole leaks in copper pipes on the customer's side of the meter. Applicant is convinced that the quality of its water is not the cause. Nevertheless it may be faced with a requirement to install wellhead caustic soda treatment equipment to remedy the situation.

This problem is now being considered in Case (C.) 87-08-057, City of Duarte v Cal-Am. That complaint is now inactive pending completion of certain tests.

Applicant seeks authority to file an advice letter to cover the cost of testing. It also seeks authority to file an advice letter offset for capital and operating costs, if it is required to supply a remedy. According to company witnesses, the capital outlay for caustic soda treatment could total $700,000 to $875,000 with annual operating costs of roughly $250,000.

The Branch brief did not treat this as a disputed issue. However, Branch is generally in favor of postponing such questions. In this particular instance, we have a pending proceeding in which

we will determine whether the project is needed, the estimated amount of capital required, and the estimated operating expenses associated with the project. Consequently, postponing consideration of the project's rate effect is especially suitable here.

Consequently, we conclude that it is premature to consider the ratemaking effects of constructing and operating a caustic soda treatment facility. If we later determine that the project should be constructed, and, when it nears completion, applicant should file a formal application for offset rate relief.

Proposed New Wells (Duarte)

The Duarte system serves roughly 6,900 domestic customers within the cities of Bradbury and Duarte as well as portions of Irwindale and Monrovia. If all of the system's eight current wells could be relied on for full-time operation, the utility would have sufficient water supply to meet maximum day non-irrigation demand until 1995. However, this leaves no excess for equipment failures. Conventional practice calls for enough supply to meet peak day demands with one well out of service.

Moreover, one of the eight wells, the Mountain Avenue well, is so contaminated with tri-chloro-ethane (TCE) that it can be used only in severe emergencies and under stringent conditions. (Another well, the Crownhaven well in the past has produced water with excessive methane and carbon dioxide content. These contaminants probably come from an abandoned landfill site. A recent project to recover methane from this source has somewhat ameliorated the situation, according to the applicant's consultant.)

In D.85-03-011, supra, Duarte supply problems were considered at length. Applicant at that time proposed the construction of a filter plant to treat surface water from the San Gabriel River to augment the existing well supply. This would have terminated irrigation service. The existing irrigation customers

would have been able to obtain only treated water at domestic rates.

There were no findings concerning the supply shortfall since all parties agreed that it existed. Branch recommended two alternative solutions, one of which was to drill a new well in the Fish Canyon area, well away from the pollution which affects the Mountain Avenue and Crownhaven wells. The other would have required the construction of a stripping tower at the Mountain Avenue well. This solution was rejected in part because of the air pollution it would cause.

The Commission did not believe that the company proposal was the best means to solve the problem. It characterized the proposal to replace contaminated groundwater supplies with treated surface water, as a short-term solution to a long-term problem. It was also concerned that the alternative had been selected in haste without full consideration of its cost. Finally it was concerned about the effect on irrigation customers, who had not been adequately notified of the proposal to abandon service. Instead, it "invited" the company to re-evaluate all alternative means to solve the problem.

The decision rejected Branch's well-drilling alternative because of doubts that wells could produce enough water.

In preparation for a second attempt to win Commission approval, the utility engaged a consultant. The consultant evaluated the following alternatives:

1. Purchasing treated water from MWD.
2. Treating the Mountain Avenue well to remove contaminants.
3. Interconnections with adjacent water suppliers.
4. Constructing a joint treatment facility with Azusa Valley Water Company.

5. Constructing a filter plant to treat surface water.

6. Drilling new wells.

7. Conservation.

The consultant found that Alternative 1 was unacceptable because of high cost. One of the most significant cost elements was the need for connections costing more than $2.7 million. The consultant also noted that the transmission line would pass through environmentally sensitive areas, making approval doubtful. In addition, the purchase price of MWD water is very high ($230 per acre ft.).

Wellhead treatment is not an acceptable alternative. Leaving aside the very high cost for stripping out the TCE from the Mountain Avenue well, the by-product of the process (gas with high levels of organic compounds) would not be tolerable in a residential area. Also, the well in question has very high nitrate concentration. There is no economical means of removing nitrates, which are recognized as health hazard for very young and elderly customers, at high concentrations. Nitrate concentrations are at their highest during dry conditions, when the well would be most used.

Purchases from neighboring utilities were not seen as an acceptable alternative; according to the utility witness none of the adjacent purveyors have excess water. Alternatives 4 and 5 were rejected because of very high capital costs. Since the last decision, the costs of building a separate filter plant for surface water were greatly increased by new rules of the U.S. Environmental Protection Agency. While new technology is available to comply with these regulations, the plant would now cost $6 million. In addition, the operator of the flood control program for the San Gabriel watershed could reduce the amount of surface water available during summer months. The combination of high plant cost

and potential supply problems led the utility to reject this alternative.

Conservation was not considered a desirable alternative. The shortfall is large enough that heroic conservation measures would be required in summer months. It is not likely that consumers will tolerate such severe measures in non-drought years.

The consultant was optimistic about the amount of additional water which new wells could be expected to supply; he therefore selected Alternative 6 as the most desirable alternative. He recommended sites in the Fish Canyon area as likely to produce large amounts of water and to remain pollution free. Cal-Am has adopted this recommendation; it has consequently requested authorization to spend $1.2 million to buy land, develop and equip the wells recommended by its consultant. There will be an additional $250,000 for design and preliminary engineering costs. (If tests during the development phase do not support the predictions of high production, the company can abandon the project, with sunk costs which are only a small fraction of the cost to complete.)

Because of the well-substantiated opinions of the consultant, the applicant now recommends what was Branch's alternative recommendation in the prior proceeding. Branch, on the other hand decided to abandon its prior recommendation. It notes that the shortfall will occur only during peak demand periods in summer months. It asserts that in 1987, the company was able to supplement its supply by purchasing 9,000 Ccf (0.34% of total production) from the City of Monrovia. It argues that the City is ready to sell additional water to Cal-Am in the future. Branch originally suggested that the Crownhaven well, which produces 1,700 gpm, should be placed back in service. However, Branch now concedes that the Crownhaven well includes enough methane and CO2 that it can be used only under stringent precautions imposed by the Department of Health.

We note that Branch did not adequately explain why it abandoned a proposal which it had supported in the prior proceeding, especially when that position now enjoys such strong support from the consultant. Outside of the information in the consultant's report, there appears to be no new evidence or change in circumstances to justify such a reversal. Nor has there been any criticism of the Branch's work in the prior proceeding.

On brief, Branch contended that decision on this matter should be postponed until the utility is ready to file an advice letter. We cannot fully accept Branch's recommendation since in this instance there have been two full rounds of litigation.

Furthermore, the Commission invited the company to study alternatives. It would be unfair to give Branch a chance to use hindsight to argue that stockholders should pay for the study, or for the tests it recommends.

We now have all the data we need to determine whether the study is worth paying for. Branch does not fault the quality of the study; in fact, it could serve as a classroom example of the kind of alternatives analysis needed to justify a regulatory finding under the Scenic Hudson doctrine. (Scenic Hudson etc. v. FPC (1965) 354 F. 2d 608.)

Branch now seems to prefer some combination of Alternatives 1 and 3 above. However, its evidence falls far short of a demonstration that the shortfall will be less than 4.4 million gallons per day (mgd). Nor has it demonstrated that any nearby system has 4.4 mgd to spare in summer months. It relies heavily on a recent purchase of water from the City of Monrovia. However, applicant responded that the only connection to that system is through a 4-inch main. Moreover, there is no testimony concerning the amount of water which the City might be willing to sell in the future.

We should not keep supply augmentation on the back burner for another extended period in the mere hope that applicant can

find and purchase peak day supplies at a reasonable cost. We believe that the question has received adequate study, and doubt that a further review by Branch would justify a different result.

We have adopted findings which authorize applicant to charge the costs of the consultant's study, and of all tests recommended by the consultant, against ratepayers. We have partially adopted Branch's position recommending delay in considering some issues, i.e. those which concern development of a permanent installation. Until the test results are available, we will not consider authorizing applicant to proceed with the development phase of this project.

As set forth in the Findings of Fact, below:

1. There is a 4.4 mgd shortfall in peak day supply which will increase to 5.9 mgd in the year 2000. This excludes the Mountain Avenue well but assumes the Crownhaven well is on line. It also assumes that one other well is temporarily out of service.

2. Alternative 1 is unacceptable in the absence of showing that any nearby system has excess capacity;

3. There is insufficient evidence to support adoption of any alternative other than 1 or 6; there is insufficient evidence to support further delay for the purpose of investigating any of those alternatives.

4. Cal-Am must expend funds to determine if the recommended well sites will provide adequate supplies of good quality water; those expenditures are a legitimate charge against ratepayers.

5. The utility was invited to restudy alternatives. It accepted by hiring a consultant to study alternatives; the quality of the study is exemplary. The cost of that study is a legitimate cost to be borne by ratepayers.

6. Approval of costs of developing and equipping production wells should be postponed until well test results are available. Regardless of the outcome of the well tests, the cost of the study is a proper addition to 1989 rate base.

Rate Design

In Investigation (I.) 84-11-041, D.86-05-064, the Commission adopted a new rate design policy. Under this policy, the lifeline block was to be abolished; all consumption was to be charged for at a single rate, except that up to three quantity blocks were permissible if necessary to establish industrial rates. The service charge was to be set high enough to cover up to 50% of the utility's fixed charges.

Intervenor Duncan (Intervenor) argues that that decision is flawed, claiming that there was no representation for consumer interests in that proceeding. A review of the file shows, however, that TURN, Cal Pirg, and UCAN were given notice and opportunity to participate. None of these organizations filed comments. Moreover, we note that the basis for the new policy came from a Branch recommendation. We will not adopt Intervenor's implicit argument that the Commission Staff did not adequately represent consumer interests. We will therefore apply the current rate design policy.

We find that the rate design established in D.86-05-064 is fair to all classes of consumer, and should be applied here.

Applicant is urged to identify domestic customers who have outsized meters solely for the purpose of countering the effects of undersized mains. It is encouraged to negotiate special contracts to provide a reduced service charge for such customers. The contract would be rescinded when mains are replaced.

Applicant is also urged to re-examine its rules concerning the availability of irrigation service, when and if it becomes clear that the surface water supply is no longer needed by domestic customers. However, it should also consider the most recent long-term supply projections for surface water.

When it becomes time for such re-examination, it should consult with our Public Advisor to seek participation by, or on behalf of, existing and potential new customers.

Findings of Fact

1. There is a 4.4 mgd shortfall in peak day supply which will increase to 5.9 mgd in the year 2000. This excludes the Mountain Avenue well but assumes the Crown Haven well is on line. It also assumes that one other well is temporarily out of service.

2. Alternative 1 is unacceptable in the absence of showing that any nearby system has excess capacity;

3. There is insufficient evidence to support adoption of any alternative other than 1 or 6; there is insufficient evidence to support further delay for the purpose of investigating any of those alternatives.

4. Cal-Am must expend funds to determine if the recommended well sites will provide adequate supplies of good quality water; those expenditures are a legitimate charge against ratepayers.

5. The utility was invited to restudy alternatives. It accepted by hiring a consultant to study alternatives; the quality of the study is exemplary. The cost of that study ($50,000) is a legitimate charge to be borne by ratepayers.

6. Approval of costs of developing and equipping production wells should be postponed until well test results are available. Regardless of the outcome of the well tests, applicant should be able to include the cost of the study in rate base for 1989.

7. The rates set forth in Appendices A-DU, B-DU, and C-DU are just reasonable and non-discriminatory for the periods specified. Applicants existing rates insofar as they differ from the Appendix rates are unreasonable.

8. The amounts set forth in Appendix E-DU Adopted Quantities, are reliable and should be used to consider any request for offset relief.

Conclusions of Law

1. It is premature to consider the ratemaking effect of possible expenditures to remedy pipe pitting.

2. We should not postpone identifying the best alternative to solve the water supply problem. We should assure applicant that the reasonable cost of performing all tests recommended by the consultant can eventually be recovered. The costs of the study should also be recovered.

3. This order should be made effective today to comply as nearly as possible with the rate case plan.

4. Applicant should be authorized to establish the Appendix rates on the dates specified.

O R D E R

IT IS ORDERED that:

1. California-American Water Company is authorized to file on or after the effective date of this order the revised rate schedules for 1989 shown in Appendix B-DU for its Duarte Division. This filing shall comply with General Order 96-A. The revised schedules shall apply only to service rendered on and after their effective date.

2. On or after November 5, 1989, California-American Water Company is authorized to file an advice letter, with appropriate supporting workpapers, requesting the step rate increases for 1990 shown in Appendix C-DU attached to this order, or to file a lesser increase in the event that the rate of return on rate base for its Duarte Division, adjusted to reflect the rates then in effect and normal ratemaking adjustments for the months between the effective date of this order and September 30, 1989, annualized, exceeds the later of (a) the rate of return found reasonable by the Commission for California-American Water Company for the corresponding period in the then most recent rate decision, or (b) 10.82%. This filing shall comply with General Order 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. Staff shall inform the Commission if it finds that the proposed rates are not in accord with this decision, and the Commission may then modify the increase. The effective date of the revised schedules shall be no earlier than January 1, 1990, or 40 days after filing, whichever is later. The revised schedules shall apply only to service rendered on and after their effective date.

3. On or after November 5, 1990, California-American Water Company is authorized to file an advice letter, with appropriate supporting workpapers, requesting the step rate increases for 1991 shown in Appendix D-DU attached to this order, or to file a lesser increase in the event that the rate of return on rate base for its Duarte Division, adjusted to reflect the rates then in effect and normal ratemaking adjustments for the months between the effective date of the increase ordered in the previous paragraph . and September 30, 1990, annualized, exceeds the later of (a) the rate of return found reasonable by the Commission for California-American Water Company for the corresponding period in the then most recent rate decision, or (b) 10.82%. This filing shall comply with General Order 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. Staff shall inform the Commission if it finds that the proposed rates are not in accord with this decision, and the Commission may then modify the increase. The effective date of the revised schedules shall be no earlier than January 1, 1991, or

40 days after filing, whichever is later. The revised schedules shall apply only to service rendered on and after their effective date.

This order is effective today.

Dated _____, at San Francisco, California.

APPENDIX A-DU
(Page 1)
CALIFORNIA-AMERICAN WATER CO.
(DUARTE)
1989
SUMMARY OF EARNINGS
($000)

Items	Utility Present	Utility Proposed	Branch Present	Branch Proposed	Adopted Present	Adopted Authorized
Oper. Revenues	$2,621.1	$2,924.0	$2,634.9	$2,943.2	$2,621.0	$2,766.4
Rev. from Contr.	5.3	5.3	6.0	6.0	6.0	6.0
Total Revenues	2,626.4	2,929.3	2,640.9	2,949.2	2,627.0	2,772.4
Expenses:						
O & M Expenses	1,306.2	1,306.2	1,227.9	1,227.9	1,265.6	1,265.6
Uncollectibles	11.5	12.8	11.5	12.9	11.5	12.1
Subtotal O & M	1,317.7	1,319.0	1,239.4	1,240.8	1,277.1	1,277.7
A & G Expenses	387.2	387.2	363.9	363.9	384.2	384.2
Franchise	0.0	0.0	0.0	0.0	0.0	0.0
Gen. (W/o Depr.)	168.2	168.2	169.0	169.0	169.0	169.0
Subtotal A & G	555.4	555.4	532.9	532.9	553.2	553.2
Ad Valorem Taxes	53.2	53.2	61.9	61.9	61.3	61.3
Payroll Taxes	35.0	35.0	41.2	41.2	42.5	42.5
Depreciation (+ G.O.)	247.2	247.2	173.5	173.5	262.0	262.0
Ca. Income Tax	21.3	49.4	33.5	62.0	25.2	38.6
Federal Income Taxes	61.3	154.4	100.1	194.9	71.0	115.7
Total Expenses	2,291.0	2,413.5	2,182.5	2,307.1	2,292.3	2,351.1
Net Revenues	335.4	515.8	452.4	636.1	334.7	421.3
Rate Base	4,485.6	4,485.6	3,895.0	3,895.0	3,893.9	3,893.9
Rate of Return	7.48%	11.50%	11.62%	16.33%	8.60%	10.82%

(Negative)

APPENDIX A-DU
(Page 2)
CALIFORNIA-AMERICAN WATER CO.
(DUARTE)
1990
SUMMARY OF EARNINGS
($000)

Items	Utility		Branch		Adopted	
	Present	Proposed	Present	Proposed	Present	Authorized
Oper. Revenues	$2,647.9	$3,172.1	$2,662.6	$3,192.1	$2,649.1	$2,880.7
Rev. from Contr.	4.6	4.6	5.1	5.1	5.1	5.1
Total Revenues	2,652.5	3,176.7	2,667.7	3,197.2	2,654.2	2,885.8
O & M Expenses	1,376.1	1,376.1	1,298.6	1,298.6	1,334.7	1,334.7
Uncollectibles	11.6	13.9	11.6	13.9	11.6	12.6
Subtotal O & M	1,387.7	1,390.0	1,310.2	1,312.5	1,346.3	1,347.3
A & G Expenses	407.0	407.0	380.2	380.2	403.8	403.8
Franchise	0.0	0.0	0.0	0.0	0.0	0.0
Gen Off. (W/o Depr.)	175.9	175.9	176.8	176.8	176.8	176.3
Subtotal A & G	582.9	582.9	557.0	557.0	580.6	580.6
Ad Valorem Taxes	67.2	67.2	64.4	64.4	63.2	63.2
Payroll Taxes + Misc.	38.0	38.0	42.8	42.8	44.0	44.0
Depreciation (+ G.O.)	279.1	279.1	185.0	185.0	278.1	278.1
Ca. Income Tax	4.5	53.0	22.8	71.8	11.6	33.0
Federal Income Taxes	4.6	165.7	64.4	227.1	24.5	95.7
Total Expenses	2,364.0	2,575.9	2,246.7	2,460.7	2,348.3	2,441.9
Net Revenues	288.5	600.8	421.0	736.5	305.9	443.9
Rate Base	5,190.6	5,190.6	4,160.1	4,160.1	4,102.4	4,102.4
Rate of Return	5.56%	11.58%	10.12%	17.70%	7.46%	10.82%

(Negative)

APPENDIX A-DU
(Page 3)
CALIFORNIA-AMERICAN WATER CO.
(DUARTE)
1989
INCOME TAX
($000)

Items	Utility		Branch		Adopted	
	Present	Proposed	Present	Proposed	Present	Authorized
Total Revenues	$2,621.1	$2,924.0	$2,634.9	$2,943.2	$2,621.0	$2,766.4
Expenses						
Operations & Maint.	1,317.7	1,319.0	1,239.4	1,240.8	1,277.1	1,277.7
Admin. & General	387.2	387.2	363.9	363.9	384.2	384.2
Taxes O/T Income	88.2	88.2	103.1	103.1	103.8	103.8
Gen. Off.	168.2	168.2	169.0	169.0	169.0	169.0
Subtotal	1,961.3	1,962.6	1,875.5	1,876.8	1,934.2	1,934.8
Deductions						
CA Tax Depreciation	182.6	182.6	168.8	168.8	170.5	170.5
Interest	245.6	245.6	230.8	230.8	245.6	245.6
CA Taxable Income	229.5	531.1	359.9	666.8	270.7	415.5
CCFT	21.3	49.4	33.5	62.0	25.2	38.6
Deductions						
Fed. Tax Depreciation	201.6	201.6	191.9	191.9	198.5	198.5
Interest	245.6	245.6	230.8	230.8	245.6	245.6
FIT Taxable Income	189.2	462.7	303.3	581.7	217.5	348.9
FIT (Before Adjustment)	64.3	157.3	103.1	197.8	74.0	118.6
Prorated Adjustment	0.0	0.0	0.0	0.0	0.0	0.0
Investment Tax Credit	(3.0)	(2.9)	(3.0)	(2.9)	(3.0)	(2.9)
Net Federal Income Tax	61.3	154.4	100.1	194.9	71.0	115.7

(Negative)

APPENDIX A-DU
(Page 4)
CALIFORNIA-AMERICAN WATER CO.
(DUARTE)
1990
INCOME TAX
($000)

Items	Utility		Branch		Adopted	
	Present	Proposed	Present	Proposed	Present	Authorized
Total Revenues	$2,647.9	$3,172.1	$2,662.6	$3,192.1	$2,649.1	$2,880.7
Expenses						
Operations & Maint.	1,387.7	1,390.0	1,310.2	1,312.5	1,346.3	1,347.3
Admin. & General	407.0	407.0	380.2	380.2	403.8	403.8
Taxes O/T Income	105.2	105.2	107.2	107.2	107.2	107.2
Gen. Off.	175.9	175.9	176.8	176.8	176.8	176.8
Subtotal	2,075.8	2,078.1	1,974.4	1,976.7	2,034.1	2,035.1
Deductions						
CA Tax Depreciation	215.5	215.5	180.3	180.3	183.9	183.9
Interest	306.9	306.9	262.6	262.6	306.9	306.9
CA Taxable Income	48.1	570.0	245.3	772.5	124.3	354.8
CCFT	4.5	53.0	22.8	71.8	11.6	33.0
Deductions						
Fed. Tax Depreciation	236.7	236.7	204.4	204.4	215.6	215.6
Interest	306.9	306.9	262.6	262.6	306.9	306.9
FIT Taxable Income	22.4	495.8	198.4	676.5	81.0	290.1
FIT (Before Adjustment)	7.6	168.6	67.4	230.0	27.5	98.6
Prorated Adjustment	0.0	0.0	0.0	0.0	0.0	0.0
Investment Tax Credit	(3.0)	(2.9)	(3.0)	(2.9)	(3.0)	(2.9)
Net Federal Income Tax	4.6	165.7	64.4	227.1	24.5	95.7

(Negative)

APPENDIX A-DU
(Page 5)
CALIFORNIA-AMERICAN WATER CO.
(DUARTE)
1989
RATE BASE
($000)

Items	Utility	Branch	Adopted
Plant in Service	$8,353.8	$8,001.9	$8,035.8
Work in Progress	0.0	0.0	0.0
Materials & Supplies	16.2	8.5	8.5
Working Cash	38.4	36.4	13.7
Method 5 Adj.	295.2	(12.0)	36.4
Cap. Int. Adj.	0.0	0.0	0.0
Subtotal	8,703.6	8,034.8	8,094.4
Less:			
Depreciation Reserve	2,386.9	2,328.8	2,384.1
Advances	571.9	571.9	571.9
Contributions	1,030.4	1,038.9	1,038.9
Unamortized ITC	0.0	0.0	0.0
Deferred Income Tax	255.4	250.7	256.1
Subtotal	4,244.6	4,190.3	4,251.0
Net District Rate Base	4,459.0	3,844.5	3,843.4
Main Office Allocation	26.6	50.5	50.5
Total Rate Base	4,485.6	3,895.0	3,893.9

(Negative)

APPENDIX A-DU
(Page 6)
CALIFORNIA-AMERICAN WATER CO.
(DUARTE)
1990
RATE BASE
($000)

Items	Utility	Branch	Adopted
Plant in Service	$9,205.9	$8,369.0	$8,449.4
Work in Progress	0.0	0.0	0.0
Materials & Supplies	17.0	9.0	9.0
Working Cash	313.3	(29.2)	0.3
Method 5 Adj.	39.7	38.1	38.1
Cap. Int. Adj.	0.0	0.0	0.0
Subtotal	9,575.9	8,386.9	8,496.8
Less:			
Depreciation Reserve	2,632.1	2,484.5	2,640.0
Advances	507.9	507.9	507.9
Contributions	998.4	1,006.9	1,006.9
Unamortized ITC	0.0	0.0	0.0
Deferred Income Tax	295.8	278.8	290.9
Subtotal	4,434.2	4,278.1	4,445.7
Net District Rate Base	5,141.6	4,108.8	4,051.1
Main Office Allocation	48.9	51.3	51.3
Total Rate Base	5,190.5	4,160.1	4,102.4

(Negative)

(END OF APPENDIX A-DU)

APPENDIX B-DU
(Page 1)

SCHEDULE NO. DU-1

DUARTE DISTRICT TARIFF AREA

GENERAL METERED SERVICE

APPLICABILITY

Applicable to all metered water service.

TERRITORY

Bradbury, Duarte, portions of Irwindale, Monrovia, and vicinity, Los Angeles County.

RATES

SERVICE CHARGE:	PER METER PER MONTH	
For 5/8 x 3/4-inch meter	$ 8.00	(I)
For 3/4-inch meter	9.30	|
For 1-inch meter	13.75	|
For 1-1/2-inch meter	19.70	|
For 2-inch meter	28.00	|
For 3-inch meter	39.60	|
For 4-inch meter	60.00	|
For 6-inch meter	96.00	|
For 8-inch meter	159.60	(I)

QUANTITY RATES:	
All water delivered, per 100 cu.ft.	$ 0.704

The Service Charge is applicable to all service. It is a readiness-to-serve charge to which is added the charge, computed at the Quantity Rate for water used during the month.

APPENDIX B-DU
(Page 2)

SCHEDULE NO. DU-3M

DUARTE DISTRICT TARIFF AREA

MEASURED IRRIGATION SERVICE

APPLICABILITY

Applicable to all measured service for irrigation purposes as defined in the special conditions below. Applicable only to premises serviced under Schedule No. DU-3M on a continuous basis on and after January 1, 1969.

TERRITORY

Bradbury, Duarte, portions of Irwindale, Monrovia, and vicinity, Los Angeles County.

RATES

SERVICE CHARGE:	PER METER PER MONTH	
For 5/8 X 3/4-inch meter	$ 14.55	(I)
For 3/4-inch meter	18.45	|
For 1-inch meter	29.00	|
For 1-1/2-inch meter	41.50	|
For 2-inch meter	58.00	|
For 3-inch meter	83.50	|
For 4-inch meter	131.00	|
For 6-inch meter	171.00	|
For 8-inch meter	180.00	(I)

QUANTITY RATES:

A. Pressure Service all water, per 100 cu.ft.	$ 0.485
B. Gravity service all water, per 100 cu.ft.	$ 0.353

The Service Charge is a readiness-to-serve charge applicable to this service and to which is to be added the monthly usage charge computed at the Quantity Rate.

APPENDIX B-DU
(Page 3)

SCHEDULE NO. DU-4

DUARTE DISTRICT TARIFF AREA

PRIVATE FIRE PROTECTION SERVICE

APPLICABILITY

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

TERRITORY

Bradbury, Duarte, portions of Irwindale, Monrovia, and vicinity, Los Angeles County.

RATES

	PER MONTH	
For each inch of diameter of private fire protection service	$3.80	(I)

The rates for private fire service are based upon the size of the service and no additional charges will be made for fire hydrants, sprinklers, hose connections or standpipe connected to and supplied by such private fire service.

SPECIAL CONDITIONS

1. The fire protection service and connection shall be installed by the utility or under the utility's direction. Cost of the entire fire protection installation excluding the connection at the main shall be paid for by the applicant. Such payment shall not be subject to refund.

2. The installation housing the detector type check valve and meter and appurtenances thereto shall be in a location mutually agreeable to the applicant and the utility. Normally such installation shall be located on the premises of applicant, adjacent to the property line. The expense of maintaining the fire protection facilities on the applicant's premises (including the vault, meter, detector-type check valves, backflow device and appurtenances) shall be paid for the applicant.

(END OF APPENDIX B-DU)

APPENDIX C-DU
(Page 1)

CALIFORNIA AMERICAN WATER COMPANY
DUARTE 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.

SCHEDULE DU-1

Service Charge:	Effective 1990
For 5/8 x 3/4-inch meter	$ 0.85
For 3/4-inch meter	1.00
For 1-inch meter	1.50
For 1-1/2-inch meter	2.10
For 2-inch meter	3.00
For 3-inch meter	4.40
For 4-inch meter	6.50
For 6-inch meter	11.00
For 8-inch meter	18.00
Quantity Rates:	
For all water delivered, per 100 cu.ft.	$ 0.00

SCHEDULE DU-4

Rates:	
For each inch of diameter of private fire protection service	$ 0.10

APPENDIX C-DU
(Page 2)

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 tht date.

SCHEDULE DU-3M

	Effective 1990
Service Charge:	
For 5/8 x 3/4-inch meter	$ 1.05
For 3/4-inch meter	1.55
For 1-inch meter	2.00
For 1-1/2-inch meter	3.50
For 2-inch meter	4.00
For 3-inch meter	6.50
For 4-inch meter	10.00
For 6-inch meter	21.00
For 8-inch meter	29.00
Quantity Rates:	
A. Pressure service all water, per 100 cu.ft.	$ 0.00
B. Gravity service all water, per 100 cu.ft.	$ 0.00

(END OF APPENDIX C-DU)

APPENDIX D-DU
(Page 1)

CALIFORNIA AMERICAN WATER COMPANY
DUARTE 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.

SCHEDULE DU-1

	Effective 1991
Service Charge:	
For 5/8 x 3/4-inch meter	$0.35
For 3/4-inch meter	0.40
For 1-inch meter	0.60
For 1-1/2-inch meter	0.85
For 2-inch meter	1.25
For 3-inch meter	1.75
For 4-inch meter	2.65
For 6-inch meter	4.30
For 8-inch meter	7.00
Quantity Rates:	
For all water delivered, per 100 cu.ft.	$0.013

SCHEDULE DU-4

Rates:	
For each inch of diameter of private fire protection service	$0.10

APPENDIX D-DU
(Page 2)

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.

SCHEDULE DU-3M

	Effective 1991
Service Charge:	
For 5/8 x 3/4-inch meter	$0.40
For 3/4-inch meter	0.60
For 1-inch meter	0.70
For 1-1/2-inch meter	1.00
For 2-inch meter	1.20
For 3-inch meter	2.10
For 4-inch meter	4.00
For 6-inch meter	6.00
For 8-inch meter	8.00
Quantity Rates:	
A. Pressure service all water, per 100 cu.ft.	$0.010
B. Gravity service all water, per 100 cu.ft.	$0.007

(END OF APPENDIX D-DU)

APPENDIX E-DU
(Page 1)

CALIFORNIA AMERICAN WATER COMPANY
DUARTE DISTRICT

ADOPTED QUANTITIES

Purchased Power

SCE Effective 7-88

	1989		1990	
	KWH	Cost	KWH	Cost
Wells				
PA-1 (1100 HP)	1,013,305	$ 97,905	1,024,784	$ 98,859
PA-2 (544 KW)	2,213,752	200,964	2,239,650	202,622
Boosters				
PA-1 (200 HP)	13,395	4,004	13,630	4,024
pa-2 (223 KW)	515,000	53,911	521,400	54,465
Irrig Boosters				
PA-1 (105 HP)	117,960	11,590	117,960	11,590
PA-2 (60 KW)	79,785	9,522	79,785	9,522
Total Power Consumption	3,953,197		3,997,209	
Total Power Cost		$377,896		$381,082

Purchased Water

Main San Gab. Ba (7-88)	6,621.0	6,692.9
Total Well Prod. AF	3,231.1	3,046.5
Makeup Water AF	1,717.9	1,974.4
Replenishment AF	1,717.9	1,974.4
Cost:Adm.Asn.$2.5/AF	$16,553.0	$16,732.0
LB.Makeup $3/AF	$14,709.3	$14,155.5
Replen. $158/AF	$271,428.2	$311,955.0
Total Cost	$302,690.5	$342,842.5

APPENDIX E-DU
(Page 2)

CALIFORNIA AMERICAN WATER COMPANY
DUARTE DISTRICT

ADOPTED QUANTITIES

NUMBER OF SERVICES - METER SIZE

	1989	1990
5/8 x 3/4	5,802	5,845
3/4	112	112
1	391	399
1-1/2	209	215
2	265	270
3	7	7
4	8	8
6	1	1
	6,795	6,857

NUMBER OF SERVICES

	No. of Services		Usage-KCcf		Avg. Usage Ccf/yr	
	1989	1990	1989	1990	1989	1990
Residential	6,087	6,123	1,487.7	1,496.5	244.4	244.4
Business Norm. Users	560	584	430.9	449.6	769.5	769.5
Business Large Users	20	20	309.4	309.4	15,468.0	15,468.0
Industrial	23	23	55.7	55.7	2,421.7	2,421.7
Pub. Auth. Nor. Users	90	92	89.2	91.2	991.4	991.4
Pub. Auth. Lge. Users	14	14	123.8	123.8	8,844.2	8,844.2
Irrigation	63	63	172.0	172.0	2,730.4	2,730.4
Golf Course	1	1	38.6	38.6	38,600.0	38,600.0
Other			3.7	3.7		
Subtotal	6,858	6,920				
Pvt. Fire Protection	85	87				
Total	6,943	7,007	2,711.0	2,740.5		
Unaccounted for (6.0%)			173.0	174.9		
Total Water Produced			2,884.0	2,915.4		
Wells			2,712.0	2,743.4		
Surface Supply			172.0	172.0		

APPENDIX E-DU
(Page 3)

CALIFORNIA AMERICAN WATER COMPANY
DUARTE DISTRICT

ADOPTED QUANTITIES

	1989	1990
NUMBER OF SERVICES - METER SIZE		
5/8 x 3/4	0	0
3/4	0	0
1	2	2
1-1/2	3	3
2	40	40
3	14	14
4	4	4
6	0	0
Total	63	63
WATER SALES (CCF)		
Irrigation - Gravity	7,700	7,700
Irrigation - Pressure	164,300	164,300
Irrigation - Total	172,000	172,000

APPENDIX E-DU
(Page 4)

CALIFORNIA AMERICAN WATER COMPANY
DUARTE DISTRICT

ADOPTED EXPENSES

	1989 Adopted	1990 Adopted
	(Thousands of Dollars)	
Purchased Power	$377.9	$381.1
Purchased Water	302.7	342.8
Purchased Chem.	2.1	2.2
Payroll (O&M+A&G)	507.0	429.2
O&M Other	224.3	234.2
Emp. Pension & Ben.	87.1	91.6
A & G Other	148.7	157.4
Payroll Tax	42.5	44.0
Ad. Vol. Tax	61.3	63.2
Federal Tax Rate	34.0%	34.0%
State Tax Rate	9.3%	9.3%
Uncollectible Rate	0.437%	0.437%
Franchise Rate	0.0	0.0

(END OF APPENDIX E-DU)

APPENDIX F-DU

CALIFORNIA AMERICAN WATER COMPANY
DUARTE DISTRICT

AT PRESENT AND ADOPTED RATES

FOR A 5/8 X 3/4 INCH METER

1989

Usage Ccf	Present Rates	Adopted Rates	Amount Increase	Percent Increase
0	$ 6.65	$ 8.00	$ 1.35	20.30
3	8.43	10.11	1.68	19.92
5	9.89	11.52	1.63	16.43
8	12.09	13.63	1.55	12.78
10	13.55	15.04	1.49	11.01
15	17.20	18.56	1.36	7.89
20	20.86	22.08	1.22	5.86
20.37 Avg.	21.13	22.34	1.21	5.74
40	35.48	36.16	0.68	1.93
100	79.33	78.40	(0.93)	-1.17

1990

0	$ 8.00	$ 8.85	$ 0.85	10.62
3	10.11	10.96	0.85	8.41
5	11.52	12.37	0.85	7.38
8	13.63	14.48	0.85	6.24
10	15.04	15.89	0.85	5.65
15	18.56	19.41	0.85	4.58
20	22.08	22.93	0.85	3.85
20.37 Avg.	22.34	23.19	0.85	3.80
40	36.16	37.01	0.85	2.35
100	78.40	79.25	0.85	1.08

1991

0	$ 8.85	$ 9.20	$ 0.35	3.95
3	10.96	11.35	0.39	3.55
5	12.37	12.79	0.41	3.55
8	14.48	14.94	0.45	3.13
10	15.89	16.37	0.48	3.02
15	19.41	19.96	0.54	2.81
20	22.93	23.54	0.61	2.66
20.37 Avg.	23.19	23.81	0.61	2.65
40	37.01	37.88	0.87	2.35
100	79.25	80.90	1.65	2.08

(END OF APPENDIX F-DU)