

ORIGINAL

Decision No. 66710

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of)
HILLCREST WATER CO., INC. under)
Section 454 of the Public Utilities)
Code for authority to increase rates)
for water service.)

Application No. 45658
(Filed August 8, 1963)

John T. Kenward, for applicant.

David M. Naylor, protestant.

Edmund J. Texeira, and L. L. Thornod,
for the Commission staff.

O P I N I O N

By this application, Hillcrest Water Co., Inc., seeks authority to increase its rates for water service.

This application was heard before Examiner Catey at Yuba City on December 4, 1963, and was submitted on December 9, 1963, the date of receipt of late-filed Exhibit No. 8. Copies of the application were served in accordance with this Commission's rules of procedure. Testimony on behalf of applicant was presented by its secretary-treasurer; the Commission staff presentation was made by an accountant and an engineer; and six public witnesses testified in opposition to the application.

Service Area and Water System

Applicant's service area consists of six subdivisions in Sutter County, located approximately two miles southwest of Yuba City. The service area includes 466 lots. A recent tally by protestant, summarized in his Exhibit No. 4, shows that home

construction had been completed on 305 of these lots and that 16 additional homes were under construction. Of the 145 vacant lots, 13 had been sold and might have homes under construction soon. Applicant's witness testified that many of the completed homes were not sold or rented, resulting in 41 vacant houses which did not receive water service.

One of the subdivisions, Walton Heights, is separated from the rest of applicant's service area by Highway U.S. Alternate 40, located about 1,000 feet east of the tract. This tract has 162 lots, 45 of which are vacant. Water for this area is supplied by a well, equipped with a 60-hp electric motor and pump capable of producing approximately 850 gpm. Standby service is obtained through an interconnection with the well of a neighboring school.

In the portion of the service area east of the highway, Hillcrest Manor and Hillcrest Meadows are each served by a separate well. Hillcrest Manor has 56 lots, 5 of which are vacant, whereas none of the 63 lots in Hillcrest Meadows is vacant. Applicant's fourth well serves Piedmont Village, Galaxy Park and Walnut Woods, having a total of 185 lots, 95 of which are vacant. Present pumping equipment at the three wells on the east side of the highway can produce about 1,150 gpm. The systems served by those wells can be integrated whenever necessary by opening interconnecting valves.

Each of the four well pumps is provided with a 5,000-gallon hydropneumatic tank. The combined distribution systems consist of approximately 23,500 feet of welded steel and cement-asbestos pipe, ranging in size from 4-inch to 8-inch. Only two of the customers receive metered service; one of these customers has a swimming pool and the other has a 1-inch service.

History

In 1959, applicant's majority stockholder was granted a certificate of public convenience and necessity to construct the initial unit of the water system in Hillcrest Manor. He originally operated the system as a proprietorship but applicant corporation was formed in 1959 and authority was granted for the transfer of the certificate to it. In 1960, applicant was granted an additional certificate for the Walton Heights area. Service was extended to Piedmont Village in 1961 and to Galaxy Park and Walnut Woods in 1962. Applicant purchased the water system in Hillcrest Meadows in 1962 from Lukins Bros. Water Company.

Rates, Rules and Maps

Applicant's present flat rate of \$4.25 per service connection per month in Hillcrest Meadows was established prior to the transfer of the water system from its former owner. The present flat monthly rate of \$4.50 per service connection throughout the rest of the service area has been in effect since the utility's inception in 1959. Present rates for metered service provide for a basic minimum charge of \$3.50 per month for 700 cubic feet or less, through a 5/8 x 3/4-inch meter. Rates for use in excess of 700 cubic feet range from 25 cents to 15 cents per hundred. Appropriately greater minimum charges are provided for larger sizes of meters. The rate for public fire hydrants is now \$2.00 per hydrant per month.

Applicant's present flat rate schedule pertaining to service to all areas, except Hillcrest Meadows, contains a special condition providing that the schedule is not applicable to service to lots with swimming pools. Inasmuch as applicant has the option of installing meters, this provision is unduly restrictive

and unnecessary and has been eliminated from the rate schedule authorized herein.

Applicant's proposed flat monthly rate of \$7.50 per customer, and corresponding increases proposed in the meter rates, would result in an overall increase of about 70 percent in gross operating revenue. Although there are approximately 50 fire hydrants on the system and applicant has requested an increase to \$2.75 in the monthly charge for each hydrant, applicant has never collected any revenue from this rate schedule, as the local fire protection district has refused in the past to pay for the service.

Protestant read into the record a statement signed by more than 200 residents in applicant's service area. The statement indicates that the signatories thereto protest the rate increase on the grounds that the present rates are comparable with those of other utilities in the area and thus an increase is not warranted. Protestant's Exhibit No. 5 is a schedule showing the rates charged by California Water Service Company in its nearby Marysville District, and Exhibit No. 6 is his calculation of \$5.23 as the charge that would be applicable to the typical home in applicant's area under the Marysville rates.

Hillcrest Meadows, the former Lukins Bros. service area, is located between Hillcrest Manor and Piedmont Village. The three systems are interconnected and are all maintained and operated by the same personnel. The rates authorized by the order herein will eliminate the present two-zone rate structure and will result in an increase of about 35 percent in gross operating revenue.

Inasmuch as applicant is a relatively new utility, its filed rules are up-to-date. Its filed tariff service area maps

have also been revised from time to time to reflect extensions into new territory and purchase of the former Lukins Bros. system. The Commission staff recommended in Exhibit No. 1, however, that a comprehensive facilities map be prepared by applicant and filed with the Commission.

Customer Complaints and Service Improvements

The principal complaints voiced by the public witnesses selected as representative by protestant relate to the quality of the water served. The most objectionable characteristic appears to be the precipitates present in the water in varying degrees, depending upon which well supplies the particular tract in which the customer lives. Several samples were brought to the hearing by customers and described for the record. From the description of the precipitate and from Exhibit No. 7, applicant's correspondence file relating to water quality, it is evident that the difficulties are caused by a high concentration of iron and manganese in the well water. This can, and apparently does, cause taste and odor problems, staining of plumbing fixtures and development of nuisance-type bacterial growths in the distribution system.

Exhibit No. 7 shows that the Redding office of the Bureau of Sanitary Engineering, California Department of Public Health, recently investigated the water supply in the Walton Heights area and made specific detailed recommendations for alleviation of the problem. The recommended treatment consists of a temporary heavy chlorination of the system to kill the growths, a subsequent heavy flushing to remove them, and retention of a slight chlorine residual in the future to prevent new growths. Applicant carried out this plan on the nights of November 17 and 18, 1963, but the efficacy of the single treatment cannot be appraised on the record of this

proceeding because of the lack of any specific comparison of water quality before and after the treatment.

Exhibit No. 7 also shows that applicant had engaged the services of a firm of consulting chemical engineers in 1962, in an effort to improve the quality of the water. Attempts to control the iron and manganese precipitates in the Piedmont Village system by the use of sodium hexametaphosphate were not successful and this treatment was soon discontinued.

Other complaints presented by the public witnesses in connection with water quality relate to the hardness of the water, formation of scum when the water is heated for cooking, difficulty in getting clothes clean, damage caused by valves' being clogged in customers' water softeners and other equipment, and occasional sand in the water. Exhibit No. 1 shows that other customers have complained to the Commission staff regarding wide fluctuations in pressure. The staff attributes these fluctuations to the fact that the pump motors at the Piedmont Village and Walton Heights wells are oversized for the number of customers served and the size of the pressure tanks.

In order to render adequate service to the public, it is apparent that applicant must take additional steps to improve the quality of the water. The most promising program appears to be systematic repetition of the chlorine treatment and flushing recommended by the public health authorities, as outlined in detail in Exhibit No. 7. The order herein requires applicant to institute this program on a six-month trial basis.

Treating the water with polyphosphates to hold iron salts in solution and to build up a protective coating on pipe surfaces can obviously be successful only if the mains are reasonably clean

before the treatment is commenced. This may account for applicant's failure in 1962 to obtain satisfactory results with that type of treatment. The order herein requires applicant to repeat its 1962 tests of this treatment after six months of periodic flushing of the mains.

It would be quite expensive for applicant to install water softening facilities at each of its wells. These central treatment plants necessarily would have to have sufficient capacities to treat the peak output of each well, including the large percentage thereof which is used for watering lawns and gardens. Many of the customers already have water softeners in their homes. The order herein does not require applicant to install water softening facilities.

The pressure fluctuations in Piedmont Village and Walton Heights could be alleviated by replacing the large pumps and motors with smaller units. This would be quite expensive and would also reduce the flows available for fire protection. A more practical, though not as effective, solution would be for applicant to maintain more air and less water in the hydropneumatic tanks. This would permit longer pumping cycles and provide better cushioning against surges. The order herein requires applicant to adjust or relocate the air relief valves on both tanks to permit the maximum cushion of air that will not be likely to introduce air into the distribution system.

Results of Operations

Applicant and the Commission staff have each analyzed and estimated applicant's operational results. The estimates for the year 1964 indicate that applicant would realize a loss under its present rates and a return of from 5.8 to 9.7 percent on its depreciated rate base under its proposed rates. Summarized below,

from Exhibit No. 1 presented by the staff and Exhibit E attached to the application, are the estimated results of operations for the year 1964 under applicant's present and proposed rates. The tabulation also shows, for comparison, the revenues, expenses, rate base and rate of return adopted as reasonable herein and discussed in more detail in subsequent paragraphs, under the rates set forth in Appendix A to the ensuing order.

<u>Item</u>	<u>Present Rates</u>		<u>Proposed Rates</u>		<u>Author- ized Rates</u>
	<u>Staff</u>	<u>Applicant</u>	<u>Staff</u>	<u>Applicant</u>	
Operating Revenues	\$16,660	\$16,740	\$28,040	\$27,900	\$22,470
Deductions:					
Operating Exps.	11,780	14,600	11,780	14,600	11,870
Taxes (Excl. Inc. Taxes)	2,460	2,000	2,460	2,000	2,460
Income Taxes	100	-	2,750	2,700	840
Depr. & Amort.	3,340	3,800	3,340	3,800	3,340
Total Deduct.	\$17,680	\$20,400	\$20,330	\$23,100	\$18,510
Net Revenue	\$ <u>(1,020)</u>	\$ <u>(3,660)</u>	\$ 7,710	\$ 4,800	\$ 3,960
Rate Base	\$79,700	\$82,500	\$79,700	\$82,500	\$79,700
Rate of Return	Loss	Loss	9.7%	5.8%	5.0%

(Red Figure)

Operating Revenues

Applicant's estimates of operating revenues for the year 1964 are based upon an assumed 310 active services. The staff engineer's revenue estimates are also based upon 310 customers, but recognize that two customers receive metered service. The staff estimates correct applicant's error of ignoring the present differential between rates in the Hillcrest Meadows area and those in the rest of the system. Protestant stated that both revenue estimates are probably low, because his Exhibit No. 4 showed a total of 334 houses completed, under construction, or planned for the near future. He also stated that some consideration should be given to the public

fire hydrant service revenue which is payable under applicant's filed tariffs. Applicant's witness stated that both revenue estimates are probably high, due to the unanticipated number of vacant houses which have not been either rented or sold.

The staff basis is adopted as reasonable for the test year 1964 in calculating the annual revenues under the rates authorized herein. Applicant should make every reasonable effort to collect the amounts due under its filed public fire hydrant schedule. ✓

Operating Expenses, Taxes and Depreciation

The principal differences between the operating expenses for the year 1964 estimated by applicant and those estimated by the staff relate to salaries, pump maintenance, insurance, rent, ad valorem taxes and depreciation expense. Applicant assumed two full-time employees, whereas the staff's estimate covered only one. The staff adjusted the abnormally high pump repair expense included in applicant's estimates. Applicant's estimates apparently included a recent increase in workmen's compensation insurance premium not reflected in the staff estimates. Applicant's rent estimate was predicated upon moving the office to new quarters, whereas the staff apparently made no such assumption. Additional ad valorem taxes were included in the staff estimates to reflect the plant installed in Walnut Woods during 1963. The staff estimate of depreciation expense differs from applicant's in the manner of handling intangible plant amortization and depreciation accrual related to contributed plant.

In regard to salaries, although the public would derive certain benefits and conveniences if the utility had two full-time employees, the improvement would not be commensurate with the cost

at the present customer density in the service area. The same is true of applicant's proposed new office location, plans and location of which are still somewhat vague. Except for the adoption of applicant's estimate of insurance expense, the staff's estimates of expenses, taxes other than on income, and depreciation are adopted as reasonable for the purposes of this proceeding.

Rate Base and Rate of Return

Applicant's summary of earnings for the year 1964 utilized its estimated 1963 rate base, without deducting the additional average annual depreciation accrual used by the staff in its derivation of rate base. Applicant did not contest the lower estimate resulting from the staff study.

In developing results of operation for the year 1964, the staff engineer did not make any "saturation adjustment", which adjustment is sometimes adopted by the Commission for test years when the rate base and expenses are distorted by inclusion of plant not fully utilized. The record shows, however, that the cost of facilities for Piedmont Village, Galaxy Park and Walnut Woods were either advanced or contributed by subdividers, the Hillcrest Manor and Hillcrest Meadows tracts have practically no vacant lots, and only the 45 vacant lots in Walton Heights have any adverse effect on rate base per active service. The staff witness on financial and accounting aspects of this proceeding concluded, in his Exhibit No. 3, that the 65 to 70 percent occupancy of the total potential number of homes in applicant's service area would justify the allowance of a somewhat lower rate of return for the year 1964 than is normally considered reasonable.

It would be difficult and impractical to determine the hypothetical level of expenses and rate base that would have

resulted if the water system had been designed for only those customers estimated to be served in the year 1964. The adverse effect on rates, due to the many vacant lots in the service area, is more appropriately mitigated, as recommended by the staff, through allowance of a rate of return lower than would be justified by a more fully developed service area. A rate of return of 5 percent on the rate base estimated by the staff is adopted for the test year 1964, with the expectation that the return will increase to a normal level as additional customers are served by the system. Such additional customers will not cause any significant increase in operating expenses and will require virtually no increase in plant investment.

Findings and Conclusions

The Commission finds that:

1. Applicant is in need of increased revenue, but the rates it proposes are excessive.
2. The estimates, previously summarized herein, of operating revenues, expenses and rate base for the year 1964 under the rates authorized herein reasonably represent the results of applicant's operations and we find the same to be reasonable. A rate of return of 5 percent on said rate base is reasonable for the purposes of this proceeding.
3. Separate zone rates are no longer appropriate for Hillcrest Meadows, no justification has been shown for an increase in the public fire hydrant rate, the increases in 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.
4. Additional water treatment, tank adjustments and tests by applicant are necessary to provide adequate service to its customers.

The Commission concludes that the application should be granted to the extent set forth in the ensuing order, and that applicant should be required to take the actions set forth therein.

O R D E R

IT IS ORDERED that:

1. After the effective date of this order, applicant Hillcrest Water Co., Inc. is authorized to file the schedules of rates set forth in Appendix A to this order and, concurrently therewith, shall cancel by appropriate advice letter its presently effective Schedule No. 1, General Metered Service; Schedule No. 2R, Residential Flat Rate Service; and Schedule No. HM-2R, Residential Flat Rate Service (Hillcrest Meadows Tariff Area). Such filing of revised rates and cancelling of present rates shall comply with General Order No. 96-A. The revised rate schedules shall become effective for service rendered on and after March 1, 1964, or on and after the fourth day following the date of filing, whichever is later.
2. Within thirty days after the effective date of this order, applicant shall apply to the Sutter-Yuba County Health Department for authority to repeat throughout the entire water system, monthly for six months, the chlorination and flushing procedure recommended by the California Department of Public Health, as set forth in detail in Exhibit No. 7 herein. Upon receipt of such authority, applicant shall institute the program forthwith and shall file with this Commission a written report within ten days after each flushing, giving the date, time and apparent effectiveness of the treatment.
3. Upon completion of the sixth main flushing required by ordering paragraph 2, applicant shall apply to the Sutter-Yuba County

Health Department for authority to repeat, in the Piedmont Village system, for a test period of one month, the polyphosphate treatment recommended by applicant's consulting chemical engineer, as set forth in detail in Exhibit No. 7 herein. Upon receipt of such authority, applicant shall institute the program forthwith and shall file with this Commission a written report within ten days after completion of the test period, giving the date of completion of the test and apparent effectiveness of the treatment.

4. Within thirty days after completion of the one-month test period required by ordering paragraph 3, applicant shall plan its future water treatment program based upon the results of the treatment required in paragraphs 2 and 3 and shall file with this Commission a written report on the future program, showing the type and frequency of future treatment.

5. Within thirty days after the effective date of this order, applicant shall adjust or relocate the air relief valves on the hydropneumatic tanks in Piedmont Village and Walton Heights to permit the maximum cushion of air that will not be liable to introduce air into the distribution system. Within ten days after the work is completed, applicant shall file with this Commission a written report showing the operating range of water levels in the tanks before and after revision.

6. Within sixty days after the effective date of this order, applicant shall file with this Commission four copies of a comprehensive map, drawn to an indicated scale of not more than 400 feet to the inch, delineating by appropriate markings the tracts of land and territory served; the principal water production, transmission,

pressure, storage, distribution and standby facilities; and the location of applicant's various water system properties.

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

Dated at San Francisco, California, this 28th day of January, 1964.

William A. Bunn
President

George L. Trover

Frederick B. Holcomb
Commissioners

APPENDIX A
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Schedule No. 1

GENERAL METERED SERVICE

APPLICABILITY

Applicable to all metered water service.

TERRITORY

The areas known as Hillcrest Manor and Walton Heights, and vicinity, located approximately two miles southwest of Yuba City, Sutter County.

(T)
|
(T)

RATES

	<u>Per Meter</u> <u>Per Month</u>	
Quantity Rates:		
First 700 cu.ft. or less	\$ 4.50	(I)
Next 2,300 cu.ft., per 100 cu.ft.30	
Over 3,000 cu.ft., per 100 cu.ft.20	
Minimum Charge:		
For 5/8 x 3/4-inch meter	\$ 4.50	
For 3/4-inch meter	5.75	
For 1-inch meter	8.00	
For 1 1/2-inch meter	13.00	
For 2-inch meter	18.00	(I)

The Minimum Charge will entitle the customer to the quantity of water which that minimum charge will purchase at the Quantity Rates.

Schedule No. 2R

RESIDENTIAL FLAT RATE SERVICE

APPLICABILITY

Applicable to all flat rate residential water service. (T)

TERRITORY

The areas known as Hillcrest Manor and Walton Heights, and vicinity, located approximately two miles southwest of Yuba City, Sutter County. (T)

RATE

Per Service Connection
Per Month

For a single-family residential unit,
including premises \$6.00 (I)

SPECIAL CONDITIONS

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

2. For service covered by the above classification, if the utility or the customer so elects, a meter shall be installed and service provided under Schedule No. 1, General Metered Service. (T)