

WILLIAM S. POST
ASSOC. MEM. A. S. C. E.
FLETCHER BLDG., 924 6TH ST.
SAN DIEGO, CALIFORNIA

April 17, 1917.

Mr. Ed. Fletcher,
President S. D. M. W. Co.,
San Diego, Cal.

Dear Sir:-

The following is the estimate for construction
road necessary to take care of Carroll Conduit.

Map is attached.

E S T I M A T E

1 - Ozuna Hill - permanent.....	3,400
2 - Across Santa Ranch to Staats Old House - temporary	1,000
3.- Staats House to River bed 1/2 permanent	1,700
4.- River Bed - temporary	2,000
5 - Last two mile to Carroll Dam and over top of Draw to opposite men's camp	18,000
6 - Digaonal connection Road to wire fence	1,000
	<hr/>
	\$29,000

The above is recommended, but if absolutely nec-
essary, a temporary road at (5) can be made reducing the cost of
that section by \$11,000 or reduce the total cost to \$18,000.

Very truly yours,

SWP/AGM.

W. P. Ellis.

To The San Dieguito Mutual Water Company,

San Diego, California.

Gentlemen:

The undersigned propose to do all the work and furnish all material in accordance with the plans and specifications and notice to bidders, and upon the acceptance of this proposal to enter into a contract for installing Distribution Lines No. 1A, 2B, 2C, 2D and 2F at the prices named in the following schedule:

Excavation - Earth - - - - - \$ _____ per cu.yd.
Other than earth - - - - - \$ _____ per cu.yd.

Tunnels - Tunnel #1 - - - - - \$ _____ per lin.ft.
Tunnel #2 - - - - - \$ _____ per lin.ft.
Tunnel #3 - - - - - \$ _____ per lin.ft.

Pipe on grade contours (Kind of pipe)

26" _____ pipe--- \$ _____ per lin.ft.
24" _____ pipe--- \$ _____ per lin.ft.
22" _____ pipe--- \$ _____ per lin.ft.
16" _____ pipe--- \$ _____ per lin.ft.

Pipe for syphons and portions of syphons with not to exceed 40 foot head from hydraulic grade line. (Kind of pipe)

26" _____ pipe--- \$ _____ per lin.ft.
24" _____ pipe--- \$ _____ per lin.ft.
22" _____ pipe--- \$ _____ per lin.ft.
16" _____ pipe--- \$ _____ per lin.ft.

Pipe for portions of syphon in excess of 40 foot head from Hydraulic grade line but not exceeding 120 foot head. (Kind of pipe)

26" _____ pipe--- \$ _____ per lin.ft.
24" _____ pipe--- \$ _____ per lin.ft.
22" _____ pipe--- \$ _____ per lin.ft.
16" _____ pipe--- \$ _____ per lin.ft.

Backfilling ----- \$ _____ per cu.yd.

Enclosed is a certified check for _____
Dollars, which sum is to be forfeited to the San Dieguito Mutual
Water Company, if the party or parties making this proposal fail
to enter into contract with approved securities within four days
after the contract is awarded to said party or parties.

Respectfully,

1917

**NOTE:- Each bid shall be placed in a sealed envelope
addressed to Ed Fletcher, President San Dieguito Mutual
Water Company, 920 Eighth Street, San Diego, California,
and shall be endorsed:**

**"Proposal for the Installation of Distribution
Lines No. 1A, 2B, 2C, 2D and 2F."**

**The Company reserves the right to reject any or
all bids or to accept any bid.**

NOTICE TO CONTRACTORS

1. Sealed bids for the construction of Distribution Lines No. 1A, 2B, 2C, 2D and 2F will be received by the San Dieguito Mutual Water Company, at the Office of its President, 920 Eighth Street, San Diego, California, until 10 o'clock A.M., July 19th, 1917.

2. Each bid must be accompanied by a certified check in the sum of Two Thousand Five Hundred Dollars (\$2,500), payable to the San Dieguito Mutual Water Company. The check of each bidder to be retained until final award of the Contract and the execution and delivery of the letter. Failure of the bidder whose bid is accepted to execute and deliver construction contract within four days after notice of the acceptance of bid will entitle the Water Company to retain the check as liquidated damages for such failure.

3. A bond in the sum of fifty per cent of the estimated cost will be required for the faithful performance of the contract, such bond to be satisfactory to the officers of the Company.

4. The work is to be commenced within 10 days of the signing of the contract, and continue with diligence until its completion. The entire work herein specified shall be completed on or before the 1st day of April 1918.

5. Monthly estimates will be made of amount of work, and contractor will be paid 75% of said estimate on the 10th of month following that in which the work is done. Balance will be paid 35 days after final acceptance of the work.

6. Bids must be made upon blanks to be furnished by the

Company. Bidders will state unit prices for each item of the work by which the bids will be compared. These unit prices shall include the cost of setting gates or valves and tees with valves, furnished by the Company.

7. The bids to be compared on the basis of the Engineer's estimate of quantities which is as follows:

Excavation	- Earth	- - - - -	11,120 cu.yds
	Other than earth	- - - - -	2,780 cu.yds.
Tunnels	- Tunnel #1	- - - - -	410 lin.ft.
	Tunnel #2	- - - - -	900 lin.ft.
	Tunnel #3	- - - - -	1,175 lin.ft.

Pipe lengths for grade contours:

26"	- - - - -	6,390 lin.ft.
24"	- - - - -	6,645 lin.ft.
22"	- - - - -	6,865 lin.ft.
16"	- - - - -	5,692 lin.ft.

Pipe lengths for syphons and portions of syphons with not to exceed 40 foot head from hydraulic grade line.

26"	- - - - -	3,345 lin.ft.
24"	- - - - -	4,044 lin.ft.
22"	- - - - -	535 lin.ft.
16"	- - - - -	1,622 lin.ft.

Pipe lengths for portions of syphons in excess of 40 foot head from hydraulic grade line but not exceeding 120 foot head.

26"	- - - - -	1,120 lin.ft.
24"	- - - - -	2,525 lin.ft.
22"	- - - - -	none
16"	- - - - -	1,450 lin.ft.

Backfilling	- - - - -	9,500 cu.yds.
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On Account of the character of the work to be done, quantities given above can not be estimated with accuracy; therefore, all bidders are required to submit their bids upon the following expressed condition, viz: that they have satisfied themselves by personal examination of the location of the proposed work; and by such other means as they may elect as to the degree of accuracy

of the foregoing estimates.

✓ The Company reserves the right to increase or diminish the amount of the different classes of work as may be deemed necessary by its Engineer, to reject any or all bids; or to accept any bid should it be deemed to the interest of the Company so to do.

The penalty for failure to complete the entire work by April 1st, 1918, will be One Hundred Dollars per day for the first fifteen days, One Hundred Fifty Dollars per day for the next fifteen days, and Two Hundred Dollars per day thereafter until the work is completed.

Upon Notice to the Engineer (E W Case, 924 Eighth Street, San Diego, California, Telephone Pacific Main 2746) a representative will be available to conduct prospective bidders over the work. The nearest point of access is Del Mar, thence by automobile to the site.

SAN DIEGUITO MUTUAL WATER COMPANY,

By _____

President.

San Diego, California,

June 28th, 1917

SAN DIEGUITO MUTUAL WATER COMPANY

Volume of Water Required to Fill Distribution Lines 1A, 2B, 2C,
2D and 2F.

<u>Size of Pipe</u>	<u>26 Inch</u>	<u>24 Inch</u>	<u>22 Inch</u>	<u>16 Inch</u>
Tunnels	0	410'	900'	1175'
Grade Contours	6390'	6645'	6865'	5692'
Syphons & Portions of Syphons with not to exceed 40' Head from Hydraulic Grade Line	3345'	4044'	535'	1622'
Portions of Syphons between 40' & 120' Head from Hydraulic Grade Line	1129'	2525'	00'	1450'
	<u>10864'</u>	<u>13624'</u>	<u>8300'</u>	<u>9939'</u>
Area (Sq.Ft.) Cross-Section	3.686982	3.14159	2.63981	1.39626
Cubic Feet	40055.37	42801.022	21910.423	13877.428
Gallons	300415.3	321007.7	164328.1	104080.7
Total Number of Gallons	889,831.8 Gallons.			

SAN DIEGO, CALIFORNIA, June 28, 1918

Col. Ed Fletcher,
O f f i c e.

Dear Sir:-

The following figures are extracts from two different reports by Post on the delivery of water from Bernardo River and Carroll Reservoir.

T. P. Ellis.

Bernardo - West Tract Water System (2-549)

In December 1914 W. S. Post made an estimate of the ~~above~~, same to deliver 13 M.G.D. at cost of 7.1 cents per 1,000 gallons. The summary is as follows: (Riv. Steel 12" & 14" dia., ~~total~~ length 15½ miles)

Bernardo Pumping Plant - - - - -	\$ 4,397
Pipe Line Bernardo to West Tract - - - - -	108,912
Distribution Resr on West Tract - - - - -	<u>4,590</u>
	\$117,899

Operating Costs:

Cost per day	<u>\$46</u>	
" " "	- - - - -	<u>16,772</u>
Pipe Line - - - - -	- - - - -	<u>16,429</u>
Distribution Reservoir - - - - -	- - - - -	<u>570</u>
		33,771

Cost per day \$92.50 or 7.1 cents per 1,000 gallons.

CARROLL - UNIVERSITY PIPE LINE

From Report 23 - Offer of Sale to City of San Diego.

W. S. Post - May 22, 1914.

Structural Costs

Carroll Dam - - - - -	\$ 265,000
Pumping Plant (10 M.G.D.) - - - - -	59,735
Carroll-University Pipe Line (30" to 34" lock bar pipe) - - - - -	<u>603,188</u>
	\$ 927,923

Operating Costs (10 M.G.D.)

Carroll Dam - Cost of pumping per day \$113.84 - - - - -	\$ 27,837
Cost of pumping per year - - - - -	41,551
Pipe Line - - - - -	<u>99,922</u>
Cost per year - - - - -	\$ 169,310

This will deliver 10 M.G.D. per day at 4.7 cents per 1000 gallons.

Report on
CARROLL-WEST PUMPING PLANT AT CARROLL RESERVOIR TO SUPPLY
WEST TRACT

See also Compared with Bernardo-West Pumping Plan of
 December 7, 1914.

This plan would use the general plan, as originally proposed for the use of the City of San Diego Line (or Carroll-University Pipe Line). It is here figured for 100 Miners Inches capacity or 1,300,000 Gals. daily. It is planned as a riveted steel line $13\frac{1}{2}$ miles in length; a pump at Carroll Dam, raising water 300 ft. to elevation of 500 ft.; and a booster pump to supply $\frac{2}{3}$ of the West Tract at an elevation 585 ft., the remaining $\frac{1}{3}$ being supplied from the pipe line provided, which covers elevations below 475 feet.

Assuming the plant will be delivering 100 inches for 8 months and 20 inches for 4 months, the operating cost will be 8 cents per 1,000 Gallons.

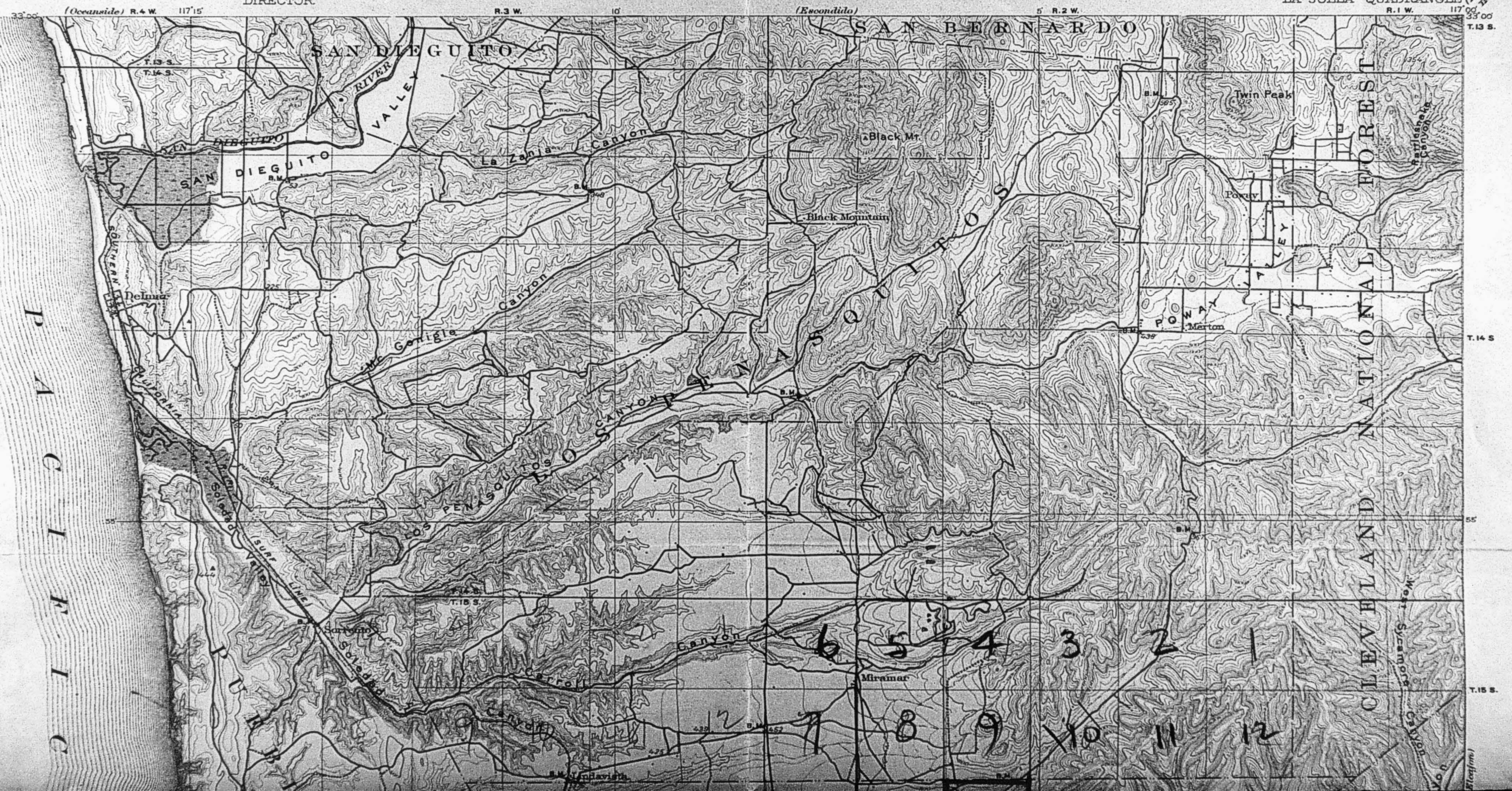
Estimate of Cost

Pump, motor and installation complete -----	\$ 15,000.
<u>Pipe Line</u>	
16" Steel Riveted Pipe - No. 10 Gage,	
63,200 lin.ft. at \$1.50 -----	94,800
12" Casing - 8,550 lin. ft. at \$1.60 -----	13,700
Rights of Way -----	3,000
Distributing Reservoir -----	5,000
Booster Pump -----	1,000
Pipe Line to Reservoir, 3,000 ft. 10" Casing at \$1.40-	4,200
	<u>\$136,700</u>
Contingencies - 15% -----	20,300
	<u>\$157,000</u>

U.S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH
DIRECTOR

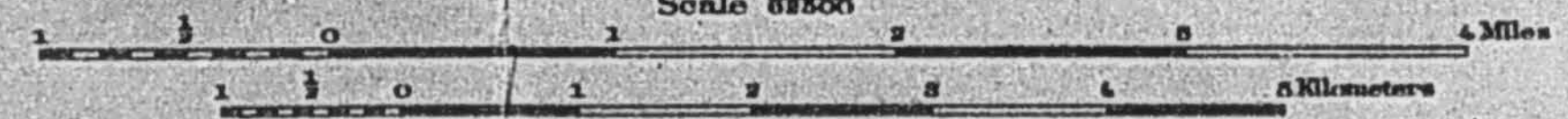
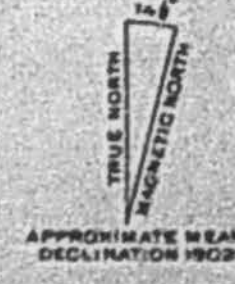
TOPOGRAPHY

CALIFORNIA
(SAN DIEGO COUNTY)
LA JOLLA QUADRANGLE (Ramona)
R. 1 W. 117 00 11300
T. 13 S.





R. U. Goode, Geographer in charge.
 Triangulation by U.S. Coast and Geodetic Survey and A.P. Davis.
 Topography by J. E. Rockhold.
 Surveyed in 1901-1902.



Contour interval 25 feet.
 Datum the mean sea level.

Edition of Dec. 1903, reprinted Jan. 1913.

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 N 1/2 28 + N 1/2 29
 T 15 S R 2 W
 640
 4 LA JOLLA
 2560

Ed Fletcher Papers

1870-1955

MSS.81

Box: 47 Folder: 16

**Business Records - Water Companies -
Volcan Land and Water Company - San
Dieguito System - San Dieguito Mutual Water
Company - Carroll Conduit - In-house reports**



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