

Report  
to  
James A. Murray and Ed Fletcher  
on the  
Value of the Physical Items  
of their Property  
Cuyamaca Water Company

by  
Philip E. Harroun,  
Consulting Hydraulic Engineer.

May 21, 1914.

San Francisco, California.

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Messrs. James A. Murray  
and  
Ed Fletcher,  
San Diego,  
California.

Gentlemen:-

I transmit you herewith my report upon the value of the physical items entering into and making up the water works property owned by you and operated under the name of the Cuyamaca Water Company.

The full details of this valuation follow.

This value is as of date June 1, 1914.

In arriving at the value of the property, I



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have used that value determined by the Railroad Commission of California in its decision No.536 on Application No.118, as a starting point. The value there determined by the Commission was based upon the value presented by the writer at the hearing of the case in 1912, with the exception of the value of the lands. Mr. Eshleman, who heard the case, raised the values as estimated by the writer, and his determination of land values has been used. The value found by the Commission was as of date of June 1, 1912, and this has been brought down to June 1, 1914 through the application of accrued depreciation and also through the deduction of structures abandoned since June 1, 1912. The final summary sheet shows that this portion of the property has a reproduction cost of \$946,518.00 and a present value of \$522,743.00.

Within the last two years considerable new construction and replacement has been made to the system. In arriving at the value of these items, your cost records, as kept by Mr. William S. Post, your chief engineer and your book accounts have been analyzed. From this data the resulting valuation is determined.

Analysis of the accounts shows that the segregation of the amounts against the various items has not been correctly made, and in many cases charges which properly accrue against the property do not appear upon your books. This is especially true with relation to such items as interest during construction, and other overhead accounts.



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On the other hand, certain units have apparently been debited with amounts in excess of their proper charge, to the credit of other items. The analysis presented in the appendix has corrected these matters so far as is possible, and it is believed that the resulting summary presents a true statement of the condition of the system.

The constructional items placed since June 1, 1912 have a reproduction cost of \$247,596.00 and a present value of \$239,578.00.

It will be noted in the final summary that there have been certain items "donated" to the Cuyamaca Water Company. The word "donated" is not used in its ordinary acceptance, but is here used to indicate those items which have been acquired by the Cuyamaca Water Company for which no voucher appears upon your books. These items aggregate \$58,016.00 as to reproduction cost and \$46,701.00 as to present value.

In determining the overhead expense chargeable against the system, it has been found that under the head of Engineering the charge upon your books aggregates 4.4% upon that portion of the property against which such charges have been made. As only a small portion of these charges have been entered into the accounts, I have placed against the entire property the corresponding percentage.

Interest during construction has been taken as 8% over the construction period for half the cost thereof.



8% has been used for the reason that this rate has been paid for such moneys as you have borrowed from the bank.

The other items entering into overhead consist of salaries of officers and clerks, contingencies and legal expense, for which little or no charge has been made on your books. These items make up the 21% which has been used in the final summary.

The entire property has a reproduction cost of \$1,252,130.00 and a present value of \$809,022.00 as of date June 1, 1914.

Respectfully presented,

*R. C. Harroun*

San Francisco,  
May 21, 1914.

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This estimate is made in two parts.

- 1st. The Railroad Commission's Valuation of June 1st, 1912, has been corrected to date. Properties shown therein which have since been abandoned are stricken out and depreciation for the remaining structures has been modified to provide for two additional years of age. In some instances the probable life of structures has been lengthened due to improvements calculated to increase life or due to demonstration that the former estimated life was too short.
  
- 2nd. A valuation of properties acquired or constructed between June 1st, 1912 and June 1st, 1914.



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CUYAMACA WATER COMPANY

CORRECTION OF VALUATION OF RAILROAD  
COMMISSION, DATED JUNE 1, 1912, TO  
EXCLUDE STRUCTURES ABANDONED OR RE-  
PLACED, AND TO ALLOW FOR ACCRUED  
DEPRECIATION TO JUNE 1, 1914.

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CUYAMACA WATER COMPANY  
VALUATION AND DEPRECIATION DETAIL SHEET.

COST TO REPRODUCE						PHYSICAL DEPRECIATION.				
Item	Quantity	Unit	Cost	Sub Total	Total	Age Yrs.	Prob. Life	Dep. %	Sub Total	Total
PIPE DISTRIBUTION SYSTEM (Exclusive of Specials & Valves)										
Riveted Steel										
4 inch	5135	lin.ft.	\$0.28	\$1440.		14	17	82	\$1186.	
4	2365		0.28	660.		6	14	43	283.	
6	1200		0.40	480.		6	14	43	206.	
8	5000		0.51	2550.		6	14	43	1093.	
20	1114		1.27	1415.	6545.	10	16	63	884.	\$3652.
Screw Casing										
3 inch	5666		0.24	1360.		14	16	88	1190.	
4	3296		0.26	857.		19	24	79	678.	
6 (second hand)	334		0.38	127.		4	20	20	25.	
8	"	"	0.60	170.		4	20	20	34.	
10	"	"	0.85	<u>297.</u>		4	25	16	<u>48.</u>	
			Fwd.	\$2811.	\$6545.			Fwd.	\$1975.	\$3652.



CUYAMACA WATER COMPANY.  
VALUATION AND DEPRECIATION DETAIL SHEET.

COST TO REPRODUCE						PHYSICAL DEPRECIATION				
Item	Quantity	Unit	Cost	Sub Total	Total	Age Yrs.	Prob. Life	Dep. %	Sub Total	Total
PIPE DISTRIBUTION SYSTEM---Cont'd. (Exclusive of Specials & Valves)										
Screw Casing-Cont'd.				Brot.Fwd.	\$2811.	\$6545.			\$1975.	\$3652.
11 inch(second hand)	339	lin.ft.	1.02	346.		4	25	16	55.	
12 inch(second hand)	927		1.16	1075.	\$4232.	4	25	16	172.	\$2202.
Standard Screw										
1½ inch	460		0.14	65.		3	20	15	10.	
2 " (2nd.hd)	2000		0.16	320.		3	20	15	48.	
2 "	2500		0.19	475.		6	20	30	143.	
2 "	1500		0.19	285.		5	6	83	238.	
2 "	1682		0.19	320.	\$1465.	26	30	86	276.	\$715.
Wood Stave										
8 inch	400		0.51	204.		17	20	85	173.	
8 "	7200		0.51	3670.		13	16	81	2982.	
24 "	6345		1.55	9850.	\$13724.	18	25	72	7092.	\$10247.
Grand Total					\$25966.					\$16816.

CUYAMACA WATER COMPANY  
PHYSICAL DEPRECIATION & PRESENT VALUE IN DETAIL

COST TO REPRODUCE:			PHYSICAL DEPRECIATION WITHOUT OVERHEAD CHARGES				PRESENT VALUE	
Item	Sub Total	Total	Age Yrs.	Prob. Life	Annual Deprec.	Total Deprec.	Without Over- head charges	With Overhead Charges
Pipe Distribution System. (Including Specials & Valves)								
Riveted Steel								
4" diameter	\$1476.		14	17	\$87.	\$1218.	\$258.	\$318.
4"	677.		6	14	48.	290.	387.	477.
6"	492.		6	14	35.	211.	281.	346.
8"	2618.		6	14	187.	1112.	1506.	1855.
20"	1450.	\$6713.	10	16	91.	906.	544.	670.
Screw Casing								
3"	1393.		14	16	87.	1219.	174.	214.
4"	878.		19	24	37.	695.	183.	225.
6"	130.		4	20	7.	26.	104.	128.
8"	174.		4	20	9.	35.	139.	171.
10"	305.		4	25	12.	49.	256.	315.
11"	356.		4	25	14.	57.	299.	368.
12"	1100.	\$4336.	4	25	44.	176.	924.	1138.
FWD.--		\$11049.			\$658.	\$5994.	\$5055.	\$6225.



CUYAMACA WATER COMPANY  
PHYSICAL DEPRECIATION & PRESENT VALUE IN DETAIL

COST TO REPRODUCE			PHYSICAL DEPRECIATION WITHOUT OVERHEAD CHARGES				PRESENT VALUE	
Item	Sub Total	Total	Age Yrs.	Prob. Life	Annual Deprec.	Total Deprec.	Without Over- head charges	With Overhead charges
Pipe Distribution System - - Cont'd. (Including Specials & Valves.)								
BROT. FWD. \$11049.					\$658.	\$5994.	\$5055.	\$6225.
Standard Screw								
1½ inch	67.		3	20	3.	10.	57.	70.
2	328.		3-	20	16.	49.	279.	344.
2	487.		6	20	24.	146.	341.	420.
2	292.		5	6	49.	243.	49.	60.
2	328.	1502.	26	30	12.	284.	44.	54.
Wood Stave								
8 inch	210.		17	20	11.	179.	31.	38.
8	3770.		13	16	236.	3064.	706.	870.
24	10000.	13980.	18	25	400.	7200.	2800.	3450.
		\$26531.			\$1409.	\$17169.	\$9362.	\$11531.



CUYAMACA WATER COMPANY  
PHYSICAL DEPRECIATION AND PRESENT VALUE

Item	COST TO REPRODUCE AND PHYSICAL DEPRECIATION.					PRESENT VALUE	
	Cost to Reproduce	Age Yrs.	Prob. Life Yrs.	Annual Deprec.	Total Deprec.	Without Over-head charges	With Overhead Charges
Real Estate & Rights of Way	\$148,342.			none	none	\$148,342.	*\$166,143.
<u>Buildings &amp; Improvements</u>							
Cuyamaca Reservoir	4,096.	26	36	113.	2,958.	1,138.	1,402.
La Mesa Reservoir	763.	20	36	21.	424.	339.	418.
Frame Dwelling-End of flume	865.	12	35	25.	297.	568.	700.
" " " " "	250.	17	30	8.	142.	108.	133.
Store supply " " "	720.	22	30	24.	528.	192.	237.
Fence " " "	65.	26	36	2.	47.	18.	22.
Teralta	100.	4.	30	3.	13.	87.	107.
Frame Dwelling, etc., Chocolate	550.	26	30	18.	477.	73.	90.
Fence "	65.	26	36	2.	47.	18.	22.
Los Coches Trestle	<u>356.</u>	12	15	<u>24.</u>	<u>285.</u>	<u>71.</u>	<u>87.</u>
Fwd.	\$156,172.			240.	5,218.	150,954.	169,361.



CUYAMACA WATER COMPANY  
PHYSICAL DEPRECIATION AND PRESENT VALUE

Item	COST TO REPRODUCE AND PHYSICAL DEPRECIATION.					PRESENT VALUE	
	Cost to Reproduce	Age Yrs.	Prob. Life Yrs.	Annual Deprec.	Total Deprec.	Without overhead charges :	With Overhead Charges
Bro't.Fwd.	\$156,172.			240.	5,218.	150,954.	169,361.
Los Coches	430.	12	15	29.	344.	86.	106.
Section No.5	208.	2	36	6.	12.	196.	241.
Diverting Dam - Adobe House	1,848.	26	48	38.	1,001.	847.	1,044.
" " Barn, etc.	181.	26	30	6.	156.	25.	31.
Stand Pipe	109.	14	30	4.	51.	58.	71.
Murray Mill	17.	3	30	1.	2.	15.	18.
South Fork	77.	3	5	15.	46.	31.	38.
CUYAMACA DAM	30,857.	27	100	309.	8,331.	22,526.	27,752.
DIVERTING DAM	<u>27,647.</u>	27	100	<u>276.</u>	<u>7,465.</u>	<u>20,182.</u>	<u>24,864.</u>
FWD.- - -	\$217,546.			924.	22,626.	194,920.	223,526.



CUYAMACA WATER COMPANY  
PHYSICAL DEPRECIATION AND PRESENT VALUE

Item	COST TO REPRODUCE AND PHYSICAL DEPRECIATION.					PRESENT VALUE	
	Cost to Reproduce	Age Yrs.	Prob. Yrs. Life	Annual Deprec.	Total Deprec.	Without Overhead charges	With Overhead Charges
Bro't.Fwd.	\$217,546.			924.	22,626.	194,920.	223,526.
<u>Flume</u>							
Wood Structure	345,972.	26	34	10,176.	264,567.	81,405.	100,291.
Clearing	475.	26	100	5.	124.	351.	432.
Benching	59,445.	26	100	594.	15,456.	43,989.	54,194.
Tunnels	45,823.	26	100	458.	11,914.	33,909.	41,775.
Siphons	<u>10,503.</u>	4	20	<u>525.</u>	<u>2,101.</u>	<u>8,402.</u>	<u>10,351.</u>
Total	\$462,218.			11,758.	294,162.	168,056.	207,043.
<u>Eucalyptus Dam</u>	8,863.	22	100	89.	1,950.	6,913.	8,516.
<u>La Mesa Dam</u>	13,185.	19	100	132.	2,505.	10,680.	13,156.
<u>La Mesa Ditch</u>							
La Mesa Ditch	2,650.	20	100	27.	530.	2,120.	2,612.
Siphon	<u>3,110.</u>	20	25	<u>124.</u>	<u>2,488.</u>	<u>622.</u>	<u>766.</u>
Total	\$5,760.			151.	3,018.	2,742.	3,378.
<u>Murray Hill Dam</u>	<u>40,239.</u>	3	100	<u>402.</u>	<u>1,207.</u>	<u>39,032.</u>	<u>48,087.</u>
FWD.	\$747,811.			13,456.	325,468.	422,343.	503,708.



CUYAMACA WATER COMPANY  
PHYSICAL DEPRECIATION AND PRESENT VALUE

Item	COST TO REPRODUCE AND PHYSICAL DEPRECIATION.					PRESENT VALUE	
	Cost to Reproduce	Age Yrs.	Prob. Life Yrs.	Annual Deprec.	Total Deprec.	Without Overhead charges	With Overhead Charges
BROT. FWD.	\$747,811.			13,456.	325,468.	422,343.	503,708.
<u>PIPE LINES</u> as per details on separate sheet	26,531.			1,409.	17,169.	9,362.	11,531.
Meters	684.						356.
Materials	3,481.						3,389.
Tools, etc	3,985.						3,322.
Telephone	<u>807.</u>	19	34	<u>24.</u>	<u>452.</u>	<u>355.</u>	<u>437.</u>
	\$783,299.			14,889.	343,089.	432,060.	522,743.

\*No contractor's profit; only 12% overhead charges.



Item	Basic Reproduction	Basic Deprec.	: With 10% Contractor's profit & 12% Overhead charge.			
			Reprod. Cost	Annual Deprec.	Total Deprec.	Present Value

SUMMARY OF REPRODUCTION COST, DEPRECIATION AND PRESENT VALUE.

Real Estate & Rights of Way	148,342.	none	*166,143.	none	none	*166,143.
Buildings & Improvements	10,700.	6,830.	13,182.	418.	8,415.	4,767.
Guyamaca Dam	30,857.	8,331.	38,016.	381.	10,264.	27,752.
Diverting Dam	27,647.	7,465.	34,061.	340.	9,197.	24,864.
Flume	462,218.	294,162.	569,453.	14,486.	362,410.	207,043.
Eucalyptus Dam	8,863.	1,950.	10,919.	110.	2,403.	8,516.
La Mesa Dam	13,185.	2,505.	16,244.	163.	3,086.	13,158.
La Mesa Ditch	5,760.	3,018.	7,096.	186.	3,718.	3,378.
Murray Hill Dam	40,239.	1,207.	49,574.	495.	1,487.	48,087.
Pipe Lines	26,531.	17,169.	32,686.	1,733.	21,155.	11,531.
Meters			684.	14.	328.	356.
Materials on hand			3,481.		92.	3,389.
Tools, etc.			3,985.		663.	3,322.
Telephone	<u>807.</u>	<u>452.</u>	<u>994.</u>	<u>30.</u>	<u>557.</u>	<u>437.</u>
	\$775,149.	343,089.	946,518.	18,356.	423,775.	522,743.

\*12% overhead charges are added; no contractor's profits.



CUYAMACA WATER COMPANY

Item	Quantity	Unit	Cost	Sub-Total	Total
<u>REAL ESTATE AND RIGHTS OF WAY</u>					
Rights of Way	229.4	acres	\$25.	\$5735.	
Cuyamaca Lands	1675	"	76.75	128571.	
La Mesa Reservoir	96.7	"	100.	9670.	
Eucalyptus Reservoir	4.36	"	100.	436.	
Murray Hill Reservoir	26.2	"	150.	<u>3930.</u>	
					\$148,342.



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CUYAMACA WATER COMPANY

VALUATION OF PROPERTY CONSTRUCTED

OR ACQUIRED

BETWEEN

JUNE 1st. 1912.

and

JUNE 1st. 1914.

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CUYAMACA WATER COMPANY

REPRODUCTION COST

Item	Quantity	Unit	Unit Cost	Sub-total	Total
<u>LANDS &amp; RIGHTS OF WAY PURCHASED BY CUYAMACA WATER CO.</u>					
Site for Chocolate Pumping Plant	160	acres	39.17	\$6268.00	\$6268.00

LANDS & RIGHTS OF WAY DONATED TO CUYAMACA WATER CO.

Site for Webster Reservoir	0.14	acres	1428.57	200.00	
Site for Miles Reser- voir No. 1.	3	"	333.33	1000.00	
Site for Miles Reser- voir No. 2	$\frac{1}{2}$	"	400.00	200.00	
Right of Way for 4" Pipe Line from Webster Reservoir to Chase and San Diego Ave.	$\frac{1}{4}$	"	320.00	80.00	
Right of Way for 4" Pipe Line from Miles Re- servoir No. 1 to Miles Reservoir No. 2	$\frac{1}{4}$	"	320.00	<u>80.00</u>	
					\$1560.00



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CUYAMACA WATER COMPANY

REPRODUCTION COST.

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Sub-total</u>	<u>Total</u>
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SLUICE GATES FOR DIVERTING DAM

24" x 24" Steel Gate	1	each	197.50	\$198.00	
30" x 30"       "       "	1	"	269.50	269.00	
36" x 24"       "       "	2	"	221.00	442.00	
Cartage & Freight	1	lot	12.42	<u>12.00</u>	\$ 921.00

FLUME FOR BY-PASSING WATER

Lumber	27	MBM	35.00	945.00	945.00
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TEMPORARY DIVERTING DAM

Lumber	6	MBM	35.00	210.00	
Wet Excavation	140	cu.yds	1.50	210.00	
Back filling and Placing Sand Bags	1	lot	75.00	<u>75.00</u>	495.00

INSTALLING GATES

Wet Excavation	60	cu.yds	1.50	90.00	
Labor and material	1	lot	150.00	<u>150.00</u>	240.00

\$2601.00



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CUYAMACA WATER COMPANY

REPRODUCTION COST.

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Sub-total</u>	<u>Total</u>
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MEASURING STATIONS

BOULDER CREEK WEIR

Concrete	1	lot	120.00	\$120.00	
Lumber	1	"	15.00	15.00	
Blasting, excav- ation & erection	1	"	307.00	<u>307.00</u>	\$ 442.00

MEASURING STATION BELOW  
DIVERTING DAM

Concrete in Anchors and piers	1	lot	65.00	65.00	
Cables and Timber frames	1	"	35.00	35.00	
Labor erecting	1	"	103.00	<u>103.00</u>	203.00

OLD MISSION DAM STATION

Cables	1	lot	26.35	26.00	
Automatic Register Bristol Gage	1	each	57.00	57.00	
Erecting cables and gage	1	lot	100.00	<u>100.00</u>	183.00
					<u>\$ 828.00</u>



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CUYAMACA WATER COMPANY

REPRODUCTION COST.

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Sub-total</u>	<u>Total</u>
<u>LA MESA PUMPING PLANT</u>					
150 H.P. G.E. Motor, 60 cycle, 178 amperes, 440 volts, speed 1200 R.P.M. including com- pensator, oil switch, etc. Weight 3800 lbs. F.O.B. Los Angeles	1	each	950.00	\$ 950.00	
7 inch 2 stage Byron- Jackson Pump, Cap'y 1200 G.P.M. at 170 to 220 foot head. Weight 3300 lbs. F.O.B. West Berkeley	1	"	596.00	596.00	
Excavation for Foundation	1	"	5.00	5.00	
Concrete Foundation	7	cu.yds	11.13	78.00	
Tubes, Bolts, etc.	1	lot	15.00	15.00	
Freight on Machinery	1	"	35.00	35.00	
Haul to plant	1	"	25.00	25.00	
Belt 14" x 55' double leather	1	each	184.00	184.00	
Suction and Discharge lines including valves, specials and fittings	1	lot	101.00	101.00	
Installing, testing and adjusting motor and pump	1	"	75.00	75.00	
Pump House	3000	cu.ft.	0.03	90.00	
General Expense				<u>163.00</u>	
					\$2317.00



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CUYAMACA WATER COMPANY

REPRODUCTION COST.

Item	Quantity	Unit	Unit Cost	Sub-total	Total
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CHOCOLATE CANYON PUMPING PLANT

50 H.P. Fairbanks-Morse Gas Engine, Weight 15200 lbs.F.O.B. Los Angeles	1	each	1650.00	\$1650.00	
4 inch 3 stage Byron-Jack- son Pump- Weight 2150 lbs.F.O.B. West Berkeley	1	"	416.00	416.00	
Belt and Accessories	1	lot	146.00	146.00	
Freight on Engine & Pump	1	"	88.00	88.00	
Haul, 8.7 tons, 12 miles, 45 ¢ ton mile plus \$15. for handling	1	"	62.00	62.00	
Concrete Pump Pit, Engine Foundation & Belt Way- <del>Excavation, mostly wet,</del> and heavily timbered	150	cu.yds.	1.50	225.00	
Concrete	70	"	13.00	910.00	
Tubes and Bolts	1	lot	15.00	15.00	
Reinforcement	50	cwt.	4.50	225.00	
Lumber	2.6	M.B.M.	50.00	130.00	
Roofing	1	lot	30.00	30.00	
Discharge Pipe- 8" O.D. casing	900	Lin.Ft.	1.36	1224.00	
Suction Pipe - 6"Std.Screw	375	" "	1.24	465.00	
4" " "	300	" "	0.87	261.00	
4"O.D.Casing	150	" "	0.74	111.00	
Valves, Specials & Fittings	1	lot	236.00	236.00	
Carried Forward . . . . .				\$ 6194.00	



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CUYAMACA WATER COMPANY

REPRODUCTION COST

CHOCOLATE CANYON PUMPING PLANT(Continued)

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Sub-total</u>	<u>Total</u>
<u>Brought forward . . . . .</u>					
				<u>\$6194.00</u>	
Installing, adjusting & testing engine & pump	1	lot	150.00	\$150.00	
<u>WELL No.1 - 10" diam.</u> Casing stuck and abandoned	17	Lin.ft.	8.94	152.00	
<u>WELL No.2.- 10" diam.</u> drilled, cased and perforated	46	"	5.58	257.00	
<u>WELL No.3.- 24" diam.</u> drilled, cased and perforated	47	"	20.65	973.00	
<u>WELL No.4.- 24"diam.</u> drilled, cased and perforated	42	"	22.40	<u>940.00</u>	<u>\$2322.00</u>
<u>SHAFT "A"</u>					
42 inch Concrete Pipe	20	Lin.ft.	4.30	86.00	
Haul & Handling Pipe	1	lot	78.00	78.00	
Excavation, wet	50	cu.yds.	5.00	250.00	
Timbering	1	M.B.M.	35.00	35.00	
Pumping out shaft	1	job	100.00	<u>100.00</u>	<u>549.00</u>
<u>SHAFT "B"</u>					
38" Steel Shaft 12 Lin.ft.	650	lbs.	0.06	39.00	
Excavation, wet	30	cu.yds.	5.00	150.00	
Timbering	1	M.B.M.	35.00	35.00	
Pumping out shaft	1	job	100.00	<u>100.00</u>	<u>324.00</u>
<u>Carried forward . . . . .</u>					<u>9389.00</u>



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CUYAMACA WATER COMPANY

REPRODUCTION COST.

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Sub-total</u>	<u>Total</u>
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CHOCOLATE CANYON PUMPING PLANT (Continued)

BROUGHT FORWARD	.	.	.	.	\$ 9389.00
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TRENCH

Excavation	750	cu.yds.	1.20	\$900.00	900.00
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TIMBER GALLERY

Excavation	100	cu.yds.	1.20	120.00	
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Timbering	4	M.B.M.	35.00	<u>140.00</u>	240.00
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General Expense -				788.00	788.00
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Pump House, corrugated iron	3840	cu.ft.	0.06½	250.00	250.00
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\$11717.00



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CUYAMACA WATER COMPANY

REPRODUCTION COST.

Items	Quantity	Unit	Unit Cost	Sub-total	Total
<u>PUMPING PLANT NO.3 - NEAR SCHOOL HOUSE ON INDIAN RESERVATION.</u>					
15 H.P. Fairbanks-Morse Gas Engine, Weight 4750# F.O.B. Los Angeles	1	each	\$ 650.00	\$ 650.00	
Dean Vertical Triplex Pump, 8"x8", Weight 7600# F.O.B. Los Angeles	1	"	646.00	646.00	
Freight on Engine & Pump	1	lot	62.00	62.00	
Haul- 6.2 tons, 15 miles @ 45 \$ ton mile plus \$10. for handling	1	"	52.00	52.00	
Installing, adjusting & testing engine & pump	1	"	40.00	40.00	
Excavation for Foundations	1	"	5.00	5.00	
Concrete Foundations	10	cu.yds.	11.00	110.00	
Preparation of Site, level- ing, clearing, etc.	1	lot	113.00	113.00	
Belts, pulleys, check valves, specials & fittings - estimated	1	"	150.00	150.00	
Discharge Pipe- 6" O.D. Casing	340	Lin.ft.	1.02	347.00	
Suction Pipe-4"O.D.Casing	275	"	0.74	204.00	
" " 3"Std.Screw	227	"	0.72	163.00	
5 Wells -10" Diameter cased and drilled	225	"	4.07	916.00	
Pump House	1900	cu.ft.	0.03	57.00	
General Expense				<u>238.00</u>	
					\$3753.00



CUYAMACA WATER COMPANY

REPRODUCTION COST

Item	Quantity	Unit	Unit Cost	Sub-total	Total
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PUMPING PLANT NO.4 - BELOW DIVERTING DAM

7 H.P. Gas Engine, Weight 2550# F.O.B. Los Angeles	1	each	\$ 410.00	\$410.00	
3 1/2 inch Byron-Jackson single stage Pump - Weight 375# F.O.B. West Berkeley	1	"	68.00	68.00	
Freight on Engine & Pump	1	lot	16.00	16.00	
Haul - 1.5 tons, 18 miles, 45 ¢ ton mile, plus \$5. for handling	1	"	17.00	17.00	
Excavation for foundation	1	"	5.00	5.00	
Concrete Foundation	7	cu.yds	11.00	77.00	
Tubes & Bolts	1	lot	10.00	10.00	
Shaft 6'x6'x20' deep - heavily timbered - in wet excavation	75	cu.yds.	3.00	225.00	
Belt, Pulleys, Suction and Discharge Pipe, specials, valves & fittings	1	lot	90.00	90.00	
Installing, adjusting and testing pump & engine	1	"	25.00	25.00	
General Expense				<u>62.00</u>	
					\$1005.00



CUYAMACA WATER COMPANY

REPRODUCTION COST

Item	Quantity	Unit	Unit Cost	Sub-total	Total
<u>SAND CREEK SIPHON</u>					
Excavation & Backfill	2450	cu.yds	\$ 0.75	\$ 1838.00	
42" Reinforced Concrete Pipe	1227	Lin.ft.	4.29	5267.00	
<u>INLET &amp; OUTLET STRUCTURES</u>					
Concrete	20	cu.yds.	13.50	270.00	
Reinforcement	2.5	cwt.	4.50	11.00	
Timber Screens	2	each	5.00	10.00	
Excavation & Backfill	50	cu.yds.	1.00	50.00	\$ 7446.00

CONCRETE CONDUIT "A"

Bottom Width 3', depth 4', side slopes $\frac{1}{2}$ to 1, probable thickness 5", length 1100' -					
Excavation	1600	cu.yds.	1.50	\$2400.00	
Concrete	205	"	13.50	2768.00	
Reinforcement wire netting	154	squares	1.00	154.00	\$ 5322.00

CONCRETE CONDUIT "B"

Concrete Flume - width 3'-8", depth 3'-2", side walls 3" thick, bottom 3" to 6" thick-Clinton Mesh Reinforcement, length 250 feet -					
Excavation	25	cu.yds.	1.50	43.00	
Concrete	35	"	13.50	473.00	
Reinforcement	60	cwt.	5.00	300.00	
Brace Bars	1.7	"	4.00	7.00	\$823.00



CUYAMACA WATER COMPANY

REPRODUCTION COST

Items	Quantity	Unit	Unit Cost	Sub-total	Total
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CONCRETE CONDUIT "C"

Semi-Circular Concrete  
Lined Channel- diam. 6',  
Depth 3'-6", Reinforce-  
ment wire mesh. "Cement  
Gun" process. Length  
212 feet -

Excavation	145	cu.yds.	1.50	\$218.00	
Cement Lining & Re- inforcement-Con- tract work	212	Lin.ft.	2.20	<u>466.00</u>	\$684.00



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CUYAMACA WATER COMPANY

REPRODUCTION COST.

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Sub-total</u>	<u>Total</u>
<u>STEEL FLUMES</u>					
Excavation, actual cost	1	lot	\$1467.00	\$1467.00	
Concrete Piers	105	cu.yds.	13.50	1418.00	
Lumber, second hand	91	M.B.M.	35.00	3225.00	
Steel Flume - 5'-8 $\frac{3}{4}$ " diam. F.O.B. Lakeside	2530	Lin.ft.	2.00	5060.00	
Steel Flume - 3'-2 $\frac{1}{4}$ " diam. F.O.B. Lakeside	2500	"	.95	2375.00	
Hauling and distribut- ing flume	1	lot	356.00	356.00	
Erection of steel flume 5'-8 $\frac{3}{4}$ " diam.	2530	Lin.ft.	.50	1265.00	
Erection of Steel flume 3' -2 $\frac{1}{4}$ " diam.	2500	"	.30	750.00	
Steel Angles & Stiffen- ers for flume posts	1	lot	487.00	487.00	
Road Construction	1	"	230.00	230.00	

\$16,633.00



CUYAMACA WATER COMPANY

REPRODUCTION COST.

Item	Quantity	Unit	Unit Cost	Sub-total	Total
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LINING WOOD FLUMES

PREPARING FLUME FOR LINING

Mopping with asphalt	13355	square	.027	\$ 361.00	
Nails & Felt	13355	"	.027	361.00	
Freight on material	13355	"	.108	1442.00	
Labor mopping, applying felt, etc.	13355	"	.416	5556.00	
Miscellaneous	13355	"	.028	374.00	
			.606		\$8084.00

LINING FLUME

Flume 6' wide, 1' to 4' high- Length 163,862'					
2 Ply Roofing Material in place	12132	square	2.52	30656.00	
Felt, asphalt and 1 Ply Roofing material in place	1223	"	3.95	4831.00	
	13179		2.66		\$35487.00
					\$43571.00

RAISING SIDE BOARDS ON FLUMES

Sides of flumes were raised 12" to 14" by placing additional boards -					
Lumber, Second-hand	83.3	M.B.M.	\$35.00	\$ 2916.00	\$2916.00



CUYAMACA WATER COMPANY

REPRODUCTION COST.

Item	Quantity	Unit	Unit Cost	Sub-total	Total
<u>STRENGTHENING FLUME STRUCTURES</u>					
Extra Trestle Bents, Posts & Sills - Lumber- Second Hand	69	M.B.M.	35.00	\$2415.00	\$2415.00

MEASURING BOXES

Measuring Boxes	49	each	18.50	907.00	907.00
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CUYAMACA WATER COMPANY

REPRODUCTION COST

<u>Item</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Sub-total</u>	<u>Total</u>
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TUNNELS

LANKERSHIM TUNNEL LINING

400 Lin. ft. of roof,  
lined with concrete slabs  
and back filled with  
lean concrete -

Forms for making slabs	1	set	\$ 84.00	\$ 84.00	
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Cement	45	Bbls.	2.50	113.00	
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Sand	13	cu.yds.	1.00	13.00	
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Broken Stone	26	"	4.00	104.00	
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Labor making slabs	1	lot	129.00	129.00	
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Hauling Slabs and back- fill material to tunnel	1	"	165.00	165.00	
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Labor placing slabs in tunnel & backfilling	1	"	516.00	<u>516.00</u>	
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\$1124.00

EXCAVATION AT PORTALS OF TUNNEL #1 $\frac{1}{2}$

Excavation as per payrolls	1	Job	\$1080.00	\$1080.00	\$1080.00
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CUYAMACA WATER COMPANY

REPRODUCTION COST

Item	Quantity	Unit	Unit Cost	Sub-total	Total
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TELEPHONE LINE

42 Miles Telephone Line  
2 Wires -

1890 poles @ 14 F.B.M. each	2.65	M.B.M.	\$30.00	\$	795.00
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Digging holes, placing poles, backfilling & Tamping	1890	each	0.40		756.00
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Brackets	3.78	M	17.75		67.00
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Insulators	3.78	M	22.00		83.00
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No. 14 Wire	84	cwt.	5.20		437.00
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Freight to Lakeside	1	lot	54.00		54.00
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Haul and distribution	1	"	66.00		66.00
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Stringing wire	42	miles	7.50		<u>630.00</u>
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\$2888.00



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CUYAMACA WATER COMPANY

REPRODUCTION COST.

Items	Quantity	Unit	Unit Cost	Sub-total	Total
<u>PIPE LINES CONSTRUCTED BY CUYAMACA WATER CO.</u>					
1" Standard Screw Pipe	1262	Lin.ft.	0.1944	\$ 245.00	
2" " " "	11606	"	0.2649	3074.00	
3" " " "	5070	"	0.3840	1947.00	
Valves, Specials & Fittings 5%				<u>263.00</u>	\$5529.00
4" Cast Iron Pipe	24	Lin.ft.	0.7046	17.00	
Valves, Specials & Fittings, 5%				<u>1.00</u>	18.00
10" and 12" Cast Iron Pipe, mostly valves, fittings and specials	51	Lin.ft.	9.00	<u>459.00</u>	459.00
14" Riveted Steel Pipe 14 gage Spirally wrapped with Malthoid Roofing material, including valves, specials and fittings	15920	Lin.ft.	1.217	19378.00	
16" - ditto -	24760	"	1.555	<u>38511.00</u>	57889.00
					<u>\$63895.00</u>



CUYAMACA WATER COMPANY

REPRODUCTION COST.

Items	Quantity	Unit	Unit Cost	Sub-total	Total
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PIPE LINES DONATED TO CUYAMACA WATER CO.

3/4" Standard Screw Pipe	10809	Lin.ft.	0.1836	\$1984.00	
1" " " "	8636	"	0.1944	1680.00	
1 1/2" " " "	1935	"	0.2334	452.00	
2" " " "	69531	"	0.2649	18418.00	
3" " " "	4972	"	0.3840	1909.00	
4" " " "	4516	"	0.5197	2347.00	
3" O.D.Casing Pipe	300	"	0.3498	105.00	

Valves, Specials and  
Fittings, 5%

1345.00

\$ 28240.00

4" Cast Iron Pipe	1657	Lin.ft.	0.7046	1168.00	
6" " " "	7422	"	0.9649	7161.00	

Valves, Specials and  
Fittings, 5%

416.00

8745.00

\$ 36985.00



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CUYAMACA WATER COMPANY

REPRODUCTION COST.

Items	Quantity	Unit	Unit Cost	Sub-total	Total
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METERS AND SERVICES DONATED TO CUYAMACA WATER CO.

3/4" Connections and 5/8" Meter	242	each	\$16.00	\$ 3872.00	\$3872.00
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METERS AND SERVICES INSTALLED BY CUYAMACA WATER CO.

3/4" Connection & 1/2" Meter	7	each	\$15.00	\$ 105.00	
3/4" " & 5/8" " * 405*		"	16.00	6480.00	
3/4" " & 3/4" "	18	"	20.00	360.00	
1" " & 1" "	97	"	26.00	2522.00	
1 1/2" " & 1 1/2" Disc Meter	29	"	47.00	1363.00	
1 1/2" " & 1 1/2" Crest "	3	"	42.00	126.00	
2" " & 2" Disc "	9	"	68.00	612.00	
2" " & 2" Crest "	2	"	53.00	106.00	
3" " & 3" " "	4	"	98.00	392.00	
4" " & 4" " "	4	"	188.00	752.00	
6" Compound Meter	1	"	501.00	501.00	
10" Crest "	1	"	751.00	751.00	
					\$14070.00

Deduct Meters shown on  
R.R. Commission's Val-  
uation of June 1, 1912

556.00

\$13514.00

\* 50 of these meters not yet entirely installed  
but work of placing is now in progress. \*



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CUYAMACA WATER COMPANY

				REPRODUCTION COST	
Items	Quantity	Unit	Unit Cost	Sub-total	Total
<u>WEBSTER RESERVOIR - DONATED TO CUYAMACA WATER CO.</u>					
Embankment	300	cu.yds.	\$0.50	\$150.00	
4 inch Gate Valve in place	1	each	8.00	<u>8.00</u>	\$158.00

<u>MILES RESERVOIR NO. 1 - DONATED TO CUYAMACA WATER CO.</u>					
Embankment	4190	cu.yds.	0.45	\$1885.00	
Riprap	2500.	sq.ft.	0.11	275.00	
6" Std.Screw Pipe	175	Lin.ft.	0.785	137.00	
6" Gate Valve in Place	1	each	12.00	12.00	
Inlet Flume	1	"	30.00	30.00	
Earth Ditch	1	"	50.00	<u>50.00</u>	\$ 2389.00

<u>MILES RESERVOIR NO. 2 - DONATED TO CUYAMACA WATER CO.</u>					
Embankment	1700	cu.yds.	0.45	765.00	
Riprap	7500	sq.ft.	0.11	825.00	
6" Std.Screw Pipe	70	Lin.ft.	0.785	55.00	
6" Gate Valve in place	1	each	12.00	<u>12.00</u>	\$ 1657.00



CUYAMACA WATER COMPANY

REPRODUCTION COST.

<u>Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Sub-total</u>	<u>Total</u>
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PUMPING PLANT NO. 5 - DONATED TO CUYAMACA WATER CO.

15 H.P. Otto Gas Engine	1	each	\$650.00	\$650.00	
7" x 8" Gould Triplex Pump	1	"	400.00	400.00	
Freight on Engine & Pump	1	lot	48.00	48.00	
Haul " " " "	1	"	26.00	26.00	
Connections & Foundations	1	"	100.00	100.00	
Pump House Frame	3400	cu.ft.	0.03	<u>102.00</u>	\$1326.00



CUYAMACA WATER COMPANY

REPRODUCTION COST.

Items	Quantity	Unit	Unit Cost	Sub-total	Total
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TOOLS, MATERIALS, ETC., ON HAND

Materials as per Inventory	1	lot	\$4289.00	\$4289.00	
Supplies " " "	1	"	273.00	273.00	
Tools & Equipment " "	1	"	2500.00	2500.00	
Construction Plant	1	"	726.00	726.00	
Camp Equipment	1	"	1017.00	1017.00	
Office Equipment, furniture & Supplies	1	"	2784.00	<u>2784.00</u>	
					\$11589.00
Deduct Tools and Materials shown on R.R. Commission's Valuation of 1912					<u>6711.00</u>
					\$4878.00

EXPENDITURES FOR INVESTIGATIONS OF RESERVOIR SITES ETC. AS SHOWN BY COMPANY'S BOOKS TO MAY 1st, 1914.

El Capitan Reservoir . . . . .	\$3002.00
Conejos . . . . .	1212.00
Poverty Gulch . . . . .	1687.00
Boulder Creek Reservoir & Canal Line to Tule Reservoir . . . . .	<u>2141.00</u>
TOTAL - - - - -	<u>\$8042.00</u>



VALUATION AND DEPRECIATION DETAIL SHEET  
(Without Overhead.)

REPRODUCTION COST				DEPRECIATION			PRESSENT VALUE
Item	Quantity	Unit	Cost	Age · Yrs. Yrs. Life	Annual %	Amt Total	Present Value
Site for Chocolate Pump Plant	160	acres	\$6268.				\$6268.
Site for Webster Reservoir	0.14	"	200.				200.
" " - Miles " No.1.	3	"	1000.				1000.
" " " " No.2.	$\frac{1}{2}$	"	200.				200.
Right of Way for pipe line from Webster Reservoir	$\frac{1}{4}$	"	80.				80.
Right of Way for pipe line between Miles Reservoirs	$\frac{1}{4}$	"	80.				80.
			<u>\$7828.</u>				<u>\$7828.</u>

SLUICE GATES FOR DIVERTING DAM.

24" x 24" Steel Gates	1	each	\$198.	2	50	2	\$4.	\$8.	
30" x 30" " "	1	"	269.	2	50	2	5.	11.	
36" x 24" " "	2	"	442.	2	50	2	9.	18.	
Cartage & freight			12.	2	50	2	0	--	
Installing gates including temporary flume and dam for bypassing water	1	lot	<u>1680.</u>	2	50	2	<u>34.</u>	<u>67.</u>	
			\$2601.				\$52.	\$104.	\$2497.



VALUATION AND DEPRECIATION DETAIL SHEET  
(Without Overhead.)

REPRODUCTION COST							DEPRECIATION		PRESENT VALUE	
Item	Quantity	Unit	Cost	Age Yrs.	Life Yrs.	%	Annual Amt	Total	Present Value	
<u>BOULDER CREEK MEASURING WEIR.</u>										
Concrete	1	lot	\$120.	2	100	1	\$1.	\$2.	\$118.	
Lumber	1	"	15.	2	25	4	1.	1.	14.	
Blasting, Excavation, etc	1	"	<u>307.</u>	2	100	1	<u>3.</u>	<u>6.</u>	<u>301.</u>	
			\$442.				\$5.	\$9.	\$433.	
<u>MEASURING STATION BELOW DIVERTING DAM.</u>										
Concrete	1	lot	\$65.	2	100	1	\$1.	\$1.	\$64.	
Cables & Timber Frames	1	"	35.	2	25	4	1.	3.	32.	
Labor erecting	1	"	<u>103.</u>	2	25	4	<u>4.</u>	<u>8.</u>	<u>95.</u>	
			\$203.				\$6.	\$12.	\$191.	
<u>MEASURING STATION AT OLD MISSION DAM</u>										
Cables	1	lot	\$26.	2	25	4	\$1.	\$2.	\$24.	
Bristol Gage	1	each	57.	2	20	5	3.	6.	51.	
Erecting	1	lot	<u>100.</u>	2	25	4	<u>4.</u>	<u>8.</u>	<u>92.</u>	
			\$183.				\$8.	\$16.	\$167.	



VALUATION AND DEPRECIATION DETAIL SHEET  
(Without Overhead.)

REPRODUCTION COST				DEPRECIATION				PRESENT VALUE	
Item	Quantity	Unit	Cost	Age Yrs.	Life Yrs.	Annual %	Amt	Total	Present Value
<u>LA MESA PUMPING PLANT</u>									
150 Horse Power G.E.Motor	1	each	\$950.	3	20	5	\$48.	\$143.	\$807.
7" 2 stage B.J.Pump	1	"	596.	0	20	5	30.	---	596.
Foundation	1	"	98.	0	20	5	5.	---	98.
Freight	1	lot	35.	2	20	5	2.	4.	31.
Haul	1	"	35.	2	20	5	1.	3.	22.
Belt	1	each	184.	1	20	5	9.	9.	175.
Suction & discharge pipes	1	lot	101.	1	20	5	5.	5.	96.
Installation	1	"	75.	0	20	5	4.	--	75.
Pump House	1	each	90.	0	33-1/3	3	3.	---	90.
General expense	1	lot	<u>163.</u>	1	20	5	<u>8.</u>	<u>8.</u>	<u>155.</u>
			\$2317.				\$115.	\$172.	\$2145.



VALUATION AND DEPRECIATION DETAIL SHEET  
(Without Overhead.)

REPRODUCTION COST							DEPRECIATION	PRESENT VALUE	
Items	Quantity	Unit	Cost	Age Yrs.	Life Yrs.		<u>Annual</u> % Amt	Total	Present Value
<u>CHOCOLATE CANYON PUMPING PLANT</u>									
50 Horse Power Gas Engine	1	each	\$1650.	1	20	5	\$83.	\$83.	\$1567.
4" 3 stage B.J. Pump	1	"	416.	1	20	5	21.	21.	395.
Belt and accessories	1	lot	146.	1	20	5	7.	7.	139.
Freight and haul	1	"	150.	1	20	5	8.	8.	142.
Concrete Pump pit	1	each	1375.	1	100	1	14.	14.	1361.
Roof of pump pit	1	"	160.	1	33-1/3	3.	5.	5.	155.
Suction and discharge pipe	1	lot	2061.	1	20	5	103.	103.	1958.
Valves, Specials & fittings	1	"	236.	1	20	5	12.	12.	224.
Installing, adjusting and testing engine and pump	1	"	<u>150.</u>	1	20	5	<u>7.</u>	<u>7.</u>	<u>143.</u>
FWD. - - - - -			\$6344.				\$260.	\$260.	\$6084.



(Without Overhead.)

REPRODUCTION COST				DEPRECIATION				PRESENT VALUE	
Item	Quantity	Unit	Cost	Age Yrs.	Life Yrs.	%	Annual Amt	Total	Present Value
<u>CHOCOLATE CANYON PUMPING PLANT- - -Cont'd.</u>									
Bro't.F'w'd.			\$6344.				\$260.	\$260.	\$6084.
Wells	1	lot	2322.	1	25	4	93.	93.	2229.
Shaft "A"	1	each	549.	1	25	4	22.	22.	527.
Shaft "B"	1	"	324.	1	25	4	13.	13.	311.
Trench	1	"	900.	1	25	4	36.	36.	864.
Timber Gallery	1	"	240.	1	25	4	10.	10.	230.
General expense	1	lot	788.	1	25	4	32.	32.	756.
Pump House	1	each	250.	1	33-1/3	3	8.	8.	242.
			\$11717.				\$474.	\$474.	\$11243.

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(Without Overhead.)

REPRODUCTION COST				DEPRECIATION				PRESENT VALUE	
Item	Quantity	Unit	Cost	Age Yrs.	Life Yrs.	Annual		Total	Present Value
						%	Amt.		
<u>PUMPING PLANT NO.3 - NEAR SCHOOL HOUSE ON INDIAN RESERVATION</u>									
15 H.P.Gas Engine	1	each	\$650.	2	20	5	\$33.	\$65.	\$585.
8" x 8" Dean Triplex pump	1	"	646.	1	20	5	32.	32.	614.
Freight & Haul	1	lot	114.	1	20	5	6.	6.	108.
Installing, testing and adjusting engine and pump	1	"	40.	1	20	5	2.	2.	38.
Foundations	1	each	115.	1	20	5	6.	6.	109.
Preparation of site, etc	1	"	113.	1	25	4	5.	5.	108.
Belts, pulleys, valves,etc	1	lot	150.	1	20	5	7.	7.	143.
Suction and discharge pipes	1	"	714.	1	20	5	35.	35.	679.
Wells	1	"	916.	1	25	4	37.	37.	879.
Pump House	1	each	57.	1	33-1/3	3	2.	2.	55.
General Expense	1	lot	<u>238.</u>	1	25	4	<u>11.</u>	<u>11.</u>	<u>227.</u>
			\$3753.				\$176.	\$208.	\$3545.



REPRODUCTION COST				DEPRECIATION				PRESENT VALUE	
Item	Quantity	Unit	Cost	Age Yrs.	Life Yrs.	% Annual	Amt Total	Total	Present Value
<u>PUMPING PLANT NO.4 BELOW DIVERTING DAM</u>									
7 H.P. Gas Engine	1	each	\$410.	5	20	5	\$21.	\$103.	\$307.
3 1/2" Single Stage B.J.Pump	1	"	68.	1	20	5	3.	3.	65.
Freight & Haul	1	lot	33.	3	20	5	2.	5.	28.
Foundation	1	"	92.	1	20	5	5.	5.	87.
Shaft	1	each	225.	1	20	5	11.	11.	214.
Belt, Pulleys, suction and discharge pipes, etc.	1	lot	90.	1	20	5	4.	4.	86.
Installing, testing and adjusting engine and pump	1	"	25.	1	20	5	1.	1.	24.
General Expense	1	"	62.	1	20	5	3.	3.	59.
			\$1005.				\$40.	\$135.	\$870.



VALUATION AND DEPRECIATION  
(Without Overhead.)

REPRODUCTION COST							DEPRECIATION	PRESENT VALUE	
Item	Quantity	Unit	Cost	Age Yrs.	Life Yrs.	%	Annual Amt	Total	Present Value
<u>SAND CREEK SIPHON</u>									
Excavation and backfill	2450	cu.yd.	\$1838.	1	100	1	\$18.	\$18.	\$1820.
42" Reinforced concrete pipe installed	1227	lin.ft.	5267.	1	100	1	53.	53.	5214.
Inlet & Outlet structures	2	each	<u>341.</u>	1	100	1	<u>3.</u>	<u>3.</u>	<u>338.</u>
			\$7446.				\$ 74.	\$74.	\$7372.
<u>CONCRETE CONDUITS</u>									
Excavation			\$2661.	1	100	1	\$27.	\$27.	\$2634.
Reinforced Concrete			<u>4168.</u>	1	100	1	<u>42.</u>	<u>42.</u>	<u>4126.</u>
			\$6829.				\$69.	\$69.	\$6760.

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VALUATION AND DEPRECIATION DETAIL SHEET  
(Without Overhead)

REPRODUCTION COST							DEPRECIATION	PRESENT VALUE	
Item	Quantity	Unit	Cost	Age Yrs.	Life Yrs.	%	Annual Amt	Total	Present Value
<u>STEEL FLUMES</u>									
Excavation	1	lot	\$1467.	1	100	1	\$15.	\$15.	\$1452.
Concrete Piers	1	"	1418.	1	100	1	14.	14.	1404.
Lumber - 2nd. hand	91	MBM	3225.	1	20	5	161.	161.	3064.
Steel flume erected	1	lot	9806.	1	33-1/3	3	294.	294.	9512.
Angles & stiffeners	1	"	487.	1	20	5	24.	24.	463.
Road construction	1	each	230.	1	100	1	2.	2.	228.
			<u>\$16633.</u>				<u>\$510.</u>	<u>\$510.</u>	<u>\$16123.</u>
<u>LINING WOOD FLUMES</u>									
Preparing flumes for lining	13,355	squares	\$8084.	0	8	12 1/2	\$1011.	----	\$8084.
2 ply Roofing material in place	12,132	"	30656.	0	8	12 1/2	3832.	----	30656.
Felt, Asphalt and 1 ply Roofing material in place	1,223	"	4831.	0	8	12 1/2	604.	----	4831.
			<u>\$43571.</u>				<u>\$5447.</u>		<u>\$43571.</u>



(Without Overhead)

REPRODUCTION COST				DEPRECIATION				PRESENT VALUE	
Item	Quantity	Unit	Cost	Age Yrs.	Life Yrs.	Annual %	Amt	Total	Present Value
<u>RAISING SIDE BOARDS OF FLUMES</u>									
Lumber - 2nd.Hand	83.3	MBM	\$2916.	1	9	11	\$324.	\$324.	\$2592.
<u>STRENGTHENING FLUME STRUCTURES</u>									
Lumber - 2nd.Hand	69	MBM	\$2415.	1	9	11	\$268.	\$268.	\$2147.
<u>LANKERSHIM TUNNEL LINING</u>									
Concrete roof slabs and backfilling in place	1	lot	\$1124.	1	100	1	\$11.	\$11.	\$1113.
<u>EXCAVATION AT PORTALS OF TUNNEL NO. 11½</u>									
Excavation	1	lot	\$1080.	1	100	1	\$11.	\$11.	\$1069.

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REPRODUCTION COST				DEPRECIATION				PRESENT VALUE	
Item	Quantity	Unit	Cost	Age Yrs.	Life Yrs.	Annual %	Annual Amt	Total	Present Value
<u>MEASURING BOXES</u>									
Measuring Boxes	42	each	\$777.	23	26	4	\$30.	\$688.	\$89.
" "	7	"	<u>130.</u>	0	26	4	<u>5.</u>	<u>---</u>	<u>130.</u>
			\$907.				\$35.	\$688.	\$219.
<u>TELEPHONE LINE</u>									
Poles in place	2.65	MBM	\$1551.	1	33-1/3	3	\$46.	\$46.	\$1505.
Brackets and insulators	3.78	M	150.	1	33-1/3	3	5.	5.	145.
Wire in place	84	CWT	1067.	1	33-1/3	3	32.	32.	1035.
Freight and haul	1	lot	<u>120.</u>	1	33-1/3	3	<u>4.</u>	<u>4.</u>	<u>116.</u>
			\$2888.				\$87.	\$87.	\$2801.



(Without Overhead.)

REPRODUCTION COST							DEPRECIATION	PRESENT VALUE	
Item	Quantity	Unit	Cost	Age Yrs.	Life Yrs.	Annual %	Amt	Total	Present Value
<u>PIPE LINES CONSTRUCTED BY CUYAMACA WATER COMPANY</u>									
Standard Screw Pipe									
1 Inch	160	lin.ft.	\$31.	14	20	5	\$2.	\$22.	\$9.
	225		44.	6	20	5	2.	13.	31.
	877		170.	0	20	5	9.	--	170.
2 Inch	2745		727.	10	20	5	36.	363.	364.
	8861		2347.	0	20	5	117.	---	2347.
3 Inch	1056		406.	10	20	5	20.	203.	203.
	4014		1541.	0	20	5	97.	---	1541.
Valves, Specials & fittings 5%			263.	6	20	5	14.	85.	178.
4 in.Cast Iron pipe	24		17.	0	75	1-1/3	--	--	17.
Valves, Specials & fittings 5%			<u>1.</u>	0	75	1-1/3	<u>--</u>	<u>--</u>	<u>1.</u>
	Fwd.		\$5547.				\$297.	\$686.	\$4861.



(Without Overhead.)

REPRODUCTION COST							DEPRECIATION		PRESSENT VALUE
Item	Quantity	Unit	Cost	Age Yrs.	Life Yrs.	%	Annual Amt.	Total	Present Value
<u>PIPE LINES CONSTRUCTED BY CUYAMACA WATER COMPANY- - - Cont'd.</u>									
Brot.Fwd.			\$5547.				\$297.	\$686.	\$4861.
10" and 12" Cast Iron Pipe mostly Valves, Specials and fittings	51	linft.	459.	0	75	1-1/3	6.	---	459.
14" Riveted Steel Pipe 14 gage. Spirally wrapped with Malthoid Roofing Material, Including Valves, Specials and fittings	15920	lin.ft.	19378.	0	33-1/3	3	581.	---	19378.
16" ( Same as 14")	24760		<u>38511.</u>	0	33-1/3	3	<u>1155.</u>		<u>38511.</u>
			\$63895.				\$2039.	\$686.	\$63209.



REPRODUCTION COST				DEPRECIATION				PRESENT VALUE	
Item	Quantity	Unit	Cost	Age Yrs.	Life Yrs.	Annual %	Amt	Total	Present Value
<u>PIPE LINES DONATED TO CUYAMACA WATER COMPANY</u>									
Standard Screw									
3/4 Inch	60	lin.ft.	\$11.	16	20	5	\$1.	\$9.	\$2.
	800		147.	14	20	5	7.	103.	44.
	265		49.	13	20	5	2.	32.	17.
	1970		362.	11	20	5	18.	199.	163.
	1476		271.	5	20	5	14.	68.	203.
	6238		1144.	1	20	5	57.	57.	1087.
1 Inch	230		45.	14	20	5	2.	32.	13.
	650		126.	13	20	5	6.	82.	44.
	510		99.	11	20	5	5.	54.	45.
	750		146.	9	20	5	7.	66.	80.
	355		69.	6	20	5	3.	21.	48.
	1142		222.	5	20	5	11.	56.	166.
	1146		223.	4	20	5	11.	47.	176.
	1243		242.	3	20	5	12.	36.	206.
	2410		469.	1	20	5	23.	23.	446.
	200		39.	0	20	5	2.	--	39.
	FWD.---		\$3664.				\$181.	\$885.	\$2779.



REPRODUCTION COST							DEPRECIATION		PRESENT VALUE	
Item	Quantity	Unit	Cost	Age Yrs.	Life Yrs.	%	Annual Amt.	Total	Present Value	
<u>PIPE LINES DONATED TO CUYAMACA WATER COMPANY- -Cont'd.</u>										
Brot.Fwd.			\$22534.				\$1125.	\$6148.	\$16386.	
Standard Screw										
3 inch	2260	lin.ft.	868.	2	20	5	43.	87.	781.	
	2712		1041.	1	20	5	52.	52.	989.	
4 inch	670		348.	14	20	5	17.	244.	104.	
	1000		520.	4	20	5	26.	104.	416.	
	1226		637.	2	20	5	32.	64.	573.	
	970		504.	1	20	5	25.	25.	479.	
	650		338.	0	20	5	17.	---	338.	
3" O.D.Casing Pipe	300		105.	13	20	5	5.	68.	37.	
Specials & fittings for all the above listed pipe 5%	1	lot	1345.	6	20	5	67.	404.	941.	
		FWD.- -	\$28240.				\$1409.	\$7196.	\$21044.	



(Without Overhead)

REPRODUCTION COST							DEPRECIATION	PRESENT VALUE	
Item	Quantity	Unit	Cost	Age Yrs.	Life Yrs.	Annual %	Amt.	Total	Present Val
<u>PIPE LINES DONATED TO CUYAMACA WATER COMPANY- -Cont'd.</u>									
Brot.Fwd.			\$28240.				\$1409.	\$7196.	\$21044.
Cast Iron Pipe									
4 inch	1657	lin.ft.	1168.	4	75	1-1/3	16.	62.	1106.
6	7422		7161.	4	75	1-1/3	95.	382.	6779.
Specials, Valves & fittings for Cast Iron pipe 5%	1	lot	416.	4	75	1-1/3	6.	22.	394.
			\$36985.				\$1526.	\$7662.	\$29325.
<u>METERS AND SERVICES DONATED TO CUYAMACA WATER COMPANY</u>									
3/4" Connection & 5/8" meter	242	each	\$3872.	1	20	5	\$190.	\$190.	\$3682.
<u>METERS AND SERVICES INSTALLED BY CUYAMACA WATER COMPANY</u>									
3/4" Connection & 1/2" meter	7	each	\$105.	8	20	5	\$5.	\$42.	\$63.
3/4" " & 5/8" "	63	"	1008.	0	20	5	50.	--	1008.
3/4" " & 5/8" "	286	"	4576.	1	20	5	232.	232.	4344.
		FWD.	\$5689.				\$287.	\$274.	\$5415.



REPRODUCTION COST							DEPRECIATION	PRESENT VALUE	
Item	Quantity	Unit	Cost	Age Yrs.	Life Yrs.	%	Annual Amt.	Total	Present Value
<u>METERS AND SERVICES INSTALLED BY CUYAMACA WATER COMPANY - - Cont'd.</u>									
Brot.Fwd.			\$5689.				\$287.	\$274.	\$5415.
3/4" Connection & 5/8" Meter	13	each	208.	2	20	5	10.	21.	187.
3/4" " & 5/8" "	10	"	160.	4	20	5	8.	32.	128.
3/4" " & 5/8" "	33	"	528.	8	20	5	26.	211.	317.
3/4" " & 3/4" "	1	"	20.	1	20	5	1.	1.	19.
3/4" " & 3/4" "	17	"	340.	8	20	5	17.	126.	214.
1" " & 1" "	1	"	26.	1	20	5	1.	1.	25.
1" " & 1" "	96	"	2496.	8	20	5	125.	998.	1498.
1 1/2" " & 1 1/2" disc. meter	29	"	1363.	8	20	5	68.	545.	818.
1 1/2" " & 1 1/2" crest "	3	"	126.	8	20	5	6.	50.	76.
2" " & 2" disc, "	9	"	612.	8	20	5	31.	255.	357.
2" " & 2" Crest "	2	"	106.	8	20	5	5.	42.	64.
FWD. --			\$11674.				\$585.	\$2556.	\$9118.



REPRODUCTION COST				DEPRECIATION				PRESENT VALUE	
Item	Quantity	Unit	Cost	Age Yrs.	Life Yrs.	Annual %	Amt.	Total	Present Val
<u>METERS AND SERVICES INSTALLED BY CUYAMACA WATER COMPANY - - Cont'd.</u>									
Brot.Fwd.			\$11674.				\$585.	\$2556.	\$9118.
3" Connection & 3" Crest Meter	4	each	392.	8	20	5	20.	157.	235.
4" " & 4" " "	4	"	752.	8	20	5	38.	301.	451.
6" Compound Meter	1	"	501.	0	20	5	25.	---	501.
10" Crest "	1	"	751.	0	20	5	38.	---	751.
			\$14070.				\$706.	\$3014.	\$11056.
Deduct meters shown on R.R.Com.'s Valuation of 1912			556.				11.	244.	312.
			\$13514.				\$695.	\$2770.	\$10744.
<u>WEBSTER RESERVOIR - DONATED TO CUYAMACA WATER COMPANY</u>									
Embankment	300	cu.yd.	\$150.	2	100	1	\$2.	\$4.	\$146.
4 inch Gate Valve	1	each	8.	2	75	1-1/3	-	-	8.
			\$158.				\$2.	\$4.	\$154.



REPRODUCTION COST							DEPRECIATION	PRESENT VALUE	
Item	Quantity	Unit	Cost	Age Yrs.	Life Yrs.	%	Annual Amt	Total	Present Value

MILES RESERVOIR NO 1 - DONATED TO CUYAMACA WATER COMPANY

Embankment	4190	cu.yd.	\$1885.	14	100	1	\$19.	\$264.	\$1621.
Riprap	2500	sq.ft.	275.	14	100	1	2.	39.	236.
6" Standard Screw Pipe	175	lin.ft.	137.	14	20	5	7.	96.	41.
6" Gate Valve	1	each	12.	14	75	1	-	2.	10.
Inlet Flue	1	"	30.	14	25	4	1.	17.	13.
Earth Ditch	1	"	50.	14	50	2	1.	14.	36.
			\$2389.				\$31.	\$432.	\$1957.

MILES RESERVOIR NO 2 - DONATED TO CUYAMACA WATER COMPANY

Embankment	1700	cu.yd.	\$765.	14	100	1	\$8.	\$107.	\$658.
Riprap	7500	sq.ft.	825.	14	100	1	\$8.	\$116.	\$709.
6" Standard Screw Pipe	70	lin.ft.	55.	14	20	5	3.	39.	16.
6" Gate Valve	1	each	12.	14	75	1-1/3	-	2.	10.
			\$1657.				\$19.	\$264.	\$1393.



REPRODUCTION COST							DEPRECIATION	PRESENT VALUE	
Item	Quantity	Unit	Cost	Age Yrs.	Life Yrs.	%	Annual Amt.	Total	Present Value
<u>PUMPING PLANT NO. 5 - DONATED TO CUYAMACA WATER COMPANY</u>									
15 H.P. Gas Engine	1	each	\$650.	14	20	5	\$33.	\$455.	\$195.
7" x 8" Gould Triplex pump	1	"	400.	10	20	5	20.	200.	200.
Freight & Haul	1	lot	74.	13	20	5	4.	48.	26.
Connections & Foundations	1	"	100.	13	20	5	5.	65.	35.
Pump House Frame	3400	cu.ft.	<u>102.</u>	10	33-1/3	3	<u>3.</u>	<u>31.</u>	<u>71.</u>
			\$1326.				\$65.	\$799.	\$527.



Items	Reprod.	Annual	Total	Present	With 21% Overhead			
	Cost	Deprec.	Deprec.	Value	Reprod.	Annual	Total	Present
					Cost	Deprec.	Dep.	Value
PROPERTIES PURCHASED OR CONSTRUCTED BY THE COMPANY								
Lands & Rights of Way	\$6,268.	-----	-----	\$6,268.	\$7,584.	-----	-----	\$7,584.
Sluice Gates for Diverting Dam	2,601.	52.	104.	2,497.	3,147.	63.	126.	3,021.
Boulder Creek Measuring Weir	442.	5.	9.	433.	535.	6.	11.	524.
Measuring Station below Diverting Dam	203.	6.	12.	191.	246.	7.	14.	232.
Measuring Station at Old Mission Dam	183.	8.	16.	167.	221.	10.	19.	202.
La Mesa Pumping Plant	2,317.	115.	172.	2,145.	2,804.	139.	208.	2,596.
Chocolate " "	11,717.	474.	474.	11,243.	14,177.	573.	573.	13,604.
Pumping Plant No.3	3,753.	176.	208.	3,545.	4,541.	213.	252.	4,289.
" " No.4	1,005.	40.	135.	870.	1,216.	48.	163.	1,053.
SandCreek Siphon	7,446.	74.	74.	7,372.	9,010.	90.	90.	8,920.
Concrete Conduits	6,829.	69.	69.	6,760.	8,263.	84.	84.	8,179.
Steel Flumes	16,633.	510.	510.	16,123.	20,125.	617.	617.	19,508.
FWD.---	\$59,397.	\$1,529.	\$1,783.	\$57,614.	\$71,869.	\$1,850.	\$2,157.	\$69,712.



Items	Reprod. Cost	Annual Deprec.	Total Deprec.	Present Value	: With 21% Overhead			
					Reprod. Cost	Annual Deprec.	Total Dep.	Present Value
: PROPERTIES PURCHASED OR CONSTRUCTED BY THE COMPANY- - -Cont'd.								
Brot.Fwd.	\$59,397.	\$1,529.	\$1,783.	\$57,614.	\$71,869.	\$1,850.	\$2,157.	\$69,712.
Lining Wood Flumes	43,571.	5,447.	-----	43,571.	52,721.	6,591.	-----	52,721.
Raising Side Boards on flume	2,916.	324.	324.	2,592.	3,528.	392.	392.	3,136.
Strengthening Flume structures	2,415.	268.	268.	2,147.	2,922.	324.	324.	2,598.
Lankershim Tunnel Lining	1,124.	11.	11.	1,113.	1,360.	13.	13.	1,347.
Excavation at Portals of Tunnel No.1 $\frac{1}{2}$	1,080.	11.	11.	1,069.	1,307.	13.	13.	1,294.
Measuring Boxes	907.	35.	688.	219.	1,097.	42.	832.	265.
Telephone Line	2,888.	87.	87.	2,801.	3,494.	105.	105.	3,389.
Pipe Lines	63,895.	2,039.	686.	63,209.	77,313.	2,467.	830.	76,483.
Meters & Services	13,514.	695.	2,770.	10,744.	16,352.	841.	3,352.	13,000.
Tools,equipment, materials,etc	4,878.	-----	-----	4,878.	5,902.	-----	-----	5,902.
Investigations for future Reservoirs, etc	8,042.	-----	-----	8,042.	9,731.	-----	-----	9,731.
	\$204,627.	\$10,446.	\$6,628.	\$197,999.	\$247,596.	\$12,638.	\$8,018.	\$239,578.



# SUMMARY

Items	Reprod.	Annual	Total	Present	With 21% Overhead			
	Cost	Deprec.	Dep.	Value	Reprod.	Annual	Total	Present
					Cost	Deprec.	Dep.	Value
PROPERTIES DONATED TO THE COMPANY								
Lands & Rights of Way	\$1,560.	-----	-----	\$1,560.	\$1,888.	-----	-----	\$1,888.
Pipe Lines	36,985.	\$1,526.	\$7,662.	29,323.	44,752.	1,846.	9,271.	35,481.
Meters & Services	3,872.	190.	190.	3,682.	4,685.	230.	230.	4,455.
Webster Reservoir	158.	2.	4.	154.	191.	2.	5.	186.
Miles Reservoir No.1	2,389.	31.	432.	1,957.	2,891.	38.	523.	2,368.
" " No.2	1,657.	19.	264.	1,393.	2,005.	23.	319.	1,686.
Pumping Plant No.5	1,326.	65.	799.	527.	1,604.	79.	967.	637.
	\$47,947.	\$1,833.	\$9,351.	\$38,596.	\$58,016.	\$2,218.	\$11,315.	\$46,701.



Items	Reprod. Cost	Annual Deprec.	Total Dep.	Present Value	With 21% Overhead			
					Reprod. Cost	Annual Deprec.	Total Dep.	Present Value
Properties purchased or constructed by the Cuyamaca Water Company since June 1st., 1912.	\$204,627.	\$10,446.	\$6,628.	\$197,999.	\$247,596.	\$12,638.	\$8,018.	\$239,578.
Properties <i>acquired</i> to Cuyamaca Water Company since June 1st., 1912.	47,947.	1,833.	9,351.	38,596.	58,016.	2,218.	11,315.	46,701.
	252,574.	12,279.	15,979.	236,595.	305,612.	14,856.	19,333.	286,279.
Properties owned by Cuyamaca Water Company on June 1st., 1912, as shown by R.R.Com's Valuation. but corrected to show accrued depreciation					946,518.	18,356.	423,775.	522,743.
Grand Totals					\$1,252,130.	\$33,212.	\$443,108.	\$809,022.



**Ed Fletcher Papers**

**1870-1955**

**MSS.81**

**Box: 37 Folder: 10**

**Business Records - Reports - Harroun, Philip  
E - "Report: Value of the Physical Items of the  
Property of the Cuyamaca Water Company"**



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