

**ORIGINAL**Decision No. 70050

## BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of  
 CHESTER L. BELTZ, doing business as  
 the BELTZ WATER SYSTEM, under  
 Section 454 of the Public Utilities  
 Code for authority to increase rates  
 for water service rendered at  
 Pleasure Point and Breakers Beach  
 and Vicinity near City of Santa Cruz,  
 Santa Cruz County, California.

Application No. 47282  
 (Filed January 22, 1965)  
 (Amended June 9, 1965)

William Stava, for applicant.

David F. LaHue, for the Commission  
 staff.

O P I N I O N

Chester L. Beltz, doing business as Beltz Water System, seeks authority to increase his rates for water service.

A public hearing on this application was held before Examiner Catey in Santa Cruz on August 10, 1965. Copies of the application, the amendment thereto and notice of hearing had been served and notice of hearing published and mailed to customers in accordance with this Commission's rules of procedure. The matter was submitted at the conclusion of the hearing.

Applicant and his consulting engineer testified on behalf of applicant. The Commission staff presentation was made by a staff engineer and a staff accountant. Eight customers testified, primarily as to water quality. Representatives of the State Department of Public Health and the Santa Cruz County Division of Sanitation also presented evidence concerning water quality.

Service Area and Water System

Applicant's service area consists primarily of the subdivisions known as Pleasure Point and Breakers Beach, in an

unincorporated portion of Santa Cruz County between the City of Santa Cruz and the City of Capitola.

Applicant's water supply normally is obtained from five wells. Two of the wells are equipped with pumps driven by gasoline engines; the other three well pumps are driven by electric motors. In an emergency, water is also available from two 6-inch connections to the water systems of the City of Santa Cruz and the Soquel Creek Water District.

The well water is pumped into a 25,000-gallon steel elevated tank and also into the distribution system. Two hydropneumatic tanks function as sand traps. The water is distributed through approximately 92,000 feet of mains ranging from one to eight inches in diameter. There are approximately 1,500 customers, of whom about three-quarters receive metered service and the rest receive flat rate service. There are 27 fire hydrants connected to the distribution mains.

#### Rates

Applicant's present rates for other than fire protection service were established in 1953. They consist of schedules for annual general metered service, annual residential flat rate service, and ten-month seasonal flat rate service. Rates for public fire hydrant service were filed in 1964.

The following Table I shows a comparison of annual rates now in effect, those requested by applicant, those recommended in Exhibit No. 1 by the Commission staff, and those authorized herein:

TABLE I  
COMPARISON OF RATES

<u>Meter Rates (per month)</u>	<u>Proposed</u>			<u>Author- ized Herein</u>
	<u>Present</u>	<u>Applicant</u>	<u>Staff</u>	
First 500 c.f. or less*	\$2.00	\$3.20	\$2.65	\$2.75
Next 1,500 c.f., per 100 c.f.	.20	.30	.27	.27
Next 2,000 c.f., per 100 c.f.	.15	.25	.21	.21
Over 4,000 c.f., per 100 c.f.	.10	.20	.15	.14
<u>Flat Rates (per year)</u>				
Single-family residence	\$25.80	\$38.40	\$33.00	\$34.20

\*Included in minimum annual charge for 5/8 x 3/4-inch meter. A graduated scale of increased minimum charges is provided for larger meters.

For the average monthly usage of 1,500 cubic feet by applicant's metered service customers, the charge is \$4.00 under present rates, would have been \$6.20 under applicant's proposed rates and \$5.35 under the rates suggested by the staff, and will be \$5.45 under the rates authorized herein.

Applicant's present tariffs include a flat rate for ten-month seasonal service at a slightly lower charge than for annual service. The record shows that this schedule is seldom used. Further, although the peak demand which determines the required size of facilities occurs during the summer season, most of the depreciation, repairs, maintenance and fixed charges continue year-round. We find that the cancellation of this schedule, as requested by applicant and recommended in the staff's Exhibit No. 1, is reasonable.

The staff recommends in Exhibit No. 1 that a rate be established for private fire protection service. The rate of \$2.00 per month for each inch of diameter of service connection, as recommended by the staff, is based upon charges made by a number of other utilities for such service. We find that the private fire protection service schedule suggested by the staff is reasonable.

### Water Quality

The principal complaints voiced by customers relate to water quality. The most common complaint is that the water often has large particles of a rusty precipitate, is discolored and has an unpleasant taste and odor. This condition results in stains in clothing and has caused many customers to purchase bottled drinking water and to install water softeners primarily as filters.

The poor water quality is attributable to excessive amounts of iron and manganese in the water produced from applicant's wells. A representative of the Santa Cruz County Division of Sanitation testified that the water was safe but unpleasant to use. Recent tests showed that some of the well water had an iron content as high as 2.72 parts per million (ppm), which is almost ten times as much as the prescribed maximum of 0.3 ppm. The manganese content of 0.32 ppm is over six times the prescribed maximum of 0.05 ppm.

Applicant testified that the high iron content is typical of wells in the northern half of Santa Cruz County, and that he has been trying for years to find a practical, economical method of treatment. If the water were all from a single source, a conventional large-scale treatment plant would be feasible, but applicant found the cost prohibitive for his multi-well system. Recently, however, applicant has investigated a proprietary catalytic filter medium used successfully for small treatment plants in other states. Based upon his rather thorough investigation, including inspection of operating plants and construction of a small pilot plant, he is convinced that he can virtually eliminate the water quality problem.

The filter medium apparently accelerates the oxidation of dissolved iron and manganese, forming precipitates which are filtered out of the water before it is introduced into the distribution system. The action is more effective if an open, gravity filter is used instead of a closed, pressure filter.

Applicant plans to install three of the catalytic filters to treat all of the well water. Preliminary plans have been drawn and applicant testified that he is awaiting only the outcome of this proceeding. He testified that he must be able to show lending agencies that he will make a reasonable return on his investment before he can borrow the funds necessary for construction of the treatment plants.

Results of Operation

Witnesses for applicant and the Commission staff have analyzed and estimated applicant's operational results. Summarized in Table II, from the staff's Exhibit No. 1 and from applicant's Exhibit F-F attached to the amendment to the application, are the estimated results of operation for the test year 1965, assuming applicant's proposed improvements are installed, under present water rates and under those proposed by applicant. For comparison, the table also shows the results of operation, modified as discussed hereinafter, at present rates, those proposed by applicant, and those authorized herein.

TABLE II  
ESTIMATED RESULTS OF OPERATION, TEST YEAR 1965

<u>Item</u>	<u>Staff</u>	<u>Applicant</u>	<u>Modified</u>
<u>At Present Rates</u>			
Operating Revenues	\$ 57,920	\$ 55,639	\$ 57,900
<u>Deductions</u>			
Water Supply Expenses	540	1,100	500
Oper. & Maint. Materials & Exp.	640	2,500	600
Other Expenses	40,530	40,475	40,500
Depreciation	10,760	11,267	10,800
Taxes Other than on Income	5,850	7,154	5,900
Income Taxes	-	-	-
Total Deductions	58,320	62,496	58,300
Net Revenue	(400)	(6,857)	(400)
Rate Base	238,100	247,313	244,000
Rate of Return	Loss	Loss	Loss
<u>At Rates Proposed by Applicant</u>			
Operating Revenues	\$ 91,260	\$ 88,800	\$ 91,300
<u>Deductions</u>			
Other than Income Taxes	58,320	62,496	58,300
Income Taxes	10,650	8,884	9,300
Total Deductions	68,970	71,380	67,600
Net Revenue	22,290	17,420	23,700
Rate Base	238,100	247,313	244,000
Rate of Return	9.4%	7.04%	9.7%
<u>At Rates Authorized Herein</u>			
Operating Revenues			\$ 78,400
<u>Deductions</u>			
Other than Income Taxes			58,300
Income Taxes			2,900
Total Deductions			61,200
Net Revenue			17,200
Rate Base			244,000
Rate of Return			7.0%

(Red Figure)

From Table II it can be seen that applicant's requested rates would result in an increase of 58 percent in operating revenues, whereas the rates authorized herein will produce a 35 percent increase.

The staff's estimates of revenues were based upon a study of annual water consumption for metered customers, adjusted to reflect average climatic conditions. The normal consumption and trend into the future were obtained by using a graphical method to eliminate the effect of variation in consumption due to changes in temperature and rainfall from year to year. Although there could be some minor differences between the weather in applicant's service area and that at the nearby weather station upon which the staff based its studies, this would not appear to invalidate the staff's estimates. Applicant's revenue estimates, based upon an arithmetical average of revenues per customer for the past six years, do not give recognition to an apparent upward trend in consumption per customer. The staff revenue estimates, rounded, have been adopted herein.

Applicant's estimates of Water Supply Expenses and of Operation and Maintenance Materials and Expenses exceed the corresponding staff estimates by \$2,420 and exceed the corresponding recorded 1964 expenses by \$2,849. There are no significant differences between the totals of other estimates of expenses, excluding taxes and depreciation. Applicant's estimate of depreciation expense exceeds that of the staff by \$507, apparently due largely to the difference in estimates of depreciable plant. Applicant's estimate of taxes other than on income exceeds the corresponding staff estimate by \$1,304, due primarily to applicant's inclusion of taxes on nonutility property. Except for the income tax estimates, the staff's expense estimates, rounded, have been adopted herein.

Applicant presented no detailed derivation of his income tax estimates with which to compare the corresponding staff estimates. Applicant testified that he will have to borrow some \$55,000 at 6-1/2 percent interest to pay overdue refunds of advances for construction and to install the new iron-removal treatment plants. Adding the

interest on this loan to the interest on existing indebtedness, consistent with the inclusion of the refunds and treatment plants in rate base, shows that applicant will receive a greater interest deduction for income tax purposes than was assumed by the staff. The staff basis for calculating income taxes has been adopted after modification to reflect the income tax savings resulting from the additional interest deduction.

Applicant's rate base estimate exceeds that of the staff by some \$9,200. This is due primarily to reduction of plant balances by the staff in accordance with a previous Commission decision, adjustment by the staff for nonutility land, correction by the staff of arithmetical errors in applicant's recorded overheads, deduction by the staff of overdue unpaid refunds of construction advances, reflection in the staff's working cash estimates of funds available from flat rate advance payments and income tax accruals, and lower staff estimates of materials and supplies, partly offset by staff adjustments of depreciation reserve consistent with the staff plant adjustments. Applicant testified that he purchases materials and supplies in carload lots to effect savings, but that this practice requires higher average inventories. He also testified that he will pay overdue refunds with part of the funds to be obtained from a bank loan. The staff's rate base estimate has been adopted, after modification to reflect applicant's estimates of average advances for construction and average materials and supplies.

A Commission staff accountant testified that a return of from six to seven percent on rate base was normal for a water utility of the size of applicant's. He suggested that the midpoint of that range might be reasonable for applicant's system. The record shows, however, that applicant is faced with a major refinancing problem requiring payment of 6-1/2 percent interest on an indebtedness of about one-third of the total investment in the water system. Under these circumstances, it is apparent that a 6-1/2 percent return on rate base would produce only a 6-1/2 percent return on applicant's



equity. In view of applicant's efforts to find ways of improving the water quality, and his willingness to spend a considerable sum for treatment facilities to carry out his improvement program, water rates will be authorized which should provide a return of seven percent on rate base.

#### Additional Staff Recommendations

In addition to the recommendations previously discussed herein, the Commission staff made certain recommendations relative to restriction of extensions to new subdivisions until applicant's proposed treatment plant is installed, testing of meters, revision of depreciation rates, preparation of maps, and accounting corrections, adjustments and improvements. Except for requesting less stringent requirements as to when he must comply with the recommendations, applicant raised no serious objections to the staff's suggestions.

#### Findings and Conclusions

The Commission finds that:

1.a. Applicant is in need of additional revenues but the proposed rates set forth in the application are excessive.

b. The adopted estimates, previously summarized and discussed herein, of operating revenues, operating expenses and rate base for the test year 1965 reasonably represent the results of applicant's future operations.

c. A rate of return of 7 percent on applicant's rate base is reasonable.

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

2. Applicant has not maintained up-to-date the system map required by General Order No. 103.

3. A straight-line remaining life depreciation rate of 3.18 percent is reasonable for applicant's plant.

4. The water from applicant's wells contains excessive amounts of iron and manganese and requires treatment to comply with the standards of local, state and federal health authorities.

5. Until applicant installs the treatment plants as ordered herein, applicant's water system cannot provide an adequate supply of potable water to any additional new subdivisions.

6. Applicant has not established a program for periodic testing of meters.

7. The changes in accounting records and procedures recommended by the staff in Exhibit No. 1 are reasonable.

The Commission concludes that the application should be granted to the extent set forth in the order which follows.

O R D E R

IT IS ORDERED that:

1. After the effective date of this order, Chester L. Beltz, doing business as Beltz Water System, is authorized to file the new and revised rate schedules attached to this order as Appendix A. Concurrently, applicant shall cancel the presently effective Schedule No. 3, Seasonal Residential Flat Rate Service. Such filing shall comply with General Order No. 96-A. The effective date of the revised schedules shall be January 1, 1966, or four days after the date of filing, whichever is later. The revised schedules shall apply only to service rendered on and after the effective date thereof.

2. Applicant shall revise and keep current the system map required by paragraph 1.10.a. of General Order No. 103. Within six months after the effective date of this order, applicant shall

file with the Commission two copies of this map.

3. For the year 1965, applicant shall apply a depreciation rate of 3.18 percent to the original cost of depreciable plant. Until review indicates otherwise, applicant shall continue to use this rate. Applicant shall review the depreciation rates at intervals of five years and whenever a major change in depreciable plant occurs. Any revised depreciation rate shall be determined by:

(1) subtracting the estimated future net salvage and the depreciation reserve from the original cost of plant; (2) dividing the result by the estimated remaining life of the plant; and (3) dividing the quotient by the original cost of plant. The results of each review shall be submitted promptly to the Commission.

4.a. On or before March 31, 1966, applicant shall complete the construction of, and place in operation, treatment plants which shall have been approved by State or County health authorities to reduce the iron and manganese content of all water delivered to customers so as not to exceed 0.3 ppm of iron and 0.05 ppm of manganese.

b. Within the first ten days of each of the months of January through April, 1966, applicant shall file in this proceeding a progress report showing the status of the financing and construction of the treatment plants required by the foregoing subparagraph 4.a.

c. Within thirty days after the new treatment plants have been placed in operation, applicant shall file in this proceeding a report showing the iron and manganese content of the water from each of his wells, both before and after treatment.

5. Until applicant shall have complied with the requirements of the foregoing paragraph 4, he shall not extend service to any new subdivisions without first having obtained permission by order of this Commission.

6. Within one year after the effective date of this order, applicant shall establish a program for the periodic testing of his water meters in accordance with Paragraph VI.6. of General Order No. 103.

7. On or before April 1, 1966, applicant shall:

- a. Install a work order system to account for plant additions, and file in this proceeding a copy of each work order form, together with a description of the manner in which each form is to be used.
- b. Discontinue the practice of allocating his time once a year and, instead, charge his time to appropriate work orders as work is performed.
- c. Provide for the equitable allocation of transportation and stores expense to individual work orders and operating expenses.
- d. Adjust his plant and depreciation reserve accounts to reflect the following accounting adjustments to recorded balances at December 31, 1964:
  - (1) Reduction of balances in plant accounts - Decision No. 42969, dated 10/27/53  
Land \$4,776, Wells \$1,000, Transportation \$1,292.
  - (2) Reduction for nonutility land, Well Site No. 3 - \$915.
  - (3) Reduction resulting from arithmetical errors in allocating overheads relating to service installations in years 1961, 1962, and 1963 - \$855.
  - (4) Elimination of depreciation accruals relating to adjustment (2) above, to Wells, and Transportation 1953 through 1964 - \$1,402.

The effective date of this order shall be twenty days after the date hereof.

Dated at San Francisco, California, this 7<sup>th</sup> day of DECEMBER, 1965.

Fredrick B. Hobbhoff  
President

George B. Trover

W. L. ...  
Commissioners

Schedule No. 1A

(T)

ANNUAL GENERAL METERED SERVICE

APPLICABILITY

Applicable to all metered water service furnished on an annual basis.

TERRITORY

The communities situated between 41st Avenue and Corcoran Lagoon, and Monterey Bay and Lower Soquel Road, and vicinity, approximately 4 miles east of Santa Cruz, Santa Cruz County.

(T)

RATES

	<u>Per Meter Per Month</u>	
Monthly Quantity Rates:		
First 500 cu.ft. or less .....	\$2.75	(I)
Next 1,500 cu.ft., per 100 cu.ft. ....	.27	
Next 2,000 cu.ft., per 100 cu.ft. ....	.21	
Over 4,000 cu.ft., per 100 cu.ft. ....	.14	
	<u>Per Meter Per Year</u>	
Annual Minimum Charge:		
For 5/8 x 3/4-inch meter .....	\$ 33.00	
For 3/4-inch meter .....	45.00	
For 1-inch meter .....	60.00	
For 1 1/2-inch meter .....	90.00	
For 2-inch meter .....	120.00	
For 3-inch meter .....	225.00	(I)
For 4-inch meter .....	336.00	(N)

The Annual Minimum Charge will entitle the customer to the quantity of water each month which one twelfth of the annual minimum charge will purchase at the Monthly Quantity Rates.

(T)

(Continued)

Schedule No. 1A

ANNUAL GENERAL METERED SERVICE

(Continued)

SPECIAL CONDITIONS

1. The annual minimum charge applies to service during the 12-month (T) period commencing January 1 and is due in advance. If a permanent resident of the area has been a customer of the utility for at least 12 months, he may elect, at the beginning of the calendar year, to pay prorated minimum charges in advance at intervals of less than one year (monthly, bimonthly or quarterly) in accordance with the utility's established billing periods for water used in excess of the monthly allowance under the annual minimum charge. When meters are read bimonthly or quarterly, the charge will be computed by doubling or tripling, respectively, the number of cubic feet to which each block rate is applicable on a monthly basis.

2. The opening bill for metered service, except upon conversion from flat rate service, shall be the established annual minimum charge for the service. Where initial service is established after the first day of any year, the portion of such annual charge applicable to the current year shall be determined by multiplying the annual charge by one three-hundred-sixty-fifth ( $1/365$ ) of the number of days remaining in the calendar year. The balance of the payment of the initial annual charge shall be credited against the charges for the succeeding annual period. If service is not continued for at least one year after the date of initial service, no refund of the initial annual charges shall be due the customer.

(T)

Schedule No. 2AR

(T)

ANNUAL RESIDENTIAL FLAT RATE SERVICE

APPLICABILITY

Applicable to all flat rate residential water service furnished on an annual basis.

TERRITORY

The communities situated between 41st Avenue and Corcoran Lagoon, and Monterey Bay and Lower Soquel Road, and vicinity, approximately 4 miles east of Santa Cruz, Santa Cruz County.

(T)

RATE

Per Service Connection  
Per Year

For a single-family residential unit, including premises not exceeding 4,000 sq.ft. in area....

\$34.20

(I)

SPECIAL CONDITIONS

1. The above flat rate applies to service connections not larger than one inch in diameter.

2. All service not covered by the above classifications shall be furnished only on a metered basis.

3. For service covered by the above classifications, if the utility or the customer so elects, a meter shall be installed and service provided under Schedule No. 1A, Annual General Metered Service, effective as of the first day of the following calendar month. Where the flat rate charge for a period has been paid in advance, refund of the prorated difference between such flat rate payment and the minimum meter charge for the same period shall be made on or before that day.

(T)

(Continued)

Schedule No. 2AR

ANNUAL RESIDENTIAL FLAT RATE SERVICE

SPECIAL CONDITIONS (Continued)

4. The annual flat rate charge applies to service during the 12-month period commencing January 1 and is due in advance. If a permanent resident of the area has been a customer of the utility for at least 12 months, he may elect, at the beginning of the calendar year, to pay prorated flat rate charges in advance at intervals of less than one year (monthly, bimonthly or quarterly) in accordance with the utility's established billing periods. (T)

5. The opening bill for flat rate service shall be the established annual flat rate charge for the service. Where initial service is established after the first day of any year, the portion of such annual charge applicable to the current year shall be determined by multiplying the annual charge by one-three-hundred-sixty-fifth ( $1/365$ ) of the number of days remaining in the calendar year. The balance of the payment of the initial annual charge shall be credited against the charges for the succeeding annual period. If service is not continued for at least one year after the date of initial service, no refund of the initial annual charges shall be due the customer. (T)



Schedule No. 4

PRIVATE FIRE PROTECTION SERVICE

APPLICABILITY

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

TERRITORY

The communities situated between 41st Avenue and Corcoran Lagoon, and Monterey Bay and Lower Soquel Road, and vicinity, approximately 4 miles east of Santa Cruz, Santa Cruz County.

RATE

For each inch of diameter of service connection... Per Month  
\$2.00

SPECIAL CONDITIONS

1. The fire protection service connection shall be installed by the utility and the cost paid by the applicant. Such payment shall not be subject to refund.
2. The minimum diameter for fire protection service shall be four inches, and the maximum diameter shall be not more than the diameter of the main to which the service is connected.
3. If a distribution main of adequate size to serve a private fire protection system in addition to all other normal service does not exist in the street or alley adjacent to the premises to be served, then a service main from the nearest existing main of adequate capacity shall be installed by the utility and the cost paid by the applicant. Such payment shall not be subject to refund.

(Continued)

Schedule No. 4

PRIVATE FIRE PROTECTION SERVICE

SPECIAL CONDITIONS (Continued)

4. Service hereunder is for private fire protection systems to which no connections for other than fire protection purposes are allowed and which are regularly inspected by the underwriters having jurisdiction, are installed according to specifications of the utility, and are maintained to the satisfaction of the utility. The utility may install the standard detector type meter approved by the Board of Fire Underwriters for protection against theft, leakage or waste of water and the cost paid by the applicant. Such payment shall not be subject to refund.

5. The utility will supply only such water at such pressure as may be available from time to time as a result of its normal operation of the system.

6. For water delivered for other than fire protection purposes, charges shall be made therefor under Schedule No. 1A, Annual General Metered Service.