

San Diego, California,

August 18, 1916.

Mr. Max Thelen,
Chairman State Railroad Commission,
State of California,
San Francisco, California.

Dear Sir:-

Complying with your request made while I was testifying at the Federal Building relative to the cost of water per thousand gallons to the City of San Diego, I am submitting herewith three charts showing these costs in detail as taken from data and information secured by me while employed by the City.

I have charted three separate reports as follows:

1. Statement showing cost of water per thousand gallons delivered at University Heights Reservoir based upon the Railroad Commission's findings of values.

2. Statement of cost of water per thousand gallons delivered at University Heights Reservoir based upon data and reports issued by the Auditing and Water Departments of the City of San Diego.

3. Statement of cost of water per thousand gallons delivered at consumers meter based upon data and reports issued by the Auditing and Water Departments of the City of San Diego.

You will please note, I have taken into consideration only the actual costs and have ignored completely all bond redemptions and all transfers of money made during the year 1915. This will consequently reduce the cost proportionately.

The operating department of the City issued a chart showing the cost of water at University Heights as being 7.4 cents per thousand gallons. This, however, only takes into consideration the depreciation, operation and maintenance of the system and makes no allowance for the interest on the investment. The figures given in their chart for operation and maintenance was \$50,584.77 on the impounding system alone. On this same chart the cost of water per thousand gallons from the reservoir to the meter is given as 9.6 cents per thousand gallons. Operation and Maintenance is given as \$205,748.03 and Depreciation as \$92,690.53. Again no allowance is made for transfers of funds, interest on investment and mischarged accounts. The last named item amounted to \$12,568.00 between January 1st and May 1st, 1915.

No depreciation was allowed for meters in use, which amounts to about \$15,000; neither was any allowance made for depreciation of tools and equipment listed at \$12,500.00.

Mr. Max Thelen,
page 2.

I regret very much to report at this time that the condition of affairs and the records of the water department have not been kept according to the requirements of the Railroad Commission and as ordered by the Commission at a late hearing held in San Diego.

I call attention here, as I did in my report to the Mayor, that the City is wasting thousands of dollars annually on account of inefficient methods and employees handling the affairs of the City. I do not say the present management is responsible. I speak of what has been recorded during the past five years and what is supposed to be authentic data is in reality merely estimates and reports secured in a haphazard way, instead of actual receipts and disbursements. The whole system should be rejected and efficient methods installed so that the taxpayers and residents may know the truth and what it is actually costing them in dollars and cents for maintaining this wonderful \$8,000,000 corporation, which to my mind is the biggest pork barrel of anything in existence in San Diego. To bring out more forcibly what I am trying to say, I might mention a few instances discovered while investigating the department of water.

The total receipts of the Water Department covering a period of five years from 1911 to 1915, shows a difference of from \$4,000 to \$343,000. The Auditor's reports show a loss every year from 1911 to 1914. The Water Department records, however, covering the same period of time, show a gain for every year excepting the year of 1914, when a loss of \$5,000 was recorded.

I have delved into all records available and secured my data from original entries. Many entries have not been properly allocated, hauling charges have been badly mixed and mischarged, labor was found to be charged to everything but under the proper heading, in one instance an error of \$1,250 was discovered, in another instance \$909.00 covering 21 items was mischarged in one month alone. Claims paid and charged directly for water and not recorded in the books of the water department amounted to \$12,568.00 between January 1, 1915 and May 1, 1915.

Transfers made to and from the Water Department during 1915 differ to the extent of \$55,707.21 and many other items could be cited to prove that inconsistent methods were allowed to be used. Still a few individuals holding the whip hand of the City do not want the system changed claiming it is all right.

Mr. Max Thelen,
page 3.

Trusting this will be of assistance to you and
assuring you of being willing to render any further help,
I am,

Very truly yours,

A handwritten signature in cursive script that reads "J. E. Sellers". The signature is written in dark ink and is positioned above the typed name.

Efficiency Engineer,

For City of San Diego, Calif.

S:K

Note:

These costs per thousand gallons do not include interest on the cost of rebuilding Lower Otay Dam, estimated at \$682,000, or cost of repairs to Dulzura Conduit caused by floods of this year amounting to approximately \$113,000 or cost of constructing pipe line between Upper and Lower Otay Reservoirs amounting to approximately \$37,000 or cost of construction of new conduit and pipe line from Jamul Ranch to Upper Otay for which the people voted \$100,000.

Statement Showing Cost of Gravity Water delivered to University Heights Reservoir and to consumers outside the City Limits During the year 1915 based upon R R Commission Findings of Value, Maintenance and Operation, Depreciation, etc. Corrected for Expenditures during the Years 1914 and 1915 as shown by the Auditor's Reports.

Value of System as Found by Commission in Decision No. 1465 in Application No. 547 ----- \$ 3,500,000.00

Expenditures for Construction, etc., on the Impounding and Transmission system were made during the year 1914, amounting to----- 145,730.00

The following expenditures for construction, etc. on the Impounding and Transmission System were made during the year 1915:

Cottonwood Conduit - Second Section	\$29,824.87
" " - Third "	27,675.04
Concrete Conduit-Cottonwood Valley-	1,322.51
Cottonwood Valley (Engineering)----	3,230.87
Intake - Pine Creek -----	36,155.55
Tunnels - Dulzura Conduit -----	1,670.50
Benita Pipe Line -----	219,145.50
Filtration Plant -----	<u>65,111.93</u>

Total Charges Bearing 5% Annually ----- 384,136.17

Total Impounding & Transmission System 1915 --\$4,029,866.17

Annual Charges

Interest at 6% on \$4,029,866.17 -----	241,788.00
Maintenance and Operation -----	27,500.00
Depreciation -----	<u>27,598.00</u>
Total Annual Charges -----	\$ 296,886.00

Total water consumed during 1915 inside and outside City -----		3,117,265,915 gallons
Supplied by pumping -----	841,241,000	
" " C W Co -----	<u>191,238,126</u>	<u>1,052,479,126</u> "
Total Supplied by Gravity -----		2,084,786,789 "

Cost per thousand gallons of gravity water is derived as follows:

$$\frac{296,686}{2,084,786} = \$0.142$$

If interest of \$3,212.89 at the rate of 5% is allowed on net transfers amounting to \$66,257.82 from conservation bond fund during year 1915, the annual charges become \$299,999 and the cost per thousand gallons of gravity water becomes \$0.144.

No allowance has been made for bond redemptions amounting to \$100,000 during 1915, as such payments into the bond redemption fund should be placed at interest and in this way all payments into such fund will act as a reduction of the total bond issue.

If the average total yearly consumption for the past ten years, amounting to 2,013,711,480 gallons, is taken instead of the 1915 figures of 2,084,786,789 gallons, the cost per thousand gallons becomes \$0.147.

Statement Showing Cost of Gravity Water Delivered at University Heights Reservoir and to Consumers Outside of City Limits for the Year 1915.

This statement is based upon data and reports received from Auditing and Water Departments.

Cost of System Purchased of Southern California Mountain Water Company, the bonds issued for this purchase bear interest at the rate of 4% per annum which amounts to \$180,000 per year ----- \$ 4,000,000.00

The following items of expenditures were made for construction, etc., upon the impounding and transmission system during the year 1914:

Total Expenditures ----- \$127,189.00
" Transfers (Net) ----- 18,591.00
Total (bearing interest at 5%) ----- 145,780.00

Total Cost of Impounding And Transmission System (December 31, 1914) ----- \$ 4,145,780.00

The following expenditures were made for construction, etc., during the year 1915:

2nd Section - Cottonwood Conduit ----- \$29,824.87
Tunnels - Dulzura Conduit --- 1,670.30
Bonita Pipe Line ----- 219,145.50
Filtration Plant ----- 65,111.93
Cottonwood Valley (Engineering) ----- 3,230.87
Concrete Conduit - Cottonwood Valley ----- 1,522.51
Intake - Pine Creek ----- 34,155.55
3rd Section - Cottonwood Conduit ----- 27,675.04
Total (bearing interest at 5%) ----- 394,136.17

Grand Total Impounding and Transmission System (December 31, 1915) ----- \$ 4,539,866.17

The annual charges required to support the Impounding and Transmission system are as follows:

Interest at 4% on \$4,000,000.00 -----	\$ 180,000.00
" " 5% on 529,866.17 -----	26,490.00
Operation and Maintenance -----	50,992.39
Depreciation -----	<u>79,584.77</u>
Total -----	\$ 337,067.16

Total Consumption of Water Both Inside and Outside City -----	3,117,265,915 gal.
Portion of above pumped and furnished by Cuyamaca Water Company -----	<u>1,032,479,126 "</u>
Total supplied by Gravity -----	2,084,786,789 "

Cost per thousand gallons of gravity water is derived as follows:

$$\frac{337,067.16}{2,084,786} = \$0.161 \text{ per thousand gallons}$$

If interest of \$3,312.89 at the rate of 5% is allowed on net transfers amounting to \$66,257.82 from conservation bond fund during the year 1915, the annual charges become \$340,380.05 and the cost per thousand gallons of gravity water becomes \$0.163.

No allowance has been made for bond redemptions amounting to \$100,000 during 1915, as such payments into the bond redemption fund should be placed at interest and in this way all payments into such fund will act as a reduction of the total bond issue.

If the average total yearly consumption for the past ten years, amounting to 2,013,711,430 gallons, is taken instead of the 1915 figures of 2,084,786,789 gallons, the cost per thousand gallons becomes \$0.167.

Gallons

Statement Showing Cost of Water per Thousand/Delivered to Consumer's Meter Inside the City During Year 1915. Based upon Data Secured from Auditing and Water Department Records.

Cost per Thousand Gallons of Gravity Water Delivered at University Heights Reservoir as determined in statement on page 7 of this report -----	\$ 0.161
Total Cost of Distributing System December 31, 1915 -----	\$3,346,451.81
Less Total Depreciation of Distributing System---	<u>745,529.48</u>
Present Value of Distributing System -Dec.31,1915	\$2,600,922.33

Annual Charges Required to Support Distributing System are derived as follows:

Interest at 5% on \$2,600,922.33 -----	\$ 120,046.10
Operation & Maintenance	
Entire System -----	863,571.62
Operation & Maintenance	
Imp. & Trans. -----	<u>50,992.39</u>
Operation & Maintenance - Distributing System -----	312,579.23
Depreciation - Entire	
System -----	172,275.50
Imp. & Trans. System ---	<u>79,584.77</u>
	<u>92,690.53</u>
Total Annual Charges - Distributing System -----	\$ 535,315.86

Total Consumption Inside City 1915 ----- 2,811,225,126 gallons

Cost per Thousand Gallons of Water Delivered at Consumers meter (not including Impounding and Transmission Cost) is derived as follows:

$$\frac{535,515.86}{2,811,225} = \$ 0.190$$

Cost of Water per Thousand Gallons Delivered at University Heights ----- 0.161

Total Actual Cost per thousand gallons delivered at Consumer's Meter ----- \$ 0.351

Cost per Thousand Gallons of Water Delivered to Non Tax Paying Consumer ----- 0.107

Cost per thousand gallons of water delivered to Tax Paying Consumer is as follows:

Meter Rate per 1,000 gallons ----- 0.107

Max Rate " 1,000 " ----- 0.102

Total ----- \$ 0.209

No allowance has been made in the above computations for Bond Redemptions or Transfers.



San Diego, California.

August 18, 1915.

Mr. Max Thelen,
Chairman State Railroad Commission,
State of California,
San Francisco, California.

Dear Sir:-

Complying with your request made while I was testifying at the Federal Building relative to the cost of water per thousand gallons to the City of San Diego, I am submitting herewith three charts showing these costs in detail as taken from data and information secured by me while employed by the City.

I have charted three separate reports as follows:

1. Statement showing cost of water per thousand gallons delivered at University Heights Reservoir based upon the Railroad Commission's findings of values.

2. Statement of cost of water per thousand gallons delivered at University Heights Reservoir based upon data and reports issued by the Auditing and Water Departments of the City of San Diego.

3. Statement of cost of water per thousand gallons delivered at consumers meter based upon data and reports issued by the Auditing and Water Departments of the City of San Diego.

You will please note, I have taken into consideration only the actual costs and have ignored completely all bond redemptions and all transfers of money made during the year 1915. This will consequently reduce the cost proportionately.

The operating department of the City issued a chart showing the cost of water at University Heights as being 7.4 cents per thousand gallons. This, however, only takes into consideration the depreciation, operation and maintenance of the system and makes no allowance for the interest on the investment. The figures given in their chart for operation and maintenance was \$50,584.77 on the impounding system alone. On this same chart the cost of water per thousand gallons from the reservoir to the meter is given as 9.5 cents per thousand gallons. Operation and Maintenance is given as \$205,748.03 and Depreciation as \$92,690.52. Again no allowance is made for transfers of funds, interest on investment and discharged accounts. The last named item amounted to \$12,568.00 between January 1st and May 1st, 1915.

No depreciation was allowed for meters in use, which amounts to about \$15,000; neither was any allowance made for depreciation of tools and equipment listed at \$12,500.00.

San Diego, California.

August 18, 1915.

Mr. Max Thelen,
Chairman State Railroad Commission,
State of California,
San Francisco, California.

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Mr. Max Thalen,
Page 2.

I request very much to report at this time that the condition of affairs and the records of the water department have not been kept according to the fiscal wants of the National Commission and as ordered by the Commission at a late hearing held in San Diego.

I call attention here, as I did in my report to the Mayor, that the City is wasting thousands of dollars annually on accounts of irregular methods and employees handling the affairs of the City. It does not say the present management is responsible. I speak of what has been happened during the past five years and what is supposed to be a future in doing so. It was by merely estimating the receipts secured in an irregular way, instead of normal receipts and disbursements, that the system should be corrected and corrected methods instead of the present irregular and wasteful one. I have the records and what is actually costing them in San Diego and I have for comparison the records of \$1,000,000 accounts for which I am sure in the largest part of the world or elsewhere in San Diego. I am sure that there would be what I am trying to say, I might mention a few instances discovered while investigating the department of water.

The total receipts of the Water Department covering a period of five years from 1911 to 1915, shows a decrease of from \$4,000 to \$34,000. The Auditor's reports show a loss every year from 1911 to 1914. The Water Department records, however, covering the same period of time, show a gain for every year excepting the year of 1914, when a loss of \$5,000 was recorded.

I have checked into all records available and secured my data from original sources. Many entries have not been properly allocated, hauling charges have been badly mixed and mischarged. Labor was found to be charged to everything but under the proper heading. In one instance an error of \$2,000 was discovered, in another instance \$300.00 covering 22 items was mischarged in one month alone. Claims paid and charged already for water and not recorded in the books of the water department amounted to \$12,568.50 between January 1, 1915 and May 1, 1915.

Transfers made to and from the Water Department during 1915 differ to the extent of \$35,707.21 and many other items could be cited to prove that irregular methods were allowed to be used. Still a few individuals holding the city back of the City do not want the system changed claiming it is all right.

Mr. Max Baalen,
Page 2.

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The total receipts of the Water Department covering a period of five years from 1911 to 1915, shows a difference of from \$4,000 to \$343,000. The Auditor's reports show a loss every year from 1911 to 1914. The Water Department records, however, covering the same period of time, show a gain for every year excepting the year of 1914, when a loss of \$5,000 was recorded.

I have delved into all records available and secured my data from original sources. Many entries have not been properly allocated, hauling charges have been badly mixed and mischarged, labor was found to be charged to everything but under the proper heading, in one instance an error of \$1,250 was discovered, in another instance \$909.00 covering 21 items was mischarged in one month alone. Claims paid and charged already for water and not recorded in the books of the water department amounted to \$15,568.00 between January 1, 1915 and May 1, 1915.

Transfers made to and from the Water Department during 1915 differ to the extent of \$35,707.21 and many other items could be cited to prove that inconsistent methods were allowed to be used. Still a few individuals holding the whip hand of the City do not want the system changed claiming it is all right.

Mr. Max Baer,
1922

Trusting this will be of assistance to you and
hoping you will be willing to render any further help.

Very truly yours,

Just Sellers

Efficiency Engineer

For City of San Diego, Calif.

11

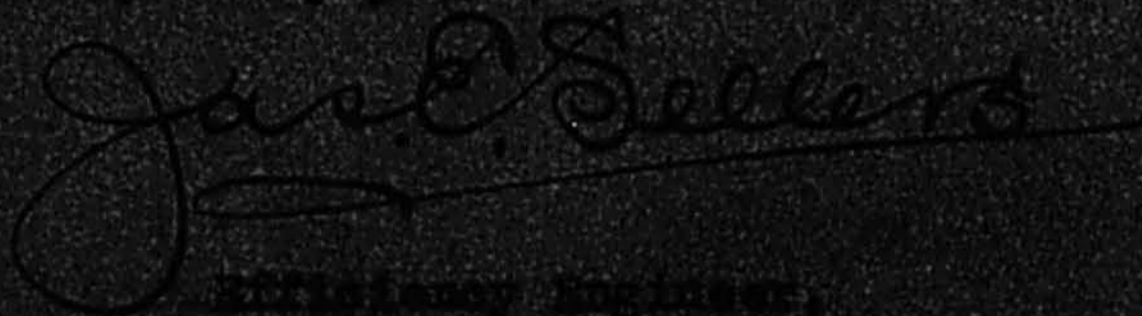
1922

These costs are estimated gallons to be incise interest
on the cost of rebuilding Lower Bay Dam, estimated at
\$1,000,000 or cost of repairs to District's dam
by means of this dam amounting to approximately \$15,000
in cost of constructing pipe line between Lower and Upper
Bay Dam, including the cost of approximately \$17,000 in
cost of construction of new conduit and pipe line from
Lower Dam to Upper Bay for which the people voted \$250,000.

San Diego, California
June 12, 1911

Trusting this will be of assistance to you and
hoping you will be willing to render any further help.

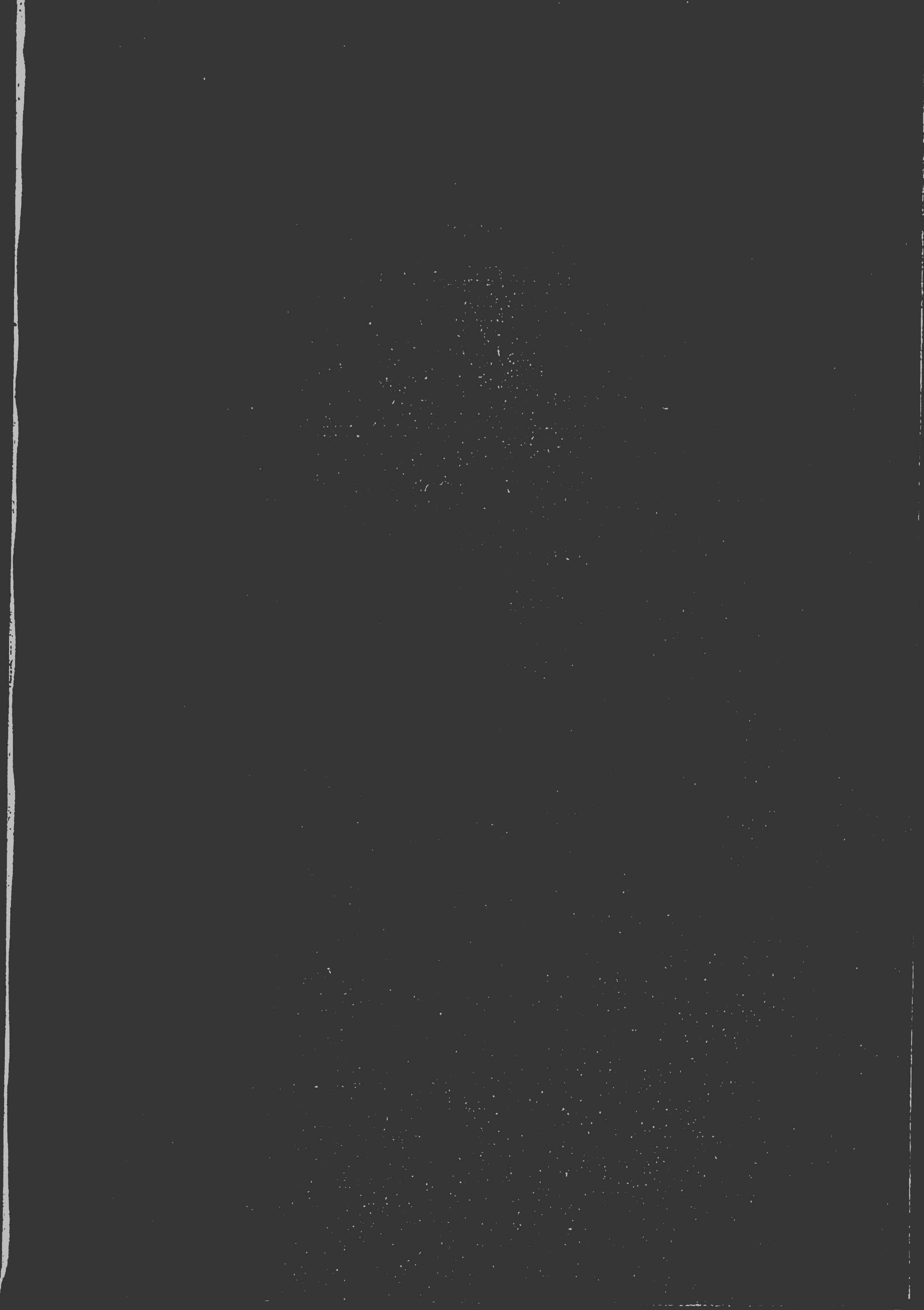
Very truly yours,



Efficiency Engineer,

For City of San Diego, Calif.

There were two thousand gallons in the inside reservoir
of the tank at San Diego. Lower City has estimated at
\$20,000, or cost of repairs to tanks, which would
be about the same as the amount of approximately \$15,000
of cost of constructing pipe line between upper and lower
reservoirs amounting to approximately \$7,000 of
cost of construction of new conduit and pipe line from
lower tank to upper City for which the people voted \$200,000.





Statement Showing Cost of Gravity Water Delivered at University Heights Reservoir and to Consumers Outside of City Limits for the Year 1915.

This statement is based upon data and reports received from Auditing and Water Departments.

Cost of System Purchased of Southern California Mountain Water Company, the bonds issued for this purchase bear interest at the rate of 6% per annum which amounts to \$100,000 per year \$ 4,000,000.00

The following items of expenditures were made for construction, etc., upon the impounding and transmission system during the year 1914:

Total Expenditures \$127,150.00
Transfers (net) 18,591.00
Total (bearing interest at 5%) 145,740.00

Total Cost of Impounding and Transmission System (December 31, 1914) \$ 4,145,740.00

The following expenditures were made for construction, etc., during the year 1915:

East Section - Cottonwood Conduit 320,824.87
Tunnels - Delmore Conduit 1,670.50
Denise Pipe Line 219,165.50
Filtration Plant 55,111.93
Cottonwood Valley (Engineering) 3,250.97
Concrete Conduit - Cottonwood Valley 1,322.51
Intake - Pine Creek 24,355.35
East Section - Cottonwood Conduit 27,475.04

Total (bearing interest at 5%) 534,150.17

Grand Total Impounding and Transmission System (December 31, 1915) \$ 4,679,890.17

Statement Showing Cost of Gravity Water Delivered at University Heights Reservoir and to Consumers Outside of City Limits for the Year 1915.

This statement is based upon data and reports received from Auditing and Water Departments.

Cost of System Purchased of Southern California Mountain Water Company, the bonds issued for this purchase bear interest at the rate of 6% per annum which amounts to \$100,000 per year ----- \$ 4,000,000.00

The following items of expenditures were made for construction, etc., upon the impounding and transmission system during the year 1914:

Total Expenditures ----- \$127,159.00
" Transfers (Net) ----- 18,591.00

Total (bearing interest at 5%) ----- 145,750.00

Total Cost of Impounding and Transmission System (December 31, 1914) ----- \$ 4,145,750.00

The following expenditures were made for construction, etc., during the year 1915:

2nd Section - Cottonwood Conduit ----- \$29,824.67
Tunnels - Dulzura Conduit --- 1,670.30
Banita Pipe Line ----- 219,145.50
Filtration Plant ----- 55,111.93
Cottonwood Valley (Engineering) ----- 3,250.87
Concrete Conduit - Cottonwood Valley ----- 1,322.51
Intake - Pine Creek ----- 54,155.35
3rd Section - Cottonwood Conduit ----- 27,675.04

Total (bearing interest at 5%) ----- 334,159.17

Grand Total Impounding and Transmission System (December 31, 1915) ----- \$ 4,529,909.17

Statement Showing Cost of Water per Thousand ^{Gallons} Delivered to Consumer's Meter Inside the City During Year 1915. Based upon Data Secured from Auditing and Water Department Records.

Cost per Thousand Gallons of Gravity Water Delivered at University Heights Reservoir as determined in statement on page 7 of this report -----	\$ 0.161
Total Cost of Distributing System December 31, 1915 -----	\$3,346,451.81
Less Total Depreciation of Distributing System --	<u>745,529.49</u>
Present Value of Distributing System - Dec. 31, 1915	\$2,600,922.32
Annual Charges Required to Support Distributing System are derived as follows:	
Interest at 5% on \$2,600,922.32 -----	\$ 130,046.10
Operation & Maintenance Entire System -----	353,571.62
Operation & Maintenance Imp. & Trans. -----	<u>50,992.39</u>
Operation & Maintenance - Distributing System -----	312,579.23
Depreciation - Entire System -----	172,275.30
Imp. & Trans. System --	<u>79,584.77</u>
	<u>92,690.53</u>
Total Annual Charges - Distributing System -----	\$ 535,315.86
Total Consumption Inside City 1915 -----	2,811,225,126 gallons

Cost per Thousand Gallons of Water Delivered at Consumers meter (not including Impounding and Transmission Cost) is derived as follows:

$\frac{\$34,515.86}{2,011,885} = \$ 0.172$

Cost of Water per Thousand Gallons Delivered at University Heights 0.181

Cost actual cost per thousand gallons delivered at Consumers' Meters \$ 0.251

Cost per Thousand Gallons of Water Delivered to Non Tax Paying Homes 0.187

Cost per thousand gallons of water delivered to Tax Paying Consumer is as follows:

Water Rate per 1,000 gallons 0.187

Gas Rate " 1,000 " 0.202

Total \$ 0.389

No allowance has been made in the above computations for bond Redemptions or Transfers.

Ed Fletcher Papers

1870-1955

MSS.81

Box: 42 Folder: 4

**Business Records - Reports - Sellers, J.E.
- "Report Showing Cost of Water Per
Thousand Gallons City of San Diego System"**



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