If there is another seven state meeting will you trade the lower basin states the water (if any) unallotted at Santa Fe and the upper basin support to limit Mexico to her proportion of the normal flow in exchange for the abrogation of the 75,000,000 acre feet in 10 year clause, which according to Stabler would have hurt the upper basin badly in the late ninety period! You don't have to answer "on advice of counsel" but seven and a half million maximum nearly prohibits an agreement between Arizona and California.

There are five members of the legislature on our new committee. This means anything agreed upon can be a proved. We are "rarin' to go". Lead on McDuff.

Hope you are feeling better. Am sure you would if this were all finished and you could come from your high excitable altitude down to our peaceful vale.

Work did not impress Arizona with his fairness when he named his new commission ignoring Arizona and Utah and then asking Swing, Johnson and Head of California to help the commission arrive at a decision. I do not know Work but put him in the same class as the famous other doctor, Snell.

I really hope for very little from a meeting with California but believe one of the entire basin states might result in something worth while. The sooner the quicker.

Sincerely yours,

[Signature]
March 16, 1929.

Mr. Leonard McKay,
94 W. Castle St.,
Stockton, California.

Dear Sir:

On the 10th of September last, you wrote Governor Adams asking for material regarding the Boulder Canyon Dam. I regret to say that prolonged illness, followed by absence from the state prevented answering your letter in due course. I presume that your thesis is written by this time. In any event, I could have added but little to the material contained in the reports of hearings before Congressional Committees except the pamphlet prints by the Salt Lake City Tribune.

Very truly yours,

Delph E. Carpenter.
Governor of Colorado
Denver
Colorado.

Dear Sir:

In preparation for the writing of a master's thesis at college, I am making a study of the economic feasibilities and weaknesses of the proposed Boulder Canyon Dam. I am especially desirous of understanding the attitude of every state affected directly by the proposed legislation. Can you suggest or have someone suggest to me the best possible material available on this subject? Do you have at hand in any department material which could be made available for my needs? I am ready gladly pay any mailing or other necessary charges.

Thanking you for any assistance you may be able to give me...

Yours very truly,

[Signature]

Sept. 10, 1928

Stockton, Cal.
Greeley, Colorado, March 7, 1929.

GEORGE W. MALONE
HOTEL FRANCISCAN
ALBUQUERQUE NEW MEXICO

WHAT IS SITUATION SENT MAIL TO YOU AND COLONEL DONOVAN

YESTERDAY ADDRESSED BISHOPS LODGE

Delph E. Carpenter
February 11, 1929.

George W. Malone,
State Engineer,
Carson City, Nevada.

Dear Mr. Malone:

Your telegram sent February 7th, was duly received but as Mr. Carpenter has not yet returned from Santa Fe, it has not received his attention. His return was anticipated at any time, therefore the telegram was not forwarded to him. Upon his return, this matter will have his prompt attention.

Very truly yours,

[Signature]

DM.
November 20, 1928.

Delph E. Carpenter, Esq.,
Attorney at Law,
GREELEY, Colorado.

Dear Friend:-

Many thanks for your letter congratulating me upon my reelection to the Senate. It was gracious of you to write me and I greatly appreciate your kind words.

With all good wishes, I am,

Sincerely yours,

[Signature]

WHK/Mc
Received at 711 - 8th Ave., Greeley, Colo.

V17 53 NL = IMLAY NEV 19

MISS DOROTHY MARSHALL, CARE D E CARPENTER =
Greeley Bldg Greeley Colo =

SEND AIR MAIL MONDAY CARBON COPY MY SECRETARY INTERIOR
LETTER TO FOLLOWING PERSONS WASHINGTON DC SENATOR LAWRENCE
C PHIPPS AND CHARLES W WATERMAN AND DAVID LAWRENCE CARE
NATIONAL DAILY STOP ACCOMPANY EACH WITH LETTER SIGNED BY
YOU AS MY SECRETARY STATING THAT I REQUESTED YOU TO SEND
THEM ON MY DEPARTURE FOR RENO =
DELPH E CARPENTER.
Received at 711 - 8th Ave., Greeley, Colo.

V4 45 NL = Reno NV 28

Dorothy Marshall =

Greeley Bldg, Greeley Colo =

Our address Riverside Hotel Reno stop received no message from Japan yet please check up with both postal and Western Union and forward contents any cable stop please advise air mail whether you succeeded in getting vouchers through and other news stop matters proceeding slowly here =

Delph E Carpenter.

The quickest, surest and safest way to send money is by telegraph or cable.
Mr. Delph E. Carpenter,
Greeley,
Colorado.

Dear Delph:

I have a letter from Mr. Meeker in which he says you will revise somewhat your paper entitled "INTERSTATE RIVER COMPACTS AND THEIR PLACE IN WATER UTILIZATION", and that you intend it to be presented in Salt Lake at our meeting in October.

I am very much gratified you will furnish this paper for our meeting because I consider it one of the most important meetings in matters of determining water policy for the western states that has ever been held; and I believe this is exactly the organization that a paper such as yours should come before to get the proper action.

I intend to keep the meeting entirely away from controversial matters with reference to specific projects or legislation, so that nothing of a controversial nature will enter into the discussions except differences of opinion on matters of broad general policies. The papers are to be presented at this meeting with an idea, as set forth in the schedule of the meeting sent you, of providing a basis for discussion. It is not understood that each of the members of the association will agree in every detail with the paper presented, but I anticipate that with the paper as a basis for discussion, and the criticism and discussion that will follow, if kept in the nature of proceedings and printed, at least such parts as seem to be beneficial, and circulated among the several states it cannot help but wield considerable influence on the future policy.

I need you there as a matter of fact but I realize that perhaps it will be impossible, due to the pressure of other business. If you could possibly find time to attend I would appreciate it very much. I also need Meeker there as well as Hinderlider and others of rather broad experience, to help hold the boys down in case someone might mistake the object of the meeting.
Mr. Delph E. Carpenter

September 20, 1923

I expect to be in Denver about the 26th of this month and hope to see you at that time.

With best personal regards, I am

Yours very truly,

[Signature]

GWM:GB

President
Mr. Delph E. Carpenter,
Interstate Rivers Commissioner,
Greeley, Colorado.

Dear Mr. Carpenter:

I wrote you some time ago relative to a meeting of the Western Association of State Engineers and with special reference to the preparation of a paper on "Interstate River Compacts and Their Place in Water Utilization". I have a copy of your paper as presented by Mr. Meeker to an engineering association in San Francisco earlier in the year, and I would like very much to have this paper read to our association in Salt Lake City in October, either in its original form or with any changes you may see fit to make.

I am enclosing another schedule of the meeting and would like to hear from you in regard to this matter.

With best personal regards, I am

Yours truly,

[Signature]

President
RENO NEV MAY 31 1928

DELPH CARPENTER

GREELEY COLO

SENATOR ODDIE HAS RECOMMENDED THOSE RKING OF RENO NEVADA FOR A PLACE ON THE BOARD OF ENGINEERS TO CHECK BOULDER DAM DATA. STOP I CONSIDER HIM ONE OF THE BEST ENGINEERS ON THE PACIFIC COAST AND ANYTHING YOU CAN DO FOR HIM WILL BE APPRECIATED

GEO W MALONE

STATE ENGINEERS
April 13, 1928.

Mr. George W. Malone,
State Engineer,
Carson City, Nevada.

My dear Malone:

Your telegram received and I have written Senator Waterman as suggested.

Our Upper State people have not gotten together as yet and the conflicts of official duties point to further delay. The more I study the amended Swing-Johnson bill, the more I am convinced that the States of Arizona and Nevada will be solely disappointed in the benefits they expect to obtain from this project when completed. The bill should be carefully redrawn and its enactment at this time, in its present form is dangerous to the interests of everybody except California and Los Angeles.

Very truly yours,

Delph F. Carpenter,
Commissioner for Colorado.
RENO NEV APR 12 1928

DELPH E CARPENTER

GREELEY COLO

HAVE HAD CONFERENCE WITH FRANK NORCROSS STOP THINK HE IS THE MAN FOR THE FEDERAL JUDGE APPOINTMENT STOP WOULD APPRECIATE ANY BOOST YOU CAN GIVE HIM SENATOR WATERMAN IS ON THE JUDICIAL COMMITTEE REGARDS

GEO W MALONE

706A APR 13
Hon. Delph Carpenter,
Greeley, Colorado.

Dear Delph:-

I see that Smith of Idaho is going to give us the Swing-Johnson Bill whether we want it or not. Am glad Dvern sent him the open letter.

We have heard nothing from California, except an inquiry as to when we could meet with them, which I think was only asked for congressional consumption. Because when we stated we would meet in the evenings even during the sessions of the legislature they said nothing more about it.

I have heard that California is preparing to make some wonderful concessions on power. They are going to show us what a tremendous amount can be saved or made at Boulder Canyon dam. Then they are to have the project repay the government for itself and the All-American canal, after which Arizona and Nevada are to get all of the profits received by the contracts the Secretary of Interior has made with Southern California. Between the animosity of the secretary to Arizona and their own disinclination to sign expensive contracts Southern California figures there won't be any profit for years to come.

In the meantime they will have everything they want including a million and a half per year subsidy for their All-American irrigation ditch. In other words they want to give California the preferred stock in the power benefits just like they wanted the preferred stock in a guaranteed water supply.

I see you are having considerable labor trouble. Perhaps your legislature may have to be called. If so, and the call allowed Colorado River matters
Colorado River Commission of Arizona
State House
Phoenix, Arizona

to be considered, a repeal of the six state agreement allowing the seven
state to stand would be very effective on the next move which I feel will
not be at Denver but Washington. If any of the other states should repeal their
six state endorsement it would be beneficial but not as much so as Colorado
because of your political influence. California claimed Arizona was a selfish
"dog in the manger" than that the power trust had purchased Utah, if another
state should act they are out of adjectives to properly abuse them.

Sorry you didn't come down here. How would Agua Caliente do for a meeting
place to discuss tri-state power. We wouldn't be bothered much by outsiders.
You could come down in a amicus curiae capacity and combine business with
pleasure.

Have you any copies of your speech on power which was read at the meeting? If
so, I would like a copy.

California's statements at Denver of how much water they could use, which ex-
ceeded the seven and a half million allotted to the three lower basin states, was
alone worth the expense of the conference to Arizona, as these admissions
absolutely justified Arizona in not signing the Santa Fe Compact unless it
were supplemented.

I believe that the people of Arizona are willing to take a supplemental com-
pact. Before we went to the first Denver conference our commission was seven
to one for making a new compact rather than amend the other one. It tickled my
evil disposition when the other members saw the daylight in your clarified
atmosphere.

Our legislature voted confidence in our commission, but presume in view of their
former actions I would have been excluded if possible.

The High-line group is badly battered through the deflection of Kimball which
illustrates the value of having minorities represented.

Arizona is in good shape. If we ever get the "God's chosen people" idea out of
the mind of California we will be able to really do something.

Yours truly,

Thos. Maddock
November 17, 1927.

Mr. Delph Carpenter,
Colorado River Commissioner,
Denver, Colorado.

Dear Mr. Carpenter;

We are continuing our conference in San Francisco on the power question, on Saturday, the 19th. Our party will be at the Clift Hotel, and the conference will be informal.

I thought we would be finished by this time, but Arizona found it necessary to send for one of its power experts from Salt River Valley and we were delayed two or three days. We have some of the best power men in the west working on this problem and I think we should finish the informal power discussion the first part of the week and we intend to immediately have a meeting among the three states and determine definitely with all of the facts on hand just what we are willing to do, and we will keep you advised of the results of this next meeting.

With best personal regards, I am,

Yours very truly,

GWM:cr

State Engineer.
December 10th
1927

Delph Carpenter, Attorney,
Greeley,
Colorado.

Dear Delph:

I am enclosing for your information some figures of the difference between the cost of delivering hydro electric power from Colorado River points to Los Angeles and its production there by steam plants. This matter has been the subject under discussion several weeks here, and the differences in the figures that the engineers have are largely those inherent to any human endeavor to anticipate the future.

The first sheet is a summary of the cost of generating power at the river under various factors of cost and including different items in the expenses and receipts. With a 12 percent loss of power in transmission, the second row of figures becomes the production cost on a Los Angeles basis. We had one estimate of 1.059 mill for transmission charge and another one of .86 mill. These added to the second row of figures give the delivery cost at Los Angeles of both transmission and generation. Later we have used the figure of .94 mills, which is approximately midway between these two figures. Table No. 11 was computed by using a capital cost of $90 per kw with a plant efficiency which would produce 530 kwhr per barrel of oil. This is much higher than the present practice, but it is believed that this efficiency will be attained within the coming ten year period.

The usual assumption in the discussion has been that oil would cost $1.25 per barrel, which gives a figure of 4.51 steam cost. This is approximately a mill under the present steam cost based on $110 per kw installation and short transmission lines needed between the Ocean and main distributing center if a present efficiency of 430 kwhr per barrel of oil is used.

Under nearly any assumption the difference between hydro and steam cost is approximately 2 mills. Columns A, B, C of Table X are self-explanatory.

It has been the suggestion of Arizona that an agreement be made in which the return to the federal government will first be provided; then the states of Arizona and Nevada be assured their mill tax; then that the construction costs of the All-American Canal be paid, after which any revenue be used to shorten the amortization period of payments to the federal government. While there is a disposition in Arizona to
resist any division with California of the revenue to be received from the development of power between Arizona and Nevada, it is obvious that the use of cheaper government money might justify the inclusion of the cost of the All-American Canal in the project as it could largely be paid for by the difference in cost between government and municipal or private bond issues. Of course, it is realized that California will get the major portion of the benefits of flood control and silt and drought elimination and, in addition, the industrial development which will follow with extremely cheap power.

We have been progressing tediously as usual, but should be in receipt of your appreciation in not having compelled the four upper states' representatives to listen to a lot of technical nonsense.

Hoping that we will finally get together on the differences between the three lower states so that all seven may be in accord, I am

Yours truly,

[Signature]
### SWING JOHNSON BILL FINANCIAL SET UP

#### SECRETARY INTERIOR COST PER

#### #1657

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Ariz. &amp; Nev. power to pay everything except $1,500,000 receipts from storage and delivery of irrigation and domestic water</td>
<td></td>
</tr>
<tr>
<td></td>
<td>550$ Dam 41,500,000 + 20.2% int.</td>
<td>$49,830,000</td>
</tr>
<tr>
<td></td>
<td>Power Plant 31,500,000 +</td>
<td>37,350,000</td>
</tr>
<tr>
<td></td>
<td>AA Canal 31,000,000 +</td>
<td>37,260,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>All costs of AA Canal deducted from Column A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>50 yr. amort. @ 0.655</td>
<td>$49,830,000</td>
</tr>
<tr>
<td></td>
<td>Int. 4.0000 or 4.055%</td>
<td>37,350,000</td>
</tr>
<tr>
<td></td>
<td>O. &amp; M. Dam &amp; Power</td>
<td>37,260,000</td>
</tr>
<tr>
<td></td>
<td>Less Receipts, storage and delivery of water @ 25¢ ac. ft. $1,500,000</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>All American canal to amortize its own capital cost in 50 equal payments and to pay its own maintenance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ariz. &amp; Nev. power to pay interest on AA Canal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>50 yr. amort. @ 0.655</td>
<td>$49,830,000</td>
</tr>
<tr>
<td></td>
<td>Int. @ 1% 4.655</td>
<td>37,350,000</td>
</tr>
<tr>
<td></td>
<td>O. &amp; M. Dam &amp; Power</td>
<td>37,260,000</td>
</tr>
<tr>
<td></td>
<td>Less 1/50 of $37,260,000</td>
<td>745,200</td>
</tr>
<tr>
<td></td>
<td>Less Receipts, storage and delivery of water @ 25¢ ac. ft.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Divide by 3,600,000,000</td>
<td>$1,187 mills per kwh</td>
</tr>
<tr>
<td></td>
<td>Divide by 83% - 1.350 mills per kwh</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Note: If storage charge is 16-2/34 per ac. ft. or $1,000,000 - 3,750,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Divide by 3,600,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Divide by 83%</td>
<td>1.92 mills per kwh</td>
</tr>
<tr>
<td></td>
<td>Divide by 83%</td>
<td>1.307 mills per kwh</td>
</tr>
</tbody>
</table>

Note: If storage charge is 16/2-34 per ac. ft. or $1,000,000 - $1,775,500 |  |
|       | Divide by 3,600,000 |  |
|       | Divide by 83% | 1.326 mills per kwh |

Note: If storage charge is 16/2-34 per ac. ft. or $1,000,000 - $1,775,500 |  |
<table>
<thead>
<tr>
<th></th>
<th>I</th>
<th>I-A</th>
<th>II</th>
<th>II-A</th>
<th>III</th>
<th>X-A</th>
<th>X-B</th>
<th>X-C</th>
<th>A</th>
<th>A plus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>1.965</td>
<td>1.546</td>
<td>1.305</td>
<td>1.081</td>
<td>0.847</td>
<td>1.533</td>
<td>0.911</td>
<td>1.187</td>
<td>0.982</td>
<td>0.760</td>
</tr>
<tr>
<td>Cost</td>
<td>2.234</td>
<td>1.758</td>
<td>1.483</td>
<td>1.229</td>
<td>0.963</td>
<td>1.742</td>
<td>1.035</td>
<td>1.350</td>
<td>1.116</td>
<td>0.854</td>
</tr>
<tr>
<td>Cost</td>
<td>3.293</td>
<td>2.617</td>
<td>2.542</td>
<td>2.286</td>
<td>2.022</td>
<td>2.601</td>
<td>2.094</td>
<td>2.409</td>
<td>2.175</td>
<td>1.923</td>
</tr>
<tr>
<td>Cost</td>
<td>3.094</td>
<td>2.618</td>
<td>2.343</td>
<td>2.089</td>
<td>1.823</td>
<td>2.602</td>
<td>1.895</td>
<td>2.21</td>
<td>1.976</td>
<td>1.724</td>
</tr>
</tbody>
</table>

**Table No. I1**

Cost of generating from steam in mills per kw hr

<table>
<thead>
<tr>
<th>Cost of oil</th>
<th>$0.50</th>
<th>$0.75</th>
<th>$1.00</th>
<th>$1.25</th>
<th>$1.50</th>
<th>$1.75</th>
<th>$2.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel charges</td>
<td>0.945</td>
<td>1.418</td>
<td>1.838</td>
<td>2.360</td>
<td>2.835</td>
<td>3.30</td>
<td>3.775</td>
</tr>
<tr>
<td>Fixed charges</td>
<td>2.150</td>
<td>2.150</td>
<td>2.150</td>
<td>2.150</td>
<td>2.150</td>
<td>2.150</td>
<td>2.150</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3.095</td>
<td>3.568</td>
<td>4.038</td>
<td>4.510</td>
<td>4.985</td>
<td>5.45</td>
<td>5.925</td>
</tr>
</tbody>
</table>
TABLE 4 B

Transmission cost using Mr. Baum's estimate of $40,000 per mile including regulating and receiving substations.

3 Tower lines 2 circuit each; distance assumed at 270 miles

\[ \$40,000 \times 3 \times 270 = \$32,400,000 \]

<table>
<thead>
<tr>
<th>Annual Charges</th>
<th>per kwhr generated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest 4.5%</td>
<td>$1,460,000</td>
</tr>
<tr>
<td>Amortization, 37 yrs 1.1%</td>
<td>356,000</td>
</tr>
<tr>
<td>Depreciation 1.23%</td>
<td>405,000</td>
</tr>
<tr>
<td>Operation and Maintenance</td>
<td>500,000</td>
</tr>
<tr>
<td>Total</td>
<td>$2,721,000</td>
</tr>
</tbody>
</table>

Note that interest charge is more than half of total

SUMMARY - Hydro Plant

| Cost of generating | 0.982 mills per kwhr. |
| Cost of transmitting | 0.757 |

1.739 mills per kwhr at Boulder

88% line efficiency gives 1.980 mills per kwhr delivered in Los Angeles
TABLE 4

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Steam at L.A.</td>
<td>$1.25 oil</td>
<td>4.51</td>
<td>$.55 mills per kw(\text{hr})</td>
</tr>
<tr>
<td>Hydro at L.A.</td>
<td></td>
<td>1.38</td>
<td>1.38</td>
</tr>
<tr>
<td>Differential</td>
<td></td>
<td>2.53</td>
<td>$.45 mills per kw(\text{hr}) at L.A.</td>
</tr>
<tr>
<td>or, 88% line effic.</td>
<td></td>
<td>2.22</td>
<td>$.16</td>
</tr>
</tbody>
</table>

If there is $1,000,000 income from irrigation and domestic storage, less $200,000 for operation and maintenance or $800,000 net income, which is 0.361 mills per kw\(\text{hr}\) at Boulder the differential at Boulder is 2.53 mills per kw\(\text{hr}\) generated.

---

ALL AMERICAN CANAL

Cost $31,000,000 plus 8\% interest = $33,480,000

<table>
<thead>
<tr>
<th></th>
<th>Annual Charges</th>
<th>per kw(\text{hr}) generated</th>
</tr>
</thead>
<tbody>
<tr>
<td>4% interest</td>
<td>$1,340,000</td>
<td>.372</td>
</tr>
<tr>
<td>1% amortization</td>
<td>335,000</td>
<td>.093</td>
</tr>
<tr>
<td>Operation and maintenance</td>
<td>500,000</td>
<td>.139</td>
</tr>
<tr>
<td>House Report #1557</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$2,175,000</td>
<td>.604 mills</td>
</tr>
</tbody>
</table>
Dear Delph

Enclosed is may be of interest to you.
in a historical way.

Tom
Governor George W. Dern,
Capitol Building,
Salt Lake City, Utah.

Dear Governor:

I am afraid that we are approaching the end of our conference as wide apart as ever; it has been just another endurance contest. Arizona has stayed on the job daily since we came (over three weeks ago). The California and Nevada delegations have all come and gone once or twice; most of Nevada must leave tonight. Bacon and Fould have been gone several days, but Scattergood is expected back tomorrow.

Arizona is beginning to suspect that they are playing horse with us here while California with Criswell, Panter, Yaeger, Blackburn and Childers at Washington are lobbying for the Swing-Johnson bill.

The engineers finished their work last week -- Mr. Tally for Arizona, Mathews for California and Malone for Nevada have been negotiating daily. Friday night they requested the engineers to figure a setup on certain factors, copy of which is enclosed. This was to be tentative and not to be binding on any state nor even a negotiator. I think that California was horrified at the result of the calculation as Scattergood batted for Mathews most all of the following day, which was Saturday. On Sunday California made up some new figures -- and the same old round resumed. I believe tomorrow California will offer Arizona and Nevada a tax of between two and three tenths of a mill each, which would leave them approximately a mill and a half of direct benefits as the total spread between the hydro and steam power cost is about two mills.

We all know that California is going to get the lion's share of the indirect benefits which will come with the control of the Colorado. We are sorry we are not to get more of these, but we do not intend to quarrel with economic facts. We also know that California will get the most benefit from silt control, flood control and drought prevention, but when they are going to get all of these we do not see how they can conscientiously ask for five or six times as much out of the direct power benefits as they offer to the states which possess the power resources.

Nevada is in a difficult position. Their engineers figured that the spread will be over two mills, but they are so anxious to get the Boulder Canyon dam
with its big construction program of immediate benefits, that they will take any tax California offers to them provided they can get as much as Arizona receives. They dare not take less than this for political reasons. They are also desperately afraid the government might find a better prospect of return for its investment in a storage dam if it is constructed above many power dams which in getting the benefit of the storage could pay part of its cost.

If California insists upon an insignificant fixed tax to Arizona, we must just return to our original position that "we possess the right to tax hydro electric investments the same as other property." I hope you will remember that we did not seek to determine the differential but finally consented to discuss it with California and Nevada.

To my mind two big mistakes have been made in this whole matter - both were induced by policy playing or fear. One was at Santa Fe, when the commissioners evaded the division of water among the states, which they were appointed to make; the other mistake was made at Denver, when the commissioners refused to take up and settle the power question on a seven-state basis but insisted that the three lower states should settle a question which must necessarily eventually be determined by all seven states. It seems to me that big questions are not solved by evasion of disagreeable duties. Now it looks like we will have to drag this question to Washington and start again at the ABC stage to educate a new jury - an uninterested and busy Congress.

Well, anyway, if this occurs I will have the compensating pleasure of renewing our acquaintance.

Yours truly,

[Signature]
PRELIMINARY ESTIMATE OF
DIFFERENTIAL BETWEEN COST OF HYDRO AND STEAM POWER
BASED ON FACTORS TENTATIVELY SUGGESTED
BY MESSRS. TALLY, MALONE & MATHES
FRIDAY, NOV. 9, 1927

Capital Cost, Dam - Power Plant and AA Canal $125,000,000

Expenditures

Interest @ 4% plus amortization 41 yr repayment $6,250,000 1.7361
Operation and maintenance, dam and power 700,000 .1944
" " AA Canal 500,000 .1389
Additional depreciation on power plant 3/14 35,000,000 262,500 .0729
Total 7,712,500 2,1423

Receipts

0 & M - All-American Canal paid by project 500,000 .1389
Amortization $31,000,000 in 41 payments 756,100 .2100
6,000,000 acre ft storage at 25¢ per ac.ft. 1,500,000 .4167
Total 2,756,100 0.7656

Expenditures less Receipts
Divided by 3,600,000,000 kwhrs = 4,956,400 = 1.377

Transmission

Capital assumed at 42,000,000
Interest at 5% 2,100,000 .5833
Amort. in 41 yrs @ 5% = 1.107 1463,940 1.232
Depreciation at 3/4% 315,000 .0875
Operation of transmission lines 500,000 .1389
Total cost 3,379,940 .979

2% delivered or 3,168,000,000 @ Los Angeles 2,632 .300
Penalty for steam standby 2,932

Steam

Based on $110.00 cost per kw installed including transmission
sea to city - 60% load factor = 430 kwhrs to bbl oil @ 1.25 per bbl.
Interest 5.00 10.85% x $110.00 = $11.9625
Amort. 1.107 365 24 hrs x 60% = 5260 kwhrs
Depreciation 2.25
Operation 2.50
Total 2.274 Fixed cost

$1.25 bbl oil divided by 430 kwhr = 2.917 Fuel cost

Less hydro cost 2.932 
Differential at Los Angeles 2.26 mills per kwhr
Multiply by 2% to equate to Colorado 1.99

Note: This 1.99 mills would become 1.81 if $500,000 O&M on All-American Canal is
subtracted from receipts and the penalty of .30 of a mill is equated back to the
Colorado River.
Delph E. Carpenter,  
Interstate River Commissioner,  
Denver, Colorado  

Dear Mr. Carpenter:  
Enclosed find copy of letter written to Governor Dern relative to the Colorado River situation.  

Respectfully,  

GEO. W. MALONE.  
STATE ENGINEER.
December 23, 1927

Hon. Geo. H. Dern
Governor
Salt Lake City, Utah

Dear Governor:

I have received your letter of December 21st and regret that I could not keep you better advised of proceedings in San Francisco, but it appeared from day to day that there would be developments that might culminate an agreement so kept delaying any report.

I am enclosing a copy of offers that were made near the end of the conference to give you an idea of the opinions held by the various states.

Their offers were not accepted and in the case of Arizona they had merely indicated that if any such offer as outlined by them were made, they would make every effort to have it accepted by the commission although they were not definitely committed to it. The suggestion by Nevada was merely made in hopes of compromising, and is not by any means an ultimatum of any kind. I am of the opinion that California’s offer could be worked over and made fairly satisfactory to Nevada by certain changes that would not materially affect it. However, the suggestion made by us appears to be reasonable from all points of view.

You can see that the conference made very definite progress and that the opinions held by the States are much nearer together than ever before. We collected some valuable data from the cost of steam power and transmission construction and other costs in connection with Boulder Canyon and we are at this time preparing a report that will be available if possible
when the hearing starts in Washington.

I realize that a very complex situation exists with the different conclusions held by the three lower basin states as to the power situation and the disposition of the upper states to move very carefully until the water situation is entirely cleared up. I still have hopes, however, that if the situation is controlled by the cooler heads and with all of the data available to work from, that an informal meeting in Washington where definite information can be gained from both houses of Congress and bureau heads when necessary, that the situation can be worked out.

Arizona's Commission is still very definitely divided and your state from all reports lacks considerably of being a unit in its opinion and as long as these conditions exist any definite movement that is made unless properly handled is dynamite.

I would not attempt to say who is responsible for the failure of the San Francisco conference to obtain definite results because after all it is a matter of judgment as to just what position the States should take and naturally each state will have very different ideas. I thought however, that Arizona's demands were somewhat high and frankly said so and on the other hand I considered California's conditions where they demanded 1/5 of any margin there might be from the start and also fixed a definite limit on the price at the switchboard which precludes the states from benefiting very much above the guarantee, as out of line and I told them that too. I do consider however that the suggestion made by our State is reasonable and perhaps with certain modifications could be accepted; this in view of the computation made in San Francisco.

I give each of the states credit for trying to arrive at some conclusion and I believe they were honest in their opinions at the close of the conference and much more is known now about the actual costs and comparisons of steam power and Boulder Canyon power than they have understood before so that an intelligent discussion can be held on this matter and this was not the case in Denver as you recall.
Mr. Tally of Arizona rendered invaluable assistance and while he is not on the commission, if anything is to be done at all in Washington, he should be there by all means.

I am still hopeful, as I stated before that the proper representative from each state present in Washington with a sincere desire to reach an agreement, that a compromise can be worked out satisfactory to all concerned. I was in hopes you would delay any resolution relative to the bill until such time as we could confer together in Washington, but I realize the position of the upper basin states and I would not urge any of you to do anything to jeopardize your interests any more than I would expect you to urge our State to relinquish any of our just claims.

With kind personal regards,

Yours very truly,

[Signature]

State Engineer
1. The government to waive its right to object to the states of Arizona and Nevada to tax the works of the project and related structures (except one half of the dam) and to pay out of project revenues to such two states in equal shares a reasonable and nondiscriminatory tax.

2. The Government to allocate to each of the states of Arizona and Nevada in lieu of taxes, assessments, etc., seven and one half percent (7-1/2%) free power.

3. The Government, after making full provision for maintenance and operation, interest and amortization over a forty one (41) year period, to divide annually the balance of available project revenue as follows: one-third each to the states of Arizona and Nevada, and one-third to discounts on revenue from power.

The above suggestion being predicated on power revenue equivalent to 2.5 mills per KWH from a completed project, equal to 750,000 KW at fifty-five percent (55%) load factor, or a proportionately less amount prior to complete development.

It being understood that, if necessary, the proportion of such balance to Arizona and Nevada each shall be greater than one-third and to discount on power revenue less than one-third, and that the total project revenue shall be made sufficient, when the power project is completed, to yield not less than $700,000 per annum to each of the states of Arizona and Nevada, and that the revenue to these states herein provided shall be in lieu of all of the revenues from project within these states in the way of taxes, assessments etc.
SUGGESTION BY NEVADA

One half mill to Arizona and Nevada jointly, with a proper safeguard so that if the margin between steam power and the Boulder Dam power after properly supported by steam standby power for the Southern California markets, so that any margin above the one half mill could be split evenly between Arizona, Nevada and the purchaser.

ARIZONA INDICATED THEY WOULD ACCEPT.

Arizona indicated that they would accept the guarantee offered in the California proposition number three, viz: $700,000, but the purchaser not to participate until the two states have received .6 mill ($1,080,000 each) then split three ways above that figure, one third each to Arizona and Nevada and one third to the purchaser.

Mr. Robert Tally stated that he would strongly recommend that they accept the above conditions which meant that he would have the four members appointed by the legislature with him with strong probability of one or two of the Governors appointers.
Mr. Delf Carpenter  
Greeley  
Colorado

Dear Mr. Carpenter:

As far as I know now will probably be in Denver on the 22nd of this month for the proposed meeting of the Governors of the Western States and also the River Commissioners.

I have talked with both the Arizona and California commissions since I last saw you and while there is nothing definite it appeared to me that both were a little inclined to get at the real facts of the case.

We hope to see you at the conference. With best personal regards, I am

Yours very truly,

[Signature]

State Engineer

GWM: SMB
January 2, 1926

Hon. Geo. H. Dern
Governor
Salt Lake City, Utah

Dear Governor:

I have just received your letter of the 29th and I appreciate the effort you are making to iron things out.

Your comments as to whether or not we were proceeding along the right lines in attempting to reach an agreement is timely and I will say that I do not believe that the particular condition that we are trying to arrive at is all that should be considered, but from the beginning of this year which was my first connection with the affair we have been continually confronted with someone taking the position that economic conditions surrounding the marketing of the power would not stand an additional burden. Therefore it became absolutely necessary to find out for my own satisfaction whether or not such was the case and if I found it to be the condition, what caused it, so that we might not place the states in an unfair position.

I considered it very necessary to be possible to answer these questions and to know definitely just where the income from the power was intended to be spent and these things I believe we know at this time. Therefore we have surmounted at least one obstacle and are ready to take up the next one and I believe and always believed that the elimination of them one by one, slowly and surely so that anyone taking a false position can be placed immediately by observers in this matter is the only way an agreement can be arrived at and I do believe it can be done in this manner.

Mr. Maddox within the last few days has furnished me with a copy of his letter to you written at San Francisco prior to the end of the conference. I cannot say that I approve of Mr. Maddox's letter at that time although he had a perfect right
to give his opinion to you or anyone else at any time but I must confess, since I was acting chairman, that your telegram stating that the conference was a failure came somewhat as a surprise.

The conference did one thing definite in eliminating the argument as to whether or not the power would stand the tax and I believe as stated above that it was necessary at the time to preclude further arguments.

I do not believe that I need to enter into any controversy as to whether or not Nevada is really ready to enter into an agreement but I will say again, as we want to take an absolutely fair position in this connection, fair to ourselves and fair to power consumers as well, and as the upper states already know we are for the Boulder Canyon construction when the states concerned are properly protected.

As you know Mr. Addox comments on the location of the dam that should be constructed as Bridge Canyon or Boulder Canyon. I believe that Mr. Maddox and myself debated that question on the floor at the Denver conference and it is a matter of record. Anyway the economic situation will take care of that and nothing either one of us could say would have any effect on the location of the project.

I believe the Arizona situation should be handled by Mr. Tally and Senator Hayden and I would suggest that you write Senator Hayden and urge him to insist that Mr. Tally be present in Washington as I believe the sentiment now existing is that if there is not a seven state compact there will be no dam and to let Arizona believe that all they need to do is hold out of any compact and stop construction and this certain was not your intention nor the intention of any of the other states when you called the Denver conference.

Our position was stated very clearly several times during the Denver conference and that is, that any state who in the last analysis refuses to listen to a fair proposition should in some manner be made to feel the pressure from the other six states and this applies to your state and mine as well as to Arizona and California.
Hon. Geo. H. Dern - 3

I hope you and the other upper basin state Governors can see your way clear to bring all the pressure possible on each of the three lower states not excluding ourselves to arrive at an agreement on the power situation so that an agreement on water may be reached and the Colorado River Basin states present a solid front in Washington.

With best personal regards,

Yours very truly,

[Signature]

State Engineer
January 8, 1928

Mr. Delph Carpenter
Colorado River Commission
Denver, Colorado

Dear Mr. Carpenter:

I am enclosing a copy of letter written to Bern on December 31 and I believe outlines fairly well Nevada's position on any legislation relative to the development of the Colorado River.

Yours very truly,

GWM: Mr

State Engineer
March 15, 1928.

My dear Mr. Mullendore:

I am very sorry that illness has prevented my earlier acknowledgment of your extreme kindness at Washington. I certainly am thankful and will try to reciprocate in due season.

I caught a so called "train cold" but which was a light case of flu, on my way home and have been laid up ever since. I am about one-sixth a man physically and very sluggish mentally.

Senator Hayden writes me they are making substantial progress toward three states agreement. Are you going to return to Washington?

Sincerely yours,

To Mr. W. C. Mullendore,
408 Pershing Square Bldg.,
Los Angeles, California.
Mr. Delf E. Carpenter
Interstate Rivers Commissioner
Denver, Colorado

Dear Mr. Carpenter:

Enclosed you will find an outline of the proposed meeting of the Western Association of State Engineers at Salt Lake City, Utah, October 29-30-31, 1928.

You have been chosen by the Association to prepare a paper on "INTERSTATE RIVER COMPACTS AND THEIR PLACE IN WATER UTILIZATION." I have a copy of the paper prepared by you and presented by Mr. Meeker at San Francisco and I am very anxious to incorporate this paper in our meeting. You could submit it as is, or with any changes that you may see fit to make.

I expect to be in Denver about the 25th of September and hope to see you at that time.

Please let me know at once if you accept the assignment and will be with us at Salt Lake City.

With best personal regards, I am

Yours very truly,

Geo. W. Malone--President.

GWM: SMB
Encl. 1

P.S. If you were unable for any reason to be in Salt Lake -- Mr. Meeker could present the paper.
April 9, 1930.

George W. Malone,
State Engineer,
Reno, Nevada.

My dear George:

For the strictly confidential information of yourself and Governor Balzar, there has occurred some very personal correspondence between the Secretary of the Interior and one deeply interested in Colorado River affairs. You may conjecture the identity of the party. Suffice to say, there is a letter before me which reads in part as follows:

"I am glad to have your congratulations upon arriving at a basis of disposition of the Boulder Dam power.

I note with particular interest your two propositions. I am doing the best that I can to try to secure future development for both Arizona and Nevada. I have though the immediate responsibility of getting contracts signed to pay for the power. Following your suggestion, I will look further into the matter."

Coming as this does from the one person in authority, I think it well to be ready to act promptly and effectually as there will be a gesture which you must be ready to call.

Sincerely yours,

Delph E. Carpenter.
84V AN 19

CHEYENNEWELLS COLO 230P APR 3 1928

DELPH E CARPENTER

GREELEY COLO

KINDLY WIRE BEFORE THURSDAY NIGHT LETTER COLLECT REASONS UPPER BASIN STATES WILL NOT BE SAFEGUARDED BY SWING JOHNSON BILL

HERBERT MASON

243P
HERBERT MASON

CHEYENNE WELLS COLORADO

ANSWERING YOURS STOP PRINCIPALLY BECAUSE SEVEN STATE RATIFICATION

COLORADO RIVER COMPACT NOT REQUIRED PRIOR TO CONSTRUCTION PROJECT STOP

WITHOUT SUCH RATIFICATION UPPER STATES SUBJECT ADVERSE CLAIMS ARIZONA AND MEXICO RESULTING FROM CONSTRUCTION AND USES PERMITTED BY EQUITABLE FLOW OF RIVER BELOW BOULDER DAM STOP BILL AUTHORIZES CONSTRUCTION RESERVOIR

ADEQUATE COMPLETELY CONTROL RIVER FLOW GIVING RISE CLAIMS PRIOR

APPROPRIATION ENTIRE SUPPLY WHICH COMES FROM UPPER STATES STOP CONGRESS HAS NO AUTHORITY TO MAKE INTERSTATE COMPACTS AND UPPER STATES ONLY MEANS PROTECTION BY COMPACT APPROVED BY ALL THREE LOWER STATES OR BY DECISION

Greeley, Colorado,
April 4, 1928.
SUPREME COURT PRIOR TO CREATION ADVERSE CLAIMS STOP UPPER STATES NO MANNER BENEFITED BY PROPOSED DEVELOPMENT BUT FURNISH WATER STOP CALIFORNIA PRINCIPAL BENEFICIARY AND FURNISHED NO WATER STOP UPPER STATES IN NECESSARY SELF DEFENSE DEMAND PROTECTION BY SEVEN STATE COMPACT STOP BILL FAILS SO TO DO BUT PERMITS CONSTRUCTION ON SIX STATE RATIFICATION STOP OTHER MINOR OBJECTIONS

DELPHE E CARPENTER

(Send Collect)