April 25, 1913. COPY

The Railroad Commission of the State of California.

San Francisco.

Gentlemen:

Under date of April 22, 1913, application to the Commission has been made by Ed Fletcher and James A. Murray, for authority to construct approximately two miles of open steel flume

to cost ----------	$55,000.00
For open concrete conduit and syphon at Sand Creek, to cost approximately	10,000.00
and for open concrete conduit between Monte tunnel and Lankershim Tunnel, to cost ----------	76,000.00
T o t a l ----------	$141,000.00

This new construction is for the replacement of a portion of the flume, which replacement was required in Commission's order recently issued in Application No. 118, and covers the replacement of about eight and one-half miles of said flume by the above mentioned new construction, aggregating about six and one quarter miles in length. The open steel flume and concrete conduit are of what may be called permanent construction, and will permit of no appreciable seepage losses. The evaporation losses which can occur from the surface of the water is exceedingly small, and is practically negligible.

Such construction will probably save about $10,000.00 per mile over covered construction. The additional cost of covered construction would, I believe, result in no corresponding benefit

COPY

either to the Company or consumer. I, therefore, recommend that this application be granted.

Very truly yours,

(S) P. E. HARROUN,

Hydraulic Engineer.

PEH-od

WK

10-20-13.

PHILIP E. HARROUN
MEMBER, AMERICAN SOCIETY OF CIVIL ENGINEERS.
SPECIALTY: HYDRAULICS.
WATER SUPPLY, POWER, IRRIGATION.

EXAMINATIONS AND REPORTS.
VALUATION, ECONOMY AND MANAGEMENT.
PLANS AND ESTIMATES.
SUPERVISION OF CONSTRUCTION.

58 Sutter St.

San Francisco Calif.,Oct. 16, 1913.

Mr. W. S. Post,

San Diego, Calif.

Dear Mr. Post:

From the enclosed announcement you will see that I have severed my connection with the Railroad Commission and have opened my office for private practice again. Consequently when you hear of my being in your neighborhood again, I hope you will not find it necessary to take to the tall timber.

I expect that it will be some time before I will get back the practice which I gave up when I became connected with the Commission in March, 1912, and I would like to speak for your good offices if you hear of anything in my line which you, yourself, do not wish or have not the time to handle.

If you come up here be sure and come and see me. I dont want to loose touch with some of the good friends which I have found in your section. Let me hear from you when you have time.

Sincerely yours,

PHILIP E. HARROUN
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SUPERVISION OF CONSTRUCTION.

58 Sutter St.

Phone Sutter 1554.

San Francisco, October 20, 1913.

Mr. Ed. Fletcher,

920 Eight St.,

San Diego, Calif.

Dear Mr. Fletcher:

Your favor of the 18th is at hand and I want to,thank you for your kind wishes for my success.

You ask what my charges will be per day. I have hardly yet laid out a schedule of charges, but what I want to do is to do a business which will please my clients in every way. I have thought that I should charge such rates as are charged by such men as Finkle, Lippincott and O'Shaughnessy, but what their charges are I do not now know. However, I can say to you personally, that on a per diem basis I would be glad to make you a charge of $25 per day. This should be net to me and would not include expenses.

There are certain classes of work for which it would be better to charge a fixed sum or a percentage on the cost of the work. I also think it would be to the advantage of some corporations to retain me at a certain sum per annun for which I would give my services at a reduced rate up to a certain designated amount, after which an excess charge might be made. I think it probable that any rate should be modified according to the circumstances of each particular case.

Be sure you will get a square deal and that my charges

Mr Post

Philip E. Harroun

MEMBER AMERICAN SOCIETY OF CIVIL ENGINEERS
MEMBER PACIFIC ASSOCIATION OF CONSULTING ENGINEERS

Announces that he has severed his connection with the Railroad Commission of California and resumed his practice as Consulting Hydraulic Engineer.

Design, Supervision and Construction of Projects for the Water Supply of Cities and Towns, Irrigation, Reclamation and Power Development.

Service, Economy and Management.

Problems pertaining to Rate Firing for Irrigation, Domestic and Municipal Water Supply.

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under all circumstances will be such that you will have no complaint whatever.

With very best regards, I am,

Very truly yours,

P E. Harroun

March 1, 1914.

Mr P. E. Harroun,

58 Sutter St.,

San Francisco, Cal.

Dear Sir:

City of Oceanside - Water Question.

I enclose herewith, some reports which may save you some time. As you will see, they do not bear entirely on the subject, but may contain some suggestions.

Arthur L. Adams to City of Oceanside - 1897.
W. S. Post to Wm. G. Henshaw - 1912.
W. S. Post to V. L. & W. Co. - 1912.
F. C. Finkle to City of Oceanside - 1912.

I also enclose a transcript of the U. S. Geological Survey records as far as they have been taken. On a copy of this transcript, I have placed in ink, computed runoffs from comparative data, other streams, etc., which will perhaps be of assistance.

The diversions now existing below Warners Dam are listed on a separate sheet.

I shall forward tomorrow, a map showing the drainage areas and the distribution of mean rainfall.

I hope these papers will give you a start. Call on me for anything further as you get into the subject.

Please return at your convenience, the reports marked "office copy". We have duplicates of the others.

Very sincerely yours,

P-K

DITCH DIVERSIONS BELOW WARNERS DAM.

SAN LUIS REY RIVER.

See also page 12 and exhibit "B" of Report by W.S.Post, June 18,1912.

Escondido Ditch:

This ditch was taken out in 1889 with a maximum capacity of 800 miners inches. The intake is about 12 miles below Warners Dam and has a drainage area of 246 square miles including Warners. Its maximum capacity for the first 3 miles is now 3,000 inches. The capacity of the receiving reservoir (Bear Valley) is 3,500 acre-feet. A complete settlement has been made with the Escondido Company consenting to Warners Dam diversion, provided the V. L. & W. Co. guarantee 275 inches continuous flow, or 4,000 acre-feet at point of diversion.

On its part, the Escondido Ditch in consideration of its right-of-way to the Government and protection of Indian Reservations at Rincon, guarantees to ~~xxxxxx~~ maintain a minimum flow of 75 miners inches down the River.

As a matter of fact, this ditch does not divert out of the Watershed over 2,500 acre-feet at the most.

Pala Indian Ditch:

Ditch water right 250 miners inches. Probable use 800 acre-feet.

Rincon Ditch:

Probable use 100 acre-feet. Ditch right 50 miners inches.

Moreno Ditch:

Ditch right 50 miners inches. Probable use 300 acre-feet.

San Luis Rey Irrigation Co. Ditch:

Ditch right about 600 miners inches. Probable use 400 acre-feet.

Libbey Ditch:

Probable ditch right 150 miners inches. Probable use 400 acre-feet.

Pumping Plants:

There may be 20 or 30 pumping plants from Pala to the Ocean. No tabulation of their capacity has been made, but during the summer months very likely 1,000 miners inches is pumped.

City of Oceanside Pumping Plant:

See report of W. S. Post June 18, 1912 appendix "A" for fragmentary pumping plant record. My notes of the machinery in the pump house are mislaid. It is an oil burning steam plant, with a large Duplex Pump and a duplicate spare pump. I should not be surprised if the capacity was 600 to a 1,000 gallons per minute

Note regarding evaporation:

My theory is that the discharge at Pala should equal plus runoff below Pala the following items:

(a) Ditch diversions less return waters
(b) Pumping plants less return waters
(c) Evaporation from moist land areas
(d) Runoff into the Ocean

TRANSCRIPT OF U. S. GEOLOGICAL SURVEY RECORDS.

SAN LUIS REY RIVER.

Annual Discharge in Acre - Feet.

	Near Mesa Grande (Warners Dam)	Near Pala	At Bonsall	At Oceanside (waste to ocean)
Elevation -----	2620 ft.	550 ft.	160 ft.	20 ft.
Drainage area -	210 sq.mi.	318 sq.mi.	511 (487) sq.mi.	568 sq.mi.
July-July				
1904-05		41,868		
1905-06	66,957	106,302		
1906-07		84,571		
1907-08		24,849		
1908-09		48,075		
1909-10		47,027		
1910-11				
1911-12	11,723	18,731+	15,950+	16,020+
1912-13	7,152	#	7,056	2,524
1913-14				
July-Dec-1913	620	#	43	0
January-1914	4,740	#	#	5,370
February-1914	12,100	#	#	#

+ = Minor interpellations by W. S. Post.
# = Not yet reported.

Copy for C.F.

April 24, 1914.

Mr. Philip E. Harroun,

58 Sutter Street,

San Francisco, Cal.

My dear Mr. Harroun:

By the direction of Mr. Fletcher we wish that you would take up personally with the Commission as our representative, the question of rates upon which dispute or complaints have been registered with the Commission.

We enclose herewith copy of letter dated January 15th 1914 received from the Railroad Commission addressed to Mr. Ed. Fletcher, together with his answer dated April 9th, 1914. The Railroad Commission also have a sketch or map that we ~~went to the trouble of making for the express~~ made for the purpose of making it more clear to the Commission.

The complaints are confined to those groups of consumers who own their own distributing systems. The Commission seems to be in doubt as to their policy in these cases. However, these cases were carefully considered in the rules approved August 27th, 1913.

At the time the rules were adopted, the Commission indicated that any deviation from the exact wording of the decision which could be construed as changing the rates there announced must be avoided. It is for this reason that as far as presenting rules on our initiative was concerned ~~that~~ we could not segregate into the same class ~~as~~ with the La Mesa Mutual Water

Company and other privately owned pipe lines. In the Commission's letter of January 15th, 1914, they seemed to desire that we should propose a rule for such tracts. If I remember correctly, the rules first submitted to the Commission did contain a phrase stating that privately owned pipe lines in the La Mesa region should have the status of the La Mesa Mutual Water Company, and so on down the line, using the status of the Pacific Building Company for group distribution at the lower end, but my understanding was that such a rule would be in conflict with the decision.

The privately owned lines are as follows:

FLUME:

Lakeview Pipe Line
Lakeside "
Hawley "
Hillsdale Flume
Cresson "

These privately owned lines call for about 96 miners inches, or constitute one-half of the consumers upon the flume.

HIGH SERVICE:

Lemon Grove
Spring Valley
La Mesa and vicinity

totaling 70 miners inches out of a total of 120 miners inches upon high service. The La Mesa Mutual Water Company is not included here, but we sell to them through a master meter.

LOW SERVICE:

Low service has practically no private lines at this time, the real estate owners and original owners of the tracts having generally turned over their pipe lines after ~~serving~~ receiving the bills under the new rates.

In taking up this matter with the Commission, it will be clearer than that this matter of privately owned pipe lines is not a minor administrative question, but that over half of the water served by this company is delivered by and through such lines. In the letter of the Commission it is suggested that we suspend the rates pending a revaluation. We wish to draw attention to Rule 5 showing that unless we collect in the month succeeding that in which a bill is due that we either lose the money, or have to sue in the Justice Court, or, if the arrears amount to over $300.00, we can sue in the Superior Court. I believe our attorney states that proceedings in the Justice Court can not be appealed, and that he does not advise taking any chances on local bias and not being able to carry these cases to the Superior Court. Therefore, we suggest, if it is really true that the Commission is in doubt as to the propriety of collecting the rates as prescribed in the rules approved by them that they issue an order requiring that the sums collected from protestants shall be deposited in a separate account and subject to total or partial refund upon a final decision of the Commission as to its interpretation of the rules which it has approved, and that in the meantime each consumer is ordered to pay the rates prescribed by the rules, and that in case of refusal to pay the current bill that the company is ordered, to enforce the rule by diminishing the water or cutting it off entirely.

It will also be well for the Commission is willing, to consider a rule making all group consumers owning their own pipe

lines to have the status of a wholesale water company, and that we should simply collect wholesale rates on the master meter at the point of service. To us it seems that the mere incident of whether these group are incorporated or not has nothing to do with it. Real estate men lay the pipes, and owning them, should properly be responsible for this water as a wholesale buyer and be regulated by the Commission in the same way as we ourselves are, mutual water companies and incorporated companies, buying water wholesale from us.

We wish to make a sharp distinction between the enforcement of the rules and the Railroad Commission's decision of March 26th, 1913, and the correction of inconsistencies or misapplications by the company's officials if it has occurred. In the former case we ask that the Commission support us in the collection of the meager revenue which they have allowed. In the second case we stand ready to correct errors of judgment made by the officials of the company, and also will be pleased to submit additional rules which will cover those cases upon which complaints have arisen.

For the reason that under the present rules we lose all the revenue if the account is held up for one month, this Company has a suspicion that the merits of these matters are not being presented but the Commission is being worked by those who do not intend to accept in good faith the decision of March 26th, 1913, and we protest against the Commission falling in with these ~~few~~ views.

5.--P.E.Harroun

Most of the complaints will be settled if the Commission will examine Rule 8, second paragraph, and apply to the maps submitted. In case the claim is made of commercial irrigation where we have allowed simply ornamental domestic use, we see no other way but to have the Commission send their representative for a personal inspection of these tracts. We see no need of suspending rates even in these cases, inasmuch as if we are proven to be in error, we will agree to refund the difference.

Yours very truly,

CUYAMACA WATER COMPANY.

By _____
Secretary.

ERC.

April 25, 1914

Mr. Philip E. Harroun,

58 Sutter Street,

San Francisco, Cal.

Dear Sir:

On this same subject of rates, we wish to reply particularly to the letter of the Commission of January 15th, 1914, paragraphs two and three, and state our theory.

In answer to page 2, line 1, et sequi: The discussion is confined principally to "subdivided" water rights,- that is where the original water right say for twenty acres has been subdivided say into 4/10 acre lots, with one or two residual lots of say two acres.

Neither the old company or the present one recognized the subdivision of an original irrigation water right into a large number of small tracts with a house on each by cancellation of original contract and issuing of separate contracts. On the other hand the old company and the new have rendered bills to the individuals constituting the group, and perhaps it may be argued that this is recognition. However, we agree that one house goes free on each of those tracts of over one-half acres, and this we think is reasonable compliance with the <u>spirit</u> of the decision, and it is now so expressed in the rules. The <u>letter</u> of the decision states irrigation water "<u>excepting</u>" domestic uses incident thereto.

It seems to me that the company has construed this as liberally as possible, when they thus admit several houses (one to each subdivided secondary irrigation owner) on tracts of about twenty acres originally, whereas a true farming proportion one house is sufficient for the tract.

Not to charge $1.25 minimum for each domestic consumer (flat rate) wherever located, is a direct disregard of the Commission decision, Page 64, Line 11.

Very truly yours,

CUYAMACA WATER COMPANY

By W. E. P. Secretary

ERC.

COPY

Jan 3d, 1914.

State Railroad Commission,
Attention Mr John M. Eshelman,
San Francisco, California.

Gentlemen:

Enclosed herewith find letters from our Superintendent, also maps, which are explanatory. We want to know if we have interpreted your order correctly or not. I refer particularly to the letter of our Superintendent, Mr Harritt under date of December 30th. Here is a case where at one time this property was all in lemon trees with 1½ inch of water right attached to it. These people have subdivided this property into half acre tracts or more, and as you will see, they have built 41 houses on this 15 acres of ground and have but the property up into about 80 or 90 lots; yet these people are demanding that we furnish them water at 1½¢ a thousand gallons for irrigating purposes and are refusing to pay us but $87.50 a year for furnishing water to 41 houses and allowing any one else to have irrigating water for their lots.

This is simply a samphe of the conditions that exist today. I claim that every one of those houses should pay a minimum of $1.25 a month, that that is not irrigating water any more but instead it is domestic water and should be paid for accordingly.

Referring to Mr Harritt's letter of January 2nd, I think he has covered this matter thoroughly;

This man Mr Ackerman has commenced to subdivide his five acres of land. He has no orchard on this property at all and has sold a little over half an acre off to a man who has built a house on it and gradually he is going to subdivide the rest of it. Yet he says to us "I have ¼ inch of water right and I want you to furnish me a ¼ inch and I will pay you $17.50 a year." Yet he turns around and goes into the retail water business himself and collects the rentals, while we hold the sack and furnish water at 1½¢ a thousand gallons at a big loss.

It you care to, I will send you up an official statement showing that on the rates that were made by the Commission our total income when we furnish a full supply of water the year around only $42,000 at the present rates, whereas we were supposed to collect $66,000. Before the Railroad Commission ever established new rates our gross income averaged something like thirty to thirty-two thousand dollars, so you see our present income is not materially increased, altho you can rest assured we are more than pleased to get rid of the contracts.

I feel that you know me well enough to know that this letter is not written in any spirit of criticism but I sincerely believe, Mr. Eshelman, that when the next change of rates is made, we should eliminate the question of size of the tract of land and sell water according to quantity with a minimum charge to everyone alike, whether it be domestic or irrigation, - say $1.25 a month, and then charge a rate thereafter according to quantity used for irrigation and snd another rate to apply where the water is used for domestic purposes, for

COPY

State Railroad Commission

it goes without saying the domestic supply can stand a higher rate than the irrigation and of course limit the supply of irrigation water to the original amount of the old contracts, at least so long as there is a shortage of supply. We ourselves are to blame for ever asking that the difference between domestic and irrigation water be the size of a lot. In our application we asked for acre tracts or less, to be considered domestic supply. This was a mistake.

I would be pleased to have you sanction if you consistently can our interpretation of this order relative to what is domestic service.

Referring again to our Superintendent, Mr Harritt's letter of December 30th, where we under one interpretation of your order can only collect $37.50 a year for 1½ inch of water rights at $70 an inch per annum, whereas there are 41 houses there and today we claim we should be collecting under those conditions $51.25 a month, the minimum charge of each house being $1.25 a month or $615 a year; the net loss to us on this 1½ inch of water is $527.50 a year.

Thanking you for an early and I hope favorable reply to our interpretation of your order, and asking you to kindly return this map for our files and we will forward you a duplicate if desired, this being the only one we have.

Very truly yours,

Cuyamaca Water Company,

Per

Manager.

FK

4 copies 4/27/14 K

DESIGN SUPERVISION AND CONSTRUCTION
MUNICIPAL WATER SUPPLY
IRRIGATION, RECLAMATION
POWER DEVELOPMENT

PHILIP E. HARROUN
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PHONE SUTTER 1554

VALUATION, ECONOMY AND MANAGEMENT
EXAMINATIONS AND REPORTS
OPERATION AND SERVICE
RATE FIXING PROBLEMS

SAN FRANCISCO, May 6, 1914.

Mr.W.S.Post,
San Diego,
Calif.

Dear Mr.Post:-

I am enclosing you, herewith, a copy of a letter that I am sending to Mr.Fletcher relating to the Oceanside situation. It has taken a great deal of time for the examination of Mr.Finkle's tables and data in order to discover where the fallacy of his argument lay. There are a number of other discrepancies in his tables and report to which I did not call attention because the points brought out are sufficient in themselves to condemn his conclusions.

Sincerely yours,

PEH/dm

P.E.Harroun

DESIGN SUPERVISION AND CONSTRUCTION
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VALUATION, ECONOMY AND MANAGEMENT
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RATE FIXING PROBLEMS

SAN FRANCISCO, May 6, 1914.

Mr.Ed Fletcher, Secretary,
Volcan Land & Water Company,
San Diego, California.

Dear Sir:-

Sometime back you asked my opinion as to what effect the construction of the dam at Warner's Ranch on the San Luis Rey River, by the Volcan Land & Water Company, would have upon the water supply for the City of Oceanside. This was relative to the suit brought by the City of Oceanside against the Volcan Land & Water Company to enjoin that company from the construction of the dam at Warner's Ranch.

In February, in company with Mr.Post, Chief Engineer of the Volcan Land & Water Company, I made an examination of the conditions along the stream as far up as above Pala. Mr.Post has since that time furnished me with a copy of the report by Mr.F.C.Finkle made to the City of Oceanside and dated September 5, 1912, upon the same problem, and has also furnished me the data which he furnished Mr.Finkle, and upon which Mr.Finkle based much of his report.

It has been your desire that I should not analyze the situation independently, but should base my conclusions upon Mr.Finkle's report and give you my opinion as to whether the conclusions he draws therein are logical and sound. This I have endeavored to do, and in presenting the result of

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VALUATION, ECONOMY AND MANAGEMENT
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RATE FIXING PROBLEMS

SAN FRANCISCO.

my analysis below, it is to be understood that Mr.Finkle's figures and estimates, so far as they pertain to the precipitation, run-off and other fundamental data have been accepted as presented in his report.

It has been necessary to determine the amount of water which was used or diverted between Warner's Ranch and Pala for the supply of Escondido. The definite amount is not stated by Mr.Finkle at any point, although Table #51 of his report gives certain diversions. However, it is susceptible of determination in the following manner:

Mr.Finkle gives the run-off at Oceanside with diversion for Escondido deducted (Table #39) as . . . . . 29,206 ac.ft.

He states also that the run-off at Oceanside, after deducting the Escondido and Warner's diversion (Table #40). . . . . .5,857 "

This leaves Warner's diversion as . . . . . .23,349 "

Run-off from 318 sq.mi. of watershed above Pala is given in Table #35 . . . . . 38,372 "

Run-off at Pala, deducting the Warner & Escondido Diversion (Table #37) . . . . . 13,332 "

This leaves for the Warner & Escondido Diversion . . . . . 25,040 "

Warner's Diversion previously determined . . . . 23,349 "

This leaves for the Escondido Diversion . . . . . 1,691 "

We, therefore, have the following conditions:

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VALUATION, ECONOMY AND MANAGEMENT
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SAN FRANCISCO.

	Gross Run-off	Net amount after deducting Escondido Diversion 1,691 Ac.ft.
Run-off at Warner's Ranch	23,349	23,349
Run-off at Pala	38,372	36,681
Run-off at Oceanside	30,897	29,206

From Mr.Finkle's data it is seen that the construction of Warner's Ranch Dam would have conserved all of the run-off passing Warner's Ranch for the last sixty-two years, except a small amount occurring in two seasons. This small amount is negligible. If we assume, therefore, that the entire amount stored behind Warner's Ranch Dam be diverted from the drainage area, we have the following conditions, after such diversion.

	Gross Run-off	Net amount after deducting Escondido Diversion 1,691 ac.ft.
Run-off passing Pala	15,023	13,332
Run-off at Oceanside	7,548	5,857

The above statement is comprehensive and means that after the construction of the dam at Warner's Ranch, and the diversion of the entire water supply at that point and also after the Escondido diversion has been deducted, there would still remain a mean annual run-off at Oceanside of 5,847 Ac.ft.

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SAN FRANCISCO.

It seems to me that the entire problem is answered at this point. Mr.Finkle himself says, under the head of "Stream Flow at Oceanside" "* * * with both Warner's Reservoir and Escondido Reservoir deducted, there would be an annual mean of 5,857.16 Ac.ft. discharged at Oceanside and wasted into the sea."

Mr.Finkle arrives at the conclusion that there would be a deficiency of 1691.18 acre feet for the section between Pala and Oceanside after diversions by Warner's and Escondido Reserroirs. I cannot agree with this conclusion. Under the head "Run-off from Drainage Area between Pala and Oceanside" and "Analysis of the Probable Effect upon Warner's Reservoir Diversion" he enters into the determination of this question. Analysis shows that the 38,372 acre feet given in table #35 and used in his computations contains the amount of water which is diverted by the Escondido ditch. All of the other elements have had this diversion excluded. Consequently the 26,774.16 acre feet which he states is the mean annual supply of water from the watershed below Pala is too low by this amount or 1691.18 acre feet. If we correct the estimate using 28,435 acre feet instead of 26,744 as given, we arrive at 35,910 acre feet as "being the amount left to saturate the river bed and supply underground sources on the average between Pala and Oceanside."

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SAN FRANCISCO.

This it is noted is the exact amount estimated by him as being the "losses between Pala and Oceanside as determined by calculation." Consequently there is neither gain nor loss between these points.

This is true no matter what assumptions are made in determining the loss through evaporation and transpiration, irrigation or use between these points. In other words it is reasoning in a circle and the same result follows no matter what the assumption may be. For instance: let us assume that the evaporation losses between Pala and Oceanside amount to 70,000 acre feet; that the use of water for irrigation is 2800 acre feet and accept his statement that the run-off into the Ocean at Oceanside after deducting Escondido diversion is 29,206 acre feet. (Table #39.) We would therefore have 72,800 acre feet of evaporation, transpiration and use between Oceanside and Pala and 29,206 wasted into the Ocean at Oceanside, a total of 102,006 acre feet. The run-off at Pala amounts to 38,372 acre feet from which is to be subtracted the amount of the Escondido diversion of 1691 acre feet or 36,681 acre feet consequently 65,325 acre feet originates below Pala. According to Table #37 the run-off at Pala after deducting the Warner and Escondido diversion would amount to 13,332 acre feet, which together with the run-off originating below that point would make 78,657

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POWER DEVELOPMENT

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MEMBER, PACIFIC ASSOCIATION OF CONSULTING ENGINEERS
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58 SUTTER STREET
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VALUATION, ECONOMY AND MANAGEMENT
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SAN FRANCISCO.

acre feet. Table 40 states that the run-off at Oceanside after deducting Escondido and Warner's diversion would amount to 5857, consequently there would remain for saturating the sands and providing for evaporation, transpiration and use, 72,800 acre feet. This is exactly the amount which was assumed as being that required for evaporation and use.

As previously stated it simply means that this line of reasoning results in a circle, and will always produce the same amounts that are estimated as being required for evaporation and use between Pala and Oceanside. It may be finally stated that upon the analysis and line of reasoning presented there can be no deficiency in the run-off at Oceanside by the construction of Warner's Ranch Dam unless the Diversion at Warner's Ranch is in excess of 23,349 acre feet, which is the amount contemplated, plus the losses into the Ocean at Oceanside of 5857 acre feet or 29,206 acre feet.

It may be pointed out a second time that as the entire run-off at Warner's Ranch is 23,349 acre feet it will never be possible to divert at that point sufficient water to cause a deficiency at Oceanside.

One other point may be brought out. Mr.Finkle assumes that after the construction of Warner's Ranch Dam and the diversion of those waters without the watershed the

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percolation in the stream bed will be decreased by about 10% of the total amount due to the fact that the waters will be diminished in quantity and time of flow.

I question this assumption. However, assuming it to be correct it can be shown that the probable effect will be unimportant. Assume that the total mean annual percolation and use between Oceanside and Pala after the construction and diversion of Warner's Ranch Dam amounts to 38,710 acre feet. 10% of this is equal to 3871 acre feet. Mr.Finkle assumes that the evaporation and transpiration takes place over 11,058 acres, consequently the deficiency would be 4.12 inches in depth. If such a deficiency were to occur, the result would be that the ground water level would recede or drop until a point was reached where the decreased evaporation and transpiration resulting from this dropping of the ground water would balance the decreased amount of percolation in the sands. According to the best information and formulae available this would result in a lowering of the water table of 6.6 inches only which is practically negligible.

In conclusion one or two points may be brought to attention. As near as can be learned, the City of Oceanside uses less than 300 acre feet per annum. Assuming Mr.Finkle's figures to be correct, after the construction of

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Warner's Ranch Dam and compensating for Escondido diversion there would still remain 5857 acre feet at Oceanside or about nineteen times the amount used by that City.

Accepting his figures and assuming that the City of Oceanside uses 300 acre feet it can be shown that after deducting for the Escondido and Warner Ranch diversion there would remain available for that section below Pala 44,567 acre feet. With this amount of run-off entering and originating within this section it does not seem possible that the City of Oceanside would not be able to obtain many times the amount of its present needs.

Respectfully presented,

_C_O_P_Y_

IC 1538

May 12, 1914.

Mr.P.E.Harroun,
Engineer for the
Cuyamaca Water Company,
Holbrook Bldg.,
San Francisco.

Dear Sir:-

Mr.H.A.Marshall, an alleged consumer of water from the system of the Cuyamaca Water Company, has complained to the Commission particularly in regard to the condition of his meter and meter box. It is stated that he is under contract to receive one and one-half miners inches but in endeavoring to determine by the reading of the meter whether or not he has received the amount of water to which he is entitled, he finds that the box is generally half full of water and the meter dial encrusted with mud.

He also complains against the practice of the Company for charging for full amounts of water as in August of last year when only one half of the supply has been actually received by the consumer.

Will you please explain these matters to the Commission and take any proper steps to put the meter in such condition as to be legible to the complainant.

Respectfully,

RAILROAD COMMISSION
OF THE STATE OF CALIFORNIA,

By
(Signed) Chas.R.Detrick,

Secretary.

RWH/KC

June 1913 ½ supply at 60" pressure 3.75
July " " " 70" " " 4.40
Aug " ¼ " " " " " 2.20
Sept " " " " " " " 2.20
Oct " Domestic supply .50
Nov " " .50
Dec " " .50
Jan 1914 .50
Feb " .50
March " Full supply at 70" pressure 8.80

COPY

IC 1538

May 13, 1914.

Railroad Commission of California,
833 Market ST.,
C I T Y.

Gentlemen:-

Replying to your favor of the 12th. inst regarding the complaint of Mr.H.A.Marshall that his meter box is half full and the meter dial encrusted with mud: I would say that such case is due to an accidental condition and has probably been remedied by this time. The complaint, however, will be brought to the attention of the Company and will be remedied.

In relation to his complaint that the Company charges "for full amounts of water, as in August of last year, when only about half the supply has been received by the consumer": I would say that this has never been the practice of the Company. The Rules and Regulations approved by the Railroad Commission, as of July last, do not permit such practice. Mr.Marshall does not state that he has been charged by the Company in this way but simply complains against its "practice."

I will ask the Cuyamaca Water Company in regard to this matter and advise you upon receipt of the reply from them.

Very truly yours,

PEH/dm

SIGN SUPERVISION AND CONSTRUCTION
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VALUATION, ECONOMY AND MANAGEMENT
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IC 1538

SAN FRANCISCO. May 13, 1914.

Cuyamaca Water Company,
San Diego,
Calif.

Gentlemen:-

Enclosed please find copy of letter from the Commission relating to I.C.1538. I also enclose you, herewith, copy of my letter to the Commission. Will you kindly advise me accordingly.

Very truly yours,

PEH/dm

P.E. Harroun

San Diego, May 15, 1914.

Matthews:

Have Harritt report on this Marshal complaint, and then write a letter in answer, stating the facts to Mr. Harroun, and let me see it before he sends it.

EF-S

May 18, 1914.

Mr. P. E. Harroun,
58 Sutter St.,
San Francisco

Dear Sir:

Mr. Fletcher has referred your letter regarding the Marshall complaint to me. In reply would say, Mr. Marshall's meter was located on the low point of the Old Main in testing out the new main recently laid on El Cajon Ave. there was some leakage at this point and the water accumulated in Mr. Marshall's meter box. Mr Marshall complained to me of this condition and I assured him that within a few days his meter would be moved to a higher point and connected with the new main. This was done and the condition complained of thereby remedied.

As to the company collecting for a larger supply of water than furnished, Mr Marshall is in error. This is not and never has been done by this company.

Very truly yours,

Superintendent.
Cuyamaca Water Company.

H-K

(8)

DESIGN SUPERVISION AND CONSTRUCTION
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I.C.3313

SAN FRANCISCO, May 13, 1914.

Cuyamaca Water Company,
San Diego,
Calif.

Gentlemen:-

I have received from the Commission the following letter:

" I.C. 3313 of the Lemon Grove Mutual Water Company. -

The Commission has received the following statement from the last named company:

'To the Honorable
The State Board of Railroad Commissioners,
San Francisco, Cal.

Gentlemen:-

We acknowledge your letter of April 29th, answering our protest against the Cuyamaca Water Co. and while we accept your decision, owing to the fact that we have been forced to make an arrangement with the Cuyamaca Water Co. to take our water from the Eucalyptus Dam in order to get our full irrigating supply necessary at this time of the year; however we wish to go on record as most emphatically denying the statements of the Cuyamaca Co. as quoted in your letter to us and we declare the statements made in our letter to be correct.

We have recently visited the Eucalyptus Dam and as stated we found that our pipe had not only been removed but that the Cuyamaca Co. had laid their new pipe in the place our old pipe had and that they had connected their new line to the outlet in the Dam used by us. Now if the 'Company' did not know of this change we believe it is time, in order that the consumers' interests may in some way be protected, that the manager of the Company at least keep in touch with the work of the Supt. even if he cannot give time to direct its affairs.

Yours very truly,
Lemon Grove Mutual Water Co.
J.H.Halley, Sec'y. '

We trust that you have a complete file upon this matter and, if not, that you will communicate the same

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I.C.3313

SAN FRANCISCO, May 13, 1914.

to the proper officials of the Company. The Company promised to make good any damage to the pipe line of the Lemon Grove Water Company at Eucalyptus Dam, and this, of course, must be done, which we trust will adjust the present differences between the two concerns."

This is a matter which has been referred to me by the Commission in accordance with your letter to the Commission of May 1st. advising them that you had appointed me your representative before the Commission. I have no information regarding this I.C. 3313 and as it has apparently been adjusted it seems will require no further action on my part.

Very truly yours,

P E Harroun
per dm.

PEH/dm

May 15, 1914.

Mr. Philip E. Harroun,
58 Sutter St.,
San Francisco, Calif.

My dear Mr. Harroun:

Answering yours of May 13, regarding the communication of the Lemon Grove Mutual Water Co., will say that the whole thing is a joke. When we put in our new 16" pipe line in the Eucalyptus dam, we, of course, had to tear out the old one, and the Lemon Grove people who had a connection right at the dam naturally their connection had to go out at the same time. As an accommodation to the Lemon Grove Water Co., we let them tap temporarily at El Cajon Ave., in order to give more pressure when we were pumping water back from the La Mesa dam. They tried to steal a march on us by forcing us to continue forever delivering water at El Cajon Ave., where it joins the old La Mesa road nearly a mile west of Eucalyptus dam - in other words, if we had not made them make the change now, we would forever have had to maintain the mile of pipe line west of Eucalyptus dam, for their benefit, and they are mad about it, because we made them go back to their old hole.

However, I have leased them by the year our old pipe line, for which they are paying $100 a year, and they maintain it. I received a letter from them today accepting it, so our interests are protected. Every statement I made to the Railroad Commission I can prove, if we hear any more from the Lemon Grove people.

Yours very truly,

_____
Manager.

EF-S

RECORD OF MATERIALS REMOVED PAGE ___ OF ___

COLLECTION NAME ED FLETCHER

SERIES & FOLDER TITLE R.R. COMMISSION

Description of Material		Date Of Material	Re-Filed As: Series	Re-Filed As: Folder Title
LETTER	FROM QETRICK OC RRC to EF & LEMON GROVE	16 APRIL 1914		QETRICK
"	MUTUAL WTR CO COMPLAINT TO RRCom re "	APRIL 20 1914		"
"	to CUYA. W.C. from PHILIP E. HARROUN	13 MAY 1914		HARROUN
"	to HARROUN from FLETCHER	15 MAY 1914		"
MEMO	to MATHEWS from FLETCHER	15 MAY 1914		MATHEWS

July 18, 1914.

Mr P E Harroun,

58 Sutter St.,

San Francisco, Cal.

V. L. & W. CO. COPY

Dear Sir:

Attached herewith is an estimate of the cost of the pipe line from San Clemente Reservoir to the stand pipe at University heights in the City of San Diego. I will send soon, an estimate of the conduit from Sutherland Reservoir to the San Diego Flume, also of a conduit from Carroll Reservoir to La Jolla.

Yours truly,

Engineer.
V L & W Co.

H-K

VOLCAN LAND AND WATER COMPANY

ESTIMATE OF COST OF PIPE LINE FROM SAN CLEMENTE RESERVOIR TO CITY STAND PIPE AT UNIVERSITY HEIGHTS. PIPE TO DELIVER 10 MILLION GALLONS PER 24 HOURS.

7940	lin.ft.	24"	riveted	steel	pipe	1/8"	thick	at $1.75 -	$ 13,895.00
31700	"	24"	"	"	"	3/16"	"	" 2.29 -	72,593.00
9250	"	24"	"	"	"	1/4"	"	" 2.93 -	27,102.50
3960	"	24"	"	"	"	5/16"	"	" 3.56 -	14,097.60
3960	"	24"	"	"	"	3/8"	"	" 4.17 -	16,513.20
Crossing San Diego River ----------									3,000.00
Specials and valves ----------									3,000.00
									$150,201.00
Engineering and contingencies at 20% ----------									30,040.00
Cost of acquiring rights of way permits 10.7 miles at $100.00 ----------									1,070.00
Total ----------									$181,311.00

V. L. & W. CO. COPY

SAN DIEGO, CALIFORNIA, July 22, 1914.

Mr. Philip E. Harroun,
58 Sutter St.,
San Francisco, California.

My dear Mr. Harroun:

I have had a talk with the parties representing the Spreckels interest, and they have no objection to your referring in your report to the actual cost of the water to the city of San Diego as being secured from the Spreckels system recently purchased.

I have instructed Mr. Post to send you under separate cover report of the City of San. Diego, showing the cost of water, and by simply referring to this report as showing the cost of the present supply of water nobody's feelings will be hurt. This is one comparison for you to use if you desire to, and is simply a suggestion.

By the way, we do not want to be penalized in the quantity of water that we should have on the San Luis Rey River, owing to the arrangement with the Escondido Mutual Water Company, if we can help it. We are taking up with the Indian Department at the present time the matter of our furnishing pumping plant and the fuel to operate the pumping plant from the sands of the Indian Reservation. If we buy a pumping plant and furnish the fuel, so that the Indian Reservation gets its necessary amount of water

then there will be no need of our turning in any water if there was any shortage for the Indians. This is a good deal cheaper for us to do than to be penalized by you, owing to our contract with the Escondido Mutual Water Company.

This same condition exists on the Cuyamaca system. The Indian agreement calls for 40 miners inches of water. Owing to the fact that the diverting dam and flume line is on the Indian Reservation, and for that privilege, we have been furnishing 40" of water to the Indians. We have lately got the Government's consent, also the riparian owners below unofficially, and we are pumping 40" of water from the Indian Reservation to offset the 40" of irrigation water from the Cuyamaca Lake that we are now giving the Indians on the Cuyamaca system.

We find this a very inexpensive way of securing 40 miners inches of water, and this same arrangement can be made with the Indian Service at Rincon, who have the contract with the Escondido Mutual Water Company. You will hear mor in relation to this later.

I am very anxious to have you go, alone or any way you see fit, to the riparian owners on both rivers, so as to determine the value of the cost of the rest of the riparian rights. You will find that all the lands will

have to be purchased, or practically all. This will give you a better idea of the present value of riparian rights already secured.

As another means of determining the value of water, I want you to ride from Del Mar to Oceanside, to show you the absolute necessity of water there. When water is furnished along the coast that coast will develop more rapidly and under better conditions than the beaches around Los Angeles. I will convince you that I will sell every drop of water for domestic purposes along the coast at 35¢ per thousand gallons, and water can easily be sold at 10¢ to 15¢ a thousand gallons for irrigation purposes for five and ten acre tracts, and this is cheap water. It will be used for intensive cultivation, such as winter vegetables berries, rhubarb, etc. And it is only a question of time when every bit of this water will go into domestic service or will bring a high rate for irrigation purposes for a class of products that one can afford to raise, and which bring high prices, particularly during the winter months.

The same condition applies to the Linda Vista lands. Here is a local condition that affects Southern California alone, and water had an added value in Southern California over anywhere else in the United States. As far as domestic supply is concerned, there is no question that

P. E. H., -3-

water is worth as much or more here for domestic services as in San Francisco, Oakland or Alameda, where you are paying from 28¢ to 35¢ per thousand gallons.

In making your report, will you kindly mention the gross yield and then the safe net yield, showing what, in your opinion, is the loss.

We will want to include our expenditures for July and August, a statement of which will be sent you shortly for July.

When do you think that it will be possible for you to come to San Diego for one more trip? I want to go over several matters with you in my previous reports, that I am sure will give you further enlightenment and be of interest.

With kind regards,

Very sincerely yours,

F-S

Mr. Henshaw:

The above is explanatory, and for your information.

Very truly yours,

F-S

July 25, 1914.

Mr. Philip E. Harroun,
58 Sutter St.,
San Francisco, Cal.

Dear Sir:-

I have read your letter of July 22nd and contents noted in relation to priorities on the San Luis Rey River. Our written offer to the City of San Diego includes a guarantee to deliver the riparian rights on the entire San Luis Rey River excepting the City of Oceanside. I have before me your letter of priorities on the San Luis Rey River. I don't see how this is a matter for you ever to investigate for the reason that we are either going to buy the land outright or have bought the land outright or have or will acquire the riparian rights on every priority on your list excepting the question of the Escondido Mutual Water Company and the U. S. Government and the City of Oceanside. Those are the only two matters it seems to me that you should take into consideration.

Taking up your priorities by number outside of the Escondido Ditch and the Government, No. 5 Moreno Ditch, we are either going to buy or condemn this property.

No. 6, Monserate Pumping plant, we have acquired all the riparian rights on this property.

No. 7, Canfield estate, we have all riparian rights.

No. 8, San Luis Rey Irrigation Company ditch, this has been abandoned and has not been used for eight or ten years. However, we have bought or will acquire the rights.

No. 9, Libbey Ditch, we have already bought practically all these rights and are going to buy the rest under our contract with the City.

This also applied to No. 10, the Jones pumping plant.

No. 11, P.P.Herman; No. 12, Bland, we have all riparian rights. No. 13, Mission Ditch, this has been abandoned for 10 years.

No. 14, South Coast Land Company, we have the riparian rights on all this property.

No. 15, Hubbert, we have the riparian rights on this property.

Now, Mr. Harroun, I may be wrong, but I don't see where you are interested at all in the investigation of these different matters on the San Luis Rey River as we have contracted to furnish them at our own expense and will do it even if we have to buy all these lands or condemn the rights. It seems to me that your only interest in the San Luis Rey River is how much water falls east of the Warners Dam. How much water falls below Warners Dam and above the Escondido intake and is this sufficient to supply Escondido Mutual Water Company. How much water is to be supplied to the Government under our contract and is there a sufficient amount available below the Dam to take care of the Escondido and the government contracts. If there isn't, how much water will have to be let out of Warner Dam to take care of those two contracts with the Escondido Mutual Water Company and the government. My contention is that there will be sufficient water fall below the Dam to take care of those contracts and if there isn't, we want to be able to make arrangements with the Government to pump at our expense enough water to supply the Indians from their own lands instead of taking any water out of Warners Dam to supply the government.

Regarding the City of Oceanside, you have already rendered an opinion that the City of Oceanside will not be damaged in the matter of lowering their water level in case Warners Dam is built but whether that is a fact or not, it makes no difference because the City of San Diego is the one that must fight that out with the City of Oceanside and they are buying our system subject to any lien that the City of Oceanside may have on the system. Therefore, we must not be penalized and the quantity of our water reduced at all that might be impounded in Warners Dam on account of the City of Oceanside or any riparian owner for our proposition specifically includes all of this and the only thing to take into consideration is whether there is enough water or not which falls below Warners Dam to supply the Escondido people and the Government. Naturally we do not want to have our safe yield from Warners Dam reduced one drop from the total amount that is impounded and if there is any way to avoid it, we want to protect ourselves. That is why I suggested installing a pumping plant and have it operated during the summer months on the Government lands at Rincon. There can never be any question about the Pala Indian Reservation having plenty of water for the Pauma Creek is almost as big as the San Luis Rey River and flows the year round and besides that, the Government has put in pumping plants of their own for the Pala Indians.

If this is not your understanding of our offer to the City, please let me know and I am sure I can convince you that such is the case.

Very truly yours,

EF-BK

COPY

San Francisco, Cal., July 22, 1914

Mr. W. S. Post
San Diego,
California.

Dear Mr. Post:-

I am in trouble in regard to the priorities on the San Luis Rey River below Warner's Dam, and especially in regard to the Escondido and Rincon and Pala Indian situation.

You will remember while I was there I sat with you and took notes from you relating to the priorities on the river. I am sending you a copy of these notes. Is it necessary to sustain or provide for these priorities or have any of these priorities been extinguished through the acquirement by the Volcan Company of the riparian rights? Please indicate just what priorities on this list are alive and must be sustained.

Now, regarding the Indian situation and the Escondido Ditch, I have wired you today asking for information regarding the new contract between the Rincon Indians and the Escondido Ditch. I understand that you are obligated to furnish any deficiency of flow in the river below 1,350 million gallons per annum which the Escondido people are to have subject to the qualification that this must be taken at the rate of 27 million gallons daily.

Now comes the new contract between the Indian Service and the Escondido Ditch whereby 300 inches are to be passed through the Escondido canal. This, as I understand it, is to be used for the development of power and, after such development, for irrigation. Where is the power to be used and by whom, and is it to be a continuous power development throughout the year or only certain portions? In other words, what waters have to be considered and provided for by the Volcan Company, and over what period of time throughout the year in order to satisfy the requirements of the Escondido and the Indian development.

Also: the Pala Indian Ditch with a capacity of 250 miners inches, and a probable use from April 1st to November 1st of 170 acre feet per month, takes out very closely below the gauging station at Pala. This priority must be sustained, if I understand the situation rightly. Is this true?

Please also tell me whether the power developed at the Rincon drop, under the Escondido Ditch, is to be used for

W S Post, #2.

operating the Indian pumping plant at Rincon or the Pala pumping plant at Pala.

What I want to get hold of is a thorough understanding of the situation. I have reached a point in my work, on the San Luis Rey situation, where I can do nothing further until I know the circumstances relating to these questions. Will you not please write me at once regarding the matter?

One thing more. Under Item 6 on the priority list enclosed you will note that the capacity of the Monserate pumping plant is 300 miners inches, used for Alfalfa from May to Nov.1st. My notes give the use as about 150 acre feet. Should this be 150 acre feet per month or for the whole season?

Very truly yours,

(Signed) P. E HARROUN.

PEH/DM

DESIGN SUPERVISION AND CONSTRUCTION
MUNICIPAL WATER SUPPLY
IRRIGATION, RECLAMATION
POWER DEVELOPMENT

PHILIP E. HARROUN
MEMBER, AMERICAN SOCIETY OF CIVIL ENGINEERS
MEMBER, PACIFIC ASSOCIATION OF CONSULTING ENGINEERS
CONSULTING HYDRAULIC ENGINEER
58 SUTTER STREET
PHONE SUTTER 1554

VALUATION, ECONOMY AND MANAGEMENT
EXAMINATIONS AND REPORTS
OPERATION AND SERVICE
RATE FIXING PROBLEMS

SAN FRANCISCO, July 25, 1914.

Mr.Ed Fletcher,
San Diego,
California.

Dear Mr.Fletcher:-

I have yours of the 22nd. inst. and am glad to hear from you. I note that you say you do not wish to be penalized, for the quantity of water that you should have on the San Luis Rey River owing to the arrangement with the Escondido Mutual Water Company, if you can help it, and that you are taking up the matter of furnishing a pumping plant and operating same, taking water from the sands of the Indian reservation in order that there may be no need for your turning water out of the Warner Reservoir during time of low flow.

The question of the priority of the Indians and the Escondido Ditch is, I find, quite important. Your contract of 1912 with the Escondido Mutual Water Company is apparently plain and acknowledges the right of the Escondido people to divert 1,350 million gallons per annum. This contract seems to be subject to the prior rights of the Indians.

In February of this year a contract was entered into by the Indian Department and the Escondido Mutual Water Company defining these Indian rights as six cubic feet per second of continuous flow. The contract declares that if this amount is not needed by the Indians it shall be subject to use and disposition by the Escondido Mutual Water Company. As they are putting in a power plant and expect to generate electricity it appears to me that this water will be used by the Escondido Mutual Water Company, if not by the Indians.

Under the conditions, it seems to me that there is a priority which must be sustained of, first, six cubic feet per second continuous flow to the Indians or to the Escondido Ditch as they may mutually arrange, and, secondly, the priority of the Escondido Mutual Water Company amounting to 1,350 million gallons.

I have a letter from the Department of the Interior, Indian Service, in which they say "In the event of construction of Warner's Dam, some provision must be made to deliver the normal flow of the San Luis Rey River up to 300 miners inches to the intake of the Escondido Ditch for the use of the Indians."

DESIGN SUPERVISION AND CONSTRUCTION
MUNICIPAL WATER SUPPLY
IRRIGATION, RECLAMATION
POWER DEVELOPMENT

PHILIP E. HARROUN
MEMBER, AMERICAN SOCIETY OF CIVIL ENGINEERS
MEMBER, PACIFIC ASSOCIATION OF CONSULTING ENGINEERS
CONSULTING HYDRAULIC ENGINEER
58 SUTTER STREET
PHONE SUTTER 1554

VALUATION, ECONOMY AND MANAGEMENT
EXAMINATIONS AND REPORTS
OPERATION AND SERVICE
RATE FIXING PROBLEMS

SAN FRANCISCO, July 25, 1914.

Under these circumstances, it seems to me that the Volcan Land & Water Company must be prepared to permit the passing of water sufficient to comply with the priorities of the Indians and the Escondido Ditch.

I do not claim to be an attorney in any way and think it probable that legal advice must be had, and possibly suits brought before the courts, to determine the extent of these rights. I do not believe that it is in my province to pronounce upon the legal phase of these rights, and determine legally what they are, but I do not believe that I can escape considering this question in my report and probably providing that the necessary water must be passed Warners Dam to provide for these priorities.

If you can make arrangements with the Indians and provide that water elsewhere, of course it will permit their utilization by the Volcan company. But unless you enter into an agreement to do so I do not see that it will be possible to credit them to the Volcan company under the circumstances.

There is another matter which I believe may be of importance. In your offer to the City you state that you will grant a certain number of acres under each reservoir site for storage purposes. For instance: on page 1 of your offer you say "Warner's Dam Site and 2960 acres of land that will be flooded." My studies lead to the conclusion that in one and possibly more cases, more land than that specified will be required for storage. If this is the case, does the Volcan Land & Water Company stand ready to furnish the additional amount of land required without additional cost over and above it's asking price of two and a half million, or will the Volcan Company confine itself to the actual amount offered, say 2960 acres, for the Warner Site and ask an additional price for any acreage above that which may be necessary for increased reservoir area?

I am making progress slowly with the studies leading up to the report. Some of the problems that have arisen are among the most difficult that I have ever had to pronounce on. I hope to be able to get my report in shape such that it can be presented about the middle of next month.

With best regards, I am

PEH/dm

Sincerely yours,
P E Harroun

WILLIAM S. POST
ASSOC. MEM. A. S. C. E.
FLETCHER BLDG., 924 8TH ST.
SAN DIEGO, CALIFORNIA

August 11, 1914.

Mr. P. E. Harroun,
58 Sutter St.,
San Francisco, Calif.

Dear Sir:

In accordance with Mr. Henshaw's instructions, I have made a final office study of the safe yield of the San Luis Rey River at Warners Dam and the Santa Ysabel River at Pamo Dam.

The results are as follows:

SAFE YIELD - 20 YEAR PERIOD:

San Luis Rey - 30 second feet or 1,500 miners inches.
Santa Ysabel - 28 second feet or 1,400 miners inches.

The safe yield as shown above is defined as being the absolutely dependable quantity which can be supplied continuously through the dryest years or dryest periods known.

METHOD.

This determination is based on what is believed the most thorough possible method; nakely the restoration of daily stream discharge, from the daily rainfall during the years when actual measurements of water flow were not had.

The method consists in first, taking a group of 12 long established stations, in and near these watersheds and establishing a "composite" table or chart of general daily rainfall, which is platted as a rainfall mass curve.

Second: A comparison has been made day by day and storm by storm, with the daily discharge measurements which have been made by and in cooperation with U. S. Geological Survey.

A series of rules became apparent whereby the effect of inches of rainfall became determinate, and the discharge corresponding to it in the past can be restored. These rules also take into account the rate of the precipitation.

Third: These rules were applied to the past years and a restored hydrograph completed covering the period 1894 to 1914, - a 20 year period covering the lowest precipitation period known in California, namely 1895 to 1902.

Fourth: These hydrographs are then introduced in the usual manner in "mass curves." Evaporation deductions are introduced month by month, using 33 inches of annual net evaporation at Warners Dam and 55 inches at Pamo Dam, as indicated in evaporation experiments.

CONCLUSIONS:

The results as assembled on Chart No. 2 - Mass Curves, shows a safe yield at Warners Dam of 30 second feet or 1,500 miners inches for the lowest period, and for the last decade, 32 second feet or 1,600 miners inches.

On the Santa Ysabel River, an assumption of pumping from San Pasqual gravels is made to the extent of 250 miners inches, introduced during three years between 1895 - 1900. In the following decade considerable waste would have occurred, far in excess of the proposed withdrawal from gravels. In other words storage in San Pasqual valley gravels is used in sufficient amount to avoid construction of reservoirs to excessive heights. The results then of Pamo Reservoir supplemented by Sutherland shows a safe yield of 28 second feet, or 1,400 miners inches.

Very sincerely yours,
William S. Post.

WSP-K

DESIGN SUPERVISION AND CONSTRUCTION
MUNICIPAL WATER SUPPLY
IRRIGATION, RECLAMATION
POWER DEVELOPMENT

PHILIP E. HARROUN
MEMBER, AMERICAN SOCIETY OF CIVIL ENGINEERS
MEMBER, PACIFIC ASSOCIATION OF CONSULTING ENGINEERS
CONSULTING HYDRAULIC ENGINEER
58 SUTTER STREET
PHONE SUTTER 1884

VALUATION, ECONOMY AND MANAGEMENT
EXAMINATIONS AND REPORTS
OPERATION AND SERVICE
RATE FIXING PROBLEMS

SAN FRANCISCO, September 5, 1914.

Mr.W.S.Post,
San Diego,
California.

Dear Mr.Post:-

I have your letter of August 31st. regarding estimates of cost which were presented in my report to the City on the Volcan proposition. In presenting those estimates I tried to make it clear that they were only approximate. My idea in so doing was simply to arrive at the cost of the completed system in order to determine whether the proposition was economically sound. I have repeatedly called Mr.Henshaw and Mr.Fletcher's attention to the fact that these estimates were not to be used as a basis for construction, and only for the purpose stated above. However, in accordance with your letter I am enclosing you, herewith, expanded estimates which will show how they were handled. Please keep these estimates confidential, that is, except so far as the Company officials are concerned.

Mr.Henshaw has asked me to make an estimate of the cost of bringing into the City of San Diego ten million gallons daily. I have told him that I did not have the necessary information to make this estimate intelligently. Since your letter has come he has advised me that he has also asked you to prepare such an estimate and that it is his desire that my figures be sent you as you requested; that you prepare your estimate there in San Diego, in detail, and when it has been completed that you arrange to come here and let me go over the entire situation with you.

I do not know how long it will take you to get these matters into shape but presume it will be at least two weeks. I am trying very hard to get away for a week or ten days and may possibly be able to go the middle of this coming week. If I do not go then I shall not be able to go at all, and I need a little rest after the work which I have been carrying for the last ten months. Mr.Henshaw desired that we make arrangements in advance so that your coming here would not be at a time which I should be away. In doing this, of course, there will be no difficulty, as I presume you can see a week or so in advance and we can arrange accordingly.

With best regards,

PEH/dm

Sincerely yours,
P.E. Harroun

VOLCAN LAND & WATER COMPANY

SHORT DESCRIPTION OF PROPOSED CONSTRUCTION

WARNER DAM

Type - Earth Fill

Slopes - 3 to 1 and 2½ to 1.

Height - 94 feet to Flow line, 100 feet to Crest.

Width of Crest 20 feet.

Length of Dam 540 feet. (Approx.)

Elevation of Outlet 2646.
" " Flow line 2709.
" " Crest 2715.
" " Stream Bed 2615 ? (Approx.) 2610

WARNER - PAMO CONDUIT

Capacity - 50 second feet.

PAMO - SAN CLEMENTE CONDUIT

Capacity - 75 second feet.

PIPE LINE FROM SAN CLEMENTE TO UNIVERSITY HEIGHTS

Capacity - 24.67 million gallons daily for one 56 inch pipe line.

CARROLL DAM

Type - Concrete Masonry. Am.Weggeman Section.

Height - 110 feet to Crest and Flow Line.

Width of Crest - 11 feet.

Length of Dam - 370 feet. (Approx.) ?

Elevation of Outlet 2280
" " Crest 2390
" " Stream Bed - 2300 (Approx.)

PIPE LINE FROM CARROLL DAM
TO LOWER TOWN - SAN DIEGO

Will supply approximately 3½ million gallons daily at 40 pounds pressure.

ESTIMATE OF COST OF
WARNER DAM

Byllesby & Company. Investigation, etc.		$50,100.00
Excavation - 70,000 cu.yds. @ $0.45		31,500.00
Embankment 350,000 " @ 0.30		105,000.00
Riprap 240,000 sq.ft. @ 0.06		14,400.00
Cut off Walls including excavation		50,000.00
Outlet Tunnel - 1020 feet @ $18.00		18,360.00
" Basin, Weir, etc		3,000.00
" Tower, Screens, Gates, etc		15,000.00
Footbridge to Tower		2,000.00
Drainage at Foot of Dam		5,000.00
Spillway		20,000.00
Buildings		6,000.00
Water Supply to Buildings.		1,000.00
Equipment, Tools, Live Stock, etc		4,000.00
Improvement of Grounds, Fencing, etc		2,000.00
Unforseen expenditures (Allowance for)		17,640.00
Total cost without overhead		$325,000.00
Deduct		
Expenditures to date for Construction	$58,552.	
" for Byllesby & Company (Investigation)	50,098.	
		$108,650.00
Cost to complete Warner Dam without Overhead		$216,370.00
Add 25% for Engineering and Contingencies		54,630.00
Total cost to complete		$271,000.00

ESTIMATE OF COST OF CONDUIT FROM WARNER DAM TO PAMO RESERVOIR

This estimate is divided into three parts as follows:

I. Conduit from Warner Dam to South End of Lusardi Tunnel.

II. Tunnels on the Above Section.

III. Conduit from South End of Lusardi Tunnel to Pamo Reservoir.

CONDUIT FROM WARNER DAM TO
SOUTH END OF LUSARDI TUNNEL.

15,810	feet of lined conduit	@ $2.70	$42,687.
350	" " " "	@ 6.00	2,100.
5,500	" " flume on bench	@ 4.00	22,000.
1,430	" " " " trestle	6.00	8,580.
23,090			$75,367.

Average cost per foot - $3.26

TUNNELS ON THE ABOVE SECTION

5,000	feet of lined tunnel	@ 18.00	$90,000.
6,600	" " " " (Lusardi)	20.00	132,000.
11,600			$222,000.

CONDUIT FROM SOUTH END OF
LUSARDI TUNNEL TO PAMO RESERVOIR

36,062	feet of lined Conduit & Flumes @	$3.26 $117,562.

SUMMARY OF COST OF ENTIRE CONDUIT

Warner Dam to South End of Lusardi Tunnel Not including Tunnels	$75,367.
Tunnels on the Above Section	222,000.
South End of Lusardi Tunnel to Pamo Reservoir	117,562.
Allowance for Unforseen Expenditures	14,071.
Total cost without Overhead	$429,000.
Add 25% for Engineering & contingencies	108,000.
Total Cost	$537,000.

ESTIMATE OF COST OF PAMO - SAN CLEMENTE CONDUIT

46,084 feet of Lined Ditch	@	$2.70	$124,427.
1,847 " " " "	@	6.00	11,082.
37,080 " " Flume on Bench	@	4.00	148,320.
6,576 " " " " Trestle	@	6.00	39,456.
24,386 " " Tunnels	@	18.00	438,948.
Siphons			100,340.
Total Cost without Overhead			$862,573.
Add 25% for Engineering and Contingencies			215,427.
Total Cost			$1,076,000.

NOTE - - There has been very little data at hand upon which to base this estimate. Further study may result in materially changing this estimate.

ESTIMATE OF COST OF CARROLL DAM

110 ft. - earth dam

Excavation	2000 cu.yds.	@	$0.45	$900.
" Solid Rock	1000 "	@	1.25	1,250.
Concrete	30000 "	@	7.00	210,000.
Outlet Pipe, Gates, Screens, etc				5,500.
" Basin, Weir, etc				2,500.
Clearing and Grubbing	650 acres	@	15.00	9,500.
Buildings, Water Supply, etc				6,000.
Improving Grounds, Fencing, etc				1,000.
Equipment, etc				1,550.
Total cost without Overhead				$238,000.
Add 25% for Engineering and Contingencies				59,500.
Total Cost				$297,500.

ESTIMATE OF COST OF 36 INCH PIPE LINE

FROM SAN CLEMENTE D/H TO UNIVERSITY HEIGHTS RESERVOIR.

39,640 feet 36" Riveted Steel Pipe 5/16" thick. (82 lbs. per foot. 3,250,480 lbs. total weight)	@	$3.76	$149,046.
9,250 feet 36" Riveted Steel Pipe 1/4" thick. (111 lbs. per foot. 1,026,750 lbs. total weight)	@	$4.82	44,585.
3,960 feet 36" Riveted Steel Pipe 5/16" thick. (142 lbs. per foot. 562,320 lbs. total weight)	@	$6.02	23,859.
3,960 feet 36" Riveted Steel Pipe 3/8" thick. (172 lbs. per foot. 681,120 lbs. total weight)	@	$7.02	27,759.
Trenching and Backfilling 52,500 cu.yd.	@	$0.90	47,250.
Haul 2800 tons - 9 miles	@	$0.50 per ton mile	12,600.
Crossing San Diego River			5,000.
Specials, Valves, Bends, etc			6,631.
Right of Way 65 Acres at $50.			3,250.
Total cost without Overhead			$320,000.
Add 25% for Engineering and Contingencies			80,000.
Total Cost			$400,000.

NOTE - - Some changes may be made in thickness of metal in pipes which may alter the estimate.

ESTIMATE OF COST OF PIPE LINE

FROM CARROLL DAM TO SAN DIEGO

TO CONNECT WITH LOWER TOWN SERVICES

(being 32 miles by way of La Jolla to center of town.)

174.000

~~17,600~~ feet 30" Riveted Steel Pipe 3/16" thick @ $5.15 $548,100.

Trenching and backfilling 122,000 cu.yds. @ $0.90 109,800.

Haul - 6,000 tons. - 12 miles @ $0.50 per ton mile 36,000.

San Diego River Crossing 5,000.

Specials, Valves, Bends, etc 11,100.

Right of Way 120 Acres @ $50. 6,000.

Total Cost without Overhead ..... $716,000.

Add 25% for Engineering and Contingencies 179,000.

Total Cost ..... $895,000.

NOTE - - Thickness of metal in pipe may be changed.
This will require changes in the above estimate

Note by W.P.: Mr. Harroun does not estimate at all the Carroll-University Reservoir Line 21¼ miles with pumping plant, ~~as~~ but substitutes the above, which is roughly equivalent.

Copied from Harroun's letter of

September 5, 1914.

ESTIMATE OF COST OF WARNER DAM

Byllesby & Company.	Investigation, etc.,	$ 50,100.00
Excavation - 70,000 cu. yds	at $0.45	31,500.00
Embankment 350,000 "	at 0.30	105,000.00
Riprap 240,000 sq. ft.	at 0.06	14,400.00
Cut off walls including excavation		30,000.00
Outlet Tunnel - 1020 feet	at $18.00	18,360.00
" Basin, Weir, etc.,		3,000.00
" Tower, Screens, Gates, etc.		15,000.00
Footbridge to Tower		2,000.00
Drainage at Foot of Dam		5,000.00
Spillway		20,000.00
Buildings		6,000.00
Water Supply to Buildings		1,000.00
Equipment, Tools, Live Stock, etc..		4,000.00
Improvement of Grounds, Fencing, etc..		2,000.00
Unforseen expenditures (Allowance for)		17,640.00
Total cost without overhead		$325,000.00
Deduct		
Expenditures to date for Construction	$58,532.	
" for Byllesby & Company (Investigation)	50,098.	$108,630.00
Cost to complete Warner Dam without Overhead		$216,370.00
Add 25% for Engineering and Contingencies		54,630.00
Total cost to complete		$271,000.00

CONDUIT FROM WARNER DAM TO SOUTH END OF LUSARDI TUNNEL

15,810	FEET	OF	LINED	CONDUIT	AT	$2.70	$ 42,687.00
350	"	"	"	"	"	6.00	2,100.
5,500	"	"	flume	on bench	"	4.00	22,000.
1,430	"	"	"	"	trestle	6.00	8,580.
23,090							$ 75,367.00

Average cost per foot - $3.26

TUNNELS ON THE ABOVE SECTION

5,000 feet of lined tunnel	at 18.00	$ 90,000.
6,600 " " " " (Lusardi)	20.00	132,000.
11,600		$222,000.

ESTIMATE OF COST OF CARROLL DAM

Excavation	2000 cu. yds.	at $0.45	$ 900.
" Solid Rock	1000 " "	" 1.25	1,250.
Concrete	30000 " "	" 7.00	210,000.
Outlet Pipe, Gates, Screens, etc.,			5,500.
" Basin, Weir, etc.,			2,500.
Clearing and Grubbing 620 acres		at 15.00	9,300.
Buildings, Water Supply, etc.,			6,000.
Improving Grounds, Fencing, etc.			1,000.
Equipment, etc.,			1,550.
Total cost without Overhead			$238,000.
Add 25% for Engineering and Contingencies			59,500.
Total Cost			$297,500.

ESTIMATE OF COST OF PIPE LINE FROM CARROLL DAM TO SAN DIEGO TO CONNECT WITH LOWER TOWN SERVICES
(being 32 miles by way of La Jolla to center of town)

174,000 feet 30" Riveted Steel Pipe 3/16" thick at	$3.15	$548,100.
Trenching and backfilling 122,000 cu.yds. at	0.90	109,800.
Haul - 6,000 tons. - 12 miles at $0.50 per ton mile		36,000.
San Diego River Crossing		5,000.
Specials, Valves, Bends, etc.		11,100.
Right of Way 120 acres at $50.		6,000.
Total Cost without Overhead		$716,000.
Add 25% for Engineering and contingencies		179,000
Total Cost		$895,000.

NOTE - - Thickness of metal in pipe may be changed. This will require changes in the above estimate.

Note by W.S.P. Mr. Harroun does not estimate at all the Carroll-University Reservoir Line 21½ miles with pumping plant, but substitutes the above, which is roughly equivalent.

SUMMARY HARROUN'S ESTIMATES

Warners Dam,	$ 271,000.00
" Conduit and Tunnels,	297,367.00
Carroll Dam,	297,500.00
Pipe Line Carroll Dam to center of City via La Jolla,	895,000.00
Total	$1,760,867.00

V. L. & W. CO.
FILE

November 10, 1914.

Mr. P. E. Harroun,
58 Sutter Street,
San Francisco, Cal.

Dear Sir:-

Enclosed you will find the data requested by you in regard to the estimate of cost of the Warner-Carroll-University system.

Also find herewith a catalogue of the Moss Flume Company, with prices on page 22. The discount was quoted to us by their salesman, Mr. M. W. Hull, 501 Mason Bldg., Los Angeles.

I also enclose a copy of approximate bid submitted for machinery for Carroll Pumping Plant.

Yours very truly,

Engineer,
Volcan Land & Water Co.

BK
Enclos.

FREIGHT RATES ON CEMENT

TO WARNERS DAM

Via Oceanside:

R. R. Crestmore to Oceanside,	$ 2.00 per ton.
Auto Oceanside to Warners,	8.00 " "
	$10.00 " "

Via Foster:

R. R. Crestmore to Foster,	$ 3.60 per ton.
Auto Foster to Warners	5.75 " "
	$ 9.35 " "

(Note: We are now hauling via Foster at above cost)

TO CARROLL DAM

Via Escondido:

R. R. Crestmore to Escondido,	$ 2.50 per ton.
Auto Escondido to Carroll Dam, 6 miles at 20¢ ton mile,	1.20 " "
	$ 3.70 " "

--- oOo ---

QUANTITIES ON WARNERS CONDUIT

November 9, 1914

By C. E. Hickok.

		Lin. Feet Canal	Lin. Ft. Steel Flume on Bench	Cu.Yds. Excava -tion	Lin. Ft. Steel Flume on Trestle	Bd.Ft. in Trest -les	Lineal Feet Tunnels At $16.50	Lineal Feet Tunnels At $20.00	Culverts Lin. ft.	Clear -ing acres
Mile	(1)	4045	685	8708	550	7170		----	132	3.00
Mile	(2)	3730	1480	6714	70	740		----	200	6.00
Mile	(3)	3780	840	5800	40	420	620		240	5.30
Mile	(4)	2110	---	2590	120	2710	3050		120	3.60
Mile	(5)	5280	---	6000	---	---		----	200	6.06
Mile	(6)	230	---	1300	70	1300		4980	---	.30
Fractional Mile	(7)	70	---	400	---	---		1450	---	---
Totals		19245	3005	31512	850	12340	3670	6430	892	24.26

QUANTITIES IN CARROLL DAM

CONCRETE GRAVITY TYPE

90 ft. High:

46,551 cu.yds concrete
19,647 " " excavation

110 ft. High:

71,552 cu.yds concrete
28,074 " " excavation

December 22nd,
1914

Mr. P. E. Harroun,
58 Sutter St.,
San Francisco, Cal.

Dear Sir:-

Replying to your letter of December 14th in the matter of water rights and possibility of development on Boulder Creek and El Capitan Reservoir, Mr. Post tells me he has mailed a statement regarding Boulder Creek in the form in which I wish it presented, namely, a granted water right by the Water Commission known as Boulder Creek No. 1 for the power use and a granted right of way for the canal and power station from the Secretary of the Interior, the entire right of way being on U. S. Forest Land. You will understand that we claim the water of Boulder Creek for irrigation purpose in any event. However, we claim an initiative right to 79 acre feet of storage in the Boulder Creek Dam, or say a continuous flow of 10 Miners Inches over and above the perfected rights which we have through our present diversion at the diverting dam. The right for use for power purposes is super-imposed on this other right.

On El Capitan Reservoir we have a water filing dated June 1914 for 500 Miners Inches as shown in a summary of water filings, copies of which I believe have already been sent you. This filing calls for a reservoir and diversion by means of pumping plants located along the margin of the reservoir. Our use of water actually commenced in October 1913 with the use of the Chocolate Pumping plant where we have begun a diversion of say 8 inches continuous and maximum of 15 inches. Work has also been prosecuted on the damsite 800 feet down stream from the pumping plant continuously.

Now as to a calculation of the safe yield, Mr. Post suggests that this matter is best disposed of by assuming that only 40 square miles are tributary to the El Capitan below the diverting dam and South Fork. This leaves you free to claim all the waters above the diverting dam and the South Fork except that portion which is shown as overflow on a table furnished to Mr. Reinhardt giving a study of the diversion due to the increased height of flume. Mr. Post states that the main discharge can be taken as not over 3,000 acre feet for this 40 square miles.

He further says that by reference to Lee's testimony in Application No. 118, Volume 7, pages 710 to 714, that the average surplus water subject to storage on the San Diego River is about 5,000 acre feet in all. All that is necessary if you desire a close statement of the amount available for the El Capitan

Damsite is to notify me and I will have Mr. Post give you this data. He is more familiar with the situation than any one that you could employ to make this study.

You will understand that the Cuyamaca Water Company owns the land upon which this Damsite would be placed and the flooded area for a quarter of a mile. The next three-fourths of a mile is upon privately owned land which we would have to condemn. Above this point is the Indian Reservation on which it is very doubtful that any one could secure reservation rights. Therefore, you may dismiss from your mind any difficulty in connection with the Railroad as no rights of way have been granted upon this private land.

As to the matter of adequacy, I think you will have to base your claim as regards rate hearing not on Boulder Creek Reservoir or upon El Capitan Reservoir, because neither of them are used and useful. My desire is that you should however make a claim for water rights and for the investment in work on property for Boulder Creek and El Capitan. The question of adequacy must be placed on such points as the following:

The real demand of the system is something less than 256 Miners Inches, probably 242, as discussed by Mr. Reinhardt and Mr. Post. The Cuyamaca Reservoir and the pumping plants are sufficient to take care of the flume and a portion of the High Service. The La Mesa Reservoir is sufficient to take care of all the Low Service and a portion of the High sufficient to give full service.

Mr. Post tells me that he has supplied you with mass curve diagrams wherein this is demonstrated. He also tells me that the proper explanation for Cuyamaca being empty is that it has been systematically overdrawn in the past operation of the Flume.

You will also add now to your statement of adequacy the Monte Pumping Plant which is now being installed. This has a rated capacity of 2 millions per day and in addition to the other points already given, will easily make you proof of adequacy.

By the installation of this Monte plant of 2 million gallons for sale purposes, I think we are entitled to a water right value for this amount, say, 100 Miners Inches over and above any water rights otherwise listed. Our contention on this is that we are the successors of the perfected water right and

use during the low seasons dating from 1902 to 1907. We admit that this has not been in use for seven years, but we also claim that the need has not arisen and that the right has not lapsed in any sense.

Send me your outline of water right matters and I think that I can be of assistance in clearing up any questions in your mind by confering with Mr. Swept and Mr. Post. I will then write you such suggestions as this conference may bring out.

I attach herewith a letter by Mr. Post written at my request on December 4th on the same subject.

Very truly yours,

WSP-BK

Cuyamaca Water Company,

By_____

Manager.

December 26th,
1 9 1 4

Mr. Philip E. Harroun,
58 Sutter Street,
San Francisco, Cal.

My dear Mr. Harroun:-

Enclosed find letter which Mr. Post dictated for me. I regret to say that I do not understand it in the first place and I don't want you to take Mr. Post's word for it either for it will have to be checked up.

In the first place, regarding the Chocolate pumping plant and the El Capitan school house pumping plant, will say we are moving the Chocolate pumping plant over to the El Capitan school house plant and putting the El Capitan school house plant back to the Chocolate pumping plant. The reason for that is this, the small pumping plant now at the El Capitan school house will pump all the water that the Chocolate pumping plant can pump or can be developed something like 25 or 30 inches, while the Chocolate pumping plant that we are moving to the El Capitan school house site will pump 50 or 60 Miners Inches altogether and the water is there to pump, so that we will be able to pump continuously easily 75 or 80 Miners Inches as the minimum amount. I felt that this transfer should be made at an expense of about $400 so as to increase our efficiency and particularly as we have a dry season for the City of San Diego is right up against it for water and I am satisfied that the District, under the most favorable conditions, can not be able to take over our system before next Fall owing to the time it takes to call an election, vote the bonds, have same passed on, etc., even after the valuation has been made.

You will notice I put a question mark to certain propositions in Post's letter which I am supposed to have written you which I want you to thoroughly investigate and which I do not think that Post is furnishing you the right information. Everything pertaining to safe yield I want checked up, particularly the question of there only being 3,000 acre feet, the main discharge for the 40 square miles.

I am making arrangements to have the Railroad Commission ask Lee to testify. I have written Thelan personally. I wish you would take this matter up with Hawley and make arrangements that Lee who is now working for the United States Government be called to testify on the San Diego River as there is no man better posted. We own the El Capitan Damiste and there will be 3/4 of a mile flooded which we own if a dam is built instead of 1/4 of a mile as stated in Mr. Post's letter.

Regarding adequacy of our system, Mr. Post states it is 256 inches. My understanding is this should be reduced on account of the excess water that has been sold.

Mr. Philip E. Harroun, #2.

Regarding the Monte pumping plant we have signed a contract and are installing a pumping plant that will pump 2½ million gallons of water daily from these wells and will have it in operation by the first of February. Mr. Post said 2 million gallons per day but it is guaranteed to pump 2½ millions. We have been pumping 600,000 gallons daily for months from the El Monte plant and the water level hasn't lowered at all. Please look into these records. We have 7 years records showing the water that was pumped from these wells. I don't want you to take any of Mr. Post's figures in this letter that he has written you which is herewith attached and asked me to sign. He should have written this letter to you in his own name.

I had talked both with Judge Bordwell and Mr. Mathews the City Attorney of Los Angeles who claim that we have not lost our El Monte water rights for the reason that we haven't pumped and they feel that they can prove in Court that such is not the case for the reason that the conditions didn't warrant pumping until this year and the only pumping defect in our title to the water rights of the El Monte Pumping plant is in taking away and appreciably lowering the water level of those pumping plants that have been installed and who have acquired a pumping right since we stopped and who will be appreciably affected by our pumping. Now there are mighty few people on the river who have acquired a water right since we stopped pumping and who will be protected by our pumping providing of course we do not take all the water out of the river.

I will be in San Francisco right after the first of the year. Mr. Eshleman will be our consulting attorney and he will not appear before the Railroad Commission. Please keep this information confidential.

Please take note that at the school house plant we are installing a larger pumping plant. Let me know what you think of Mr. Post's idea of ascertaining the value of water rights and any other way that you can figure it out.

Yours very truly,

EF-BK

Enclos.

Sept. 1, 1916.

Mr. Philip E. Harroun,
Eng. State Highway Commission
58 Sutter
San Francisco, California.

My dear Mr. Harroun:

With reference to your account with the Cuyamaca Water Co., will say that I acted upon Mr. Murray's instructions in employing you in the Cuyamaca case. Mr. Murray has not been in San Diego for nearly a year, and I have not received any financial assistance - with the exception of about $3000. for the account of the Cuyamaca Water Company - from Mr. Murray this year. I expect Mr. Murray down here shortly and will take your account with the Cuyamaca Water Co up with him at that time and let you know what his decision is in the matter of the payment.

Yours very truly,

EF:B

CUYAMACA WATER COMPANY

By_____

Manager

#267

DESIGN SUPERVISION AND CONSTRUCTION
MUNICIPAL WATER SUPPLY
IRRIGATION, RECLAMATION
POWER DEVELOPMENT

PHILIP E. HARROUN
MEMBER, AMERICAN SOCIETY OF CIVIL ENGINEERS
MEMBER, PACIFIC ASSOCIATION OF CONSULTING ENGINEERS
CONSULTING ENGINEER
58 SUTTER STREET
PHONE SUTTER 1554

VALUATION, ECONOMY AND MANAGEMENT
EXAMINATIONS AND REPORTS
OPERATION AND SERVICE
RATE FIXING PROBLEMS

SAN FRANCISCO. Nov. 19, 1917.

Mr. T. P. Ellis,
924 Eighth St.,
San Diego, Calif.

Dear Sir:

I have yours of the 15th and am glad to hear you are entering the American Society of Civil Engineers. I shall be glad to have you use my name as a reference, and will be pleased to do whatever I can to assist you.

Very truly yours,

P E Harroun

Ed Fletcher Papers

1870-1955

MSS.81

Box: 10 Folder: 8

General Correspondence - Harroun, Philip E.