

ORIGINALDecision No. 91281

BEFORE THE RAILROAD COMMISSION OF THE STATE OF CALIFORNIA.

In the Matter of the Application
of BEAR GULCH WATER COMPANY, a
corporation, for authority to
increase rates.

Application No. 14373.

Chaffee E. Hall and John U. Calkins, Jr.,
for Applicant.

Arthur H. Redington and A.R. Baldwin,
for Town of Atherton, Menlo Park Fire
District and Woodside Fire District,
Protestants.

G.K. Whitworth, City Attorney, for City
of Menlo Park.

Kincaid and Fitzpatrick, for Southern
Pacific Company, Protestant.

Frank G. Warner, for North Fair Oaks and
Dumbarton Oaks Improvement Clubs,
Protestants.

BY THE COMMISSION:

O P I N I O N

Bear Gulch Water Company, an incorporated public utility engaged in the business of supplying water for domestic, industrial and municipal purposes in and in the vicinity of Menlo Park, Atherton, Woodside, Woodside Heights and Portola Woods, all in the County of San Mateo, makes application as entitled above for an increase in rates.

The application alleges in effect that the schedule of rates at present charged are non-compensatory, being inadequate to produce the revenue necessary to yield applicant a reasonable interest return on the value of its properties devoted to the public use. Wherefore, the request is made that authority be

granted applicant to put into effect and charge the certain proposed schedule of increased rates attached to the application, marked Exhibit "C", which are offered as being reasonable rates from the standpoint of both applicant and consumers.

A number of public hearings were held in this proceeding before Examiner Satterwhite at Menlo Park and San Francisco during the period April 9th and December 17th, 1928.

This water supply system was originally installed by Corte Madera Water Company, incorporated October 28, 1865. The records show that these original owners purchased the water rights in Bear Gulch Creek in 1867 for \$3,250. In 1873 the water system, then supplying 17 consumers, was sold under bankruptcy proceedings to Milton S. Latham and then transferred to the Menlo Park Water Company. Bear Gulch Water Company was incorporated October 8, 1889, and acquired the then existing water supply properties of the Menlo Park Water Company, including the appropriated water rights in Bear Gulch Creek and the tributary water-shed lands. To meet the growth and development of the area served with the increasing demands for water, the original system has been progressively improved up to the present date by replacements, enlargements and extensions of water supply facilities and pipe mains.

A brief description of the present system follows:

The flow of Bear Gulch Creek is diverted by means of a small concrete dam in the bed of the creek and located in the foothills about nine miles west of Menlo Park. The water is delivered by gravity through about three miles of riveted iron pipe, 20 inches and 15 inches in diameter, into a storage reservoir of 122-million gallons capacity formed by an earthen dam 56 feet high with a crest length of 690 feet. From thence the water is delivered by gravity through a 20-inch riveted steel

pipe main into the distribution pipe mains serving the Menlo Park and Atherton areas. A supplemental source of supply is obtained from two deep wells and pumping equipment located near the bay shore in the Atherton area which were installed in 1925.

For the past few years it has been necessary to operate these pumps, which deliver directly into the distribution mains, from June to October, when the gravity supply and storage became insufficient to meet the increasing summer demands for water.

The record shows that during the 1928 summer months, by reason of the sub-normal rainfall and runoff from Bear Gulch Creek, a water shortage existed on the system and it was necessary in the emergency to purchase from Spring Valley Water Company about 24-million gallons of water.

The present utilization of the natural and flood flow of Bear Gulch Creek is limited by the capacity of the existing transmission main and the storage capacity of the reservoir. In this connection the company proposes to install betterments to the system during 1929 which will increase the reservoir storage capacity 70-million gallons by raising the earthen dam ten feet, provide additional storage for the Woodside area by construction of a reservoir of about one-million gallons capacity and augment its well source of supply by the installation of an additional well and pumping equipment.

The Woodside area, which is located in the foothill region above the storage reservoir, is supplied by a separate system which diverts from Bear Gulch Creek about 1,500 feet upstream from the main concrete diversion dam into five wooden storage tanks with 230,000 gallons total capacity and thence into the distribution pipe mains. This supply is supplemented during the summer months from the storage reservoir by means of a booster

pump delivering through a six-inch transmission main. The transmission pipe mains of the system total 57,173 lineal feet and range from 20 inches to 5 inches in diameter. The distribution system which serves a large area, a considerable portion of which is in acreage parcels sparsely built upon, consists of about 27.2 miles of pipe 12 inches to 4 inches in diameter and about 54.5 miles of pipe 3 inches and less in diameter, being largely 2-inch. The average number of consumers for the year 1928 totaled 2,081, all metered.

The University of California is the present owner of Bear Gulch Water Company, having acquired four-fifths of the capital stock in 1903 through a deed of gift from the James Flood Estate and the remaining one-fifth by purchase in 1919 from the Charles N. Felton Estate at a cost of about \$45,000.

Detailed appraisals of the physical properties of this utility were submitted by Walter H. Davis, Engineer of the American Appraisal Company, for applicant, and by H.A. Noble, one of the Commission's hydraulic engineers. The lands and rights-of-way owned by the company were appraised by Walter H. Davis and by E. Britton, Superintendent of Bear Gulch Water Company, for applicant, and by H.R. Robbins, one of the Commission's land appraisers.

The summaries of these appraisals as compiled for the purpose of comparison are given in the following tabulation:

SUMMARY OF APPRAISALS

Items	:By H.A.Noble:By W.H.Davis:		
	: Estimated :	: Estimated :	
	: Original :	: Historical:	
	: Cost as of :	: Cost as of :	
	:Dec. 31,1927:	:Apr. 30,1927:	
Total operative physical properties,	\$643,737.	\$635,672.	-
Book cost capital installed Apr. 30th to Dec. 31st, 1927, (incl.in above)		24,726.	-
Organization expense and other intangibles,	2,000.	40,000.	-
Working capital,	5,500.	8,000.	-
Materials & Supplies Account,	3,500.	5,952.	-
Total Physical Properties,	\$654,737.	\$714,350.	-

By H.R.Robbins By W.H.Davis By E.Britton

Operative Lands and Rights of Way:
(Present market value)

*Operative watershed lands, Bear Gulch, Storage Reservoir, 112.91 acres,	\$179,415.	\$307,683.	\$243,486.
Lot 15 - 8th Ave.Pump Station,	67,746.	104,410.	92,115.
Lot 9 - Tank Site, Woodside Heights,	350.	350.	500.
Rights of Way, (Est. Reproduction Cost)	500.	500.	500.
	5,324.	14,770.	-
Total Operative Lands and Rights of Way,	\$253,335.	\$427,713.	-
Water Rights,	-	40,320.	-
Grand Total as of Dec. 31, 1927,	\$908,072.	\$1,182,383.	-
Net Book Cost capital installed Jan.1 to Dec.31, 1928,	19,041.	19,041.	-
Grand Total Appraisal as of December 31, 1928,	\$927,113.	\$1,201,424.	-

Non-Operative Lands:

Sweeney Lane Pump Lot,	\$ 450.	\$ 450.	-
Watershed Lands not tributary,	153,290.	211,322.	-
Proposed Reservoir Site, 151.85 acres,	76,300.	127,245.	\$82,442.

Note: *Robbins used 1,435.32 acres, Davis 1,578.65 acres and Britton 1,435 acres.

Total area watershed lands (operative and non-operative) approximately 2,224 acres.

Mr. W.H. Davis submitted a second appraisal of the same schedule of properties showing a total of \$1,219,720. for the estimated reproduction cost new less depreciation as compared with his total estimated historical cost of \$1,201,424. as of December 31st, 1928, as shown above. An analysis of the above tabulation shows that the increase in Mr. Davis' appraisal over that of the Commission's engineers is largely accounted for by the greater values given lands and rights of way and the amounts included for water rights and intangible values.

The attorneys representing the applicant and the protestants, with the assistance of their engineers, jointly analyzed all the evidence submitted regarding the value of the used and useful properties of this utility and reached a conclusion that \$937,500. would be a fair rate base as of December 31, 1928, to be considered by the Commission for the purpose of this proceeding, and it was so stipulated in the record. It appears that in arriving at this total valuation there was eliminated from the list of operative lands, as submitted by the Commission's engineer, 120 acres of the watershed lands, the title to which is in controversy, besides a certain 13½ acres in the reservoir tract as being non-operative and there was included the cost of the capital expenditures as installed for the year 1928.

A list of the additions and betterments to the system, which applicant proposes to install in the near future as necessary to increase its available water supply and improve existing inadequate service conditions, was submitted as Exhibit No. 16. The total estimated cost of these proposed capital expenditures for 1929 was given as \$196,650., for 1930 as \$82,990., and for 1931 as \$72,085. These 1929 expenditures include \$30,000. for a storage reservoir for the Woodside system, \$60,000 for raising

the present earthen storage reservoir dam ten feet, \$15,000. for a new well with pumping equipment and the remainder mainly for enlargement of present pipe main capacities. Applicant urges in its brief that one-half of said proposed 1929 capital expenditures be included in the rate base for this proceeding, thereby increasing the stipulated rate base of \$937,500., mentioned above, to \$1,036,000.

The evidence discloses that from 1921 to September 1, 1928, a total of \$95,066.17 was advanced by consumers to cover the cost of pipe main extensions subject to refund without interest and of this total \$67,691.70 remains to be refunded by the company. The physical property represented by this latter sum has been included in the stipulated rate base given above. However, the company has as yet no investment of its own in same.

A careful consideration and analysis of the evidence submitted relating to the value of the property of this utility devoted to the public use, and particularly the facts set out above, leads to the conclusion that a reasonable rate base for the purpose of this proceeding is, in round figures, \$1,068,000., after including \$130,000. of the estimated total cost of the additions and betterments for 1929 which have been under construction during the year and it is understood with the exception of the work of installing the increased storage facilities has been largely completed. The urgent need of providing this increased storage in order to more fully utilize the flood flows of Bear Gulch Creek was shown by the recent water shortage which was relieved by purchases of a large quantity of water from Spring Valley Water Company at rates substantially higher than the utility's existing rates with resulting increased operating expenses. Having experienced the previous 1924 dry season and water shortage and the subsequent large increase annually in the demand and consumption of water on the system, there appears to have been a certain degree of negligence on the part of applicant in not providing this additional storage sooner.

The corresponding depreciation annuity, computed by the five per cent sinking fund method, totals \$8,200. as jointly determined by the engineers for the company and the Commission, after allowing \$700. for the 1929 construction work in progress and it appears to be a reasonable amount to allow in the annual charges for this item.

The following tabulation as compiled from the annual

reports of this utility to the Commission gives a comparison of the annual maintenance and operating expenses exclusive of depreciation annuity for the past five years 1924 to 1928, inclusive:

SUMMARY OF MAINTENANCE & OPERATION EXPENSES

Items	1924	1925	1926	1927	1928
<u>SOURCES OF WATER SUPPLY:</u>					
Repairs - Labor & Materials	\$ 943.42	\$ 632.98	\$ 1,050.87	\$ 468.45	\$ 932.52
Water Purchased from S.V. W.Co.	16,893.10	-	-	41.80	6,806.44
Total Sources Supply Exp.	\$17,836.52	\$ 632.98	\$ 1,050.87	\$ 510.25	\$ 7,738.96
<u>PUMPING EXPENSES:</u>					
Pumping Labor	\$ 6,657.52	\$ 797.15	\$ 1,990.42	\$ 754.90	\$ 799.88
Electric Power Purchased	5,336.80	2,424.82	4,997.80	4,858.05	6,300.08
Misc. Supplies & Expense	3,234.92	489.55	1,031.08	862.94	493.21
Repairs Pumping Equipment	12.31	147.63	976.89	493.19	303.91
Total Pumping Expense	\$15,241.55	\$ 3,859.15	\$ 8,996.19	\$ 6,969.11	\$ 7,897.08
<u>PURIFICATION EXPENSES:</u>					
Supplies & Repairs to Equipment	\$ 701.82	\$ 410.27	\$ 1,161.64	\$ 1,220.93	\$ 1,034.20
<u>TRANSMISSION & DISTRIBUTION EXPENSES:</u>					
Patrolling Storage Facilities	\$ -	\$ -	\$ -	\$ 21.19	\$ 468.12
Meter Dept. Supplies & Expenses	1,336.18	924.59	1,701.06	2,501.31	2,308.01
Customers' Premises Expenses	-	.91	250.40	373.03	381.84
Repairs to Distrib. Mains & Tanks	4,266.19	2,624.89	4,253.00	2,853.03	3,366.20
Repairs to Services	1,339.64	589.33	578.15	732.68	926.36
Total Trans. & Distrib. Exp.	\$ 6,942.01	\$ 4,107.01	\$ 6,532.21	\$ 6,108.21	\$ 7,068.69
<u>COMMERCIAL EXPENSES:</u>					
Collections, reading meters, etc.	\$ 1,912.10	\$ 1,601.71	\$ 1,528.22	\$ 1,431.80	\$ 1,728.12
<u>GENERAL & MISC. EXPENSES:</u>					
Salaries - General Officers	(\$13,367.55)	(\$13,376.59)	\$ 6,990.00	\$ 7,650.00	\$ 6,600.00
Salaries - General Office Clerks	((3,179.16	3,904.14	4,176.02
Misc. Office Supplies & Exp.	((3,936.44	7,385.02	7,623.93
Legal Expense	757.00	230.70	836.65	811.93	860.97
Railroad Commission Expense	5.00	11.32	34.33	6,272.96	1,648.63
Other General Expenses	386.35	14.50	203.21	2,187.98	1,270.69
Insurance	174.33	208.05	310.64	437.85	440.86
Repairs - General Structures and Equipment	388.59	376.78	1,521.18	1,168.14	855.30
Undistributed Adjustments	159.60	(-200.09)	-	(-20.82)	14.09
Total Gen. & Misc. Expenses	\$15,238.42	\$14,017.85	\$17,011.45	\$29,797.20	\$23,490.49
<u>TAXES:</u>	\$ 7,590.78	\$ 6,356.53	\$ 6,738.75	\$ 6,787.26	\$ 6,969.95
GRAND TOTALS	\$65,463.20	\$31,026.30	\$43,019.33	\$52,824.76	\$55,927.44

The total of \$65,463. for the 1924 maintenance and operation expenses is more than double that shown above for the following year 1925 and likewise for the two preceding years 1922 and 1923, which the record shows had totalled \$21,904. and \$27,000., respectively. This large increase in 1924 operating expenses is largely accounted for by the extraordinary expenses for the purchase of water from the Spring Valley Water Company and pumping costs including the installation of emergency pumping equipment, which were incurred by reason of a water shortage from the Bear Gulch gravity source of supply due to an unusually light rainfall during the season. The increases shown in the totals for 1926, 1927 and 1928 are largely due to increases in the salaries of officials and the operating force and increased pumping expenses besides the extraordinary items for purchase of water from Spring Valley Water Company and for Railroad Commission and legal expenses which do not recur annually and totalled \$7,127. for 1927 and \$9,316. for 1928.

A detailed examination and analysis of the book accounts and vouchers covering the operating expenses of this utility for the years 1926 and 1927 were made by the Commission's engineers and the results, showing certain corrections and adjustments thereto, were set out and discussed in their report submitted as Exhibit No. 23. Applicant admitted the propriety of adjusting both 1926 and 1927 operating expenses for some of these corrections and submitted rebuttal testimony in support of its book entries for others.

The result of a study of the above mentioned evidence relating to 1926 and 1927 operating expenses indicates that a number of items aggregating about \$2,600. in 1926 and \$1,700. in 1927 and evidently capital charges or replacements, were im-

properly charged as operating expenses. Furthermore, in 1926 applicant wrote off capital charges totalling \$223.75 made in prior years for purification equipment and entered this item as operating expense; likewise, there was improperly charged as operating expenses an item of \$354.07 representing the cost of tools and miscellaneous equipment recently found to have been lost or unaccounted for in the stock room. In 1927 the cost of a new well at Woodside, \$2,011., which was abandoned as a failure, was charged as operating expenses; also, pump station items charged to capital account in 1924 totalling \$238.46 were written off of capital and charged to operating expenses.

The evidence further discloses that certain other items which have been included in the operating expenses for both 1926 and 1927 should be deducted as listed below with the reasons therefor:

Taxes paid on non-operative property, approximately--\$1,000.

Total of the 2 per cent discounts allowed for cash payments of certain bills for materials purchased, which amounts were not credited as operation expenses but were entered on the books as non-operative revenue, approximately-----\$ 200.

Pacific Gas & Electric Company pays \$70.00 a month as compensation for the company's Menlo office force handling its local business-----\$ 840.

Monthly rentals of 3 cottages charged as operating expenses, notwithstanding that all maintenance and repairs of same are also so charged and their values as operative property included in the appraisals as submitted, together with the corresponding depreciation annuity-----\$1,060.

Overhead expense chargeable to the capital account of additions and betterments installed. This item, which was not segregated from operating expenses, would include a portion of the office expense and the salaries for management and superintendence as charged and would amount each year to at least-----\$2,000.

Total-----\$5,120.

In comparing the 1928 total operating expenses with the two prior years, it appears that in the aggregate approximately the same total amount for corrections as indicated above should be applied, since the same bookkeeping methods and distribution of charges to capital and operating expenses have been employed.

Applicant submitted an estimate of \$55,800. to cover the operation expenses exclusive of depreciation annuity for the immediate future, using as a basis the operating expenses as reported for the past few years without adjustment for items improperly charged.

It appears that the cost of management of this utility is high as compared with other water systems in the State of similar size and character and in this connection it is believed that a considerable saving could be effected without impairing the present efficient operation of the system if the business of this utility was managed and conducted from a single office in the territory served rather than as at present with an executive office in Berkeley and an operative office in Menlo Park.

A careful study and analysis of all the evidence relating to operating expenses incurred during past years, with particular regard to the reasonableness of and necessity for the various items of cost for maintaining and operating this system and the rendering of proper service to the consumers after taking into consideration the corrections and adjustments noted above, lead to the conclusion that under present operating conditions the total of \$47,500. is ample to meet the annual costs for maintenance and operation for the immediate future. In this total allowance has been made for increased pumping expenses to provide for the growth in the consumption of water and

for extraordinary items of Railroad Commission expense and emergency purchase of water from the Spring Valley Water Company in an amount estimated to provide for the probable recurrence of such expenditures over a period of years in the future.

Based on the foregoing, it appears that the following are the fair and reasonable amounts to allow for the annual charges for this system to be produced from the rates to be charged consumers:

Maintenance and Operation Expenses-----	\$ 47,500.
Depreciation Annuity (5% Sinking Fund)-----	8,200.
Interest Return on Rate Base of-----	1,068,000.

The rates at present in effect were established by this Commission by Decision No. 2928 issued November 23, 1915, in Case No. 718. The gross operative revenues produced by these present rates and the total quantities of water delivered to consumers for the past four years are given in the following table with percentages of increase indicated:

Item	1925	1926	1927	1928
Total Operative Revenues	\$75,678.09	\$91,911.96	\$102,431.56	\$116,070.00
Increase over Preceding Year	-	21.4%	11.4%	12%
Consumption of Water, Gallons	222,522,000	273,886,463	307,866,500	351,817,000
Increase over Preceding Year	-	23%	12.4%	14.3%
Average Number of Active Consumers	1,419	1,690	1,880	2,081

The progressive growth experienced by this utility during the past few years is noted and the evidence discloses that applicant has predicted a further growth in substantial amount during the next few years.

If the annual charges as set out above are assumed for the 1928 operation of the system, the gross revenue of \$116,070. for this year would have provided a net revenue equivalent to about 5.7 per cent interest return on the rate base of \$1,068,000. This total rate base, however, includes \$130,000. towards the cost of the 1929 additions and betterments to the system which are being installed but at this date are not all operative.

A study of the application of the present rate schedule to the tabulated record of the consumers' monthly metered water use shows that the present form of the rate schedule does not equitably spread the charges to the various consumers according to the character of their respective uses of water. It is apparent, as indicated above, that applicant is entitled to an increase in its operative revenues, which necessary increase may be largely obtained by an adjustment of the form and spread of the present rate schedule rather than by a uniform increase for all consumers.

Accordingly, the schedule of rates as set out in the following order has been designed to accomplish a more equitable distribution of the charges among the consumers and computed to yield sufficient gross revenue to return the necessary and reasonable annual charges of the system, including a fair interest return on the rate base herein established, allowance having been made for a certain growth annually in the number of consumers and consumption of water.

It appears from the evidence that consumers in several sections of the territory served have been receiving inadequate service during periods of peak consumption of water and that this condition has been particularly bad in the Woodside area during

the summer months. The various additions and betterments to the system which, as mentioned above, applicant proposes to install in 1929, 1930 and 1931 are necessary for the relief of this condition besides providing additional water supply and facilities to meet the progressive growth of the system and demand for improved fire protection. These increased rates are granted with the explicit understanding as expressed by applicant at the hearing that the additions and betterments as proposed will be installed substantially as set forth in applicant's Exhibit No. 16.

O R D E R

Bear Gulch Water Company, a corporation, having made application to the Commission for authority to increase its rates, public hearings having been held thereon, the matter having been submitted and the Commission now being fully advised in the premises,

It is hereby found as a fact that the present rates of Bear Gulch Water Company, in so far as they differ from the rates herein established, are unjust and unreasonable, and that the rates herein established are just and reasonable rates to be charged by said company for water service.

Basing its order upon the foregoing findings of fact and upon the other statements of fact in the opinion preceding this order,

IT IS HEREBY ORDERED that the Bear Gulch Water Company be and it is hereby authorized and directed to file with this Commission within twenty (20) days from the date of this order the following schedule of rates, said rates to be charged for all service rendered subsequent to the 1st day of October, 1929:

METER RATESMinimum Monthly Charges:

For 5/8-inch meters	- - - - -	\$ 1.50
For 3/4-inch meters	- - - - -	2.00
For 1-inch meters	- - - - -	2.50
For 1 1/4-inch meters	- - - - -	4.50
For 2-inch meters	- - - - -	8.00
For 3-inch meters	- - - - -	12.00
For 4-inch meters	- - - - -	16.00

Each of the foregoing "minimum Monthly Charges" will entitle the consumer to the quantity of water which that minimum monthly charge will purchase at the following "Monthly Quantity Rates":

Monthly Quantity Rates:

For 500 cubic feet or less, per 100 cubic feet	-	\$0.30
From 500 to 9,000 cubic feet, per 100 cubic feet		0.25
From 9,000 to 45,000 cubic feet, per 100 cubic feet		0.22
All over 45,000 cubic feet, per 100 cubic feet		0.19

MUNICIPAL AND DISTRICT USE

1. Water used for street sprinkling and sewer flushing by computed or measured quantity, per 100 cubic feet \$0.19
2. For each fire hydrant owned and maintained by the City or District, installed on a 4-inch or larger pipe main - - - - - 1.00
For each fire hydrant owned by the Company, installed on a 4-inch or larger pipe main - - - - - 1.50
For each fire hydrant owned and maintained by the City or District, installed on smaller than 4-inch pipe mains - - - - - .50
For each fire hydrant owned by the Company, installed on smaller than 4-inch pipe mains - - - - - 1.00
3. All other municipal or District use of water, including public buildings, schools, irrigation of parks and grounds to be charged for at regular meter rates.

For all other purposes the effective date of this order shall be twenty (20) days from and after the date hereof.

Dated at San Francisco, California, this 7th day of October, 1929.

Thomas D. Lavin

Al Deane
Emile J. ...

W. H. ...

Commissioners.