

**LIPP**

**J.B. Lippincott Papers**

**108-1 - 110-1**

**Box 53**

# LIPINCOTT



upon the **VALUE** of the  
**WATERWORKS PROPERTIES**  
of the  
**VENTURA COUNTY POWER COMPANY.**  
*Ventura, Cal.*

*J. B. Lippincott,*  
*Consulting Engineer*



J. C. Ward, Vice Pres.,  
Light & Power Corp.,  
Office-Electric Bldg.,  
Ventura, Cal.

Sir:-

In accordance with instructions there has been made a detailed study of that portion of The Ventura County Power & Light Co.'s system devoted to the sale of water in and around the City of Ventura. The findings are as follows:

FOR RATE FIXING PURPOSES

First:- The present value of the entire water works is \$354,100

Second:- The present value is the total of the following segregations made of the entire water works:

I. Ventura Avenue and City System	\$60,400
II. Power Ditch Irrigation System	11,700
III. Mound Irrigation System	79,700
IV. Beach Pumping System	2,300
Total	\$354,100



I. The value of 123 miner's inches of reserve domestic water at \$345.00 per miner's inch	\$42.
II. The going value	21.
III. The non-operative equipment	<u>7.</u>
Total	\$70.

The total sales value therefore is \$425.

Fourth:- The sales value of the various systems comprising the water works is

I. Ventura Avenue and City System	320.
II. Power Ditch Irrigation System	12.
III. Round Irrigation System	90.
IV. Beach Pumping System	<u>2.</u>
Total	\$425.

Fifth:- It should be noted that these values contain such items as real estate, buildings, operating equipment, etc. that are used jointly by the water, gas and electric departments. A sale of the water works and a retention of the gas and electric business would probably demand a recapitulation of these items to obtain the desired selling price.

Respectfully submitted



supply as early as 1854 and 1860. Water was diverted from the Ventura River about three miles above the city at the mouth of Canada Larga, and conveyed to it through a canal constructed by the Mission Fathers, or under their sanction.

On January 4, 1869, a franchise was granted to Arnaz, Victor Ustasanstegui and Francisco Moleda, giving them the exclusive right to serve San Buenaventura with water for a period of fifty years. On June 26, 1871, Arnaz, Ustasanstegui and Moleda sold their franchise to Ex Senator Thomas R. Bard and his associates, who in turn assigned it to the Santa Ana Water Company on March 26, 1874.

The Santa Ana Water Company was incorporated January 1, 1870. The company filed a notice appropriating 200 miner's inches of the flow of the Ventura River on July 7, 1870. The notice was dated January 10, 1870. On November 1, 1870, the company filed another notice appropriating 500 miner's inches of the flow of the Ventura River. On March 18, 1874 this company acquired by deed from Tadeo Amador, Bishop of Monterey and Los Angeles, as trustee of the Roman Catholic Church, the title to the church had



Adams, Phillips and Brotherton in 1901. These new  
incorporated the Ventura Light & Power Company. The  
old issue was retired and a new bond issue made. The  
Phillips interests were purchased by the Ventura County  
Company in 1906 and the Pacific Light & Power Company purchased  
controlling interest in the Ventura County Power Company  
the year 1914. The Ventura County Power Company  
operates gas, electric and water properties in the towns of  
Ventura, Oxnard and Santa Paula and intervening territory.  
Management of these properties <sup>was</sup> is under one head.

The Mound Water Company was a mutual water company  
incorporated on November 7th, 1904, for the purpose of irrigating  
certain lands by pumping, situated immediately east of  
Ventura. The capital stock of this company was \$100,000.00  
of which \$29,200.00 was subscribed at the time of the incorporation.

The Beach Pumping System was originally built by the  
Fuel Land Company. This property was sold to the  
County Power Company and now <sup>was</sup> is operated as a portion of the  
water supply system.

This report is a valuation of all of the above mentioned  
properties now owned by the Ventura County Power Company.



Coyote Creek. The surface and underground flow is checked and diverted to the city through some five pipes varying in size from a thirty-six inch concrete pipe, to an eight inch riveted steel main at the city. This main is tapped outside of the city at various places for irrigation and domestic purposes as well as feeding some smaller mains in the neighborhood of the gas plant. Two large reservoirs are located near the upper end of the city in order to take the overflow therefrom. The concrete reservoirs are only about three quarters full. However, in case of a fire or other emergency, the reservoirs are operated as an emergency supply equal to some eighteen hours demand under normal conditions. They may also be operated as settling tanks during flood periods.

#### POWER DITCH

The Power Ditch Irrigation System <sup>was</sup> is entirely dependent on the Ventura Avenue System. <sup>It</sup> takes its water from the Ventura Avenue System.



...<sup>was</sup> Avenue is served by a 10 inch riveted steel 1  
the 36 inch power main at a point near the power  
extends easterly to Ventura Avenue where it joins  
ste pipe which runs about a mile further east and  
branch of the Power Ditch System originally div  
the ditch above the reservoir, but that portion  
ashed out in February 1914.

### VENTURA CITY SYSTEM

The Ventura City System is fed mostly by th  
y from Casitas Dam. There is a small high se  
voir and booster plant in the city for high pres  
booster plant consists of a 3-stage, motor driven  
ifugal pump, which operates directly into the h  
, although it may pump directly into the reserv  
service mains are connected with the Mound Syst  
tage may be had of any pressure available there  
service reservoir has a capacity of 65,000 gall



than one hundred and fifty miner's inches or thirteen  
and gallons per twenty-four hour run, at the rate of  
cents per day inch, and domestic water at \$25.00 per  
one hundred thousand gallons. This equals 2.5 ce  
and gallons for the domestic service. The source  
ly is three artesian wells in the lower Santa Clara  
original steam plant has been converted into an elect  
on centrifugal system which pumps the water against a  
of 250 feet without friction, some two and one half  
a two million gallon concrete lined reservoir. D  
main tap this line at various points. The Ventu  
em is connected with the Mound System with an eight  
with a one and one half inch line.

Ever since the Mound System has been purchased  
ura County Power Company, it has been operated at a  
ow so operated. While it was originally a mutual  
rtion of the water that is pumped is now being deliv  
City of Ventura for general domestic distribution; a  
ion is being served to irrigators who are not member  
inal mutual company, and other water is being delive



Flume Company's rate case, contracts that have been  
into, fixing permanent rates to apply indefinitely  
are ultra vires, and consequently invalid. If t  
the case this Mound System would have to operate i  
ly at a loss, which would be impractical, and it wo  
n destroy all its value. In this report it is s  
some legal manner a just rate may be fixed which wi  
r a reasonable return on the legitimate investment.

### BEACH SYSTEM

The Beach Irrigation System was originally a deve  
San Miguel Land Company and consisted of three wells  
Santa Clara gravels, and some three quarters of a mil

The wells were ruined by floods during the winter  
pipes are now connected with the Mound System.

County Power Company has never secured a deed to th  
the Beach wells are situated.

### VALUATION AND DEPRECIATION

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## BEACH SYSTEM

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into, fixing permanent rates to apply indefinitely

the case, contracts that have been



1 be a gradually diminishing quantity. In order  
r may have a fair return on his investment at all  
s would have to be high during the early life of t  
when the amount of the interest return on the inv  
is large, and low during the latter years of life  
when the invested capital is small, and the intere  
this capital would be little. In the method of  
preciation adopted in this report, the effort has  
stabilize the rates over the life of the property by  
annual allowance for depreciation which gradually in  
he life of the property. This allowance is in a  
al contribution to a sinking fund, plus the year's  
accumulated fund at the beginning of the year. T  
preciation allowances without interest will aggreg  
ne of the property at the end of its life. If a  
allowances consist only of annual contributions to  
, which, when placed at compound interest would equ  
the property at the end of its life, the owner of t  
would suffer an injustice, as he is entitled not o  
his capital, but also to a fair return on it.



tion of the San Gabriel Valley Water Company's work  
the City of Alhambra, California. It is the method  
by a Special Committee of the American Society of  
in their report upon the Principles and Methods of  
of Public Utilities for the Purpose of Rate Making  
1st, 1913. The method as outlined above and in  
I, is here used in arriving at the money value of  
ion.

The pipes of the Ventura System have been uncovered  
in sixteen different places. Other pipes in the  
city have also been noted internally and external  
data and experience in other cities in Southern C  
table of probable life of pipes of various sizes a  
arrived at. Water works experts in this port  
agree that the old wrought iron riveted pipe, su  
shed twenty or thirty years ago, has far greater l  
than the newer riveted steel pipe now on the market  
emphasized in the examination of the Ventura pipe o  
iron class. On a large portion of the screw and



new, both as to the plates and rivets. Some  
been repainted with this coating. A pipe in  
12 inch riveted pipe on Ventura Avenue opposite the  
Other pipe in the system which had dips of the  
where refined asphalt apparently had been used,  
cracked or deteriorated, and the underlying metal  
of the prevalence of the iron plates and brass dips  
pipe is given an unusually long life in the table

### OBSOLESCENCE

In addition to the physical depreciation of por  
am, there is a deterioration due to the gradual f  
tures to perform their service in a satisfactory  
ence, a 2 inch pipe may furnish all the water requ  
ers on a street at the present time, but when the  
greatly increased it will become incapable of disch  
eter, and will then be obsolete. The pipe may  
laid elsewhere, but even then there will be a lo  
ter the probable length of life of the pipe, the



riveted iron pipe  
ip

35

0

4 Gauge riveted  
ipe, local dip

50

0

screw pipe alkali

20

0

screw pipe good

40

10

riveted steel pipe,  
ip

30

0

pipe

80

15

ing

30

5

pipe

80

15

ldings

25

0

ldings

50

0

d iron buildings

30

0

e and fixtures

15

0

rs

50

10

15

0

10

0

30

0



be paid for by the owner. This is especially  
the passage of the severe California employers' lia  
These charges should cover: preliminary engineering  
Administration, general executive, sundry losses, c  
ments, policing, tests, temporary buildings, inter  
struction, contractor's profit, insurance, etc.

may be classified as follows:

Engineering supervision and general executive

Auxiliary and incidental

Interest during construction

Contractor's profit

Liability insurance

Total

purpose of this report 30 per cent is added to co  
ndirect costs, except in the case of certain build  
ts, office and operating equipment, and the Casita  
book values of recent construction costs of the cou  
ailable and used, in which latter case 5 per cent 1  
for executive ex ense. See Appendix I for a fur  
tion of this subject.



the cost, is the cost of duplicating the pipe  
lines that existed at the time of the original con-  
ditions being made for depreciation. About 64  
miles in the City of Ventura are laid under paved  
streets. These pipes were installed prior to, or at the  
time the streets were paved in 1908. For this reason the ac-  
count for laying on account of pavements has been small.  
The question of the allowance of value for pipes that had  
been laid prior to the paving of the streets on account of the  
enhancement thereof, is one concerning which there has been  
much discussion and strong argument may be presented.

A utility corporation is entitled to enhanced  
value on account of the rise in the price of real estate and consequent  
enhancement. It is argued that the paving of streets subsequent to  
the laying of pipe therein, makes pipe laying more expensive, and  
the enhanced cost should also be included in valuing the pipes.  
The boards of appraisal with which I have been connected  
have made such allowances. However, the question of  
the valuation of the system should be considered in an al-



ould be rather illogical in case the city purchased  
to ask them again to pay for such portions of the  
re placed over the pipes.

The effort has been made in fixing the value  
to be just and logical in the procedure, and after  
ation of the question of the relation of the value  
vements, the conclusion has been reached that in fa  
l concerned, allowance be not made in this instance  
g charges.

### SERVICE CONNECTIONS

Prior to June 1908, a flat rate of \$5.00 was  
which a service was run to the property line. T  
ced the territory which is called the Ventura Aven  
Ventura City System, and applied to a three quarter

At the time of the paving in June 1908, \$7.00  
collected for a renewal of the service, making the  
00 instead of \$5.00 for all services under paved st  
way boxes were always installed on services since t

been the intention of the company to m



It should be computed on the assumption that have an active life of 15 years, and that the average of all services is 8 years. Although some services on a portion of the Ventura Avenue System are, a great number of them in the lower portion of the adobe soil prevails, have an active life of but those in the higher portions of the town may have a life of about 20 years.

The Mound Irrigation System presents a difference to the fact that all distribution pipes and laterals on rights of way the easement for which has been obtained from the Ventura County Power Company. The total length

on public highways does not exceed five hundred

Practically all of the services on the Mound System were owned by the stockholders when the system was originally installed in 1904 and 1905. In transferring their interest

to the Ventura County Power Company it apparently was the intention to transfer the ownership of service connections. This is shown on the following quotation from the agreement:



The population of Ventura as determined by the census was in 1890, 2320, in 1900, 2470 and in 1910, 3000. However, there are 853 persons at present within the city, of which about 100 are inactive, leaving 833 active. It is customary among water engineers to consider 5 inhabitants to the live water connection in the City of Los Angeles on census years and it is claimed that in San Diego it is more than 5. In September 1910 there were 602 live service connections, or a ratio of 4.89 persons to the tap. If the ratio of 4.8, there should be 4022 inhabitants at present, which would indicate a growth since the census of 1910 of 1022 per cent. This is in accord with the development of Southern California cities during this period. The county has been decidedly prosperous since 1910. Prunes are being farmed that are naturally moist, or water can be readily put. There is little, if any, undeveloped farm land in the county for sale. There are



of water which has been consumed in the City of V  
August 17th, 18th, 19th and 20th, 1914, gaging w  
is report, of the volume being diverted for domest  
ure city and about 70 domestic services on Ventu  
to certain complications in the high level service  
ry to approximate the amount of water used theref  
is done by installing temporary meters which recor  
supply. The figures used are probably below  
ice consumed. The measurements on the Venture  
re made over two weirs. During the period of  
he weather was cool and foggy and the use of wate  
normal use. These measurements show that 1,2  
per day were being served for the average of the  
urements, and on the basis of 4000 inhabitants th  
age consumption per capita of 494 gallons per day  
daily consumption during this period was 2,456,0  
gallons per capita. This rate of consumption  
One of its most striking features was that  
ing this three day period was 131 miner's inches.



In some of the combined irrigation and domestic use of Southern California, such as Alhambra, the average use is about 166 per cent of the mean for the use of the City of Los Angeles, the July use is the mean, and at San Diego it is 125 per cent. In the case of the City of Ventura it is probable that the average use is 12 per cent of the mean annual use. Applying 143 per cent to the Ventura August observations gives an average consumption per capita on the basis of 4000 gallons per day. In the case of the City of Los Angeles 90 per cent of the services are metered, the average consumption is 139 gallons per capita per day; in the City of San Diego 100 per cent are metered, the average consumption is 100 gallons per capita per day. In the City of Santa Barbara 100. Pasadena, which is not metered, the average consumption is 128 gallons per capita; Pomona 300 gallons; Redlands 100 gallons. Redlands is about half metered and Pomona is not metered. These last two towns are situated in climatic conditions that are more arid than Ventura.



small user under a flat rate pays proportionately less than the large consumer.

## IRRIGATION CONSUMPTION OF WATER

### ALONG VENTURA AVENUE

The lands along Ventura Avenue are composed of gravels underlaid by river boulders, with the boulders lying from ten to twenty feet from the surface, within reach of orchard trees. These lands are at an elevation from 50 to 200 feet above sea level. At 787 acres of improved land commanded by your system, divided in the following crops:

Under the Pressure Line -	Lemons
	Walnuts
	Apricots
	Miscellaneous fruits
	Beans
	Alfalfa
	Gardens

Under the Power Ditch -	Lemons
	Walnuts
	Apricots



of this area was not irrigated during this period. Seepage through the unlined earthen Power Ditch and sandy soils, contributes to the sub-irrigation of the land without profit to the company. The maximum amount of water sold, according to the records, was in July 1912, when 46 inches of continuous flow was sold. The water is so scarce, the demand often exceeding the supply for periods of several days. If this 46 miner's inches is applied to the 46 acres, it would indicate a duty of water of 1 inch per acre. It is probable, however, that the actual duty of water is not much exceed an inch to 10 acres.

### VOLUME OF WATER

Many of the streams of Southern California have two distinct characteristics. From the mountain portion of the watershed they discharge through narrow rocky canyons, producing in winter torrents, there being great floods following the winter rains and practically dry stream beds in the late summer. The San Gabriel at the mouth of its canyon is of this nature. The San Gabriel and the Santa Ana Rivers. In an



the Santa Ana near Colton. A parallel to these  
ic conditions exists on the Ventura River. T  
s are discharged out of the mountain canyon near  
n the summer the stream goes almost dry at this  
loods are spread over the gravels upon the Ojai  
underground bodies of water in draining off pro  
ant flow at the Casitas Dam, which is comparable  
of the lower Los Angeles River, the lower San Ga  
he lower Santa Ana River.

In determining the volume of water available  
as Dam, the September flow, which is the summer  
timated for an ordinary dry year. In fixing  
a water supply it would be unfair to accept volu  
ers.

For instance, in October 1914 before t  
low was 1222 miner's inches. In a similar wa  
fair to accept as controlling, the minimum amoun  
ng on the driest year ever known on the river, s  
ber 1899 when but 100 miner's inches was estima



No continuous records of stream flow are available. Measurements that have been made are fragmentary. In November 1903 at the end of a group of practically evenly dry years, the writer measured the flow at Casitas and found it to be 3.7 second-feet, or 185 miner's inches. In November 1902, which was in a group of dry years, that year season having a precipitation of 103 per cent of seasonal rainfall, the writer found at Casitas 5.23 second-feet, or 261 miner's inches. The writer has been acquainted with the Ventura River for a period of twenty years, and in addition to his personal judgment has consulted others who have resided in the neighborhood, and who are interested in the available water supply. The conclusion is that the minimum flow at Casitas Dam intake for minimum months of an ordinary year would amount to 6.5 second-feet, or 325 miner's inches. This amount of water is considered as the controlling volume for the report.

This includes the underflow developed by the construction of the Casitas submerged dam in 1910, which was found to be at 2.0 second-feet, or 100 miner's inches. He







year, for this report, indicate an average  
134 gallons per capita per day, or a total daily  
152 miner's inches. However, as has been noted  
her was cool and foggy during the time of these  
and it is the opinion of the local water officials  
below the normal summer use. The demand for  
er season of a dry year is greater than the normal  
A conservative estimate of the consumption of water  
of a dry year by the town of Ventura, for domestic  
is 200 miner's inches, less approximately 23 miner's  
which is used for irrigation purposes out of the  
the north line of the city and the Casitas Dam.  
of 1899 there was a shortage of water in the City  
which would indicate that on such an occasion the  
the 200 miner's inches prior to the building of  
dam. We therefore take the amount of water  
for domestic purposes, available at the Casitas Dam in Se  
ordinary dry year, to be 177 miner's inches, and the  
quantity now available on such an occasion 148 miner's



take of the Power Ditch. The total available  
ore taken as 400 miner's inches in September of a  
ar. The Power Ditch water during a dry summer  
ed for irrigation. One hundred miner's inches  
er that may be used to advantage along Ventura Av  
ion. The safe available supply from the Ventu  
before divided as follows:

Present summer requirements for domestic use in the city	177 miner's i
Water available for future domestic requirements of the city, or emergencies	123 "
Summer requirements for irrigation outside the city	<u>100</u> "
Total safe supply including Power Ditch water	400 miner's i

There are emergencies to be guarded against in  
domestic water supply to a city, such as large fire  
demands are put upon a water works system. Th  
uations are largely cared for by reservoir storage  
of Ventura has grown 30 per cent in the past four



growth. This 123 miner's inches of excess water  
sidered to have value in the appraisal for rate ma  
, but for sales purposes this water is given the  
the domestic water now in active service.

### VALUE OF WATER

Throughout the arid regions it is difficult to  
reasonable value of water. In many of the we  
no riparian rights are recognized. The consum  
ed to be the owner of the water, and the water o  
transportation institution. In California, howev  
rights to the summer, or low flow period of the  
en recognized by the courts as property, and the  
of the United States recently in the San Joaquin a  
anal and Irrigation Company vs. County of Stanisla  
id that in fixing rates, a value should be placed  
er right that is controlled by the organization m  
ersion. The old Spanish laws recognized the r  
riation and the early users of water from the Vent



cession Fathers and the riparian right under the pre-  
son of the State of California. These rights have  
ally defended in the courts.

The use to which this water is put is two-fold.  
domestic use, second, an irrigation use, and its va-  
that dependent thereon.

### THE VALUE OF DOMESTIC WATER

The domestic water is conveyed through pipe lines  
a distance of some five miles to the City of Ventu-  
it serves the greater part by gravity. The h-  
of the town is supplied by lifting a part of the wa-

The gravity water at this elevation has value  
different from the waters that may be found in large  
es on the coastal plain at low elevations south from

An ordinary value of water available for urban or-  
es in Southern California is in the neighborhood of  
0 per miner's inch, but in view of the fact that la-  
es may be obtained in the coastal plain near the se-  
ference with lower riparian rights, and practicall



have been prepared of the cost of sinking wells near Ventura and of lifting water by means of efficient and highly equipped pumping machinery, to such elevation as is reached by the present gravity supply. Plans have also been prepared of the cost of delivering water from the Ventura River to this point.

It is assumed that the mean daily consumption in Ventura is 348 gallons, and that the maximum is 100 per cent of the mean. With a population of 4000, this results in an average consumption of 1,400,000 gallons and a maximum consumption of about 1,988,000 gallons.

For the purpose of the estimate it is proposed to duplicate wells and pumping equipment of 2,000,000 gallon capacity.

The importance of safeguarding this vital service to a community of 4000 souls requires the reliability of service. If duplicate pumping equipment is installed, reservoir capacity to the extent of 100,000 gallons should be provided to guard against breakdowns, which would mean a still greater charge.

supply should be provided to guard against breakdowns, which would mean a still greater charge.



re of these fluctuations. In view of the fact  
pumping equipment is provided, a storage capacity  
supply is sufficient to care for these fluctuations  
reservoir capacity is estimated upon.

In the following computations it is assumed that  
plant is constructed at the site of the old Beach p  
t of Ocean Drive, and that water is pumped from a  
16 inch force main to a proposed reservoir at the  
present booster plant. The present gravity suppl

is San will reach an elevation in your distributi  
about 130 feet, where it is taken by the booster p  
pressure increased so as to serve the higher elevat  
imate it is assumed that the water is to be pump  
levation and the higher levels are to be handled i  
r as they are at present. The pumps would ope

net head, including suction, of 100 feet. To  
ed the friction in the force main, which amounts  
et. The pumping equipment would consist of a

to get the water from the wells and out



The total cost of the plant, including wells,  
machinery, pipe lines and reservoir, is \$98,641.  
Annual cost of operation, maintenance, fixed charges  
and fuel, is \$18,652.69.

\$18,652.69 capitalized at 5% = \$233,159.50

1.5 m.g.d. = \$233,159.50

1.0 " " " = 155,439.00

1000 g.d. = 154.44

13000 g.d. = 1 miner's inch = 2

Cost of pumped water = \$2,020.71 per miner's inch



GRAVITY WATER

ITEM	TOTAL		AMT. CHARGEABLE TO DOMESTIC		PRES.
	Deprec. During Year	Present Value	Per Cent	Deprec. During Year	
as	\$318.96	\$82,219.35	100.00	\$318.96	\$82,219.35
as	944.50	53,044.91	88.5	835.88	46,844.41
-	11.48	3,463.38	88.5	10.16	3,054.82
voir	582.41	10,249.77	100.00	582.41	10,249.77
men					
				\$1747.41	\$14,158.35

On an average dry year this main diverts 200 cfs, of which 23 miner's inches are used for irrigation, and the balance for domestic service in Ventura. The cost of the works is apportioned between these two services as shown in the above table, in proportion to the amount of water diverted. As the dam was built subsequent to the development of the



TABLE II

1 mil. of  $\text{NaCl}$  per month

NO CHANGE

Interest at 4% on  $\$100,000.00$

Depreciation during year

Taxes and insurance at 1% on  $\$100,000.00$

Total annual charges

$\$10,000.00$  capitalized at 4% =

1.5 m.g.d. =  $\$135,381.50$

1.0 " " " =  $\$120,811.00$

1000 g.d. =  $\$125.00$

10000 g.d. = 1 meter's inch = 1.0

This figure of  $\$1,175.27$  represents the value of

delivering the growth water from the river.

The net value of this harvest is  $\$1,175.27$  less

the cost of the plant and the cost of the water.



in quantity; is obtained from the low coastal plain  
ferred to, and is pumped 500 feet in elevation onto  
hills lands. It would be entirely possible to  
supply by sinking new wells on adjoining lands  
the Mound Irrigation District water supply is given  
in this report. Moreover, the cost of pumping  
high and up to the present time has been furnished  
loss. The only value, therefore, to be considered  
Mound System, is the physical value of the constant

### VALUE OF IRRIGATION WATER

The value of irrigation water is no greater than  
lower agriculturally. In the valley of the Verde  
ed crops are grown, including citrus fruits.  
ous fruits are not irrigated on wet years, but d  
ns, which may occur one out of three, irrigation  
saving a crop worth as much as \$100.00 an acre.



floods. A number of wells exist and a few pumps have been installed for irrigation uses. As they obtain an adequate water supply. The irrigation has been in operation for nearly forty years, and area under crops is 767 acres. During the past there was an average of 4523 day inches of water area each season, or enough to cover it to a depth.

This is equal to a four month's flow of 37.2 ft., but the water is called for irregularly and in small quantities during the early summer, when all are irrigated. This erratic and small use of service from any system unusually expensive because pumps are comparatively idle a large portion of the time and of ample capacity to meet maximum requirements.

The irrigators naturally would pay no more for water than its cost pumped from wells on their own land. The cost of pumping water in the irregular manner noted above would be expensive, calling for substantial equipment and maintenance the greater portion of the time. It is estimated



an annual charge for these items of \$24.00.  
that a pumping plant of this character is created o  
tract; that it will have a capacity of 50 miner's  
in order to comply with the customary duty of wat  
ate in the aggregate about 2.3 days per season.  
ally would be operated for from 8 to 12 hours at 1  
aps a month. Allowing for fixed charges, inter  
labor, it is estimated that the total annual cost  
a plant under these conditions would amount to \$61  
reduces to a cost of 2.22 cents per hour per inch  
approximately fixes the limit that could be charg  
r by the water company.

The irrigation system along Ventura Avenue v  
tructed for the service of these lands, but as the  
ura grew, and its requirements increased, it beca  
uild other and more elaborate structures which we  
for the domestic water supply, but which were not  
the maintenance of the irrigation system alone, p  
investment in office building in Ventura, or the

which could not properly be



The proportionate value of the structures used for  
ion, plus the cost of the Power Ditch System, represe  
stment of \$18,373.00. The proportionate depreciat  
e structures has been estimated as amounting to \$906.  
an. We have, therefore, the following annual expe  
delivery of the irrigation water by gravity:

ANNUAL CHARGES AGAINST THE IRRIGATION SYSTEM

8% Interest on \$18,373.00	\$1,470.00
Depreciation	906.00
Operation	500.00
Taxes, 1%	<u>184.00</u>
Total annual charge	\$3,060.00

The average number of day inches used under this  
ion system is 4523, and dividing the annual charge fo  
avity water by the number of day inches, gives a cost  
nts per day inch, or 2.8 cents per hour inch. In  
if interest at 8 per cent is allowed on the cost of t  
ion structures, and depreciation and operating expens  
of gravity water is 2.8 cents.



It is clear that the price of 25 cents a day for  
each irrigation water is being now sold along Ventura A  
below what is justice to the company, it should be.  
cost without value on the water is 2.7 times the price  
if interest, depreciation and operating expenses are  
added on the structures only at 8 per cent.

Summarizing the value of the water rights of your  
we have -

**For Sales Purposes:**

177	miner's inches domestic water at	\$345.00 =	\$61,125
123	" " reserve water at	345.00 =	42,375
100	" " irrigation water at	0.00 =	0
	Total		\$103,500

**For Rate Fixing Purposes:**

177	miner's inches domestic water at	\$345.00 =	\$61,125
123	" " reserve water at	0.00 =	0
100	" " irrigation water at	0.00 =	0
	Total		\$61,125

to be borne in mind that the above values are arrived  
the assumption that the water rates under which your  
operations are to be revised. Official bodies will



produce a net return of but 7 per cent, the legal  
the values of the water rights would be different.  
methods being followed, interest rates and capitaliz  
being used on a basis of 7 per cent, we arrive at  
ing values:

For Sales Purposes:

177	miner's inches domestic water at	\$455.00 =
123	" " reserve water at	455.00 =
100	" " irrigation water at	0.00 =
	Total	

For Rate Fixing Purposes:

177	miner's inches domestic water at	\$455.00 =
123	" " reserve water at	0.00 =
100	" " irrigation water at	0.00 =
	Total	

GOING VALUE

In addition to the auxiliary or incidental exp  
in connection with the construction of the physio



and acquire the business of the existing plant  
rs; it has to pass through a period of developm  
with no income, consequently an exorbitant rate  
ould the system be made to return any interest  
vested at this early period. In arriving at

this item we have assumed such a hypothetical pl  
n one year and will acquire the business of the  
in three years. The sum of the difference i

between the hypothetical plant and the existing  
period of three years, is considered to be the w  
value. It may be argued that this is an ele

should not be included in an appraisal for ra  
es. This is open to debate from either side

have as a rule recognized it. The effort i  
this report, to be conservative, and the elem  
is not included in arriving at a basis of val  
may be fixed. However, it is an item whic

cluded in arriving at a sales value, as it re



Considering a hypothetical plant which is suppose  
and acquire the business of the existing plant in  
rs; it has to pass through a period of development  
with no income, consequently an exorbitant rate wo  
ould the system be made to return any interest upon  
vested at this early period. In arriving at a  
this item we have assumed such a hypothetical plant  
in one year and will acquire the business of the ex  
in three years. The sum of the difference in t  
between the hypothetical plant and the existing pl  
period of three years, is considered to be the wort  
value. It may be argued that this is an elemen  
ch should not be included in an appraisal for rate  
ces. This is open to debate from either side, a  
s have as a rule recognized it. The effort is m  
in this report, to be conservative, and the element  
is not included in arriving at a basis of value  
es may be fixed. However, it is an item which m  
included in arriving at a sales value, as it repre  
which would be operationally lost.







pany we have comparatively a very small corporation  
not the advantage of the strength inherent in a la

It seems to be entirely just that if the larger  
is entitled to a rate of 8 per cent return on its in  
t the smaller concern which probably incurs greater  
risks should be entitled to at least as much.

### FIRE HYDRANTS

There are in the City of Ventura 58 fire hydrants.  
of the installation of these hydrants has been borne  
y of Ventura, and the city also maintains them, so  
or consideration is here given them.

### CASITAS DAM

The Casitas Dam, located on the Ventura River some  
h of the City of Ventura, is of the submerged diver  
tructed of concrete and reinforced to some extent o  
ely two thirds of its length. The remaining one  
ginally designed as a spillway, is of an irregular

see section

Prior to the time of construction



ber 1906 and carried out over some twenty  
cut" plan of excavation was used and due to the excess  
of overlaying material, the cut assumed very large proportions  
necessitating the moving of more material and the placing  
of concrete. The cut was unavoidably flooded several

Work was finally stopped after some 273 feet had  
been cut. It was deemed impractical to carry the length  
further, as at a depth of some fifty feet bed rock was  
reached. The foundation was laid on a clay formation which was  
impervious to seepage. ?

In 1910 work was again resumed and the dam completed  
the year. The prices of labor and material at  
that time were practically the same as they are at present.  
At such depths below the saturated water level the work  
was particularly hazardous and expensive. No material  
methods were pursued in putting down this cut-off wall  
as accidents were apt to occur. The cost of this structure  
by the books of the company to be approximately \$300,000.  
Executive expenses were not included, and the real cost  
to the company was somewhat greater. An estimate has been  
made with a view of



ter of 1914 without serious injury to the dam proper

### DIVERSION DAM

There is a small temporary diversion dam at the Power Ditch. It is built of earth, stone and brick. The cost is \$312.50. From information gathered local engineers have learned that this dam is washed out on an average of once every year. If the dam were washed out every year it would be equitable that this charge of \$312.50 should be made against the operating expenses and no charge be made in the value of the plant. If, however, this structure would last for a number of years attention might be made that this was not a proper charge but that the cost of the dam should go into the depreciation of the plant, and a depreciation allowance of 50 per cent be made against it for each year. In effect, it would be a charge for rate fixing purposes whether the charge of depreciation is made each year against this dam, or whether the operating expense is charged each year. In the latter case that are presented an allowance is made of 50 per cent of the cost of the dam.



pany by the departments of water, gas and electric  
real estate, certain buildings and operating equip  
appraisal these items have been segregated and the  
vided equally between the different departments us  
cept the 36 inch steel line of the Power Ditch sys  
has a capacity in excess of that required to mee  
on uses. A 10 inch pipe line would probably ca  
water that would be required, and 30 per cent of t  
the 36 inch line is apportioned to the water depar  
is about the ratio of costs of a 10 inch to a 36 i

### REAL ESTATE

Real estate values given are based on the opinio  
liar with them in and around Ventura, and are bel  
ose to actual selling values of land similar to t  
of the Ventura County Power Company. No valu  
on account of their strategic situation as ripari  
eering lands, as this is covered in the estimate f



1st: Original Cost. The original cost of the plant is determined from accurate records of expenditure, when the expenditures have been made with care and foresight and when they have been kept in a continuous and accurate manner. The distribution of the items of cost, is the fairest way to determine value for a public utility, due allowance being made for depreciation.

If the owner honestly and intelligently invests his money, he is entitled to a fair return on such investment.

It has not been until recent years that rate regulations of a national, state and municipal nature have exercised the right to control rates. Largely for this reason, especially with the older companies, the records are not in condition as to permit of proper arrangement of cost, no comparison being made between operating expenses and betterment. The record of the Ventura County Power Company is no exception to this rule.

2nd: Value Based on Earning Power. The value of a utility based on earning power cannot be determined



being in some instances that immediate and prompt  
uld be made from the sale of these securities rat  
the continued sale of the commodity. It is n  
convey the impression that the Ventura County Po  
as operated in this manner. The California Ra  
mission and other authorities have recognized that  
has existed to such an extent in the past that th  
bond issues should not be the basis of the value  
ic utility. The Federal Courts in fixing valu  
n in the past some recognition to such investment  
rly mortgages. As an engineer employed to eve  
rty of the company it is not considered as my pro  
ine an appraisal upon this basis. If the cour  
al authorities care to give weight to this eviden  
ir sphere to do so.

4th: Value Based on Cost of Duplication. In the  
actory records of original investments, and in vi  
ation of other methods noted above, this estimate  
d upon the theory of cost of duplication less dep



during the last thirty years, it is probable the history of the plant, labor conditions were more favorable at present, both as to cost and efficiency, and the equipment costs were higher than at present. The larger figure in the construction of a water supply based on this latter method of reasoning would be that is below, rather than above the actual cost.

From the cost of duplicating the system new, depreciation which the different items constituting the system experienced during the period of their respective useful life in determining the cost of duplication, the conditions existing at the time of the original construction should govern, if the conditions are known. For instance, if a water company owned a reservoir, through the site of which a railroad was necessary to move this railroad so as to permit the construction of the reservoir site, the cost of this moving should be included as a portion of the construction cost of the reservoir.



1 Engineers for determining value of public utility  
ing purposes.

### DEPRECIATION

The revenue of a public utility corporation should be adequate to provide not only for operating expenses and but also depreciation. The situation is comparable to investment of money in a mortgage, or placing it in a bank. The owner is entitled not only to the principal of his full investment, but also to a return of the interest on himself. The adoption of depreciation as an element in setting rates is established by the United States Supreme Court in a leading decision known as the Knoxville Case, which has been reaffirmed.

Depreciation is an allowance of money to be set aside for making necessary extensive betterments for important replacements or extensions, so that the utility is maintained in a continuously efficient condition to insure the performance of its service to the public.



y of water, there will be a general depreciation of  
value of the plant from year to year, for which  
should be recompensed. The public is equally  
aiding for this deterioration by such a fund, as ot  
l arrive when the service will collapse. A cl  
n should be made in allowing for depreciation, bet  
fund that is put aside at compound interest, and  
that is reinvested in the plant or elsewhere, whic  
te without interest, by the end of the life of the  
its cost new. If allowance is made for a sinking  
compound interest equals the cost new of the plan  
mination of its life, then the value of the plant s  
as 100 per cent during its life, in determining  
value is depreciated currently during its life by a  
the sinking fund at compound interest, then the i  
cover his original investment at the termination o  
structure, but this interest on the capital investe  
dually lessening amount and below what the owner i  
o receive. If, however, the annual allotments



all amount of the investment will have been returned.  
e true if the depreciation fund is invested in better  
ensions. This last named method is adopted in val  
lant.

A striking illustration has recently been brought  
on of the Railroad Commission of the State of California  
case of the Cuyamaca Flume Company of San Diego County  
corporation was a combined land and water company inter  
t, most extensively in the quick sale of real estate.  
tered into contract for the delivery of water at a ra  
e inadequate to provide for operation, interest and d  
ion. The company has now reached an age of about

It has passed through the hands of a receiver.  
ble structures which constituted the greater portion of  
tem have about reached the limit of their life and the  
rs are being inadequately served with water, due to th  
ondition of the flume. While it was considered imp  
the Commission at the present time, in order to rebui  
cture, to allow for a depreciation through the term of  
years of life of the system, in which such depreciatio



Physical depreciation is that intrinsic decrease in value due to the wear or decay in the structures of which the system is composed. The rate at which this depreciation takes place will vary with the class of construction; for example, iron pipe having a greater length of life than riveted pipe.

In the estimate that has been prepared the various structures have not only been grouped according to material, but also in accord with their age, in five year intervals. The determination of this physical depreciation necessarily involves a combination of personal judgment and specific experience with the items under consideration. The writer has

experience in that he has been a member of a board of four which appraised the Los Angeles Water Works in 1898, in which case all the pipes of the city were exhumed in over 100 different kinds of soil as well as for all different

In addition, the Board of Arbitration appointed by the terms of the franchise, which sat in judgment on the



public utility. This functional depreciation is  
ion due to the failure of the plant to perform the  
which it was originally intended. For instance  
vision a 2 inch screw pipe might be laid to one  
hilt the first house on the street. In the co  
ears the street becomes more fully occupied and  
will cease to provide an adequate pressure and su  
to the increased number of customers, before the  
of the life of the pipe. Relief may be furnishe  
tion by gridironing the streets in the neighborh  
m of larger mains so as to give an improved circ  
very in the small pipe, but inevitably the final  
loss to the company. Some of the small pipe v

up and while it may be cleaned, dipped and rela  
ions of the system, there will be an attendant lo  
any and such loss has been defined as obsolescence

The determination of the rate of obsolescence  
er of judgment and incapable of mathematical exac  
mination. The Report of the Special Committee

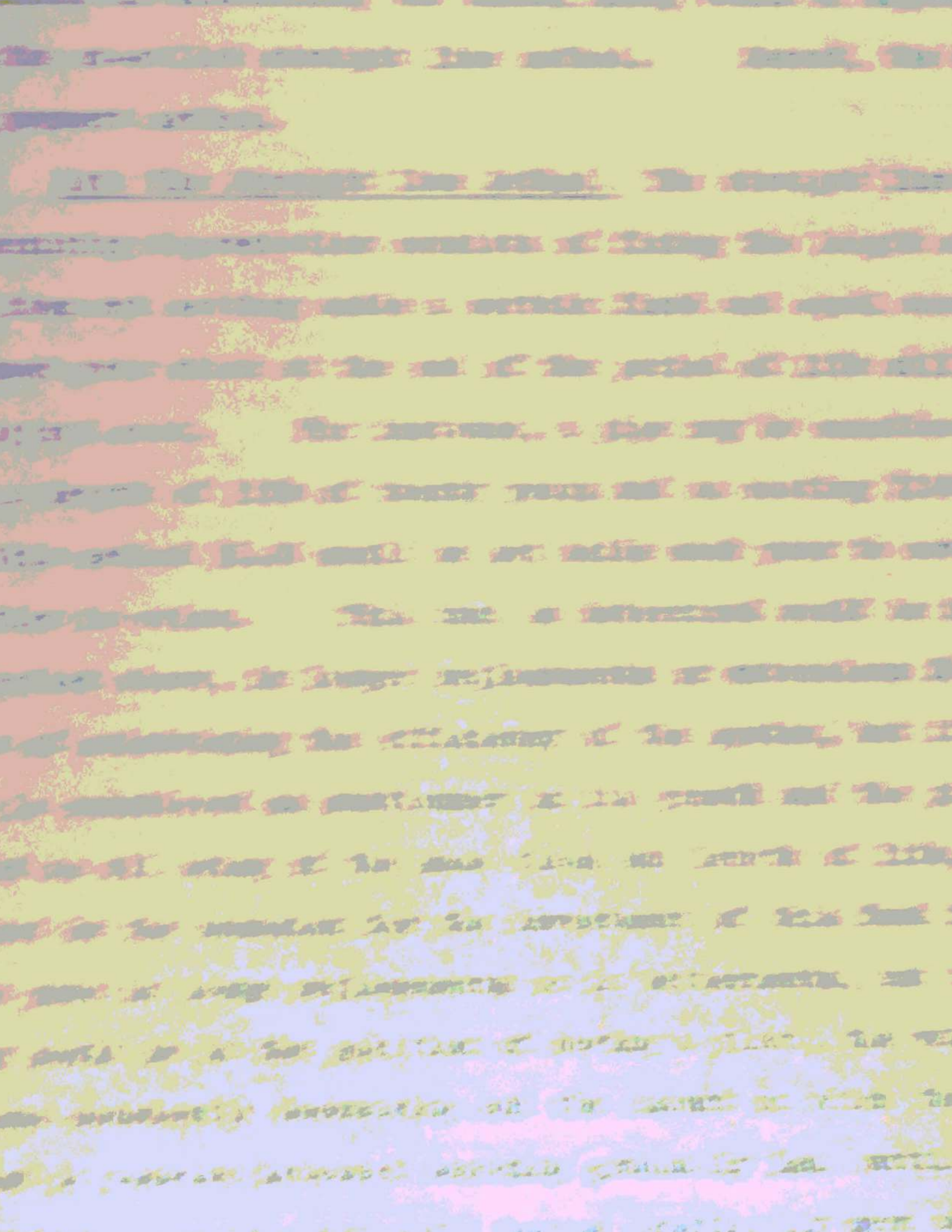


ar to year, would be wholly inadequate, that is to  
al amount which would be received from replacement  
twenty or thirty years, would be insignificant compo  
seening of worth of the original items of property  
wing inadequacy of some and the tendency towards ob  
rs."

### COMBINED PHYSICAL AND OBSOLESCEMENT DEPRECIATION

In determining the total rate of depreciation in  
of the Ventura County Power Company, weight has been  
classes of depreciation under consideration before  
ble length of life of each portion of the structure  
length of life is intended to cover both forms of de  
scence will be a greater factor in the long lived el  
plant than in short lived elements. Four inch, si  
ght inch riveted steel pipe which may have a length  
thirty years would not be as apt to become obsolete  
pe which normally would have a length of life of p  
years. Two inch and three inch screw pipe with







of \$12.00 for each \$100.00 invested; for the tenth year \$5.35, the rate on the last year 45 per cent of the rate on the first year. It is believed to be undesirable both from the standpoint of the corporation and the consumer, because as the allowance for depreciation decreases, their interest in the service which they are receiving would proportionately diminish and possibly the service also. The longer the life of the item under consideration, the greater will this inequality of rates be. In the case of a forty year life item with a 7 per cent rate of return, the first year's rate would be \$9.50 per \$100.00 and the last year's rate \$2.67. This method is not believed acceptable to either party at interest and it is not acceptable for valuation.

End. Equal Annual Payment Method. The equal payment method contemplates the setting aside of an annual sinking fund which when accumulated at the end of the useful life of the structure, will equal the cost of replacing the structure. The funds which are allowed for depreciation are usually accumulated into large replacements, betterments, or new



of life an amount is determined which when accumulated at a gradually increasing rate will aggregate the cost of replacement at the end of the life of the structure. The net value of the property is determined for any given year by deducting the total aggregate from the cost to replace and interest is paid to the investor on this net value of the property. The depreciation allowed for each year is computed as an annuity based on the constant annual payment to a depreciation fund plus the year's interest on the accumulated fund at the end of the given year. It will be noted that the annual depreciation will be a gradually increasing quantity and the interest allowable on the net value of the plant will be a gradually increasing quantity. The intention is that the sum of the depreciation and interest will be approximately a constant amount throughout the useful period of life of the plant. For instance, considering the pipe whose life is twenty years, with interest at 7 per cent, we would have an aggregate annual payment of \$10.02 per \$100.00, on the first year \$9.36 per \$100.00 and on the nineteenth year \$10.68 per \$100.00. While the payments are not absolutely uniform, much more so than in the straight line method, the last



... years of the life of the plant, but after years these replacements would be much greater and the interest both of the company and the consumer for larger expenditures during this latter period. The equal annual payment method is designed especially to meet this situation. For instance, again referring to the plant with a life of twenty years, we would have a depreciation allowance in the first year of but \$3.02 per \$100.00, whereas on the last year the allowance would be \$7.64.

The Committee of the American Society of Civil Engineers on the subject of depreciation, which was composed of some of the most experienced and distinguished members of the Society, and after a full review of all court decisions and engineering practice with reference to the subject of determining depreciation, they have concluded by formally recommending the equal annual payment method for determining depreciation and rates. They state "Except for the principles laid down in the Knoxville decision, the depreciation rates of the courts and Commission have been very variable. The sinking fund method has been used and courts have approved valuation of property on the basis of the depreciation has been computed by this method. Therefore, more often approved valuations in which the sinking



uring the early years of the life of the plant, but after years these replacements would be much greater and the interest both of the company and the consumer larger expenditures during this latter period.

equal annual payment method is designed especially to situation. For instance, again referring to the pipe twenty years, we would have a depreciation allowance at year of but \$5.02 per \$100.00, whereas on the last allowance would be \$7.64.

The Committee of the American Society of Civil Engineers and Architects, which was composed of some of the most experienced and distinguished members of the Society, and after a full review of court decisions and engineering practice with reference to depreciation, they have concluded by formally recommending the equal annual payment method for computing depreciation and rates. They state "Except for the principles laid down in the Knoxville decision, the depreciation rates of the courts and Commission have been very variable. The equal annual payment method has been used and courts have approved valuation of property where the depreciation has been computed by this method. The



of expense that occur. First, the expense of the structure itself and second, the indirect expenses which are unavoidable and for which there is little tangible to show when the work has been completed. Engineers who have had charge of large enterprises and who have carefully kept segregated accounts are fully aware of the gravity of these indirect expenses, others who have not had this painful lesson brought home to them are apt to minimize them. It is to be regretted that such cost records are not available. Estimates are pronounced to be less than the actual cost. This is not due so much to failure to comprehend the cost of the structure itself, as it is to the underestimation of these unavoidable auxiliary, incidental and general expenses. Any official body whose duty it is to regulate rates for a public utility has a grave responsibility, not only to the public but also to the investor. Justice requires that the public should be treated with fairness, and this doubtless is the only way to protect the investor.

It is necessary for the proper development of a country that great enterprises should be encouraged. Particularly if business profits commensurate with the risk are not to be allowed in fixing the rate for utilities. If the institutions are not safeguarded against losses, then



rate system of cost accounting. The engineer who estimated upon the work was in a position to closely reasonableness of all expenses. The comment has often been made that the distinctive feature of the work on the Los Angeles aqueduct was its relatively low overhead expense account. The expenses were divided between the construction of "The Waterway and its Appurtenances", "Auxiliary Construction Expenses and Operation", "General Miscellaneous Expense and Operation" and "General Office and Executive Expense". "The Waterway and its Appurtenances" included the finished structure which is left standing as a result of the effort. This is the structure which actually carries the water. The "Auxiliary Construction Expense and Operation" included surveys and general engineering of a preliminary, water pipe lined for construction and domestic use, bridges, roads and trails, buildings, low tension power lines, administration (which included all general foremen, assistant engineers and office force) miscellaneous tests, experiments, patrol of the aqueduct, miscellaneous losses, replacement expense, concrete replacements and net equipment.

The "General Miscellaneous Expense and Operation" included passenger transportation for labor, water investigation



est charges are not included in any of these items.

The summary of percentages and costs of the aqueduct construction, exclusive of land purchases and cement plant, follows:

Waterway	\$15,942,489.00
Auxiliary Expense	4,271,500.00
Miscellaneous Expense	277,038.00
General Executive	<u>843,944.00</u>
TOTAL	\$21,334,971.00

This amount 33.77 per cent was for indirect charges.

It first appears that these indirect charges were unusually high for an aqueduct because of the remoteness of the work.

High transportation charges, whether by rail or wagon, were included in the direct cost of the work. The indirect charges were

practically as great on the end of the aqueduct next to Los Angeles as they were on the remote portions of the project.

No charges for interest or development expense were included. In the case of work done in highly developed regions there are more damage claims than in work that is done in undeveloped regions.

Other expenses for equipment, supervision, rent, etc., would remain the same.



large undertaking these overhead expenses are proportionately less than on a smaller undertaking, such as is here undertaken. This general average is borne out consistently in the different divisions of the aqueduct. In those divisions where the total construction costs were low, the percentage was higher, and where the total construction costs were high the overhead charges were proportionately low. It is believed, therefore, that for building the Ventura County Power Company a charge of 12 per cent for overhead expenses of an engineering, supervising, organization and administrative nature is reasonable. A miscellaneous expense for transportation and sundry localities, of 1.75 per cent is not here included. Auxiliary incidental expenses which cover net equipment, replacement of miscellaneous losses, policing, reorganization, cement and other items are estimated at 11 per cent. This will aggregate 23.75 per cent to be added to the estimate of direct costs for the physical property that is left as a result of the construction.

This 23.75 per cent is 10.77 per cent less than the percentage actually incurred on the Los Angeles Aqueduct, which would be 34.52 per cent. The elimination of items covering road, trails, buildings, and other expenses which possibly would not be an expense in this



acted by workmen who are injured, irrespective of what  
tribute by their own negligence to the accident, or other  
duces an additional new expense in construction work

The ordinary rate for insuring a payroll prior  
employers' liability law, against such damage claims,

cent. The insurance rates at this time amount to  
100.00 of the payroll for laying water mains, \$6.12 f

ion of pumping stations, dams and reservoirs. Owl

magnitude of the aqueduct construction, the Board of

did not carry accident insurance, but settled its own  
s, charging the losses to "Auxiliary Expenses and Ope

nt. This loss amounted to 0.25 per cent of the pay

er, this work was performed prior to the time when the

yers' liability law went into effect and settlements

under its provisions. A similar concern should not

risk under existing conditions, for new construction

ing for the present insurance rates for this class of

tion, there should be added to the auxiliary expenses

of duplicating the Ventura County Power Company system

ent of the labor expense on the work. The labor of



employed by the city to determine the value of it was conceded that allowance should be made for contractor's profit on the assumption that if a new plant was to replace the existing plant, that the work would be done by contract and not by day labor, and that a reasonable contractor's profit would be 6 per cent. The board after due deliberation it is our firm conviction that a profit should be added for a (contractor's) profit". The arbitrators slightly increased these estimates and the amount paid was higher. Six per cent has been added as allowance for contractor's profit on the basis of estimating the plant of the Ventura County Power Company. We have the following:

Auxiliary expenses to be added to the construction cost of this work

Engineering, Supervision and General Office Expense	12.00
Auxiliary or Incidental	11.00
Interest During Construction	3.00
Contractor's Profit	6.00
Liability Insurance	<u>1.67</u>



whole, vigorously prosecuted with ample financial resources. It has been assumed to be the case in the preparation of this estimate. It is known that cheap work must be done by some organization that can efficiently be placed on the job in order to reduce overhead expense. This argument is sustained by using higher figures than are contained in this estimate, thus sustaining the figures that are presented. The Committee of the American Society of Civil Engineers for the Study of Utilities, includes the following items which are considered overhead or auxiliary expenses:

- Omissions on Inventory
- Overhead Expenses
- Preliminary Financing
- Engineering and General Expense
- Policing and Sanitation
- Contingencies
- Insurance
- Taxes and Interest
- Development Expense

A reasonable estimate of these items would justify the addition of 5 per cent used in this estimate. This Committee also

states: "The allowance for overhead charges has been underestimated by combinations and courts, as well as by persons of limited professional experience in construction."



value of the property could be presented than that in the California Railroad Commission in the Palo Alto gas rate noted in extent below.

"This brings me to a consideration of the final question, namely, the amount of return to be allowed the company on its plant. No fixed percentage applicable to all classes of utilities can be established by this Commission. Each case must be judged on its own merits. It is well that a utility in one community would be entitled to a higher rate of return while a similar concern in another community might be entitled to a different rate. It may be that a large, well established utility will not be entitled to as high a rate as a smaller utility which is struggling against adverse conditions. The most that can be said by way of general principle is that the return should be at least the average which is earned by other classes of business of the same kind and hazard in the same community. The Commission in setting the rate of return must be liberal, lest too strict a return will be turning capital to other fields of enterprise. The Commission also needs development by public utilities, and this Commission



by the evidence, I find that a rate of return of 8% on the value of the property of the Palo Alto Gas Company is useful for the public purpose, as fixed herein, is a fair and equitable rate of return. If anything, the rate is high by reason of the fact that the Commission has been liberal in establishing the basis of value."

Decisions and Orders of the Railroad Commission of California, Palo Alto vs. Palo Alto Gas Co., Vol. 2, pages 316 - 317, Opinion of Thelen, Commissioner.

The San Gabriel Valley Water Company is in much the same financial class as the Palo Alto Gas Company. The distribution system is extended over a large area of sparsely settled country and the revenues from the plant have been inadequate to pay a fair rate of return and the development of the system has been retarded by the occupation of the country. The risks that have been assumed in this enterprise are such as would justify a rate of return as high as that employed by the Railroad Commission for



# WATER WORKS OF THE VENTURA COUNTY POWER COMPANY

	COST TO REPRODUCE	DEPRECIATION		Rate Fixed
		During Year	Total	
Total	\$309,307.33	\$4,434.32	\$35,872.16	\$260,432.
	18,192.39	735.88	6,430.93	11,761.
	89,855.42	1,633.49	10,093.29	79,762.
	2,448.96	38.78	263.19	2,185.
	\$419,804.10	\$6,844.47	\$52,659.57	\$354,141.



ITEMS TO BE ADDED TO "PRESENT VALUE" TO GET SALES VALUE

	Ventura City & Avenue System	Power Ditch Irrigation System	Mound Irrigation System	Beach ing Sy
	\$260,432.18	\$11,761.46	\$79,762.13	\$2,185.
	1,416.33		5,801.22	
	15,950.00	522.00	4,828.00	
	42,435.00			
	\$320,233.51	\$12,283.46	\$90,391.35	\$2,185.

Note:- Going Value is apportioned among the several systems in proportion to the four year average annual gross revenue



ITEM	Cost To Reproduce	DEPRECIATION	
		-During Year	Total
PROPERTY (a)			
Pump Plant	126.00	7.35	101.6
Ave. Warehouse	525.60+	30.68	424.0
Warehouse	135.10+	7.30	100.9
Water Reservoir	700.00	16.14	223.1
Equipment	404.75	34.58	184.3
	10,002.30	652.24	
Transmission Distribution	93,039.54	1,814.39	19,013.1
Transformer By-pass	13,534.15	448.01	5,649.7
TOTAL	118,457.44	3,010.69	25,696.8
Costs (30%)	35,537.23	903.21	7,709.0
TOTAL	\$153,994.67	\$3,913.90	\$33,405.9
PROPERTY (b)			
Ave. Barn	448.00	12.58	76.4
Office	3,300.08+	2.11	128.3
Tools & Fixtures	382.67+	23.43	144.3
Transporting Equipment	407.50+	153.75	253.7
Dam	80,150.00	303.77	1,845.8
TOTAL	84,688.25	495.64	2,348.7
Costs (5%)	4,234.41	24.78	117.4
TOTAL	\$88,922.66	\$520.42	\$2,466.1
Physical Property	242,917.33	\$4,434.32	\$35,872.1
State			
State			
Water Rights	\$61,065.00		
GRAND TOTAL	\$309,307.33	\$4,434.32	\$35,872.1
Pro rated value department.			



ITEM	Cost To Reproduce	DEPRECIATION	
		During Year	Total
ing Dam	312.50	156.25	156.25
	867.00	122.67	208.59
	3,808.00	159.68	2,206.96
	600.00	13.84	191.25
Box	225.00	5.19	71.71
es			
veted Steel	3,234.69+	99.75	1,379.01
" "	700.80	0.00	700.80
crete	2,650.00	8.68	32.30
TOTAL	12,397.99	566.06	4,946.87
Costs (30%)	3,719.40	169.82	1,484.06
ysical Prop-	16,117.39	735.88	6,430.93
te	2,075.00		
hts	0.00		
GRAND TOTAL	\$18,192.39	\$735.88	\$6,430.93
Pro rated water			
t.			



M	COST TO Reproduce	DEPRECIATION	
		During Year	Total
al Equipt.	3,068.85	146.92	340.19
Equipment	2,152.20	192.44	619.00
Pipe & ittings	774.57	34.61	258.30
Building	2,146.00	47.73	356.16
and Sump	6,606.10	45.70	340.65
r	8,197.52	100.26	748.25
tion System	43,361.01	649.15	4,931.97
	336.00	7.12	48.29
	500.00	32.60	221.26
TOTAL	67,142.25	1,256.53	7,764.07
Costs (30%)	20,142.67	376.96	2,329.22
ysical erty	87,284.92	1,633.49	10,093.29
ghts	0.00		
ate	2,570.50		
ED TOTAL	89,855.42	1,633.49	10,093.29



E M	COST TO Reproduce	DEPRECIATION	
		During Year	Total
al Prop- erty  tribution ystem	2,448.96	38.78	263.19
ND TOTAL	\$2,448.96	v 38.78	\$263.19



# VENTURA CITY SYSTEM

ITEM	Total Present Value	Per Cent Credited To Water Dept.	DEPRECIATION	
			Past Deprec.	Duration Years
Ave. Barn	1,114.71	33.3	76.43	12.
Office	9,515.19	33.3	128.35	2.
Warehouse	48.34	50.0	100.95	7.
Buildings	\$10,678.24		\$305.71	\$21.
Site	720.00	33.3		
ce Site	12,000.00	33.3		
Real Estate	\$12,720.00			
& Fixtures	714.84	33.3	144.39	23.
Equipment	507.50	50.0	253.75	153.
tive Eqnipt.	1,385.02	50.0	238.21	
Pro Rated Equipment	\$26,005.60		\$942.06	\$199.



POWER DITCH IRRIGATION SYSTEM

ITEM	Total Present Value	Per Cent Credited To Water Dept.	DEPRECIATION	
			Past Deprec.	During Year
Steel Main	6,185.61	30	1,379.01	99.7
Total Pro Equipt.	\$6,185.61		\$1,379.01	\$99.7



ITEM	Quantity in Miner's Inches	USE	UNIT	SUM
Avenue &	23	Irrigation	0.60	
	177	Domestic	345.00	61.0
	183	Reserve		
		Domestic	345.00	42.4
ten	77	Irrigation	0.00	
irrigation	0	Irrigation	0.00	
mping	<u>0</u>	Irrigation	<u>0.00</u>	
	400			



DEPRECIATION

During Year

Life Years

Age In Years

Cost to Reproduce

I T R M

ST. PUMP PLANT

ST. AVE. WAREHOUSE

ST. AVE. BARN

ST. OFFICE

ST. WAREHOUSE

ST. WAREHOUSE

ST. WAREHOUSE

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ST. WAREHOUSE

7.35

30.68

37.74

6.34

14.60

71.29

307.50

16.14

8.49

25.84

.25

341.57

572.37

22

22

7

7

22

7

1

22

6

6

6

8

3

126.00

525.60

1,344.00

9,900.24

250.20

1,148.00

615.00

700.00

143.50

254.65

6.60

404.75

8,777.50

ST. PUMP PLANT

ST. AVE. WAREHOUSE

ST. AVE. BARN

ST. OFFICE

ST. WAREHOUSE

ST. WAREHOUSE

ST. WAREHOUSE

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ST. WAREHOUSE



I T E M	Cost to Reproduce	Age In Years	Life Years	DEPRECIATION	
				During Year	Total
WATER MAINS:					
Drable Soil Conditions					
Hard W.I. Sorew Pipe	61.92	3	15	3.16	1.36
" "	3,088.62	8	15	201.41	1.36
" "	637.47	22	15		
Casing	486.33	8	15	31.71	
ted Iron	196.55	22	35	6.06	
Iron	286.08	8	60	1.14	
Drable Soil Conditions					
Hard W.I. Sorew Pipe	3,707.11	3	30	61.52	1.36
" "	13,852.52	8	30	293.39	1.36
" "	287.10	10	30	6.70	
" "	1,604.34	22	30	67.27	
Casing	3,653.14	8	35	56.91	
ted Iron	653.70	8	35	10.18	
" "	3,355.04	20	35	93.87	
Iron	2,574.36	8	60	10.25	1.36
" "	1,576.24	20	60	11.22	1.36
and Fittings	1,437.16	12	20	74.34	6
Distribution System					8.0



I T E M	Cost to Reproduce	Age In Years	Life Years	DEPRECIATION	
				DURING Year	TOT
ON MAINS: ed Concrete Pipe ed Iron Pipe Steel Pipe Iron " 10 gauge " " 14 " " 14 gauge 100 L " & CONTROLLING Structures :	20,940.85	4	60	468.56	325
	823.50	4	30	14.35	5
	5,064.14	1	30	76.06	7
	7,644.04	20	50	92.26	1,20
	10,834.13	26	35	406.17	6,13
	4,274.01	26	50	69.14	1,04
	2,697.04	4	60	8.83	3
	1,466.86	20	30	55.78	730
	1,818.70	26	30	92.69	1,399
	8,871.00	26	40	248.68	3,753
BY-PASS: Iron 1, e-Sho, Dip	2,844.45	26	35	106.64	496
	1,845.26	26	30	94.05	1,419
	1,224.80	8	15	79.87	



ITEM	Cost to Reproduce	Age in Years	Life Years	DEPRECIATION	
				During Year	
ing Dam	\$312.50	1	2	\$156.25	
	867.00	34	60	122.67	
	3,808.00	22	30	159.68	
	600.00	22	40	13.84	
	225.00	22	40	5.19	
dyetted Steel-36"	10,792.30	22	35	332.58	
" 16 gauge	700.80	38	35		
" 8"	2,650.00	4	60	8.68	
concrete					
DATA: Ditch Diversion					
ation Ditch Property					



## I T E M

ALL EQUIPMENT:

Motor  
Motor  
Motor  
Motor

illing Equipment

EQUIPMENT:

Jackson Centrifugal

"  
"  
"

PIPINGVALVES & FITTINGS

Cost to  
Reproduce

Age In  
Years

Life  
Years

During  
Year

\$ 510.00  
1,097.00  
545.00  
174.00  
742.85

1  
2  
1  
2  
2

15  
15  
15  
15  
15

23.66  
53.38  
25.26  
8.47  
36.15

550.00  
623.35  
793.35  
185.50

3  
6  
2  
1

10  
10  
10  
10

48.21  
63.25  
66.23  
14.75

377.57

9

20

16.87

397.00

9

20

17.74

2,146.00

9

30

47.73

6,287.20

9

50

44.37

318.90

9

60

1.33

8,197.52

9

40

100.26



ITEM	Cost to Reproduce	Age in Years	Life Years	DEPRECIATION	
				During Year	
3	4,625.30	8	35	72.06	
	85.50	8	30	1.81	
	759.60	20	30	22.89	
	1,602.03	9	30	35.63	
	336.00	8	30	7.12	
	500.00	8	15	32.60	
	120.00	0	10		2
	496.65	3	15		
	4,807.95	9	15		
	1,185.00	7	25		
	2,675.90	9	20		
	24.00	5			
PUMPS					
PUMP EQUIPMENT:					
Jackson Centrifugal-stock					
" salvage					
"					
Equipment-					
Engine-					
Line & Tank					
Site					
Reservoir Site					



I T E M	Cost to Reproduce	Age In Years	Life Years	During Year
SECTION AND SECTION MAINS:				
1 Riveted Pipe	\$2,336.54	8	35	\$36.40
FITTINGS	112.42	8	30	2.38
ACTIVE EQUIPMENT:				
Eng	40.00	8	20	
	75.00	8	15	
	120.00	8	15	
	7.35	8	20	



# VENTURA CITY SYSTEM

## BUILDINGS

ITEM	Quantity	Unit	Unit Cost	Sub T
Poli St. Pump Plant	20 x 30	Sq.ft.	.210	126
Ventura Ave. Warehouse	45 x 32	Sq.ft.	.365	525
Ventura Ave. Barn	48 x 40	Sq.ft.	.700	1,344
Ventura Office	41'-6" x 64	Sq.ft.	2.84	9,900
Main Warehouse	20 x 45	Sq.ft.	.278	250

Note: + Actual  
cost material and  
labor without in-  
direct costs.



# VENTURA CITY SYSTEM

## FURNITURE AND FIXTURES

ITEM	Quantity	Unit	Unit Cost	Sub Total
Low Settee	1	Each	5.00	5.00
Low Platforms	4	"	30.00	120.00
Drawing Cabinet	1	"	35.00	35.00
Wardrobe	1	"	15.00	15.00
Rock	1	"	7.00	7.00
Chairs	4	"	3.50	14.00
Table	1	"	5.00	5.00
Stools	4	"	2.00	8.00
Bookkeepers Desks	3	"	25.00	75.00
Typewriter Desk	1	"	25.00	25.00
Typewriter	1	"	100.00	100.00
Adding Machine	1	"	250.00	250.00
Roller Top Desk	1	"	35.00	35.00



VENTURA CITY SYSTEM

OPERATING EQUIPMENT

ITEM	Quantity	Unit	Unit Cost	Sub To
Horse and Wagon	1	Each	200.	200.
Ford Touring Car	1	"	615.	615.



COST TO REPRODUCE

VENTURA CITY SYSTEM

RESERVOIRS

ITEM	Quantity	Unit	Unit Cost	Sub
<u>Church St. Reservoir</u>				
Excavation	400	Cu.Yd.	.30	12
Concrete	200	Sq.ft.	.15	30
Lumber	7	M.Bd.F	40.00	28



PUMPING EQUIPMENT

ITEM	Quantity	Unit	Unit Cost	Sub Total
<u>Poli St. Pump Plant</u>				
G.E. 7½ H.P. -220 V				
3 phase induction				
Motor	1	Each	143.50	143.50
6" Rubber Belting	20	Lin. Ft.	.40	8.00
Byron-Jackson				
2"-3 stage pump	1	Each	246.65	246.65
Std.W.I.Pipe 3"	20	Lin. Ft.	.33	6.60



SERVICES

ITEM	Quantity	Unit	Unit Cost	Sub Total
1/4" Services	848	Each	10.20	8,649.60
1 1/2" "	6	"	12.25	73.50
"	4	"	13.60	54.40



# Tools

ITEM	Quantity	Unit	Unit Cost	Sub Total
ledo Stock & Dies r 4" to 2 1/2" Pipe	1	Each	20.00	20.00
matrong Stock & es for 2" to 1"	1	"	6.75	6.75
matrong Stock & es for 1" to 1/2"	2	"	3.30	6.60
ledo Stock & Dies r 3/4" to 1/2" Pipe	1	"	2.75	2.75
derground Thread- g Mach.for 1" to 1/2"	1	"	12.00	12.00
wer Driven Thread- g Mach.for 4" to 1/2"	1	"	270.00	270.00
rnies Cutter 4"-2 1/2"	1	"	4.50	4.50
unders Cutter 2"-1 unders Cutter 1"- 3"	2	"	1.15	2.30
rnies Cutter 1"-1/2"	2	"	1.00	2.00
Stillson Wrench	1	"	1.50	1.50
Chain Tong	1	"	2.50	2.50
Chain Tong	1	"	5.50	5.50
Lay Tongs	4	"	4.30	17.20
Stillson Wrench	1	"	.75	.75
Pipe Wrench	1	"	.60	.60
Ratchet Brace	1	"	1.35	1.35
w Hammers	2	"	.85	1.70
ew Drivers	3	"	.25	.75
Bits 1 1/2" to 1"	1	"	3.15	3.15
ck Saw	1	"	.75	.75



ITEM	Quantity	Unit	Unit Cost	Sub Total
Soldering Stove	1	Each	6.00	6.00
Low Torch Pol	1	"	3.65	3.65
Pipe Bending Mach.				
for 1" & 3/4"	1	"	8.00	8.00
Antennas	18	"	.35	6.30
Hamper	1	"	.20	.20
Tapping Bar	1	"	.50	.50
Soldering Iron	1	"	.45	.45
Barret Jack	1	"	2.25	2.25
10 Man & Ratchet				
for 2" to 3" Taps	1	"	9.65	9.65
Weller Tapping				
Mach. for 1" - 1 1/2"	2	"	90.00	180.00
Wrenches	2	"	.75	1.50
Wrenches	2	"	.60	1.20
Top Cock Key 2" - 1 1/2"	1	"	1.75	1.75
" " " 1"	1	"	1.50	1.50
" " " 8"	2	"	2.00	4.00
" " " 3/4"	2	"	1.00	2.00
Gate Valve Key				
" - 2-1/2"	2	"	1.50	3.00



ITEM	Quantity	Unit	Unit Cost	Sub Total
Washings 1 1/2" x 2"	20	Each	.05	1.00
" 2 1/2" x 2"	6	"	.075	.45
" 4" x 2"	4	"	.18	.72
" 3" x 3/4"	55	"	.05	2.75
Plugs 3"	2	"	.09	.18
" 4"	5	"	.15	.75
" 2 1/2"	18	"	.065	1.17
" 3"	3	"	.09	.27
" 1 1/2"	52	"	.025	1.30
" 1"	10	"	.015	.15
Couplings 4"	2	"	.38	.76
" 3/4"	93	"	.04	3.72
" 2 1/2"	24	"	.15	3.60
" 1 1/2"	45	"	.08	3.60
" 1"	5	"	.05	.25
Reducers 4" x 3"	6	"	.39	2.34
" 3" x 2 1/2"	71	"	.24	17.04
" 1 1/2" x 1"	10	"	.05	.50
" 1" x 3/4"	6	"	.035	.21
tees 1" x 3/4"	81	"	.04	3.24
" 1 1/2" x 1"	1	"	.08	.08
" 2" x 3/4"	1	"	.14	.14
" 2" x 1 1/4"	2	"	.14	.28
" 3"	1	"	.45	.45
" 2-1/2"	13	"	.26	3.38
" 2"	8	"	.17	1.36
" 1"	11	"	.04	.44
" 3/4"	21	"	.03	.63
ells 2 1/2" x 2"	5	"	.20	1.00
" 8"	2	"	2.43	4.86
" 2"	10	"	.14	1.40
" 1"	3	"	.04	.12
		"	.08	.24



ITEM	Quantity	Unit	Unit Cost	Sub
Cross 4" x 4"	1	Each	.95	
" 2" x 2"	4	"	.20	
" 1" x 1"	18	"	.05	
" 1 1/2" x 1 1/2"	5	"	.12	
5" Sills 1-1/2"	1	"	.10	
" 2"	1	"	.20	
" 3/4"	50	"	.05	
" 1"	33	"	.05	
Caps - 2"	5	"	.07	
" 1"	33	"	.05	
" 4"	1	"	.27	
nipples 3/4" x 1/2"	19	"	.015	
" 1" x 2"	35	"	.02	
" 1" close	127	"	.02	
" 1 1/2" x 1 1/2"	23	"	.05	
" 2" x 2"	20	"	.045	
" 2" x 4"	13	"	.06	
" 4" x 6"	1	"	.40	
Unions 3/4"	43	"	.10	
" 1"	11	"	.12	
" 1-1/2"	3	"	.21	
" 2"	9	"	.27	
" 2-1/2"	8	"	.56	
" 4"	9	"	1.56	
" 3"	6	"	.76	
Sills & Tees with 3/4" male unions	113	"	.27	
Crossovers 3/4"	6	"	.08	
Side Outlet Sills 3"	55	"	.05	
Strap Saddles 2" on 6"	46	"	.56	
" " 3/4" on 8"	5	"	1.38	
" " 3/4" on 12"	1	"	2.50	
Sto Cocks - 1"	18	"	.45	
" " brass - 1"	15	"	.47	



ITEM	Quantity	Unit	Unit Cost	Sub T
Trap Saddles				
3/4" on 6"	65	Each	.56	36
Flange Tee 4" x 2"	1	"	3.20	3
Gate Wheels - 8"	11	"	1.00	11
" " 8"	35	"	.35	11
" " 4"	11	"	.45	4
" " 6"	11	"	.60	6
11 - 8" Riveted Steel	1	"	2.60	1
" - 4" Flanged	2	"	1.80	2
" - 8" "	1	"	4.80	4
Tee - 8" x 4"	2	"	8.00	8
Cross - 8" x 4"	10	"	10.60	10
" 8" x 8"	2	"	10.60	2
11-30" Riveted Steel	1	"	4.50	4
Flange-8" Stand.	2	"	1.24	2
" 6" "	1	"	.80	1
" 14" Riveted	1	"	7.50	7
Cap - 8"	1	"	1.03	1
Gate - 6" Std. Screw	3	"	10.25	3
" 3" " "	1	"	4.41	1
Tee 6" x 8"	3	"	4.05	3



ITEM	Quantity	Unit	Unit Cost	Sub T
nails	50	Lbs.	.03	1.
lead	100	Lbs.	.06	6.
akum	25	Lbs.	.08	2.
ar	1	Bbl.	5.00	5.
ed Lead	1/2	Keg	4.80	2.



have under any claim or right, as the successor of any appropriator, locator or user, to take appropriate, or in any way to use any of the waters of the San Buenaventura River, or its tributaries or channels, and particularly described as follows:-

The right to divert the waters of the San Buenaventura River, or Arroyo Natividad, and of the Arroyo San Antonio, to the extent of two thousand inches, measured at four inch pressure, for the purpose of supplying for irrigation, domestic, culinary, stock and manufacturing purposes, at various points along the line of canals and other works formerly belonging to the Santa Ana Water Company, and for supplying the town of San Buenaventura and its inhabitants, and the vicinity of said town with fresh water, by diverting the said water from its natural channels, as required by the Santa Ana Water Company, by the construction of suitable dams, gates, and other conduits, and the actual diversion, application and use of said waters for the purposes above mentioned, and by the actual, continuous, and uninterrupted use of said waters by said Santa Ana Water Company and its successors in interest, from said 10th day of January, 1900, to the present time. The original point of diversion of the said waters was near the confluence of the San Buenaventura River and the Arroyo San Antonio, in the Rancho Santa Ana, afterwards changed to a point on the San Buenaventura River, in what is known as the "Jose Dolores Chapman tract", in the Rancho Santa Ana, and later to a point on said river, near the crossing of the Casitas Pass road; also,

The right to divert all of the waters flowing in the San Buenaventura River, at the head of what was formerly the lower ditch of the Santa Ana Water Company



the extent of fifteen hundred inches measured  
pressure, at or near the water ford used in  
Buena Ventura River, west of and near the "Mor  
cho Canada Larga y Verde, and conduct same to  
limits of the town of San Buena Ventura, for  
ring, irrigation, and domestic purposes, acqu  
llson, and J. Willett by notice of appropriat  
rs dated November 2, 1874, and by notice of i  
ditches and flumes dated January 29, 1875, f  
struction of dams, gates, ditches and flumes  
duits, and by the actual diversion, appropria  
aid waters, for the purposes above mentioned,  
said L. B. Chillson and J. Willett, and their  
interest, from said 29th day of January, 1875,  
time. The point of diversion of said waters h  
to a point on said river in the Rancho Canada  
near where the old flouring mill formerly stood  
it is known as the lower ditch of the Santa An  
has heretofore diverted and now diverts waters  
er, also,

The right to take, divert and use all of the  
an Buena Ventura River and its tributaries, con  
Santa Ana Water Company by Thaddeus Amat, Bisho  
and Los Angeles (a corporation sole) as trust  
erty of the Roman Catholic Church in Californi  
ed March 2, 1874, and recorded in the office o  
ecorder of said Ventura County in Book 1 of De  
et seq., and being all of the right and title  
ion Church and establishment in the town of Sa  
in said County of Ventura, to take, divert, ap  
the waters of the said San Buena Ventura River  
ies; also,







... All of Lot Four (4), as the same is designated  
delineated upon that certain map entitled "Tico Tract"  
recorded in the office of the County Recorder of Ventura  
in book 3 of Miscellaneous Records (Maps), at page  
4 having a frontage of 60.00 feet on Ventura Avenue.

Appraised Value \$720.00

II. OFFICE AND WAREHOUSE SITE, described as follows:  
Beginning at a point on the Northeast corner of Block 44,  
Buena Ventura; thence South along the West property line  
Chestnut Street 100 feet; thence West 120 feet; thence  
100 feet to a point on the South property line of Block  
Street; thence Easterly along the South property line  
120 feet to the point of beginning, the above  
property being known as Lot 1, Block 44, City of San  
Ventura.

Appraised Value \$12,000.00

III. OLD RESERVOIR SITE, described as follows:-  
Lots one (1) and four (4), Block fifty-two (52),  
are designated and delineated upon the official  
Addition to the Town of San Buenaventura, California,  
particularly described as follows:

Beginning at a point distant 80.00 feet West and  
feet North of the point of intersection of the West  
Ann Street and the North line of Mission Street;  
from said point of beginning.

1st - North 100.00 feet to a point; thence at right angles

2nd - West 100.00 feet to a point; thence at right angles

3rd - South 100.00 feet to a point; thence at right angles



Street, to a point; thence at right angles,

2nd - West 50.00 feet to a point; thence at r

3rd - South 50.00 feet to a point in the North  
h Street; thence along same,

4th - East 50.00 feet to the point of beginning

The title to the above-described real property  
forfeiture in event a water reservoir is not ma  
upon the above-described real property, as provi  
of L. M. Lloyd, conveying said real property  
na Water Company, dated December 15, 1887, and  
office of the County Recorder of Ventura County  
eds, at page 465 et seq.

Appraised Value \_\_\_\_\_

V. POLI STREET PUMPING PLANT, described as  
Lot two (2), Block one (1), as the same are de  
ineated upon the official map of the Addition to  
San Buenaventura, California, and particularly  
ows:

Beginning at a point in the South line of Poli  
East 80.00 feet from the point of intersection  
line of Poli Street and the East line of Ash Str  
from said point of beginning,

1st - East 120.00 feet, along the South line  
to the Northeast corner of said Lot 2, Block 1  
t angles,

2nd - South 200.00 feet to the Southeast corner



the South line of Poli Street; thence,

8th - West, to a point distant East 80.00 feet  
line of Ash Street, at the Southeast corner of  
parcel of land as conveyed by the Ventura Water  
Company to Edward Tice by deed dated January  
and recorded in the office of the County Recorder,  
County in book 92 of Deeds, at page 90 et seq.  
angles,

9th - North 90.00 feet to the point of beginning

Appraised Value 1940

VI. POWER DITCH DIVERSION, described as follows:  
Lots three (3) and four (4), as the same are de-  
lineated upon that certain map entitled "Plat of  
Tract B of the Rancho Canada Larga, surveyed  
and recorded in the office of the County Recorder,  
County in book 1 of Miscellaneous Deeds,  
202, and particularly described as follows:

Beginning at a rock mound in center of the  
River, set for station "C.L. No. 6" of the line  
Rancho Canada Larga, and from which a crooked  
foot in diameter, on right bank of said river,  
marked "5" and "B.T. 6", bears South 45° West 0.33  
chains, and also from which station the Northwest corner  
as designated and delineated upon the above described  
Bard's Subdivision of Tract "B" of said Rancho  
bears North 14° 45' West 0.11 chains distant; to the  
said point of beginning.

1st - South 8° East 7.78 chains, along line  
of said Rancho Canada Larga, to the



by deed dated September 9, 1876, and recorded in the office of the County Recorder of Ventura County in the book of Deeds, at page 286 et seq.; thence,

3rd - North  $34^{\circ} 01'$  West 7.57 chains to a point on the north line of Lot 3, as designated and delineated on the above described map of Bard's Subdivision of Tract 1, Rancho Canada Larga, and at the Northwest corner of said Lot 3, and the Northeast corner of a parcel of land as conveyed by Edwin C. Flagg to the Santa Ana Water Company by deed dated February 7, 1887, and recorded in the office of the County Recorder of Ventura County in the book of Deeds, at page 295 et seq.; thence along the north line of said Lot 3, Tract "B", Rancho Canada Larga,

4th - South  $75^{\circ} 10'$  West 0.77 chains to the south line of that certain parcel of land as conveyed by the Santa Ana Water Company by deed dated March 1, 1887, and recorded in the office of the County Recorder of Ventura County in book 18 of Deeds, at page 441 et seq.; thence,

5th - North  $32^{\circ}$  West 5.80 chains to the North line of said parcel of land as conveyed by said Edwin C. Flagg to the Santa Ana Water Company; thence,

6th - South  $75^{\circ} 10'$  West 4.11 chains to a point on the south line of No. 5 of the final survey of said Rancho Canada Larga, at the Southwest corner of that part of Lot 3, Tract 1, Rancho Canada Larga, as conveyed by J. J. Dwyer, Administrator of the estate of Samuel Hoar, deceased, to the Santa Ana Water Company by deed dated March 30, 1906, and recorded in the office of the County Recorder of Ventura County in book 106 of Deeds, at page 132 et seq.; thence,

7th - South  $14^{\circ} 45'$  East 6.65 chains to the



tree on hillside bears South 79° 30' East 0.89 to center, and a 1/2 inch iron pipe standard set center line of said public road bears North 82° 57 chains distant; thence from said point of beginning

1st - North 56° East 6.50 chains, along line of original survey of said Rancho Canada Larga, to the corner of that certain parcel of land in Tract "A" Canada Larga as conveyed by Ellen S. Barnard, et aline Gonnell, by deed dated November 3, 1885, and on file in the office of the County Recorder of Ventura County in book 15 of Deeds, at page 486 et seq., said point being the most Northwesterly corner of that certain parcel of land conveyed by Ventura Land and Power Company to G. S. Gonnell by deed dated January 10, 1891, and recorded in the office of the County Recorder of Ventura County in book 15 of Deeds at page 395 et seq.; thence,

2nd - Southerly, along the Westerly line of said parcel of land conveyed by said Ventura Land and Power Company to G. S. Gonnell, to the summit of the hill, at a point on the southerly line of that certain parcel of land as conveyed by G. S. Gonnell to Ventura Manufacturing Company by deed dated February 7, 1877, and recorded in the office of the County Recorder of Ventura County in book 5 of Deeds, at page 1 et seq.; thence along same,

3rd - Westerly, to a point in the Easterly line of said parcel of land as located February, 1877; thence,

4th - Northerly 0.50 chains to the point of beginning.

Excepting all public roads within the exterior boundaries of the above described real property.



Beginning at a point in the West line of Ventura at the Southeast corner of said Lot 1 and the Northeast corner of said Lot 2, said point being the Northeast corner of that certain parcel of land as conveyed by Jacob to the Trustees of the San Buenaventura School (and known as the Avenue School Lot) by deed dated June 6, 1883, and recorded in the office of the County of Ventura County in book 12 of Deeds, at page 10, from said point of beginning a 6" x 6" x 36" redwood "R", set at angle in West line of Ventura Avenue North 13° 50' East 11.81 chains distant, and a 6" redwood post and a 2 inch iron pipe standard set in the said Ventura Avenue bears South 76° 10' East 33.00 chains distant from said redwood post marked "R"; thence along the West line of said Lot 1,

1st - North 76° 00' West 129.00 feet to a point on the West line of San Juan Barranca; thence down said barranca following its meanders, by the following courses and distances:

2nd - South 57° 06' West 234.80 feet to a 4" redwood post marked "P", set on left bank of barranca;

3rd - South 62° 25' West 180.00 feet to a 4" redwood post marked "P", set on left bank of barranca, near a gum tree 14 inches in diameter, marked with a blaze, bears South 40° 40' West 3.70 feet to a point on the West line of said Lot 1;

4th - North 76° 35' West 120.70 feet to a point on the West line of barranca, at the crossing of the old "Farmer" ditch; thence up said old ditch line, following its meanders, by the following courses and distances:

5th - North 12° 02' East 55.50 feet to a 4" x 6" redwood post marked "P", set on left bank of barranca;



10th - South 13° 50' West 41.20 feet to the point  
ing, and containing 2.203 acres.

Also a right of way and easement for maintaining  
over lands adjoining the above described parcel of  
d right of way is particularly described and defined  
ed of Eugene P. Foster, et ux. to Ventura Land an  
y, dated February 26, 1897, and recorded in the o  
County Recorder of Ventura County in book 50 of  
e 555, et. seq.

Appraised Value



and particularly described as follows, to-wit:-

Beginning at a one inch iron pipe twenty-four in top of which is set flush with the surface of the set at station "A" and at a point in the Westerly first parcel of land described in that certain deed of February 5, 1886, made by Teodora Lopez de Olivas et al. to Francisca Olivas and recorded in the office of said County Clerk in Book 16 of Deeds at page 117, and from which point at station "A" the point of intersection of said West and South lines of said Olivas (now Suytar) and said San Miguel Ranch Company's property a cement monument set in the ground on the Conejo road at the Northeast corner of said San Miguel Ranch Company's property bears N. 20 1/4° E. 1.82 chains distant; thence from said station "A" at said beginning:-

1st., S. 2° 08' E. 1.82 chains to a 6" x 6" redwood post set at station "B" and where stood a post, now decayed, on the edge of the right, bluff of the Santa Clara river in the boundary line between sections 14 and 15 of said Rancho San Miguel and at the Southwest corner of the first parcel of land as conveyed to said Francisca Olivas (now Suytar) by said deed dated February 5, 1886.

2nd., Along the south line of said first parcel of land as conveyed by said last named deed to said Francisca Olivas S. 88° E. 3.05 chains along bluff river bank to a one inch iron pipe twenty-four inches long set at station "C" at the west corner of the second parcel of land as conveyed by the last named deed to Francisca Olivas; thence,

3rd., S. 2° 08' E. 17.38 chains along the Westerly



as a strip of land having a uniform width of ten feet immediately west of and adjacent to the east line of Julius B. Alvord in said Olivas tract and the North line of a parcel of land hereinabove conveyed to the Northern-most point of said Alvord land, at the intersection of said boundary line of said Olivas Ranch Company tract.

Appraised Value \_\_\_\_\_

XI. MOUND RESERVOIR SITE, described as following at a point in the North line of the Foothill Road, N. 10° 15' W. 227.7 feet from a 3/4 inch iron nail in a mound of rock in the North line of the Telegraph Road, southwest corner of that certain tract of land conveyed by deed from B. T. Dudley to Benjamin A. Rapp by deed dated April 1, 1905 and recorded in the office of said County Recorder in Book 99 of Deeds at page 312; and running thence,

1st., N. 79° 27' E. 257.7 feet along and with the North line of said Foothill road; to a 4" x 4" redwood stake marked "J.B.W."; thence,

2nd., N. 10° 15' W. 227.7 feet to a 4" x 4" redwood stake marked "J.B.W."; thence,

3rd., S. 79° 27' E. 257.7 feet to a point in the North line of the lands of Rapp; thence,

4th., S. 10° 15' E. 227.7 feet to the place of beginning, and containing 1.347 acres of land and being the same property conveyed to said party of the first part by deed dated April 1, 1905 and recorded in the office of said County Recorder in Book 99 of Deeds at page 312;





O VERDE

Manuel Canyon

Canada de las Encinas

Power Ditch Intake

ELITO

Canada de San Joaquin  
Power Reservoir

EX MISSION

SAN BUENAVENTURA

High Service Reservoir

VENTURA

Hall Canyon

Barlow Canyon

SANTA PAULA  
Y SATICOY

Beach Plant  
SAN MIGUEL



