

QUINTON, CODE AND HILL-LEEDS AND BARNARD

MEMBERS AMERICAN SOCIETY OF CIVIL ENGINEERS

In order to protect directly the interests of the SUITE 905 EDISON BUILDING, indirectly the interests of all LOS ANGELES, CALIFORNIA, I suggest that demand be made for the adoption of a schedule of deliveries at Georgetown. This schedule of deliveries should provide:

February 8, 1938.

(a) for all water diverted or lost to Texas; (b) for all water diverted or lost to Texas; (c) for all water diverted or lost to Texas; (d) for operating waste; and

Dear Frank: water undivertible in the winter and in excess of irrigation demands during the irrigation season.

In your recent letter to Mr. Harper you alluded to the failure of McClure to consider the interest of Elephant Butte Irrigation District. I have been giving considerable thought to the implications of this situation and believe that the time has come when the State of Texas should cease being the direct representative of an irrigation district situated in New Mexico.

So long as Texas bears the burden of protecting the rights of all lands under the Rio Grande Project, the official attitude of New Mexico is going to be the same as that of Middle Rio Grande Conservancy District. This was clearly brought out in the meetings of the Committee of Engineers when Bliss not only failed to assist me in discussions with Tipton but went so far as to make demands which favored Colorado beyond those that Tipton felt justified in making. The only conclusion from Bliss' attitude and from the expressions of McClure is that the use of water below Elephant Butte Dam should be reduced even if the benefit of such reduction would be solely Colorado's. If this attitude is continued into the Compact negotiations, and I see no reason to expect anything else, it will put Texas in an untenable position.

I suggest, therefore, that you present the issue clearly to Judge Mechem and Phillips. I think that they, either directly or through political channels, should bring pressure on the State Engineer of New Mexico to protect their interests; also, that they should sit in on all conferences of New Mexico interests to the end that the Elephant Butte District may be given the same consideration by New Mexico that the Middle Rio Grande Conservancy District is given. If this is done, the Elephant Butte District can demand of McClure the schedule of deliveries into Elephant Butte Reservoir which will protect the Elephant Butte District. Texas can likewise demand the same schedule of deliveries in the Compact meetings as a protection to the lands in Texas.

Mr. Clayton.

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2-8-38.

QUINTON, CODE AND HILL - LEEDS AND BARNARD

In order to accomplish the above and protect directly the interests of Texas land owners and indirectly the interests of all lands in the Rio Grande Project, I suggest that demand be made for the adoption of a schedule of deliveries at Courchesne. This schedule of deliveries should provide:

- (a) for all water diverted or lost to Mexico;
 - (b) for all consumptive requirements below El Paso;
 - (c) for drainage outflow in sufficient amount to give a salt balance and provide equivalent service;
 - (d) for operating waste; and
 - (e) for water undivertible in the winter and in excess of irrigation demands during the irrigation season.
- In round numbers these items would total 500,000 acre feet per year.

I realize that a similar suggestion was categorically rejected at a general conference just prior to the Compact Commission meeting in October. I believe, however, that the situation is sufficiently changed to warrant such a demand from Texas. In my judgment, the interests of the Elephant Butte Irrigation District will be better served thereby than will be the case if the full burden of providing for deliveries into Elephant Butte Reservoir is placed upon Texas.

Sincerely yours,

RAYMOND A. HILL

RAH/AM

I suggest, therefore, that you present the issue clearly to Judge Beebe and Phillips. I think that they, either directly or through political channels, should bring pressure on the State Engineer of New Mexico to protect their interests; also, that they should sit in on all conferences of New Mexico interests to the end that the Elephant Butte District may be given the same consideration by New Mexico that the Middle Rio Grande Conservancy District is given. If this is done, the Elephant Butte District can depend on McClure the schedule of deliveries into Elephant Butte Reservoir which will protect the Elephant Butte District. Texas can likewise demand the same schedule of deliveries in the Compact meetings as a protection to the lands in Texas.

Copied from the collections of the Dolph Briscoe Center for American History, The University of Texas at Austin

C O N T R A C T

This contract made and entered into by and between the Elephant Butte Irrigation District of New Mexico and El Paso County Water Improvement District No. 1 of Texas, pursuant to resolutions of the Board of Directors of the respective Districts, authorizing the same, WITNESSETH THAT:

WHEREAS, it is expedient that the acreage within each irrigation District which is to be irrigated should be cushioned by allowing the distribution of water to a small excess of acreage over and above that allotted to the two Districts under the Rio Grande New Mexico-Texas Reclamation Project, to the end that annual variations, within narrow limits, shall be permitted, and so that, each year, there will be within the Elephant Butte Irrigation District 88,000 acres of land, and within El Paso County Water Improvement District No. 1, 67,000 acres upon which construction and operation and maintenance charges may be levied;

THEREFORE, it is mutually agreed that either District may increase the acreage to be irrigated and to be subject to construction charges, not to exceed three (3%) per cent of the present authorized acreage in each District, that is to say, Elephant Butte Irrigation District, having an authorized acreage of 88,000 acres, may increase such acreage to the extent of three (3%) per cent thereof, amounting to not to exceed 2,640 acres; that El Paso County Water Improvement District No. 1, having a present authorized acreage of 67,000 acres, may increase such acreage to three (3%) per cent thereof, that is, not to exceed 2,010 acres, said additional lands, in any case, to be within the limits of the present irrigation Districts or any future extensions thereof.

It is further agreed and understood that in the event of a shortage of water for irrigation in any year, the distribution of the available supply in such year, shall so far as practicable, be made in the proportion of 67/155 thereof to the lands within El Paso County Water Improvement District No. 1, and 88/155 to the lands within the Elephant Butte Irrigation District.

It is further agreed and understood that the operation and maintenance costs of the project works (exclusive of the storage and power development) for the calendar year 1938 and thereafter shall be distributed between the two Districts in the same manner as similar costs were distributed for the calendar year 1937, and that the same ratios for the two Districts, respectively, that were applied to said costs for that year common to both Districts shall be used in 1938 and subsequent years.

This contract to be effective only during the period when the proposed contracts under Public No. 249, Seventy-fifth Congress, 1st Session, between, (1) the United States and Elephant Butte Irrigation District and (2) the United States and El Paso County Water Improvement District No. 1 are in force, and if either or both of said contracts should terminate after both have become effective, this contract is also to terminate.

IN TESTIMONY WHEREOF, the parties hereto have caused the same to be signed by the Presidents of their respective Boards of Directors, and attested by the Secretary with the seal of said corporation,

this 16 day of February, A. D. 1938.

THE RICHMOND BUTTE IRRIGATION DISTRICT
OF NEW MEXICO

By Arthur L. Lewis
President

Attest: John R. Lewis
Secretary, El Paso County Water

Irrigation District No. 1

EL PASO COUNTY WATER IMPROVEMENT DISTRICT
DISTRICT NO. 1 OF TEXAS

By J. B. Jones
President

Attest: John B. Jones
Secretary, El Paso County Water

Improvement District No. 1

APPROVED THIS 11 DAY OF April, A. D. 1938.

Garret & Chapman
SECRETARY OF THE DISTRICT

Agreement entered into between

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CUSTOMHOUSE
DENVER, COLORADO

OFFICE OF THE CHIEF ENGINEER

February 12, 1938.

Mr. M. C. Hinderlider,
Rio Grande Compact Commissioner for Colorado,
Denver, Colorado.
Mr. Thomas M. McClure,
Rio Grande Compact Commissioner for New Mexico,
Santa Fe, New Mexico.
Mr. Frank B. Clayton,
Rio Grande Compact Commissioner for Texas,
El Paso, Texas.

Gentlemen:

I have received Mr. McClure's letter of January 25, Mr. Clayton's letter of January 27, and Mr. Hinderlider's letter of February 4, all commenting on the report of the Committee of Engineers dated December 27, 1937.

Mr. McClure expresses the view that the engineers exceeded their authority in not confining their report to a presentation of basic facts, and suggests that they reassemble at an early date and give the matter further study. Mr. Clayton expresses disagreement with Mr. McClure's views and states that he is willing to proceed with negotiations for a permanent compact based on the report of the Committee of Engineers, leaving any disputed points to be clarified in connection with the negotiations. Mr. Hinderlider also expresses disagreement with Mr. McClure's views, and suggests that prior to any further meeting of the Committee of Engineers, he point out specifically the items in the report to which he takes exception, and indicate the particular points upon which he desires further information.

The resolution adopted at the meeting of the Compact Commission on October 1, 1937, which authorized the report by the Committee of Engineers, reads as follows:

"In line with the conversation had by the commissioners, I move that one engineering consultant of each state, together with Mr. E. B. Debler, meet in Santa Fe, or such other place as they may mutually elect, on October 25th, for the purpose of discussing the engineering features, particularly of the state line deliveries and deliveries at San Marcial, in order to determine if they can arrive at a determination of general principles and if possible agree on the details of the deliveries, and the engineering factual data which should underlie

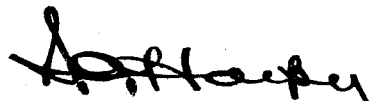
the compact. Also that the meeting of the Commission itself be deferred to such date as may be mutually agreed upon, pursuant to the call of the chairman."

After carefully considering the report of the Committee of Engineers, the resolution authorizing such report, and the comments of the Commissioners thereon, and after also discussing this matter with two of the engineers, it is my view that little would be accomplished by another meeting of the Committee. The engineers proceeded with the preparation and submission of their report in accordance with their understanding of their instructions. The question of whether they have exceeded their authority in not confining their report to factual matters, is one which can, in my judgment, be best decided by the whole Compact Commission, which can accept or reject any part or all of the report, as may, after due deliberation, be considered advisable. The report of the Committee of Engineers is, of course, in no way binding upon the members of the Commission, either individually or collectively, but it was hoped that such a report would be of material assistance to the Commissioners in reaching an understanding and agreement on the basic factual data, and the application of such data to a permanent compact.

Another reason why it appears inadvisable for the engineers to attempt to hold another meeting is the difficulty of fixing a date which will conform to all of their other engagements. This might entail a delay of several weeks, and it is also probable that considerable additional time would thereafter be required to get the Commission together for its next meeting.

I therefore suggest that consideration be given to holding a meeting of the Compact Commission in the first week of March, which previous correspondence has indicated is the earliest date which will be convenient for all of the members. If advisable, a preliminary meeting of the engineers might be arranged just prior to the deliberations of the Commission. I will appreciate your early reaction to this suggestion, and if it is favorable, I will issue a formal call for a meeting of the Commission at Santa Fe, on February 28, or March 1.

Very truly yours,



S. O. Harper,
Chairman, Rio Grande
Compact Commission.

PROCEEDINGS OF MEETING

held on Friday, May 27, 1938

at El Paso, Texas

between

Representatives of Lower Rio Grande Water Users

and

Representatives of Irrigation Districts Under the Rio Grande Project
of the Bureau of Reclamation

PROCEEDINGS OF MEETING

held on Friday, May 27, 1938

at El Paso, Texas

between
Representatives of Lower Rio Grande Water Users
and
Representatives of Irrigation Districts Under the Rio Grande Project
of the Bureau of Reclamation

In attendance were:

Mr. C. S. Clark,
Chairman, Board of Water Engineers,
Austin.

Mr. F. S. Robertson,
Secretary, Water Conservation Association of the
Lower Rio Grande Valley,
San Benito.

Mr. Robt. E. Kirkpatrick,
Attorney representing the Water Conservation Ass'n,
Lower Rio Grande Valley,
Mercedes.

From Laredo:
Messrs. A. F. Muller, Hal Ellsworth, and L. A.
Pierce.

From Eagle Pass:
Judge Ben V. King.

From Presidio:
Judge C. E. Mead, attorney of Marfa, representing
Presidio Water Control Association, and Messrs. P.
F. Wagner, of Presidio, D. D. Kilpatrick, of Candalaria;
and Wm. Burson, of Presidio.

Representing the Elephant Butte Irrigation District
were the manager, Mr. N. B. Phillips, the Board of
Directors, Messrs. Arthur Starr, president, W. T.
Scoggins, Jose R. Lucero, and Jos. W. Wright, and the
attorney, Judge Edwin Mechem.

Representing the El Paso County Water Improve-
ment District No. 1 were the manager, Mr. Roland
Harwell, and the Board of Directors, Messrs. T. D.
Porcher, Idus Gillett, C. A. Mebus, and K. B. Ivey.

Representing the Bureau of Reclamation, Rio Grande
Project, was Mr. L. R. Fiock, Project Superintendent.

By special request, Dr. Harlan H. Barrows, of the
Department of Geography, University of Chicago, who
is a member of the Water Resources Committee, of the
National Resources Committee, was present and ad-
dressed the meeting.

Also present was Frank B. Clayton, of El Paso, Rio
Grande Compact Commissioner for Texas, who, by
request, acted as chairman.

The meeting was called to order at 9:30 a. m., in
Room 540, Hotel Cortez.

Frank B. Clayton, Rio Grande Compact Commis-
sioner for Texas, presiding.

Introductory remarks by the Chairman:

We all know in a general way the business we have
before us today.

During the progress of the negotiations looking to-
wards the signing of a compact among the States of
Colorado, New Mexico and Texas, the meeting towards
the latter end of those conferences were attended by
representatives of the lower Rio Grande valley, speci-
fically of the two lower counties—Cameron and Hi-
dalgo. Their interest in the negotiations was from the
standpoint of their own interests in down-stream con-
ditions, and they were represented at various times by
some of their attorneys and engineers.

At the request of Mr. Clark, Chairman of the Board
of Water Engineers, and of Mr. F. S. Robertson, Sec-
retary of the Water Conservation Association of the
Lower Rio Grande Valley, I undertook to arrange this
meeting, in order that the problems of the lower Rio
Grande water users might be presented here, and that
specific proposals might be made. They suggested it
might be proper to invite Mr. S. O. Harper, Assistant
Engineer of the Bureau of Reclamation, at Denver, to
attend as representing the Bureau. For a considerable
period of time Mr. Harper acted as chairman of the
Rio Grande Compact Commission, of which I happen
to be the commissioner for Texas. I wrote Mr. Har-
per, conveying the invitation, but he replied that his
connection with the Rio Grande Compact Commission
had terminated with the signing of the compact (which
of course is yet to be ratified) and that his only con-
nection now with problems of the Rio Grande water-
shed is by virtue of his position as assistant chief en-
gineer of the Bureau of Reclamation, stating that he
had discussed the matter with Mr. Walters, the chief
engineer, and that Mr. Walters suggested that Mr.
L. R. Fiock and Mr. H. J. S. Devries, representing the
Bureau here, be invited in his stead. Unfortunately,
Mr. Devries, who is counsel in El Paso for the Bureau
of Reclamation, is in Washington, as is also Major
Richard F. Burges, council for the El Paso County
Water Improvement District No. 1.

The views of the different districts and water asso-
ciations below Fort Quitman will be stated by spokes-
men for those districts

Briefly, as you all know, these gentlemen are here seeking an understanding with reference to the amount of water to be permitted to flow past Fort Quitman; and in order that we may have a better understanding of the situation, I will now ask Mr. Robertson to state his views.

Mr. F. S. Robertson:

Mr. Chairman and Gentlemen: As Secretary of the Water Conservation Association of the Lower Rio Grande it was my privilege to attend the last two meetings of the Rio Grande Compact Commission, as Mr. Clayton has just told you, the first one last September or October and the last one in the early part of March, of this year. This compact commission, as you probably know, was authorized by act of the respective state legislatures, limiting the scope of their jurisdiction to Fort Quitman, leaving out of the picture altogether anything doing with the waters of the Rio Grande below that point.

We discussed the matter with Mr. Clayton, Mr. Fiock, Mr. Phillips and Mr. Harwell, and it was the consensus of opinion that if the Rio Grande below Fort Quitman, that is the spokesmen representing the interests of the lower Rio Grande, had much to say in these meetings, it would tend to hurt, rather than help, the situation. It was suggested by the representatives of the upper sections, and we concurred in their idea, that if we insisted on pressing our views, the net result would be: no compact. But if we let the compact be consummated up to the point of ratification, then they would undertake to reach an agreement between the lower sections and the upper sections whereby enough water could come down the creek for our use below.

In the writing of the compact between the three States they used the last ten-year period as a basis for fixing the allocation or use of the waters—using that period as an average, and it was the view of our committee that the same basis, that is the ten-year average, should be used in arriving at any agreement here.

In our discussions of what we wanted down below, we were not thinking so much of the lower Rio Grande at any one particular point but considered the stream as a whole. However, the lower sections have a large population, and the river below Fort Quitman covers a large territory—affects a large territory, so I feel that we are more vitally interested—rather, interested to a greater extent, if not more vitally, than the upper sections which have more limited areas.

What we are here for now is to try and reach some agreement with these two districts—Elephant Butte, of New Mexico, and El Paso County, in Texas, and, we understand, with the Bureau of Reclamation, which is operating the system under this project, any such agreement to be with the Bureau and concurred in by the districts. That is my understanding. So, we have come together here to try to get some agreement by which the flow, comparable with the last ten years on an average, will be assured.

What we in the lower section—in Hidalgo, Cameron, and Willacy Counties—what we have been getting down there since about 1880, when irrigation began to take on a more definite form, when a great number of private companies were organized, the land subdivided into areas, first taking out water filings according to statute and subdividing the land by canals and systems, and the lands sold out with the obligation to irrigate, well, there seemed to be plenty of water. Then about 1917, maybe '16, we began to check the flow on privately owned land, and besides the private corporations, municipal irrigation districts were organized, until now the entire valley is covered by irrigation districts, and only one private corporation is still operating in the valley, though there are some hundred twenty privately owned corporations, owning a majority of the land, belonging to the association I

represent, in the districts in those three counties. We have some 550,000 or 600,000 acres of land included in those drainage projects depending altogether on water from the Rio Grande for existence, both for domestic use and irrigation purposes, and we are all vitally interested in the quality, as well as the quantity, of the water that we get from the stream. We have no storage facilities as yet, but we must depend on the unregulated flow of the river for our supply. We have been for at least thirty years considering storage on down stream, but that requires a treaty with Mexico, and so far this has not been obtained. We hope some day to have such a treaty by which we can build storage dams on the main stream and thus get a more dependable supply. But now we are faced with a shortage quite frequently. We have had two periods of short flow this year. About the 10th of April the river was very low. It ceased to flow below the San Benito intake. I happen to be the manager of a 70,000-acre district, and below our intake there was no flow for a period of ten days. About five days of that time the water was pumped when there was a little flow, intermittently, but the last three days of that ten-day period, we got no water, at all. We had no material damage because of the shortness of the period. Then, the 1st of this month, we had three or four days when there was no flow past our intake. Two good-sized districts below us and several small ones were affected, and what water they got was from underground. The river continually keeps diminishing in quantity. Back in the period prior to the building of Elephant Butte reservoir, during 1901 to 1913, of which we have stream gaging records, we got (I don't think any record was kept at Fort Quitman but there was at Presidio) from around 650,000 acre-feet a year at Presidio. The last few years we have been getting only a very small fraction of that. The last three years we got 26½% of the former flow at Fort Quitman, calculated for the 1901 to 1913 period. So, the lower Rio Grande is gradually drying up. While we have no expectation whatever of going back to the 1901 to 1913 big flow, yet we do feel that we have a perfect right to expect the continuation of the average flow of the last ten years. And we should like, as far as the lower valley is concerned, to have an agreement from these two irrigation districts and the Bureau of Reclamation, not for any particular year but for the average of the ten-year period, a recognition, that is to say an agreement recognizing the rights of the lower river water users to a continuation of that flow, of the average of that flow.

The salt content naturally enters into a discussion of these problems. These districts here complain bitterly of the salt content and have difficulty in getting a proper balance. Well, we have the same thing to contend with down below, only more so. My opinion is that whether we get 100,000 acre-feet, we will need about the same quantity to dilute the salt at the lower end of the district.

The Chairman then called on Mr. Kirkpatrick.

Mr. Kirkpatrick:

I don't believe I can add anything to what Mr. Robertson has said, except this: We have in our country—what we call the lower Rio Grande valley, a population of 150- to 175,000. And the irrigation projects down there represent perhaps an investment of \$100,000,000.00. Down there, in the lower Rio Grande valley, we have an absolutely inadequate allocation of the waters of the river—of the upper river. This is of the gravest concern to us. As I understand the terms of the compact, all the water released from Elephant Butte can be used here, except the certain quota to be delivered to Mexico. About that we are vitally concerned to have an equitable quantity released in the main stream below Fort Quitman, and we are also concerned with the quality of the water to be released. As to the amount and the kind, I believe we can leave

that to our engineers. We first should have, and need, some agreement whereby we can be assured, both of the quantity and the quality to be released to Fort Quitman.

The Chairman:

It may be of interest at this time if you are prepared to state, generally and briefly, the legal basis or theory on which this proceeding is had, in order that we may know just how we stand in that respect.

Mr. Kirkpatrick:

I can say very briefly that I have discussed this with Mr. Robertson, and we maintain that we are entitled, as a matter of law, to have a certain equitable flow of the waters of the Rio Grande pass to us in the lower valley, by virtue of old Spanish grants made back in the 17th century to various grantees along that particular section of the river, coupled with riparian rights. That, briefly is one of our contentions.

Next, our people in the Water Control District No. 9, in Willacy, Hidalgo and Cameron Counties, are the oldest appropriators on the river. Our diversion and appropriation rights were acquired prior to the enactment of the present statute creating the board of water engineers. We filed under the then existing law, have been actually using that water for more than thirty years. Therefore, we also claim the right by reason of usage to have an equitable amount of water.

It might be said that our main source of supply comes from the Mexican tributaries. But as has been stated we have no treaty with Mexico that would safeguard any supply from those tributaries.

We feel that under our rights as riparian owners and as users and appropriators and diverters, over a long period of time, we are entitled to have a sufficient supply of water pass down the main stream.

The Chairman:

What is the extent of cultivation in the three counties embraced within your district?

Mr. Kirkpatrick:

I don't represent the three counties. I will have to ask some one else. I can give you the figures for my particular district only.

Mr. Robertson:

We have around 400,000 acres in cultivation. At one time we had as much as 440,000 acres.

The Chairman:

And you irrigate by gravity canals or by means of pumps?

Mr. Robertson:

Yes, except two or three systems have a small amount of gravity diversion when the river is up to some given stage. The bulk of our irrigation is done by pumping.

Mr. Clark:

What acreage would be in cultivation this year, or could be next year, if you had water, plenty of water?

Mr. Robertson:

Right around 500,000 acres.

The Chairman:

Before we proceed to the next district upstream, are there any questions?

We should treat this meeting as one of open discussion and clarify everything as we go along.

Mr. Harwell:

As a matter of information, I should like to ask how much water annually, on the average, now passes through the lower channel into the Gulf.

Mr. Robertson:

Around 4½ million acre-feet annually pass Rio

Grande City, which is below the last tributary to the main stream.

Mr. Harwell:

4½ million acre-feet of water going into the Gulf, unused, at the present time?

Mr. Robertson:

That is about the annual contribution less what is being used—about 700,000 acre-feet being used, 70% of this comes from the Mexico side, 28½% from United States side.

The Chairman:

Mr. Muller, will you now state your views?

Mr. Muller:

Our district is so small compared to the lower valley generally, it wouldn't appear that we have much interest in this discussion. We have only about 29,000 acres covered by water permits, and are not using the whole amount. But we feel that it is just as important for us proportionately as it is to the greater areas, and it is just as necessary for us that we have water as it is for them, at the particular times when it is needed. For instance, onions, which is one of our main crops, has only a six-months' growing period, but if you don't happen to get water on the crop every week or so, you lose your crop. And it is of vital concern to us that we have water at certain times to irrigate with.

We haven't any irrigation systems such as you gentlemen have up here. We depend entirely on individually owned pumping plants, piping the water where it is needed, and each unit is privately owned. There is not an irrigation district in our county.

The Chairman:

Have you any gravity diversions, at all?

Mr. Muller:

No, sir. We use pumps entirely. We have to pump on an average of 70 to 150 feet high, mostly from flumes. It is a very expensive system but efficient. Every bit of the water goes on the land. It is, as I say, very expensive. From the point of view of domestic consumption—we have pretty close to 70,000 people who are domestic users—we have had serious complaints during the past several years as to the quality of the water. It is very high in salt. We notice that the salt content is increasing. We have not been out of water like Mr. Robertson's end of the river, but our intake is decreasing all the time and the salt increasing. Up to the present time we have not suffered for want of water but we don't have the kind of water we ought to have.

The Chairman:

That was one of the principal points of the controversy giving rise to the lawsuit between Texas and New Mexico.

What, briefly, is the history of development in your county, Mr. Muller?

Mr. Muller:

We have been pumping since 1890. We have one of the oldest pumping plants in any district along the border.

The Chairman:

Do you have any figures on the flow of the Rio Grande, the average flow past your point?

Mr. Muller:

No.

The Chairman:

You have no gaging stations?

Mr. Muller:

No, sir.

Mr. Ellsworth:

May I correct that. At least, I'd like to say that we are installing one now, and should soon have it in operation. We haven't had one till now.

The Chairman:

Can you estimate the flow?

Mr. Muller:

We can estimate it only from actual experience. Our intake has continuously been dropping.

Mr. Harwell:

Contrasting your situation with the amount passing beyond the lower limits of the gentlemen below you—they spoke about the amount emptying into the Gulf—how much passes your pumping station unused?

Mr. Muller:

During flood times, although the average flow has materially decreased, and we have no government gage there, a lot passes on below.

Mr. Harwell:

Several millions of feet—acre-feet, of course, annually, would you say?

Mr. Muller:

I wouldn't be able to say just how much.

Mr. Clark:

There is a gaging station in the vicinity of Laredo, maintained by . . .

Mr. Harwell:

Would you venture a guess within fifty per cent, of accuracy?

Mr. Clark:

No, I couldn't.

The Chairman:

Looking forward to negotiations with Mexico for a treaty with respect to the use of the waters of the Rio Grande, has there been any recent survey made delineating the areas under ditch, the acreage in cultivation in the past, the amount in cultivation now, when the filings originated, and the like?

Mr. Muller:

The filings are a matter of record at Austin, with the exact dates, etc. Also, the applications set out the number of acres intended to be irrigated, and the number of acre-feet of water are shown by the permits. That is all a matter of record at Austin.

The Chairman:

About the history of irrigation in that area: you don't have any reports of investigations developing those facts in detail, do you?

Mr. Muller:

No. I don't think so. I don't think there has ever been any survey by anybody, at all. We have no general irrigation systems or districts. The pumping plants are all privately owned. There are not over two farms, probably, that use the same pumping plant. Each man has his own.

Judge Mechem:

What development of irrigation has been made in Mexico?

Mr. Muller:

There has been considerable development in recent years in Mexico. The Don Martini development, for one. But if they didn't use all the water, it ran on down below us through the Salado and the other tributaries in Zapata County.

The Chairman:

What tributaries enter the Rio Grande below Fort Quitman and above you?

Mr. Muller:

The Pecos and Devil's River on this side. The Conchas on the other side between Fort Quitman and Laredo, and then below Laredo, the very small Salado, and below that, the San Juan.

The Chairman:

As I recall, the salt content of the Pecos is very high. Has that improved or grown worse?

Mr. Ellsworth:

It is getting worse in the last year or so.

The Chairman:

Is that because of development in New Mexico and the upper sections in Texas?

Mr. Ellsworth:

I don't know why but the fact is, it is getting worse. We have chemical statistics on that point, and have to treat the water for domestic use. There are eight plants in the valley taking this water out of the river and treating it before it can be used. We filter it before using it.

Mr. Muller:

As a delegate from the Chamber of Commerce at Laredo, I am representing the districts around Laredo. We have no association of any kind, and the Chamber of Commerce has taken it up in behalf of the landowners and farmers. My occupation is county tax collector for my county. I am also a director of the Chamber of Commerce, and was sent up here to represent the farmers of our community. In fact, I am a farmer myself in a small way. We are all farmers.

The Chairman:

Mr. Ellsworth, do you have anything more to add?

Mr. Ellsworth:

The only thing more I can say is: we'd like to have more water in that river.

The Chairman:

Mr. Pierce, have you anything you would like to add?

Mr. Pierce:

I might add for Laredo that when we started to get together, we had a meeting with the agricultural committee of the Chamber of Commerce. That committee is made up of men from a cross-section of the area around Laredo, and all negotiations we have had have been through the Chamber of Commerce, acting through that committee.

The Chairman:

This is all one county?

Mr. Pierce:

No, two—Webb and Zapata.

Our connection with the lower valley has been through the Chamber of Commerce at Laredo.

Mr. Muller:

Zapata County, itself, has few farmers who irrigate their lands—mostly around Laredo. So, Webb and Zapata Counties may be considered as a unit.

The Chairman:

Judge King, may we hear from you?

Judge King:

I am the attorney and representative of the Maverick County Water Control and Improvement District No. 1, which is the only public corporation in the way of improvement districts in Maverick County. It was organized in 1926 for the purpose of irrigating 60,000 acres of land in that county. Our irrigation permit, granted in 1927, I believe—maybe in 1928, I am not sure, gives us the right to irrigate 60,000 acres and for beneficial use of not to exceed 2½ acre-feet, limited to

600 second-feet of water. In connection with the irrigation of the district, a permit was secured for the diversion of water for power—electric power; and in a supplemental permit granted in 1928 or 1929 an additional 900 second-feet was authorized for that purpose.

In this connection, I might state that water for our use is diverted about thirty-five miles above where our plant is located and goes back into the river. The water is diverted by gravity; and the first diversion for irrigation was in 1932. Shortly after that a flood destroyed the canal, and it was out of operation for quite a while. We now irrigate somewhere around 15,000 acres. The District expects to have about 20,000 acres to come under irrigation during the next year.

I am not an engineer, and regret that I do not have the statistical information this meeting will probably require. If I had known more about it, I would have endeavored to secure information with reference to the amount of water being diverted at the present time, as well as other statistical information. Mr. Robertson and Mr. Clark came by only a short time ago and invited us to the meeting, and I have never understood, really, until today just exactly what we are interested in.

Of course I know this: I know that we are interested in getting our proportionate share of the water, the share to which we are entitled. Under the compact between the States of Texas, Colorado and New Mexico, none of the diversions below Fort Quitman have been taken into consideration. I don't know how that could be handled, but I imagine it would be the request of the lower property owners that some amendment be made, if possible, to this compact that users below Fort Quitman may be taken into consideration. I understand that under the ruling of the Supreme Court laid down in the la Plata case, each State is entitled to its proportionate part of the water, that is to an equitable apportionment. Now, what that is, I don't know. I imagine that to arrive at it, the number of users would have to be taken into consideration—the number using water, probably, at the time the compact was made. In view of the fact that the users below Fort Quitman haven't been taken into consideration, we rather feel that in justice to them some provision should be made for a certain diversion for the lower users of this Rio Grande water.

The Chairman:

Now, as I understand it, your first gravity diversion was taken out in 1932?

Mr. King:

Yes, the first gravity. Before that time a number of users—private companies and individuals, who had appropriations from the State, were using water, and, in addition, some of the riparian owners had been using it previous to the enactment of the law for appropriations by permit.

The Chairman:

Do they pump their water from the river?

Mr. King:

Until now. After this month probably I would say that only one user will be pumping. Others will be taking from the canal system.

The Chairman:

How does your 15,000 acres compare with what has been in cultivation in the past?

Mr. King:

Prior to 1932 I would say somewhere around 5- or 6,000 acres.

Mr. Robertson:

Mr. King, a moment ago you said the first appropriation there was in 1928 to 1929. Isn't it true that in your irrigation district or water improvement district appropriation of 60,000 acres there was included

some 7,000 acres statutory filings?

Mr. King:

Yes, that's true.

Mr. Robertson:

About 7,000 acres in the present Maverick County district, under three, four, five old appropriations were under statutory filings, included in the present district. I don't know how well they are recognized.

The Chairman:

How far back do they go, do you know?

Mr. Robertson:

No, I don't, Mr. Clayton. They came under the old statutes prior to 1913. They were old declarations prior to 1913.

The Chairman:

Were these riparian owners?

Mr. Robertson:

First, under the old Texas statute, by simply filing declarations with the county clerk, you were permitted to divert a certain amount, at a certain point. The declaration had to be put into effect by actual use.

Mr. Harwell:

What is your theory relative to encroachments? For example, does Mr. King's organization encroach to the extent of water used on some 8,000 acres of land? Does not this recent development operate to encroach on the development below?

Mr. Robertson:

Our theory is: first in time, first in right. When the present law was put into effect . . .

Mr. Harwell:

What are you doing about that?

Mr. Robertson:

Nothing, so far.

The Chairman:

Judge King, what is your supply now? Adequate or inadequate?

Judge King:

Adequate right now. The source of supply, the Rio Grande, is not failing just at this time.

The Chairman:

How about the tributaries above you?

Judge King:

There is the Devil's river on our side; I believe two on the Mexican side above our intake.

The Chairman:

Do those tributaries make your principal source of supply?

Judge King:

No, not the principal source. Of course they contribute.

The Chairman:

Do you know in about what proportion they contribute, compared to the Rio Grande above Fort Quitman?

Judge King:

I couldn't say about that. Anything I might say would only be a guess.

Mr. Muller:

Mr. Chairman, if it is not improper, I should like to make a statement.

Mr. Kirkpatrick explained why we think we have rights, legal rights to water from the river. I don't know if you are familiar with the way our counties are

laid out or not. Webb and those other counties down there, some of them, are divided into sections and porciones. These porciones are strips fronting on the river a certain distance and going back, some as much as sixteen to eighteen miles, three-quarters of a mile to a mile wide. Well, Webb and Zapata Counties have those long strips going back from the river, divisions or subdivisions made by the Spanish, and called porciones. There you have your riparian rights.

I just wanted to inject this fact in the discussions at this point. I don't know whether Judge King has this down in his county or not.

Judge King:

No, we do not have subdivisions such as that, but we do have our riparian rights.

Mr. Harwell:

I suppose you gentlemen know that so far as the greater part of the land in El Paso valley is concerned, and certainly much of the land in the Mesilla valley, above El Paso, the same situation exists with respect to the old Spanish grants. For instance, immediately below the town of Ysleta and southeast to Socorro, encompassing the entire valley from the river to the foothills, is one of these old grants. Above, all the way up through the project, are others.

Mr. Muller:

Are they large grants or just narrow strips?

Mr. Harwell:

Large grants originally. Later they were, most of them, if not all, subdivided and apportioned among the inhabitants, each being given a fractional part.

Mr. Muller:

I just wanted to make clear how our river below is divided.

Mr. Harwell:

And I thought it might be of interest to you to know that your situation is not unique. This system no doubt was followed by the Spaniards, all along the river, up and down.

Judge King:

Our county has two Spanish grants: one containing about a third of the irrigable land that is contained within all of Maverick county.

The Chairman:

Any other questions?

Judge Mechem:

I should like to know how these so-called riparian rights work out, how do they work out in actual use?

Judge King:

We don't have any of those in our county, that is, these porciones. We have one large grant, as I said, containing 156,000 acres of land.

Judge Mechem:

You have riparian rights, don't you? I believe you said so a while ago.

Judge King:

Yes. Not only do they attach to the old Spanish grants, but any other lands patented before the law authorizing permits, allowing appropriations, carried riparian rights.

The Chairman:

I will now call on Judge C. E. Mead, of Marfa, who is here as representative of the Presidio County Water Control Association. Judge Mead.

Judge Mead:

I am speaking as an attorney of Marfa. I am also interested, directly and indirectly, in some of the lands adjacent to the Rio Grande. I am speaking principally,

however, for the farmers along the Rio Grande in Presidio County.

As respects the association of these landowners and other interested parties, known as the Presidio Water Control Association, this organization has no charter, but is simply a voluntary association.

The picture with us is this: Presidio County and Brewster County constitute what is known as the Big Bend of Texas. Some of you already know the Big Bend, and I hope you will all know it when we get the million-acre park down there. The river makes a big bend there, dropping down into Mexico and bending sharply up into Texas. That's how it gets its name—Big Bend. I think our county there has between 125 and 150 miles of river front on the American side. And all along the American side the river there, with few exceptions, forms the boundary. Our valley is a strip, not very wide in parts—not wide anywhere, and most of it is rather rough country, except close to the river where the land levels out into the valley proper. Some places there are bluffs right down to the river, and there is not much of that land that can be cultivated. Other parts spread out for quite a distance, then we strike a bluff again where the water can't be raised from the river onto the land.

The land under irrigation—cultivation, rather, has to depend entirely on the little rainfall we get. The principal irrigation is around the town of Presidio. Just above the town the Conchas river enters the Rio Grande from the Mexico side. The Conchas is a pretty long river. It runs back probably a thousand miles into Mexico. It is a nice stream. It has given very little trouble from a salt standpoint. Above there, we depend entirely on the flow of the Rio Grande.

I haven't any accurate figures, in fact I have no figures, at all, except some estimated figures on how much land is under irrigation, that or in cultivation. There has been no actual survey of these lands. Different people have estimated that we have about 25,000 acres in cultivation. As I said, we have a long river front—some 125 to 150 miles. And similar conditions exist in Brewster County. They have no representative here. Our farms along the river range from an acre to 8- or 900 acres, but most are small farms. Up until, well, until after Elephant Butte dam was built, we had all the water we needed. And the water was good water. They didn't make much fuss down there when Elephant Butte dam was built. They rather assumed that Elephant Butte would take care of them. They didn't know that it would make any difference. But in late years there has been a big change. Since 1931, from then on, for seven or eight years, conditions have been getting worse and worse. There are two reasons for this: one is, when we needed water it was cut off. The farmers below you lost their crops, planting was uncertain—the whole situation was changed. In addition to that, the water has become more salty year by year. Now it is so bad many crops will not grow, at all. The water, the salt, simply kills 'em. It is getting to be a desperate situation. And it isn't any theory; it is a fact. These people down there have no way to live except by farming. Probably 4500 to 5000 people have no other way of living; if they can't get water to irrigate with, they are sunk. There are no streams running into the main stream down there, at all, except the Conchas, and it runs in at the town of Presidio. It of course is helpful to the people below, and to those it is very helpful except in times of flood. Unfortunately for them, during the last few years the Mexicans have learned about their Conchas and are using it more and more every year. They have some method over there by which they can take the water legally, and that is gradually cutting off the supply to the users on the American side, so unless the people below get relief, pretty soon they won't have any water and then there'll be trouble. Now, these people are way down there, not too well informed about

these matters like farmers are, and they wait until trouble comes before they try to do anything. They have no incorporated irrigation districts. They get their water either simply as riparian owners, right off the river, or through permits from the State. That's the way they all get their water.

Mr. Harwell:

Of these 25,000 acres, how many acres are below the inflow of the Conchas and how many above?

Mr. Mead:

I don't have any figures. I'd say approximately one-fourth below; the rest above.

Mr. Harwell:

Any other tributaries to the Rio Grande between your location and Fort Quitman?

Mr. Mead:

No, none. None at all, from either Texas or Mexico. We do have a lot of pretty large creeks and arroyos that bring down a lot of water in the rainy season. It doesn't amount to much, really, because in those times the water isn't needed and it soon runs off anyhow.

Mr. Harwell:

What is the total quantity of water annually passing below your lower diversion?

Mr. Mead:

I haven't any figures, as I have said.

Mr. Harwell:

Is any storage work, of any nature, in contemplation for that area at the present time?

Mr. Mead:

Yes, some are under consideration but none developed very far. Our people have had this question of storage-diversion dams up many times, especially along the big creeks. Mr. Lawson knows about it and is much interested. It has been taken up with the State Department, and I have a letter here from Secretary Hull. He is very sympathetic with the idea. Any such plan of course is involved with Mexico.

Mr. Harwell:

Have you any information tending to show that if storage works were constructed, the total run-off would supply your requirements?

Mr. Mead:

No, I can't quote any definite information on it. But it is the consensus of opinion that storage dams can be built along some of these big creeks but they would be of very little help. I attended a meeting not long ago at Fort Stockton, presided over by Mr. Merrill, of the Water Conservation-Soil Conservation Department. That question was discussed at length with those people then. They seemed to have the idea that at small expense dams could be built along these tributaries, probably across the river, itself, and would help materially. But there is the flood menace. Whenever those big arroyos get up, there are overflows—principally along the Conchas. These overflows do much damage. The matter, though, is under consideration. They hope to work out something. Our people were uneasy about this Caballo dam, above El Paso. The got in trouble over Elephant Butte. They are getting "dam shy." The Reclamation authorities have been looking into the location of another dam, similar to the Caballo, over there in the north edge of Presidio County, way down below Fort Quitman. I had some correspondence with Mr. Lawson on that. They have a lot of data gathered up; have been doing some gaging down there. Lawson says something like that might be done. He seems very sympathetic, that is he seemed very sympathetic until all at once he got cold feet. Somebody suggested that evaporation would amount to about as much as the excess water that was stored. Of course we would get a lot of water out of the

arroyos and creeks on the American side. But as I said, that is being considered.

Now, a word about the legal phase and historic features from our point of view: From Presidio on up are some of the oldest settled parts of Texas. When the Spaniards who went to Santa Fe and settled up that far, and here, at Ysleta, they came right up that river to El Paso, and followed that river right on up to Santa Fe, and dropped settlers all along. We have some of the oldest settled parts of Texas, and I have reliable information that those people there at Presidio and at Ruidoso and some other points along the river have been taking water out of the Rio Grande for seventy-five years. Talk about established right by usage: they have been taking water for seventy-five years—more than that. Some twenty years ago I had a suit between a company that had a permit from the State and some riparian owners, growing out of some controversy between them. They didn't want to be regulated. They proved at that trial that they had been getting water out of the river for seventy-five years.

The Chairman:

In your association, do you have any community organization, do you have community ditches?

Mr. Mead:

No, they get water through permits, taking it out here and there where it is required.

The Chairman:

But you take it into ditches, do you not? And the ditches serve several users?

Mr. Mead:

Yes, sir. Well, I had that lawsuit between those people. We went to trial, but before we were through those fellows came at me with a proposition that they had the usage right for seventy-five years. We, both sides, were afraid to go on, so we compromised, and my people agreed to give those fellows water.

Well, they take it both ways: by pumps and gravity.

Do you know, if you look at a map of Presidio County, you will find all along that river that the land is in strips. All that land down there was patented by the State. I don't think there are any Spanish grants. Most of the land was classed as public lands—it came into Texas when Texas won her independence, and belonged to the people. The county is laid off in sections—640 acres each, 1900 varas square. When you get down on the river these are not square but in long strips, each with a little frontage on the river running a mile or two back. The purpose of course was to give every man a little water. That has been in existence for fifty years—those patents are fifty years old or more.

Of course our people contend that under the constitution of this State they have those riparian rights, and they don't feel they should let them be taken away from them.

You ask how they get the water. Originally it was by gravity. They would run a little dam across there, just a brush dam or something like it, and run the water out in a ditch. That is the way it was until recent years, when they began pumping right out of the river and run the water back through ditches over the lands. Mr. Kilpatrick has been down there over thirty-five years. He knows about it—that the folks have been using gravity ditches and pumps, taking the water for fifty years or more. That's the situation that we have there.

Mr. Harwell:

What proportion of your lands under cultivation has been put in cultivation in the last ten years?

Mr. Mead:

I couldn't say. They have been farming all these years. The country has settled up more as time went on, of course, and more land put in cultivation. But

the situation has got so bad in late years that no more is being cultivated.

Mr. Harwell:

Would it be as much as one-half, would you say?

Mr. Kilpatrick:

About as much now as thirty-five years ago.

Mr. Harwell:

You mean to say you had 25,000 acres in cultivation thirty-five years ago?

Mr. Kilpatrick:

I can't speak for Presidio County but up above the Conchas about one-half the cultivated area has been put in in the last thirty-five years.

Mr. Harwell:

One more question: From the description of your situation, it occurs to me that if this agreement that has been mentioned were put in effect your situation wouldn't be much changed.

Mr. Kilpatrick:

I don't see why it wouldn't. These troubles have arisen in the last few years. There has been no material increase in cultivation.

Mr. Harwell:

I understood your proposal is that you want the same amount of water passing Fort Quitman as has been passing during the last ten years. How long have you been having this trouble?

Mr. Kilpatrick:

More and more for ten years and every year less and less water comes down the river.

Mr. Harwell:

But your real solution is in storage.

Mr. Kilpatrick:

Of course if we could get more water down the river it wouldn't be as salty as it is. So much is taken up above that what reaches us can't be put to proper use.

Mr. Mead:

And by the time it reaches Presidio County, you can hardly see the river. And besides it is growing up in brush and reeds and is becoming just a kind of morass.

Mr. Harwell:

Taking into consideration the effect of the drouths over the whole country, there wasn't any more water above Elephant Butte than down in your district.

Mr. Mead:

Of course I understand that. And then some times we have had too much water. That is, we have had floods from the runoff through the creeks and arroyos.

The Chairman:

Are there any Mexican diversions above the Conchas inlet?

Mr. Mead:

Yes, about the same number as on this side.

The Chairman:

Has there been any increase in that number in recent years?

Mr. Mead:

Yes, and more every year.

The Chairman:

Have they increased the number of diversions or simply put more land in cultivation?

Mr. Mead:

No, it has decreased. They can't increase it much because their valley is practically all cultivated. But there isn't much water and they make more and more diversions to get what there is.

Mr. Muller:

What is the average rainfall in that area?

Mr. Mead:

About eight or nine inches. It all comes, nearly all, in July, August and September.

Mr. Muller:

Then you wouldn't have much luck damming up water in those dry creeks.

Mr. Mead:

No, maybe not, but it would help.

Mr. Scoggins:

When did you first file a protest against these unlawful diversions?

Mr. Mead:

We haven't filed any protest with anybody. We have been complaining about the situation, and that's about all.

Mr. Harwell:

Wasn't your trouble worse in 1934 than any other year?

Mr. Mead:

You understand, I am not blaming anybody.

We had a bad flood in 1932.

In 1934 the river was dry all summer, I believe.

Mr. Harwell:

Mr. Fiock, do you recall the total annual inflow into Elephant Butte dam that year?

Mr. Fiock:

Around 250,000 acre-feet. But that wouldn't be the years they were short down there. We carried over enough to give them all they had been getting.

Mr. Harwell:

The point I am trying to make, Mr. Fiock, is that during 1934 over 200,000 acre-feet reached Elephant Butte dam, was impounded in the lake. The normal flow into the lake is 1,000,000 acre-feet.

Mr. Fiock:

1,100,000.

Mr. Harwell:

Assuming that at least part of this total could be distributed, aside from our operation of the works here, the general drought over the country at that time must have affected the entire Southwest.

Mr. Mead:

I should like to make this concluding statement: I think the law has been correctly stated about the division of water between States, which is nothing but the common-sense view, of course. Then the waters are prorated among all riparian owners: first, deal with the States; then take the States as units; then when it gets to the various sections of the State, each riparian owner has a right that ought to be protected. I think the law doesn't amount to anything unless it gives him his proportionate part of the water, and the water itself must be the kind of water he can use.

Our folks didn't build this dam up here and start these irrigation works; and we think it is up to you to work out some way by which our folks can get water they can use, in the amounts they need and are entitled to out of this river here. We are a part of Texas, and we are entitled to our share, and when the rule is broken, then we can't do anything but go to the proper authorities. We aren't big enough to make much of a fuss; we don't control many votes; but we have certain rights and we believe they should be considered. We got this meeting here to consider this question, and I think in simple fairness something should be worked out. We are in trouble. We didn't make that trouble.

Mr. Robertson:

Two or three localities along the river are not represented at this meeting. The county above the one I represent has an irrigation district, that is they irrigate several thousand acres. The county above that and on up to Kinney or Val Verde—lots of people along there, lots of irrigation being done. All those counties are not represented here today. There is no one here from Del Rio. Some areas are not represented, at all.

Mr. Kilpatrick:

One year, I believe it was last year, the river went dry in July and stayed dry over a month. The crops were all ruined. The farmers lost their entire crops. 1937 was about our driest year.

Mr. Wagner:

I am a farmer, farming on a small scale. All I can do to make a living. I am on the board of directors of the association in Presidio County.

The Chairman:

Do you have an engineer supervising the distribution of water to the farmers?

Mr. Wagner:

No, sir.

I was working at the mine at Shafter and got to looking 'round for something where I could make a little money. I saw the river and the valley there, and got me a farm, looking towards the future. When I first went there the people were using the river water for drinking but the water has got so salty, it is no longer fit for that.

The Chairman:

What is the source of your domestic supply now?

Mr. Wagner:

Well, we tried digging wells but the water we got was just as salty. All the people have to haul water all the way from one to seven, eight, ten miles, from springs up in the hills above the town of Presidio.

It looks from the way things are now that all the money we have invested in lands around there is gone. We used to grow cotton, and vegetables—tomatoes, pepper—can't grow anything there now. Cotton will grow in spots when we can get water—we get a little water in the river from the hills, once in a while.

The Chairman:

I should like to hear from Mr. Burson.

Mr. Mead:

I want to add something here.

None of our people can get anything for their lands—lands that only a few years ago were worth \$200.00 an acre—plenty of them sold at that, some even as high as \$300.00—well, you can't get \$50.00 an acre for them now. I am interested in a farm of about 4- or 500 acres at Ruidoso, and I have been trying to sell for a long time, but can't get anybody to take it, can't find anybody who wants to buy at any price—there is simply no market, due entirely to this salty water and lack of water.

The Chairman:

I might say that you strike a responsive chord in my breast, because in Hudspeth County (I represent the district down there as attorney), lands that sold for as much as \$200.00 an acre in the rough won't bring a quarter of that in their cleared and cultivated state, and the decline in values has been attributed partly to the salinity of the water. In the last few years, due to the depression, the low price of cotton, etc., values there have so declined that they are about on a par with those farther down. Hudspeth County, as you know, is the next county below the Rio Grande project. As a matter of fact, during the period of the

extreme drouth, the farmers in the lower part of the project, in El Paso County, and Mr. Harwell will confirm this, experienced about the same thing as to the quantity and character of water. In short, most of the water they got was drain water. The situation up and down the Rio Grande is one, of course, that we all have to face in varying degrees.

Mr. Wagner:

Do you all take your water out of the Franklin canal?

The Chairman:

Below Tornillo there are other outlets. And the water they get is of increasing salinity. That is true from the headwaters on down because of the drainage.

Mr. Harwell:

This group here apparently represents the interests between Fort Quitman and the mouth of the Rio Grande, composed in part of irrigation districts authorized by the laws of Texas and in part of voluntary associations without any formal organization, their representation being through chambers of commerce or individuals, and other individuals, themselves. I think that's correct.

Now, you propose that we enter into an agreement concerning the amount of water that is to pass Fort Quitman annually. Now who are we supposed to enter into such an agreement with? and in what manner? To go a step further, to make clear exactly the question I am asking, what assurance would we have under the present circumstances that any agreement entered into with anybody would be binding on the people below us, all of them, so that subsequently they wouldn't be demanding some other agreement?

Is anybody here prepared to give us his views on this question, so we can think it over?

Mr. Kirkpatrick:

We have discussed very briefly among ourselves down there the possible legal vehicle, as it might be termed, in which this agreement might ride, if I understand your question. The association which Mr. Robertson and I represent is not a legal entity, such as to enter into a binding contract with others. Practically all the irrigation districts in the lower Rio Grande valley, however, are legal entities, political subdivisions of the State, and are capable of contracting and being contracted with.

I feel certain that whatever the executive board of the Lower Rio Grande Water Conservation Association recommends would be adopted by the respective boards of directors of the districts, and that as legal entities they would be willing to enter into a contract binding on them.

Now, of course, I can't speak for the appropriators upon the river.

Mr. Harwell:

What assurance would anybody have that we would be free from subsequent claims or complaints by entering into any agreement?

Mr. Mead:

Right now I don't know how we could make a contract that would bind everybody. But that is a matter that can be worked out. We are here today with our troubles, here to talk them over and get started on something that will solve them. We don't want to be in the attitude of threatening to go to the Legislature to try to get them to buck this compact. We just want to talk things over. A gentlemen's agreement might not do any good, but then it might. For our part, I don't believe our people will make any trouble at all, down at Austin.

Mr. Clark:

I have been wondering if we couldn't reach an agreement whereby the Texas Compact Commissioner could bind these appropriators below Fort Quitman.

Mr. Clayton (chairman):

I have always felt that my authority was limited to the making of the compact and seeing that it was enforced as between the States. Mr. Robertson stated, and I think fairly, that at the conferences we had at Santa Fe with reference to the Compact we mutually agreed that whatever differences of opinion might lie between us in this State were not proper and legitimate subjects of inquiry there. That, it seemed to me, was both legal and practical. From the legal standpoint, at least, as you all know, our negotiations related to the division of the waters above Fort Quitman. That was the authority conferred on the commissioners from each of the States. From a practical standpoint, it goes without saying that the two upper States would hardly be in a position, assuming their willingness, to enter into any compact which would provide for the division of the waters within the State of Texas, itself, or to have anything to say concerning any differences among the various sections of Texas. Even if our authority was not limited to the supply of water passing the State line, whatever controversies might arise among us as to the division of the waters in Texas would be a subject that could not legitimately be decided by any state but Texas. Our authority was to negotiate for an equitable division of the waters above Fort Quitman. That is the status of the matter as far as the Rio Grande Compact Commission is concerned.

Now, I arranged this meeting at the request of Mr. Robertson, Mr. Clark, and these gentlemen here this morning, not because the Legislature has conferred on me the authority to enter into any agreement such as you seek, nor even any authority to call you together for the purpose of discussing such an agreement, but because it was your desire to meet with the upper districts and confer together, and I felt that such a conference might be helpful in reaching a solution of our difficulties.

Deliberations have proceeded for years between New Mexico, Colorado and Texas, seeking to determine an equitable basis for a compact, the equitable share each State was entitled to have of the waters of this river and its tributaries, from its headwaters in Colorado down to Fort Quitman.

The controversy over the waters of the Rio Grande originated, as most of you know, in the last century. It began with a protest on the part of Mexico to our government, arising out of the fact that after development in the Juarez valley had reached considerable proportions their water supply began to fail, Mexico claiming that encroachments principally by Colorado were a serious menace and threatened to eliminate agriculture in the Juarez and El Paso valleys. Thus the stream was practically dry, almost throughout its length in New Mexico, and down to below Fort Quitman, for months during the summer. That is how the controversy originated, and that is why the treaty was entered into in 1906, and in pursuance of that treaty the Bureau of Reclamation made filings in 1906 and 1908 upon all the unappropriated waters of the Rio Grande in the State of New Mexico for the purpose of impounding them in a storage dam in the vicinity of Engle, New Mexico, for the benefit of lands between that point and Fort Quitman.

Under the treaty of 1906 the United States guaranteed to Mexico, at the Acequia Madre, the principal heading opposite El Paso, 60,000 acre-feet of water a year. In consideration of that guaranty, Mexico relinquished all claims to waters of the Rio Grande from that point down to Fort Quitman.

After the treaty had been made, and after the filings had been made by the Bureau of Reclamation, for the benefit of the lands above Fort Quitman, of all the unappropriated waters in New Mexico, Elephant Butte dam was constructed, and is being paid for by farmers within the Rio Grande Project.

Now, as a practical matter, when we talk about

deliveries of water to Texas, we are speaking of deliveries into the reservoir at Elephant Butte, because below Elephant Butte there are no tributaries to speak of, and, except in times of flood, the flow is not augmented in any considerable measure until after the water passes Fort Quitman.

When the temporary compact was entered into between the three Rio Grande Basin States, in 1929, it was designed as a temporary expedient only. It provided that neither Colorado nor New Mexico would impair the supply to the reservoir at Elephant Butte. It was temporary merely, intended to provide a stop-gap, a make-shift, until we could agree on the respective rights of the three States and embody those rights in a permanent compact.

So I conceived it my duty, as commissioner for Texas, to see that Texas got every drop of water originating in Colorado and New Mexico that she was entitled to and to see that that water was delivered into the Elephant Butte Reservoir. That was my duty as I conceived it under the statute.

Now, I have told you of the situation confronting us, there in our negotiations for a compact. Having entered into the negotiations on the basis that I was to try and get every drop of water Texas had a right to claim, irrespective of how or where it was to be used in Texas, I could not but feel that whatever differences there might be within the State over the supply to be furnished the users in Texas below the Texas line and all the way down to Brownsville, were matters for internal negotiation.

I am not in a position to speak for the districts within the Rio Grande project, nor for the users below the project. I think as to them I am without jurisdiction. I think you gentlemen will agree with me that if we are satisfied, as I think those of you who attended the compact meetings are satisfied, that in the compact we got everything we were entitled to or could physically secure, then from that point on there should be, can be, no question of ratification on the part of Texas. I feel that any questions as to the relative rights of users below the New Mexico-Texas state line are in their very nature foreign and apart from any consideration as to the value of this compact or any question as to whether it should or should not be ratified. The ratification of the compact should be considered independently. By that compact Texas got all she is entitled to, all she can get, and these questions of relative rights of the lower users have nothing to do with the two upper States.

I am here with you merely as chairman, and I do not wish to be thought of as taking part in any way, except to clarify or help to clarify the situation for you as far as I can as we go along. I think it is for you gentlemen to thrash this thing out, and any assistance I can give you, without taking sides, I stand ready to give.

Mr. Kirkpatrick:

Our position in this meeting is—and if I am not correct, gentlemen, I hope you will correct me, not to recommend who should make such a contract as we might like to have. We are here to find out whether these gentlemen up here are willing to make a contract to allow a certain quantity of water to pass Fort Quitman, of a certain quality, and if they are so willing, then the terms and details can be worked out and the legal vehicle in which the agreement can ride will be provided. Am I correct? Our object is simply to find out whether these men up here are willing to enter into such a contract.

Mr. Harwell:

I should like to ask Mr. Clayton one question: Do you feel that you are competent, that is that you have the authority, as Compact Commissioner for Texas, to enter into any agreement or take part in any agreement that might be made? Could you join in such an agreement from any legal aspect, whatever?

Mr. Clayton:

No, sir. My duty, and my sole duty as Texas commissioner, was to negotiate with the upper States, through their duly qualified commissioners, for a compact, to enter into such a compact if reached, and to work out the necessary means for the enforcement of its terms as far as Texas' rights under it were concerned, and during my tenure of office to see that it is enforced—to see that, as concerning Texas, the provisions of the compact are obeyed by the two upper States and to take whatever action is necessary to that end. What to do with the waters after we get them under the compact is something outside the province of the commissioner. That is my interpretation.

Mr. Mead:

I understand that the amount of water given Texas by the terms of the compact is fixed but nothing is said about the quality of the water.

The Chairman:

That question was a very sore spot, and almost prevented the consummation of the compact. One of the principal issues in the suit with New Mexico was the impairment on her part of the quality of the water by development of the Middle Rio Grande Conservancy District and for that reason we were not getting the equivalent of what we were entitled to in undiluted, unimpaired water. That point was discussed at great length in the negotiations for the compact. We tried to get a definite agreement from Colorado and New Mexico that if the quality of the water was impaired beyond a certain grade or point, defining it in terms of total dissolved salts, instead of in terms of general quality, then the amount would be increased according to the proportions worked out by the engineers. We could not agree on that point. There has never been any determination by the courts of the legal effects of changing the quality of water by irrigation, as far as the rights of users below are concerned. We did insert in the compact a provision substantially to the effect that the compact was without prejudice to the rights of Texas, or of any of the signatory States, to invoke the jurisdiction of a court of competent jurisdiction in the event the quality of the water is impaired. That provision is Article XI of the Compact. It reads:

ARTICLE XI.

New Mexico and Texas agree that upon the effective date of this Compact all controversies between said States relative to the quantity or quality of the water of the Rio Grande are composed and settled; however, nothing herein shall be interpreted to prevent recourse by a signatory state to the Supreme Court of the United States for redress should the character or quality of the water, at the point of delivery, be changed hereafter by one signatory state to the injury of another. Nothing herein shall be construed as an admission by any signatory state that the use of water for irrigation causes increase of salinity for which the user is responsible in law.

That, gentlemen, was a compromise between opposing views. They took the position that they were not in law responsible. We took the contrary position, not only in the negotiations for the compact but in the lawsuit. But we could not reach any definite agreement as to the legal effect nor as to the relation between salinity and amount. Consequently, we left that point open, to be determined by litigation in the event the quality should be impaired in the future to our detriment.

With reference to the discussions here, if, in those negotiations, we had permitted the conflicting interests in each State to attempt to insert in the compact provisions protecting their own particular requirements, no compact could ever have been arrived at. There is as much controversy in Colorado as in Texas, maybe

more, and fully as much in New Mexico as here. You gentlemen know that as far as the Rio Grande project is concerned, the interests of the Elephant Butte District, in New Mexico, and the districts in Texas above Fort Quitman are common interests. We have with us the manager and attorney of the Elephant Butte district, in New Mexico, and because our interests are common we determined long ago that no satisfactory, practical, legal or engineering way could be devised by which the waters could be allocated between these districts at the Texas line. As far as they and we are concerned, our source is the same. If the supply is impaired above Elephant Butte, we all suffer alike. Consequently, from both the legal and practical standpoint there is an identity of interests.

To do justice by all, it is up to us to work out our own internal problems.

Mr. Muller:

The amount of water that comes down to Texas, where is that controlled, at Elephant Butte?

The Chairman:

Yes. After completion of Caballo, it will be controlled at Caballo.

Mr. Harwell:

Not the return water.

Mr. Muller:

How will that be controlled? Whose jurisdiction will that come under? What is the complaint? Who uses too much? El Paso?

Mr. Mead:

We don't complain, but we haven't heard that the El Paso Valley doesn't get water.

Mr. Muller:

Well, how can it be corrected? Can Elephant Butte let out more water?

Mr. Mead:

Probably under the compact they can't let out more water. That's fixed. But when it gets down here, it is a question of distribution.

What we are here for, what we would like to know, is what is the attitude of these people here at El Paso, these people under the Rio Grande project towards the people below. Are the people here entitled to all the water in the river? All that comes out of Elephant Butte reservoir?

The Chairman:

I should like to call on Mr. Phillips for a statement at this time, although it is nearly 12:30.

Mr. Phillips:

I don't think a statement from my district at this time would be appropriate. I have listened with a great deal of interest to the remarks of the gentlemen representing the districts below Fort Quitman, and would like to ask a question or two. If I understand Mr. Robertson, speaking for the districts he represents, he requests from us—the two districts of the Rio Grande project, an agreement which will insure the delivery of 200,000 acre-feet annually at Fort Quitman. I would like to know whether or not the other gentlemen here, representing the other lower valley areas, concur in the amount which Mr. Robertson has requested that we agree to. I would like to know whether that is the amount of water that all the districts below Fort Quitman desire to have delivered.

Mr. Muller:

Speaking for Laredo, if that figure—200,000 acre-feet, is adequate, then we agree that that is the amount we want.

Mr. Phillips:

In other words, 200,000 acre-feet of water annually at Fort Quitman would cure your ills?

Mr. Muller:

I assume that that takes into consideration the needs of all the people below, and that when that water arrives at that particular point

Mr. Phillips:

But you agree, do you not, that

Mr. Robertson (interrupting):

My assumption is that 200,000 acre-feet of water delivered annually at Fort Quitman would be about right was based on the fact that the Compact Commission took into consideration the average flow passing there during the past ten years. Following the same reasoning, I calculated that we were entitled to the same amount that has passed there during the last ten-year period—a little in excess of 200,000 acre-feet.

Mr. Phillips:

I know how you made your calculations, and I know, too, that you probably have advised with these other gentlemen.

Mr. Robertson:

To a very brief extent, we have.

Mr. Phillips:

I also suppose that when you did advise with these other gentlemen, you took the opportunity to explain that by the provisions of this compact there is nothing that would alter the method of distribution—the practice of distributing the water followed by these districts in the past?

Mr. Robertson:

We didn't go that far.

Mr. Phillips:

Do you think it is an opportune time or a fair time for the two districts on the project to be asked to consider what you have requested without first receiving an expression from all the rest of the districts that the arrangement suggested by you will meet their approval? We are talking about a long-time proposition, something to be in perpetuity, aren't we? and will that be agreeable and acceptable to them?

I reiterate my question: Are all you gentlemen here agreed, and will the others not here represented agree, that the demands made by Mr. Robertson will take care of you, will cure your troubles, and are you willing, will the others be willing, to accept a delivery of 200,000 acre-feet of water annually at Fort Quitman?

Mr. Mead:

I will speak for our county—Presidio: If that gives them enough, there is no reason why we shouldn't agree.

Mr. Phillips:

Are you going on the theory that you will get yours first?

Mr. Mead:

If we cheat them, they will have cause of action against us.

Mr. Phillips:

Would you come back on us then?

Mr. Mead:

No, not if you furnished the water at Fort Quitman. That would be between them and us.

I believe everybody would be willing, assuming that what he says is enough, and for us it will be, to make the agreement.

Mr. Muller:

Your question, Mr. Phillips, is stated very clearly and seems to me to be a fair question.

We came up here without any advance information, to try and find out more about it. If you ask me the direct question, whether I would be satisfied with

200,000 acre-feet at Fort Quitman, I would say no, I wouldn't be, until I could go into it and find out for sure if Mr. Robertson is correct. After that, if he is correct, if he has taken into consideration

Mr. Phillips (interrupting):

How could you expect us up here to arrive at any definite agreement, any definite basis for an agreement, when you don't know yourselves whether Mr. Robertson's demands are proper demands?

Mr. Muller:

We came up here to get your point of view. We don't know a damn thing about it. We can sit down and talk it over, get some engineers together, and find out just how much we will need. Whether you can give us what we need, I don't know.

Mr. Phillips:

That puts me right back in the same position, so we can't say whether we would be agreeable to releasing 200,000 acre-feet until we know what you gentlemen have to have to fix you up.

Mr. Mead:

I imagine these gentlemen here have a pretty good idea.

Mr. Clark:

I think what they would like to know is this: are you people willing, do you look with favor on releasing a reasonable quantity of water to pass Fort Quitman, something based on the past ten-year record?

Mr. Phillips:

Well, I would still want to know whether that water was going to cure all your evils down there.

The Chairman:

You could probably get from them an expression

Mr. Phillips:

We've had a good deal of different expressions, varying expressions as to the amount of water these people would like to have pass Fort Quitman, water, you must remember, that we have no control over but are asked to guarantee as to the amount delivered, which in my opinion can never be realized.

The Chairman:

I don't believe their idea is to make demand for any certain amounts each year but for an average over a period of years.

Mr. Harwell:

It is getting rather late, but I should like to ask Mr. Mead one question, and after his answer to that question, as far as we are concerned, we should like to have an opportunity to talk matters over among ourselves.

I might say first that about 99% of what has been said this morning is new to us. I mean, no one has discussed these matters at any length or has been specific about them but they have been mentioned rather as vague generalities. Mr. Mead, you made a statement a while ago in connection with your general remarks which sounded curious. I believe you said, if I recall, that what you want, what you are interested in, is a general agreement such as would satisfy you down there without causing you to attempt to defeat the compact before the State legislature. Are we to understand what that statement would seem to imply?

Mr. Mead:

I probably didn't mean anything when I said that. There is no disposition as far as our folks are concerned to do that, at all. I just merely mentioned the fact a good many of our people feel they have been mistreated. Some say, "Well, if they are going to take it all, they won't take any."

The Chairman:

In the light of the statute enacted at the beginning of the negotiations among Colorado, New Mexico, and Texas, and from the standpoint of Texas as a whole—not taking any particular section alone, do you think that the commissioner representing the State of Texas should satisfy himself and negotiate with the object in view of securing to the State, as a State, as much water as she could get and as much as she was entitled to, without reference to any particular district within the State?

Mr. Mead:

I think you are right, Mr. Clayton. You couldn't settle all the questions among the various sections about the distribution of that water. But Colorado and New Mexico agree to deliver it: now what are we going to do with it? Are these districts up here to get it all. We below also have rights in this water.

The Chairman:

And if you were satisfied that the compact did secure for Texas whatever she was entitled to, what point is there in defeating the compact?

Mr Mead:

No point at all. But if you feel like you haven't been fair in the distribution of this water, then what we are here for is to settle our differences. We didn't come here to pick a fight. Nobody has any money for things like that. But it seems that we could get a gentlemen's agreement out of you fellows . . .

Mr. Harwell:

I move we adjourn until two o'clock.
Adjourn for lunch

2 p. m.

The Chairman:

Are there any other representatives from the districts below Fort Quitman who would like to express their views?

Mr. Mead:

There is one thing I should like to ask about: Is there any attempt to build another dam on the Rio Grande that might divert more water? That is, is there in contemplation along the watershed up above the construction of another dam that would materially affect the flow of the river?

The Chairman:

Not that I know of. Mr. Robertson may be in a better position to speak of that than I. I didn't understand that there is any such construction in contemplation or that there was any fear on the part of the users in the lower valley in regard to it.

Mr. Robertson:

I have no information other than the Caballo up above here. It is under construction, I believe, and everything in regard to it was taken into consideration in this compact.

The Chairman:

Generally speaking, Mr. Mead, I believe all the lands under the Elephant Butte project or below Elephant Butte dam have been fully developed. I don't mean to say that all the land is in cultivation. But substantially all that can be brought under irrigation are under ditch.

Mr. Mead:

I may not be as well informed as some. We are pretty far distant from El Paso and all the New Mexico watershed. But this morning we started down there at the mouth of the Rio Grande and got up here to Fort Quitman. Now, when did the El Paso district

start using this water? According to the testimony, we have had our irrigation since before 1930.

The Chairman:

The El Paso district itself was formed—I will let Mr. Harwell, Mr. Phillips and Mr. Fiock answer specifically, as the talk has been about the history of the valley.

Mr. Mead:

May I ask when this district was started, in 1930?

Mr. Harwell:

If you are speaking strictly from the point of view of organization, formal organization . . .

Mr. Mead:

No, what I am trying to get at is this: when you were questioning us as to when we started using water—that is what I want to know about. When did you start using water up here and how much increase has there been?

Mr. Harwell:

The irrigation district I represent was formed in 1917. It replaced the El Paso Valley Water Users Association, a different form of organization, organized, as I recall it, in 1908 or '09. As far as organization is concerned, the El Paso County Water Improvement District, as I have said, was an outgrowth of the El Paso Valley Water Users Association. They just changed the name.

There are areas in this project, in the vicinity of Ysleta and elsewhere, that have been in cultivation and under irrigation since following the retreat of the Spaniards from Santa Fe in 1670. As I recall the history of the El Paso valley, this area was first settled then and the use of water to irrigate the farms commenced by the settlers. There was considerable development, growth of development from then on. Then, in 1890 much complaint was heard about encroachments on the part of Colorado. The old river channel dried up at El Paso throughout the summer, from April of each year. A great deal of land was in cultivation, and when the river dried up, the farmers took to pumping. Along in 1905 the government sent engineers down and negotiations were begun for a treaty with Mexico. Thereafter followed the treaty and the building of Elephant Butte, and the rehabilitation of the valley lands. Does that answer your question?

Mr. Mead:

How many acres were in cultivation before the dam was built and how many now?

Mr. Fiock:

About 60,000.

Mr. Harwell:

And now between the two districts, 153,000.

Mr. Mead:

The point to me is that the waters should be allocated all down the line, that all should have an equitable amount of this water, from here down to Presidio. The condition down in our country is growing worse and worse. If the river dries up above Laredo, something is wrong, and we should try to find the answer and work it out.

Our people have had up the matter of another dam below Candelaria.

Mr. Muller:

I was talking with one of the Boundary Commission men from Mexico about a year ago. I want to make it plain that I am not representing any association. The committee sent up here was delegated by the Chamber of Commerce. Well, this man and I were talking about the contemplated dams along the Rio Grande . . .

The Chairman:

Below Fort Quitman?

Mr. Muller:

I think so. I asked him when are we going to get together so we can get a portion of the water from the Colorado. He said they wanted to settle the whole thing at once. Since then I talked with Mr. West. And it doesn't look like there's any chance of our getting those dams. Of course they would help. If we can get the dams, there ought to be enough water for everybody. I don't believe there is any chance of an immediate solution, though, with Mexico.

The Chairman:

This morning, in asking for statements from the users along the Rio Grande, from the individuals and districts here, we proceed upstream from Brownsville. We will reverse the order of procedure this afternoon, and go downstream, beginning with Mr. Phillips' district. Mr. Phillips, may we hear from you at this point?

Mr. Phillips:

I hardly know this early in the discussion what would be of real benefit to this meeting. The proposition of a diversion of waters, aside from the diversions provided for by the compact, are greatly complicated. For instance, I advised with counsel and they pointed out—the only time I had left to talk with counsel was a few minutes at noon—and was advised that before an agreement such as has been proposed here could be entered into, as far as we in New Mexico are concerned, would require an act of the New Mexico state legislature. Now, you fellows think you have got troubles down in Texas: you ought to come up to my part of the country and try to divide with my people. I feel very sympathetic to the occasion of this meeting. I know that you gentlemen all have your problems. But at this particular time, I can't make any definite statement that would add a great deal to the discussion. For instance, this morning I asked a couple of questions, and without appearing to be mean in the least and without trying to embarrass anybody, I just wasn't satisfied with the answers I got. I don't know whether we are going along the right road or not when we talk about entering into agreements, even if we could, for a guaranteed delivery at Fort Quitman. And I am not so sure that that is what your trouble really is—too little water at Fort Quitman. I think that the compact which has been signed and agreed to represents an equitable division among the three States in the drainage area above Fort Quitman. I think it represents an equitable division of the waters of the Rio Grande, and with ratification of the compact there will naturally be an increase in the flow at Fort Quitman.

I think we will all agree that during the last three-four-five years the runoff of the watersheds in the upper reaches of the Rio Grande has been below normal, and naturally when the water deliveries on the upper reaches of the river are below normal, they must of necessity be below normal on the lower end.

I feel that this question must be considered very carefully by all concerned, and a considerable amount of study will have to be given to the problem. I doubt seriously if a lot of this talk about water rights and dams are pertinent. If they are, I certainly want to inject into the record that we can show, in my section of the country, that we were irrigating in 1539. But don't take me too seriously on that question. I don't think it has any place in the picture. But until we can hear more and have more facts bearing on your general conditions down there, of which I personally know very little, I feel that out of justice to the people I represent that I should reserve any official statements. Maybe I will be in better position at a later time in this conference.

And I don't want to appear to be pessimistic but I don't think it would do any good for me to go to the state legislature of New Mexico and try to get any guaranty for you, if I was so inclined which I assure

you I can not agree to, and I should like to reserve any further expression from myself on the part of our district until some later hour in the conference.

The Chairman:

Is there any member of your delegation you would like to call on?

Mr. Phillips:

We have here the president of our district and two or three members of our board. Also, our local counsel. They are all free to take the floor, and some of them will. I should be very glad if you would call on them, Mr. Chairman.

The Chairman:

Mr. Starr.

Mr. Starr:

I think Mr. Phillips has expressed the sentiments of all of us here from New Mexico. I don't believe I could add anything to what he has said.

The Chairman:

Mr. Scoggins.

Mr Scoggins:

Mr. Chairman and Gentlemen, I don't think I can add anything that would help in any way. I think our ground has been pretty well covered by Mr. Phillips.

The Chairman:

Mr. Wright.

Mr. Wright:

I feel very much as do the other directors, that Mr. Phillips has said about all there is to say. He has been our spokesman for a long time and we have always found his ideas concurring exactly with ours, with few exceptions.

The Chairman:

Judge Mechem.

Judge Mechem:

I don't have anything to say, I believe, except to state what most of you already know: the Elephant Butte Irrigation District doesn't own any water or control any water except to take what is delivered to it and collect from the water users within its boundaries the charges assessed against them and pay it over to the United States Government. The water in New Mexico belongs to the landowners. Elephant Butte Irrigation District as such has no rights in the water, and it of course could not agree to anything that would tend to impair the rights of the landowners in the district.

The Chairman:

Mr. Lucero.

Mr. Lucero:

I don't believe I can add anything to what Phillips and the others have said.

The Chairman:

We are proceeding downstream, you know. We now come to the district in El Paso County. Mr. Harwell.

Mr. Harwell:

While I . . .

Mr. Muller (interrupting):

May I ask Mr. Phillips a question. I don't want to interrupt but it seems this is the place to ask it.

Mr. Phillips made a statement a while ago which I think was in line with the questions and answers. You don't know exactly what our conditions are down there; I don't know your conditions up here. When you ask us would 200,000 acre-feet of water at Fort Quitman satisfy us, I have been wondering if you are

in a position to give us that amount of water. Have you got it there?

Mr. Phillips:

I wouldn't for a minute say that we would.

Mr. Muller:

I don't mean that. I mean, is it there, is it available?

Mr. Phillips:

I don't know. That is what I was trying to say all the time. Certainly we ought to know what you need, to know what your problems are and what it will take to solve them before we try to make an agreement about this water at Fort Quitman.

Mr. Muller:

It might be that our interests are one. The only way we can arrive at things is by asking these questions.

Mr. Phillips:

Yes, indeed. And my question wasn't asked with any intention to embarrass you in the least. I am here to try to help solve this problem, and am only trying to pick up the facts.

Mr. Muller:

Well, I couldn't commit our country, either, that 200,000 acre-feet would be enough water.

Mr. Scoggins:

You say, Mr. Chairman, that the respective rights of Colorado, New Mexico, and Texas entered into this compact. Now the question is, was there a fair division of the waters of the Rio Grande as between them? Did Texas get a fair division?

The Chairman:

I feel, all of those with me in the negotiations feel, that she did, Mr. Scoggins. If I hadn't, I wouldn't have signed the compact.

Mr. Scoggins:

And any further division of Texas' share would be between the water users in Texas?

The Chairman:

Yes, sir.

Mr. Mead:

Didn't they talk about the river below Fort Quitman?

The Chairman:

No, sir. I just handed Judge King the statute that controls here in Texas. It is Article 7466a. If I may, I will read it (reading):

"The Governor of this State shall, with the advice and consent of the Senate appoint some qualified person a commissioner to represent the State of Texas in conference with the commissioners duly appointed to represent the states of New Mexico and Colorado, and a representative of the Government of the United States, to negotiate an agreement respecting the use, control and disposition of the waters of the Rio Grande and its tributaries above Fort Quitman, Texas."

In the temporary compact adopted about ten years ago, there was the same limitation. This compact was ratified by the Texas Legislature, the Congress, and the other state legislatures, and has been on our statutes for about ten years.

I might add this: It seemed for some time that our negotiations had broken down, and they had broken down to such an extent that we felt constrained to institute a lawsuit against New Mexico, partly based on water rights independent of the compact and partly on provisions of the compact, itself. Shortly after that lawsuit was instituted, Prof. Barrows, who, as I have said, is a member of the Water Resources Com-

mittee of the National Resources Committee, and Prof. Adams, consultant for the Water Resources Committee, attended a meeting of the Rio Grande Compact Commission and offered their services in making a survey of the entire watershed above Fort Quitman, in order that accurate data might be assembled for our use in reaching an intelligent opinion; and thus perhaps arrive at a fair and equitable compact. Something over \$400,000 was spent on that survey, some \$350,000 by the federal government. It was a very exhaustive undertaking. They went into the past, present and prospective uses of the waters of the entire watershed above Fort Quitman, determining the economic use of water, how it could be conserved, how put to best use, how augmented by transmountain diversions and otherwise. Their report was over a year in preparation. We had that information available to us when we went into the later negotiations. In keeping with this statute, which is substantially the same as in Colorado and New Mexico, and in keeping with the provisions of the temporary compact, we confined ourselves to the consideration of the uses of water above Fort Quitman.

Mr. Mead:

New Mexico and Colorado have no interest below Fort Quitman, at all?

The Chairman:

No. As a practical matter, we could not allocate it at the state line. The control is at Elephant Butte reservoir.

Mr. Mead:

Why couldn't you regulate . . .

Mr. Harwell:

Part of Texas diversions are made in New Mexico.

The Chairman:

In the negotiations and in the compact no attempt was made to fix the amount of water to pass Fort Quitman. As we viewed it, that was quite beyond the control and jurisdiction of the commission.

Mr. Mead:

I can't see, though, with a river five thousand miles long, why pick Fort Quitman and tie up all the rest of the river?. I am just trying to understand this business.

The Chairman:

The selection of Fort Quitman as a dividing point dates back a good many years before my time. Developments in Colorado in the latter part of the nineteenth century dried up the river for months at a time in New Mexico and in Texas above Fort Quitman. That brought about a protest from Mexico, and as a result, the treaty of 1906 was entered into designating Fort Quitman as the dividing point. The appropriations filed by the Bureau of Reclamation of the unappropriated flood waters in New Mexico, in 1906 and 1908, were stated to be for the benefit of lands between Engle, New Mexico and Fort Quitman, Texas, as well as I remember.

Aside from the historical feature of the matter, the lands above Fort Quitman receive their entire water supply from the Rio Grande and its tributaries in Colorado and New Mexico. The lands below Fort Quitman, except those immediately below, receive by far the greater part of their supply from tributaries flowing in below that point in Texas and Mexico. For instance, we are discussing now an average annual flow of approximately 200,000 acre-feet of water, and very poor water at that, whereas some three and a half to four million acre-feet flow into the Gulf at Brownsville, annually.

The Texas statute authorizing the appointment of a Rio Grande compact commissioner and, through him, negotiations with Colorado and New Mexico

for a compact, recognized Fort Quitman as the dividing point and provided for an agreement with respect to the use of the waters of the Rio Grande above that point. That statute has been on the books for about thirteen years and under it we had a temporary compact for almost ten years, and this is the first time I have ever heard this particular question raised.

Mr. Muller:

Looks to me like what you diverted, what you allocated was just enough to supply El Paso, because what goes beyond El Paso is just drainwater, you say, and you just figured that the district here was all there was and just forgot about the rest of Texas.

The Chairman:

I suggest that the question in your mind now will be answered in the discussion to follow. Mr. Harwell.

Mr. Harwell:

I am going to try to answer Mr. Mead and Mr. Muller in just a word or two. I have no intention of speaking long.

I think the reason why the river has been divided into sections, one above, the other below, Fort Quitman follows a very logical development. The crisis created here prior to 1905 and which brought about the treaty of 1906 was very acute above Fort Quitman. The situation below was not acute, as I remember the history of those times, then nor for many years afterwards. Then when the United States and Mexico got off together to settle their differences, they settled on that portion of the river along which there were difficulties and didn't include any other part, because there were no difficulties. Those of you living down there, if you had just had the foresight of what the future had in store for you, in the way of encroachments on the part of Mexico, you might have been interested. But the facts are, you weren't interested, the crisis did not affect you, and that's why the river generally was divided between Fort Quitman and the source and Fort Quitman and the mouth.

In those days the river petered out at Fort Quitman or above completely, and nobody could feel certain that there would be any water in the stream down there during the summer, unless water flowed in from other sources prior to 1906. So, I think the river just naturally got divided into two sections; they tried to solve the problem up above; there was no problem to solve down below. Not then.

Mr. Barrows:

The National Resources Committee first became interested in the problems of the upper Rio Grande because of representations made by Dr. Elwood Mead, the late Dr. Elwood Mead. He pointed out that a situation had developed above Fort Quitman which in his opinion was becoming dangerous both to public and private interests and with respect to which the Bureau of Reclamation was unable to cope. He begged us to help out, and when the Committee first took notice, I chanced to be one of the two men sent to Santa Fe, in December, 1935, as Mr. Clayton stated. I went to see Dr. Mead in his office to ask various questions about the river which related to the situation, and I asked him the very question, precisely the very question you now ask: why is it proposed that we shall concern ourselves with the river above Fort Quitman and not with its entire length? Mr. Harwell, to whom I never reported that conversation, almost paraphrased what Dr. Mead said to me: that the problem facing us had grown out of difficulties which led to the treaty of 1906, of our dealings with Old Mexico, and various things subsidiary, some of them independent problems, but mainly dependent, secondary problems growing out of those difficulties. As has been said here, there were no problems then of a serious nature in the 1300 miles of river from Fort Quitman to the Gulf—perhaps a few in the more or less restricted area at the mouth or delta, and that those

local problems and more extended problems which later might develop would have to be solved in other ways than those concerned with the river above Fort Quitman; that in his opinion that was the natural, physical, historical dividing line. The problems of the two upper sections are separate problems. Just at this moment what Dr. Mead said to me in that conversation struck me here with much interest.

Mr. Mead:

I can see what would happen as far as Mexico and the United States are concerned. What I don't see that as between Colorado, New Mexico and Texas, there should have been such an arbitrary dividing of the river, at all.

Mr. Barrows:

You must remember we were concerned with an investigation that would help to provide a satisfactory basis for an interstate agreement. We were not concerned with intrastate problems, whether in Texas, New Mexico, or Colorado.

Mr. Muller:

Our representatives apparently weren't concerned or they would have made some investigation at that particular time. Now there is none, and I believe our cause is a just cause. Because our rights were ignored then, that isn't going to be any bar from now on, is it?

Mr. Harwell :

We can never get anywhere as long as we consider this from a purely hypothetical point of view, and if you or any one else have any rights anterior to ours, that you claim either legally or otherwise, you have the door open to you. I think if you will let me get through with what I started to say, I may have thrown some light on the situation. If I may proceed, maybe I can clear up two or three matters that you have come a long way to find out about.

One of the things I want to tell you, and this you must have clear in your minds; you have undertaken a difficult proposition—although I am not a lawyer, I associate with lawyers, and I have learned that once in a while a lawyer finds himself in the situation you are in today—you haven't the proper people in court. You propose to enter into an agreement with the Elephant Butte Irrigation District, of New Mexico, and with the El Paso County Water Improvement District, and with the United States Bureau of Reclamation, for some definite passage of water below Fort Quitman. None of the organizations which I have mentioned could guarantee to you, under any reasonable proposition of their own, any such delivery at Fort Quitman, or anywhere, for one or two very simple reasons, and I am hoping that during your visit out here you will take occasion to investigate for yourselves. If you do, we will all understand each other a lot better.

Now, then, as far as the Rio Grande project is concerned, and those here today are representing the Rio Grande project, our project ends at the end of the Tornillo district, a point down below Fabens a relatively short distance. The last diversion which we contemplate making here will be at Ysleta, twelve miles below El Paso. Our control over the water still will end at Fabens, in part, and at the head of the Tornillo main canal, at the end of the Tornillo district. I am sorry we haven't a map, because I want you to get this situation clearly in mind. What happens beyond that point, and Fort Quitman is well beyond that point, is something wholly without our control, as it is without your control. We have no more control over the operations below those points than you have.

Now I think that as far as the supply of water at the end of this project is concerned, the supply will be substantially as it has been in the past. I think that will be true, because a certain amount of operating water and a certain amount of summer runoff, entirely beyond our control, will run in the river. But once

that water reaches Fabens and the end of the Tornillo district, it passes completely out of our control. And you are going to be surprised to hear, in part, at least, I am sure, what happens to it then:

This new rectified channel of the Rio Grande, of course you know about. On down to Fort Quitman the water now goes into the new channel, and the drain waters and irrigation waste waters at Fabens and at the lower end of the Tornillo district, all empty into the new rectified channel. And this water is now being diverted by Mexico, notwithstanding the treaty, which provides that 60,000 acre-feet shall be delivered to Mexico at El Paso. Notwithstanding that fact, those agrarians down there are constantly putting in new diversions, and taking the water when and where they please, and that water will probably be subjected to more and more such diversion in the future. I, myself, was given a little shock just during the noon hour, in talking over this matter with one of our directors, when I learned that certain activities have been going on recently which we had not observed. My earlier impression was that there were four diversions on the Mexican side below the point where we release control. But this director tells me he was down along the rectified channel yesterday with some of the farmers, and one counted fourteen diversions. Another counted sixteen. So, it is obvious that as far as the Mexicans are concerned, they are intent on taking whatever water they please below our point of control of it, at least as much of it as they can use and get on the land—substantially everything but the flood runoff is being put on their land. They are developing, under their agrarian program, the fullest use of their land on that side the stream.

Then, below our district here is the Hudspeth County District. The Hudspeth County Conservation & Reclamation District No. 1 is not a party in this transaction, they are not represented here. They have some 16,000 acres of land that is being irrigated, in part by surplus waters which we deliver into their canal for a consideration, and in part by diversion from the river. This, again, is beyond our control.

We are just getting at this roughly, so don't take the figures I have mentioned as exact. They are merely estimated.

But below us and before you get to Fort Quitman, there are some 40,000 acres of land that is being put to use, and all that water put on it—who controls it? we don't. So, you see, even if we were willing to guarantee to deliver at Fort Quitman 200,000 acre-feet of water, how could we get it there? We would find that we had undertaken, with these facts staring us in the face, to supply all these unauthorized uses in Mexico, and all these uses below us, and we would find we had undertaken to deliver to you so much water only after providing sufficient water to take care of all those people. This would be a distinct loss to us, not only by reason of the unauthorized and unlawful diversions into Mexico, but there is the Hudspeth County district that we don't control. Any such proposition would be absurd from a business point of view, and simply could not be undertaken by any man in his right mind.

Somebody is going to ask me presently why we don't stop those Mexicans. And the answer might be, why don't you stop them? When we get through with that water, we are through with it. We have had years and years of battling, and while our own attitude would be that we would certainly wish the people of Texas, the people of the United States could profit by that water, on the other hand it is not our business to undertake to do any further fighting on that score, and those of you who are interested in that water will have to undertake the fight.

I believe that is fairly clear, fairly specific, and I will stand on these statements. Any questions anybody wants to ask me? If you have any apprehension that I am giving more importance to the Mexican diversions than they warrant, and other unauthorized

diversions, you remain over and investigate for yourselves, and if then you feel I am wrong, I will gladly stand corrected.

Now, we have been in this water business for a long time. I have been personally connected with the organization here for eighteen years. The most important thing that ever happened to us here was the building of Elephant Butte dam. I have known the agony we have gone through to secure results. I have known the necessity of overcoming prejudices, the necessity of staring facts, hard facts, in the face, whether on our side or the other fellows' side, and the necessity of working long and against heavy odds for what seemed wise and then having to suffer disappointment. But we have made material progress, what we have done is constructive, and out of our hard won experience, if you will pardon me, I want to offer a suggestion or two: We live to learn, and we pay plenty while we are learning. What you are asking us to do, even if we could do it, is a mere drop in the bucket. When you got it down and went home, you would find that really the edges have not been more than touched. We hear of your troubles in general terms. We know nothing about them in specific terms. But you need storage; and you need a treaty; and you need to go back and employ other means, exactly as we did back in 1906. And that will bring up again the answer to the gentlemen's question, and I am just about through: when we lost a normal flow of water through diversions in Colorado, and we did lose it, we went about to restore our supply by negotiating a treaty that would enable us to capture new water and substitute flood waters for the regular supply. We had floods all those years but flood water meant little or nothing to us, certainly not in the way it could be put to use. Now, it looks to me as if you are having the same experience. You have lost your normal flow to Mexico. That is what creates your problem. And to solve it, you will find the vehicle is not a contract with us; it is a treaty with Mexico—almost a duplication of our circumstances back in 1906. Next, you can develop storage. Then your problems are solved.

Now, all those undertakings are big things. I am not trying to tell you how to run your business. But any of you can see that at least I have given you an outline. To make real progress, in my opinion, you would want to initiate a program under an agency capable, not only of handling the lower Rio Grande, but handling, as well, the Colorado situation, because the two go hand in hand. There is such an agency, in my opinion, which would successfully lead you on to your goal, and that agency you are already aware of.

Now, I think we had just as well put our cards on the table and say what's what. Part of the reason why my district and the Elephant Butte Irrigation District invited Dr. Barrows to come down here—rather, the reason why was two-fold: one, because the National Resources Committee had a great interest in the consummation of this compact, on which it spent its money, and its work affected, directly or indirectly, the consummation of the compact. Another reason was that we thought if you men had an opportunity to get in contact with, and learn some of the possibilities of the real solution of your problems from Dr. Barrows, you would escape a great deal of worry. It is a rather harrowing experience to go through, what we went through some years ago, trying to deal with all those attorneys over in Juarez. And after all these years we know what it means. We had far rather offer you sound, constructive advice and help you in a way really worth while than simply sit here and dicker and fuss about your rights and our rights.

I gather from the remarks this morning that you really haven't enough information to do much of anything as yet. Water is a very precious commodity in this western country, and nobody is going to give you, just give you, or give us, or anybody else, much of that precious element until it is demonstrated that it

will not be wasted, that you are entitled to it by right, by legal right or some other right, and that giving it would settle all controversies, once and for all. As I said awhile ago, I think you have the wrong party in court. As far as the future is concerned, we believe that substantially the same quantity of water will be delivered at Fort Quitman as has been in the past. But we have no control over the water when it leaves the lower end of our district, and we could not guarantee that delivery without absolutely wrecking our district and ruining our farms and our farmers, and this we could not, under any circumstances, consider doing.

Mr. Robertson:

You say there are 14 or 16 diversions below you here? Do you have any information as to just where they are, are they between the acequia Madre and Tornillo or below that? Are they gravity diversions or by pump?

Mr. Harwell:

I understand they have built brush wiers and in two places have built permanent structures.

Mr. Mead:

This compact, has it been approved by Mexico?

The Chairman:

Mexico is not a party to the compact. It is an interstate compact, among the States of Colorado, New Mexico and Texas.

Mr. Scoggins:

How long did it take to work out this compact?

The Chairman:

We have been negotiating towards this permanent compact since the temporary compact was ratified in 1929.

Mr. Wagner:

Would Mexico require a permit from the United States?

The Chairman:

No, sir.

Mr. Wagner:

How about the United States?

The Chairman:

As a matter of treaty, the United States is obligated to deliver 60,000 acre-feet a year at the Acequia Madre. When they take out below the Acequia Madre they are violating the treaty, but they don't ask permission.

Mr. Scoggins:

Who has jurisdiction over those unlawful diversions?

The Chairman:

The State Department and the International Boundary Commission.

Mr. Harwell:

I understand the Mexican people are cutting through the levee on the Mexican side, due to scarcity of water originating above. As I said, it is absolutely news to me, and starting at this stage of development, as their requirements become more acute, it will present a menace no doubt, to users downstream.

Mr. Kirkpatrick:

If I understood you, you said you proposed to lay your cards on the table. Do I understand you to mean that even though you and your directors feel you could legally enter into an agreement, you would not be constrained to do so for business reasons?

Mr. Harwell:

I approached the matter more broadly. I said if we were disposed to enter into an agreement, we could do so only by practically wrecking our district, by carrying these unauthorized diversions in order to get the quantity desired at Fort Quitman.

Mr. Kirkpatrick:

I understood you to say it would completely wreck your district from a business standpoint and you didn't propose to do it.

Mr. Harwell:

I meant to say that it would wreck our water supply. That would of course mean the wrecking of the district.

Mr. Kirkpatrick:

I should like to ask Mr. Phillips if that is his sentiment.

Mr. Phillips:

Yes.

Mr. Porcher:

This carries me back to about 40 years ago, hearing you gentlemen from Presidio state your troubles. We came here in 1893. The following summer we had no water until September. That was the situation for over ten years, until there was a little more flood water in the river and we got by with pumping in between times from wells dug along the river, some of them right in the riverbed. I can certainly sympathize with you gentlemen. I have been through all this fight with Mexico and New Mexico until now we have an agreement with New Mexico, and we got the treaty back in 1906. I remember one meeting like this, where we talked and talked, and directly one of the younger men got up and said, "Gentlemen, we are getting nowhere. In my opinion you are just going 'round in circles. Why can't we do something constructive?" Well, I am not a young man, but it looks to me like what you need, you men from New Mexico, and you men from down in Texas, is to see that you aren't getting anywhere. With us, that time, it was like this. Then the reclamation people said, you've got to have a dam. But how could we get a dam? Well, we got it. The job was done.

Mr. Mebus:

I don't believe I care to say anything.

Mr. Ivey:

I will say very little. I will speak of one incident that may be of interest in this case. Sometimes we speak of prior water rights. About 1934, under the Bankhead Law, a farm census was taken throughout the State of Texas, getting crop averages, time of cultivation, etc. That census revealed that down at Ysleta, twelve miles below El Paso, is the oldest farm in the State, and if I am not mistaken the record is that that farm was irrigated from the beginning. That is just merely a little thought thrown in for what interest it may have.

Mr. Harwell spoke awhile ago of the diversions below the Elephant Butte project, on the Mexican side. On Wednesday, of this week, I made it a point to go down the levee and look for those diversions. As you probably know, the new rectified river channel has a high levee and it is graded, making a very good road all the way down, so it is easily accessible. Two others were with me. I asked them to count the various places where water is being taken out on the Mexican side. Some are small—probably one man just irrigating direct out of the river his own little farm. Other places are larger. Two or three are of pretty good size, with canals where the water lets out. There were two permanent structures in or across the river in that area—

a distance, probably, of forty-five miles. These are across the new rectified channel. There were two structures across the river of a more or less temporary nature, one of sandbags and the other a brush wier. We also saw one fellow down at the lower end out in the channel putting in a brush wier. It looked as if he was going to get it built, all right—he was just driving stakes into the sand. We supposed he had a small farm.

Now, those diversions—about fourteen in number, don't necessarily mean a large area is being irrigated. But it shows a tendency on the part of the Mexicans to take water whenever and wherever they like. It is, perhaps, naturally to be expected, although under our treaty with Mexico they haven't that right. And, while the district up here would much rather they wouldn't take the water that way, yet, as far as I can see, there's very little we can do about it, if anything.

Mr. Mead:

Just how much space do these diversions cover?

Mr. Ivey:

This project ends about 38 or 40 miles below the City of El Paso. The last place where we take out water for this project is at Fabens, thirty miles below here. For a few miles the river is not the international boundary but it soon will be. From the lower end of San Elizario Island the Mexicans find it easy to divert the water. The first diversion is about a mile below that point. There they have cut through the levee on their side but very little water was going through. They have started brush wiers immediately below but they are not finished. Some 100 feet above that temporary cut they have a concrete structure, with three screw gates about completed. It is about 40 miles from there to Fort Quitman.

The Chairman:

I should like now to hear from Mr. Clark, chairman of State Board of Water Engineers.

Mr. Clark:

I don't see that there is much for me to say after the statements made by Mr. Harwell and Mr. Phillips.

As I understood it, the purpose of this meeting was to talk matters over together. We know from our records that there is something like 2,000,000 acres of land under appropriation below Fort Quitman, representing an expenditure of several millions of dollars. We know further those people, in order to satisfy their land and those appropriations, require all the water in the river below Fort Quitman and more. We know that they need every drop of that water. Of course it is admitted that they are going to have to make some provision for storage.

I appreciate Mr. Harwell's suggestion that it is probably best to have some national organization take hold of this matter. I agree that that would be the best solution. But no national organization can make any water. There is just so much in the river, and those people down there need every bit of it.

I believe this is what those people in the lower valley have in mind: This river has been gradually reducing in flow since 1910. The flow at Fort Quitman or around Presidio used to be some 7- to 800,000 acre-feet. It is now down to somewhere around 200,000. Probably at that time the people weren't in position to use it, and they are not now in a position to use what passes there without storage, without regulation. What they have in mind is that they want to safeguard, protect their rights in the event they can or in the event a treaty with Mexico is consummated and provision made for storage. They came up here, as I understand it, to try to work out a friendly understanding or agreement between you people, with the idea of getting something they can depend on. They want to know that the average flow past Fort Quitman for the past ten or twelve years will not be diminished.

Mr. Phillips:

Mr. Clark, you were up at Santa Fe when they were negotiating for this compact. Do you or do you not believe the terms of the compact, as you know them, will or will not affect the flow of water at Fort Quitman, in an average way? In other words, do you think the terms of this compact, if it is approved, will decrease the average flow at Fort Quitman over what or under what it has been in the last ten years?

Mr. Clark:

The flow at Fort Quitman has been decreasing for the past five years. The presumption is that you people have been using as much as you could let out at Elephant Butte dam, probably in the neighborhood of the amount specified.

Mr. Phillips:

I didn't ask you that question.

But you will admit, won't you, from the records, that for the past five years the supply on the headwaters of the Rio Grande has been below normal?

Mr. Clark:

That is probably so.

Mr. Phillips:

And you will admit that that must be of necessity have affected the flow at Fort Quitman?

What I would like to know is your opinion—let us be honest—do you think that the terms of this compact is going to reduce the flow at Fort Quitman?

Mr. Clark:

The only way I can answer is just what I have answered: if you have been letting 700,000 acre-feet out of Elephant Butte dam for the past five years, the flow at Fort Quitman has decreased. I don't see how it is going to increase.

Mr. Phillips:

But I don't say it is going to increase.

Mr. Clark:

The gage at Fort Quitman shows a gradual decrease for the past five years, down to 100,000 acre-feet.

Mr. Phillips:

I understand that. But do you not understand that under the terms of the compact, these compacting agencies are going to more or less continue the regular practice of water distribution?

Mr. Clark:

Yes.

Mr. Phillips:

I assume you will take my word for it that the project limits here are about net. In other words, we are irrigating practically all we ever will.

Mr. Clark:

Yes, I can see that that is probably so.

Mr. Phillips:

Let me ask you, now: will the terms of the compact serve to diminish the flow at Fort Quitman?

Mr. Clark:

The only water the people below can have is what passes there, and I have already stated what the gage shows.

Mr. Phillips:

Still, you do not answer my question.

The Chairman:

It is frequently of value in a conference of this kind to have the views of a man who, while he is thoroughly conversant with the problem, is not interested personally or financially in any particular element, and who has the perspective of distance—the long-range viewpoint. I think it will be of great

value to us all in our discussions here to have the reaction of a man in that position. We have such a man here. I took the liberty of asking Dr. Barrows to attend this conference. My association with him during the past few years has been such that I attach a great deal of weight and importance to his views. They are always well considered and well thought-out. He is thoroughly conversant with the problems of this river from its source to its mouth. I now call on Dr. Barrows for any statement he may wish to make.

Mr. Barrows:

Mr. Chairman and Gentlemen:

I was pleased when Mr. Clayton asked me to join you today, for two reasons: In the first place, I have been making occasional trips to Santa Fe since December, 1935, and in so doing I have made many good friends in New Mexico, Colorado and Texas, including, from the lower Rio Grande valley, Mr. Clark and Mr. Robertson, and I knew that I would meet some of them here today.

I was glad to come, too, because I am tremendously interested in the critical and complex problems of this interstate and international river. I began to study it in connection with the problems above Fort Quitman. Those problems led me over to the Colorado River. That step led me in turn to a consideration of various international questions. And they led me to the lower Rio Grande. There, I gained a general idea of current and prospective problems. I have been thinking of them, I confess, chiefly in terms of the so-called delta, in the lowermost section; I haven't known so much about the districts farther up, to which the questions presented by the river are proportionately just as important.

As two or three of you said this morning, you have in the lowermost section something like 400,000 acres now irrigated, and the possibility of irrigating, say, roughly, as much again. You have an enormous investment there, which has been growing through the years and which is of far more than local importance. You have experienced several shortages of water in recent years. At the same time, from 3,500,000 to 4,000,000 acre-feet of water flow unused into the Gulf in normal years. The present situation, therefore, is unsatisfactory. But the outlook is even more unsatisfactory.

Much already has been said about the large developments that Mexico has under way on various tributaries of the river (the Conchos, the San Juan, and others), developments which, when carried through, may mean for you more frequent and more serious shortages of water. I think you have got along pretty well thus far. Most of the shortages haven't been long-continued nor critical to a large area or to a large number of people. Future shortages may be of longer duration and greater magnitude.

It seems to me the only solution for your problem involves the construction, at appropriate places on the lower river, of dams, very probably including the three dams that have been planned by the International Boundary Commission, which would have a combined storage capacity of 2,650,000 acre-feet. By the construction of such regulatory works, it would be physically possible to utilize most of the water which now, in normal years, flows unused into the Gulf.

But those dams can not be constructed, obviously, without a treaty with Mexico.

You need not only storage dams but also a definite allocation of an equitable part of the flow of the lower Rio Grande. Patently, you cannot have that without a treaty.

Repeatedly, as every one in the room knows, Mexico has indicated that she will not negotiate with the United States with respect to the lower Rio Grande alone. She will deal only with respect to the Colorado of the West and the Rio Grande—the lower Rio Grande—considered jointly. Now, that fact means that

you cannot have a treaty, as one or two already have indicated, in the immediate future, if, by the immediate future, you mean the next few months. It is, however, I believe, entirely possible within a reasonable number of years.

The situation on the Colorado alone is complicated. The States, or most of the States, of the Colorado basin have taken the position that after the completion of the All-American Canal we will not be under obligation to furnish Mexico any water. They have indicated, however, that as a neighborly and friendly act they would be willing to give Mexico seven hundred fifty thousand acre-feet annually. At various times, however, Mexico has claimed 3,600,000 acre-feet or more as her proper share of the water of the river. It has been rumored recently that she proposes to claim some five million acre-feet. There are other problems. As you doubtless know, the four upper States of the basin of the Colorado, under the Colorado River Compact, must deliver to the lower States seven million five hundred thousand acre-feet annually. The upper States still have to agree among themselves on their individual responsibility in permitting the required volume of water to flow to the Lower Basin and on the allocation among themselves of their joint apportionment.

I think there is, fortunately, a rapidly growing appreciation of the fact that unnecessary delay in settling the interstate and international aspects of the Colorado River problem would be unfortunate. The construction and operation of Boulder dam will mean an increased reliable supply of Colorado water for the Mexicans, which they can divert and utilize for further extensive development. Appreciating this fact, and similar and allied facts, the people of the American part of the basin appear to have a new or strengthened feeling that these unsolved water problems should be settled as soon as practicable. To that end, interstate conferences have been held in the recent past and others are planned for the near future. The outlook for an early, proper solution of the problems of the Colorado is distinctly better than it has been at any time in the past.

When the time comes for negotiations dealing with the two rivers, you obviously should be ready with all relevant data concerning the American side of the lower Rio Grande. Are you now ready? Have you all the facts of all kinds with respect to the supplies of water and the uses of water, past, present, and prospective, in the Texas part of the valley, that will be needed by the negotiators? I have heard it stated in various quarters that you have them, but I venture to doubt it.

When the time comes, we will want—and by “we” I mean the United States—we will want Mexico to present reliable facts concerning the irrigated lands on her side of the river, the past and present consumptive use of water on those lands, the irrigable acreage, the future water requirements of the irrigated and irrigable areas, and the like, with a view to judging of the amount of surplus water which she could make available to you. I am not implying that your needs or your rights could be determined in such ways alone. But clearly the United States would want Mexico to present such evidence. Have we, on our side, corresponding evidence ready to present in detail? Can any one say at all closely, for example, to what extent the flow of the Rio Grande will be depleted by developments on the Pecos in New Mexico and in Texas? By developments along Devil's river? By developments elsewhere? I don't think any one has these facts and many other facts that will be needed. In reaching this opinion I am guided somewhat by the findings of the eminent Colorado engineer, R. J. Tipton, who served the National Resources Committee as consultant on the Lower Rio Grande and neighboring rivers in connection with our drainage basin reports to the President. It was his belief that a thor-

oughgoing review of existing data and supplementary fact-finding surveys and investigations along various lines are needed, and that they should be initiated at once as a preliminary step to treaty negotiations. Apparently his opinion is also the opinion of some leaders in the lowermost valley itself, for a year ago last winter Senator Neal introduced a bill in the state legislature authorizing an expenditure of \$35,000 by the State Board of Water Engineers in connection with such surveys and investigations.

Now, if you agree that you do need more facts—and bear in mind that successful negotiations with Mexico can rest only on our possession of exact and adequate data—then we come to the next question:

Do you desire the services of the National Resources Committee in reviewing and interpreting the internal or domestic data now available and in gathering new data, in anticipation of such negotiations? It is, of course, for you to decide. The Committee would not wish, not for the briefest moment, to appear to be seeking to inject itself into your problems. If, however, you men of the lower river want the help of the Committee, I think the requisite arrangements probably can be brought about.

If you wish the National Resources Committee to act as an over-all planning, guiding, and co-ordinating agency in the surveys and investigations that may be jointly agreed upon as needed, much as it did in the case of the Rio Grande above Fort Quitman, then I suggest the following procedure: (1) That you appoint a regional committee, made up of representatives of the several irrigated sections of the lower valley. (2) That this Committee, with the assistance of one or more representatives of the El Paso district if you so wish (I am sure such aid would be available), solicit the Governor of Texas to present an official request to the Department of State that it, in turn, ask the services of the National Resources Committee. The approval and participation of both the State and the Federal Department of State will be essential to success in launching and carrying out the studies that appear to be needed. The time was never so opportune as now for cooperative efforts by Federal, State, and local agencies looking to solution of the problems of the lower river.

I remember hearing of an appeal that Mr. Robertson, now with us, made on behalf of the American water users in the valley below Fort Quitman at a meeting of the Texas Planning Board in June, 1936. He asked the Board to think of the problems of the lower river not as local problems but as problems affecting the entire State. I repeat his request here, but I go even farther. I ask you to think of them not as local problems merely, not as either regional or State problems exclusively, but as phases of urgent national and international problems. They cannot be solved in isolation.

Our relationships with Mexico, and indeed with all Latin America, are of paramount importance to the peace and welfare of the Western Hemisphere. Anglo-American civilization to the north of the Rio Grande and Latin American civilization to the south of it owe much to each other. Problems of mutual concern to them will multiply rather than diminish in number. The Rio Grande binds its tributaries together; it does not separate them. It should also help to bind together in friendly relations the people who inhabit its opposite banks. We cannot afford to have Mexico point in the future to our failure—it might be, I grant you, her failure as well as ours—but we can not afford to have her point to any dereliction on our part in coming to some friendly and fair understanding with her over the questions of these boundary rivers. I confidently predict, in view of such considerations, however intangible some of them may seem to you at the moment, that the International Boundary Commission, the Department of State, and the National Resources Committee would welcome prompt action by you in

preparation for treaty negotiations. That, gentlemen, is the only way in which your problems on the lower river can be solved; you will agree if you look at the matter realistically.

The small amount of water that could be passed at Fort Quitman and the low quality of that water make it only "a drop in the bucket" with respect to your requirements. You need regulation of the lower river. That means storage dams. You cannot get dams without a treaty. You need a definite allocation of water from the lower river, seventy per cent of the flow of which comes from tributaries on the Mexico side. You cannot get that without a treaty. An equitable treaty is the big thing, the all-important thing, for which you should strive, with or without the aid of the National Resources Committee.

I was surprised—I confess I was, shocked—this morning when remarks were made that seemed to imply that some groups or some individuals might feel it to be in their interest to oppose and, if possible, to defeat ratification of the Rio Grande Compact in the state legislature if it be found impossible by the people of the Elephant Butte project to meet your wishes or suggestions. I was surprised because, as one or two earlier speakers have indicated, that compact, in the judgment of lawyers who have studied it carefully, in the opinion of a relatively large group of competent engineers, in the opinion, I think, of most of the citizens of the areas immediately concerned in all three States who have had it explained to them, and, as far as I know, in the mind of everyone conversant with it, represents a fair allocation of the waters of the upper river to the three States. I have yet to hear any one suggest any dissatisfaction with it. Colorado got what she was entitled to; New Mexico got what she was entitled to; and Texas got what she was entitled to. That compact, you should remember, ended a serious controversy of more than forty years duration. It was welcome to the national administration. It was welcome to the state administrations. It was welcome, I am sure, to Mr. Charles Warren, the eminent special master for the Supreme Court in the suit now in abeyance between Texas and New Mexico. I think I cannot be mistaken when I say that the Supreme Court would regret non-ratification, for it repeatedly has taken a friendly attitude toward the compact mode of action in dealing with controversies over water. Failure of the compact would necessitate resumption of the litigation between Texas and New Mexico. Such litigation always is a slow and costly method of settlement, and its results are likely to be inconclusive and unsatisfactory to the public. Already, the beneficial influence of expected ratification may be seen in accelerated movements looking to the solution by compact of various other interstate water problems in the west.

There is a great conflict under way in the United States between centralized federal authority and state authority. Democracy in America is slipping. The Administration is not responsible. All sorts of factors enter into the situation. I, for one, deplore, as I could scarcely deplore anything else, any unnecessary or avoidable encroachment of federal authority upon the rights of the states. The only way in which that tendency can be stopped, so far as water resources are concerned, is by friendly adjustment of interstate problems by the states themselves, by such adjustment as was accomplished in the signing of the Rio Grande compact. It would be tragic if that compact were not ratified by each of the States. It would be calamitous to the lower basin as well as to the upper basin.

Further, I venture frankly and in the most friendly spirit to say this to you, and you may write it down almost as a formula: No compact, no treaty; no treaty, no storage dams; no dams, no regulation of the waters of the lower river. Unless a program leading to an equitable treaty is followed, nine-tenths or more of your problem can not be solved.

Whether or not you agree with all of my statements, you will believe me when I say they have been offered in the friendliest spirit. I have come to have a real love for the Rio Grande, perhaps because its problems are so baffling, perhaps because if we can solve them, step by step, it will mean so much to so many.

Mr. Robertson:

In getting the National Resources Committee to make the investigation, just how do we proceed?

Dr. Barrows:

In the first place, what the Committee could do would depend upon whether the requisite co-operation could be obtained. The Committee certainly would not go into this matter unless all interested parties cordially wanted it to do so: the people of Texas, the people of the lower valley especially. Many agencies are involved; The International Boundary Commission, the State Department, and others.

Then there would be the question of funds. I don't know how much such an investigation would cost. Frankly, I think Texas should make an equitable contribution, just as it did to the investigation of the upper basin. But I think the bulk of the cost, which let me say, roughly, might be some \$200,000.00, should be contributed by the federal government. The problems are not only interstate; they are international. The river is already the subject of a treaty. The federal government is directly interested in many intimate ways. This river is an international boundary from here to the Gulf, and the problem it presents to the United States can not drift indefinitely. These problems tie in with those of the Colorado. It is natural and reasonable to expect the federal government to carry most of the load.

I repeat, the Committee's willingness and ability to help you would depend fundamentally on your desire to obtain its help. If such a desire exists, I believe that action could well be requested by your governor, as I have suggested; and if he requests Secretary Hull to ask the National Resources Committee to act in this matter, in principle as it did in the case of the upper Rio Grande, I believe it could be arranged.

Mr. Harwell:

Wouldn't it be possible, under any such investigation, to utilize the data already existing?

Dr. Barrows:

Certainly those data would have to be obtained and utilized. New data also are needed.

Mr. Harwell:

These sections would have available, by this investigation, for the first time a thorough and comprehensive picture of their situation, so that their requirements and needs would be definitely set forth, and the solution of their problems would get under headway and proceed on a definite and scientific basis. But would these data stand up before the Congress?

Dr. Barrows:

As far as I am able to judge, yes.

Whatever any one may think, theoretically, as to the division of the Rio Grande into sections, certainly now the area below Fort Quitman should be planned for and dealt with as a unit—not one part of it by itself, in disregard of some other section. What we have got to have in some way is an integrated, comprehensive, clear and logical setting forth of the problems on the American side, both with respect to the Rio Grande and the Colorado, before we can negotiate successfully with Mexico.

Mr. Robertson:

Just how long, in your opinion, would it take to get a report of such an investigation?

Dr. Barrows:

I am frank to say I don't know. We underestimated the time in the case of the upper Rio Grande joint investigation. We began that in December, 1935—that is, it was agreed upon at that time, and we had it under way, everything planned, the various phases of the investigation assigned to the several investigating agencies by the middle of February, 1936, and we hoped to submit the report, as I remember it, very early in 1937. As a matter of fact, however, it was July or August, of that year, before we were able to put the report in mimeographed form in the hands of the Compact Commission, and the Commission had to get along with that. The report, printed in two volumes, has been released at the White House within the last ten days, I believe.

I should think the work on the lower Rio Grande, after the money is made available and the machinery set up, could be completed in a year. That's just a guess; it may be too low.

Mr. Robertson:

Is anything like this being done on the Colorado? Could we correlate the two?

Dr. Barrows:

Oh, yes. Various studies have been made and various helpful things are now being done, much more will be done. I am very optimistic that the problems of the two rivers, on the American side, can be worked out in reasonable time in preparation for treaty negotiations.

As Mr. Clayton well knows, and Mr. Harwell, there were times when all of us were almost in despair of the compact concerning the upper river. But as we went along, the hurdles were successfully surmounted, one by one. Everybody worked toward that one great aim: not the Compact Commission, alone, but also the engineers and the lawyers, just as patiently, just as arduously. And so did the representatives of the National Resources Committee. All contributed to the happy outcome. The same thing should be done in this case: all should work and strive together for a treaty with Mexico and the equitable solution of the problems we are here considering.

Mr. Mead:

In order to get anywhere we must have some plan. We can't just go ahead each in his own way. I would make a motion that each one of the counties or the districts represented select a member of a committee and that that committee be vested with authority to act for these people in the various suggestions Dr. Barrows has made. And I think the other counties or districts ought to be invited, so we can have all the people represented. I have in mind Mr. Robertson to act as chairman and have each place name a member to report to him and take part in the organization necessary. We have learned enough here today to make that start. I think Mr. Clark can get a report of everything done here and get that report before all these people. That will give them something to read and study while the committee is getting together. Then we can request the Governor to take up with the State Department the suggestion that the National Resources Committee make the investigation. I don't think we ought to wait two or three years before we begin this business. Some of us may starve to death before that time. This committee might do something temporary to save the situation down there, give us some temporary relief. I just drop that out as a suggestion. Each member of the committee can get definite, detailed information of his district or section, and before we know it we will have something tangible to go on.

Mr. Muller:

I know more about this problem now than when I started up here, a lot more, and I think Dr. Barrows' suggestion is the only solution.

It seems that the International Boundary Commission has already suggested three dams. Now, where did they get their information to base that on? I do know that they suggest one dam in the northerly part of Webb County, another down by Roma, and a third in the Big Bend. Where did they get their information? How did they arrive at those locations?

The Chairman:

I suggest the answers to your questions can be got from Mr. Lawson.

Mr. Muller:

It seems as if a lot of ground-work has already been done. This organization Dr. Barrows represents, if they can get in and further the work along, it looks to me like we can get somewhere.

Mr. Barrows:

We have available all data compiled by the International Boundary Commission.

Mr. Muller:

They are bound to have something pretty important, to be able to figure out three dams and three locations.

Those dams, if ever they are built, will help us down below. Whether they will help Presidio, I don't know. All that of course can be worked out. They would take care of Maverick County, all right.

I can't speak for everybody, but I can almost assure you that we are willing to go down the line with you.

The Chairman:

I agree the first point of approach is to get the very information you have just referred to. I don't purport to speak for the International Boundary Commission but I believe they have in mind certain projects which would serve as a starting point, to say the least, for a solution of your problem.

Mr. Muller:

I believe the State appropriated \$35,000 for an investigation of the areas below Fort Quitman.

Mr. Robertson:

The didn't appropriate anything. We asked ther for \$35,000 but we didn't get it.

Mr. Muller:

It's going to take a good many years to get any treaty with Mexico, so we had better get started.

Mr. Ivey:

Mr. Chairman, I wish to express the opinion that the Boundary Commission at the present time has one of the best qualified engineers in the whole country. He knows the problems of the whole Mexican boundary line, from the Pacific to the Gulf. I personally believe he is the best engineer in our country. We have watched his work for many years, and we know that he is eminently qualified. He is vitally interested in the solution of the Rio Grande problems, and the data he has worked up will be of great assistance in the solution of this particular problem. All of us who know him are thoroughly convinced that you gentlemen will have his whole-hearted co-operation. You would get wonderful ability in Engineer Lawson.

I just rose to point that out to those of you who may not be acquainted with Mr. Lawson and his ability.

Mr. Barrows:

In order to get the maximum efficiency of effort, you should, in my judgment, first have your Governor request the State Department to ask the National Resources Committee to take on this necessary investigation.

Mr. Muller:

It seems like our representative up in Washington, Mr. West, is very familiar with our problems. He has been working with us for a long time, has been fight-

ing for us up there. Wouldn't his experience and familiarity with our problem be of advantage in taking this to the State Department?

Mr. Robertson:

Answering that question, Mr. West has been and is, and so have both our senators, working on this thing. But I think Prof. Barrows' suggestion that it should come from the Governor, who is the head of the State, is the best plan. Governor Allred knows a good deal more about this than some of you might think. We have been digging into him for the last year or so. We could ask Mr. West and Senator Connally to supplement the Governor in this matter.

Mr. Muller:

Mr. Clayton, I don't think there are enough delegates here to represent all the water users. Don't you think, though, that we should delegate somebody to ask the Governor?

The Chairman:

I don't know the extent of your authority. It seems to me that the lower Rio Grande is well represented. Certainly your people intended to confide in you a certain measure of discretion, and whatever action you take here, whatever action you feel should be taken, it seems to me would have their fullest co-operation and approval.

I feel deeply grateful to Dr. Barrows for the aid and suggestions given here. It seems to me, if I may speak personally, that enough has been said to give you the right approach, the common-sense approach, to the solution of your problem, and you can do a lot more if you will pull together than if you expend your efforts separately, whether as individuals or as districts or associations. In my individual or personal capacity, I stand ready to do all that is in my power to expedite matters.

Mr. Kirkpatrick:

We came up here to reach an agreement with these upper districts with reference to releasing a certain amount of water to Fort Quitman. We have completely got away from that purpose. This general matter of course concerns us all, but our chief concern just now is to get an agreement that the supply of water below Fort Quitman will not be further impaired.

Mr. Harwell:

As I said awhile ago, we have no way of making a guaranteed delivery.

Mr. Kirkpatrick:

Of course the question of delegating or appointing a committee to take these matters up further through the Governor and the State Department is perhaps a matter of greater concern to the lower valley than to these people here. The suggestion that you appoint a committee, I think perhaps that is something we should decide on among ourselves.

The Chairman:

As I said, I don't know what your authority is. As you say, your authority may be confined to this particular purpose, that of getting an agreement from the upper districts. The point that appeals to me, however, is the suggestion of Dr. Barrows. That appeals to me as being the best, the most logical approach to your problem.

Mr. Kirkpatrick:

As Dr. Barrows suggested, we should perhaps arrange for finance before going to the State Department. I don't know if I can speak for Mr. Robertson and the others. They will probably have to go home and take it up with their people.

Mr. Muller:

Yes, it looks like the expense will have to be looked after first.

Mr. Kirkpatrick:

We might get together in reference to the appointing of a committee to confer with the Governor.

Mr. Muller:

You might make the request of the Governor through Mr. Clark or through Mr. Anderson.

We are losing our chance to talk these fellows out of that water.

Mr. Kirkpatrick:

No, my point was . . .

The Chairman:

Permit me to make a suggestion: while it is entirely out of my jurisdiction, from a practical standpoint, if you intend to pursue this line and have in mind the question of finances, the first thing to do is get an organization; then, ask the Governor to make the request of the State Department; next, after your organization is set up, get an estimate of the costs of the entire investigation, with the amounts to be allocated to the various interests. You will then be in a position to go to the Legislature and the Governor and ask for an appropriation. You can say, Here is the proposition from the National Resources Committee; our share is so much; they will stand so much; and now we ask you to appropriate so much. Until that time comes, until you have some definite understanding, an estimate of the costs, an estimate of the time it will take and the extent to which it will go, you have nothing tangible.

Mr. Barrows:

What Mr. Clayton has suggested is in principle just what we did with the upper Rio Grande.

Mr. Scoggins:

When we were in our fight against Colorado we had to have a large amount of engineering data. The State of New Mexico wouldn't pay for it. We had to go up and down the river collecting our data, and as far as this discussion here today goes, I haven't heard anybody say anything about the engineering data that will be needed. For instance, who knows what has been passing Fort Quitman for the past several years? Who knows whether the stream has been increasing or decreasing? What hydrographic data do you have up and down the river, from Fort Quitman to the end?

The Chairman:

As far as data at Fort Quitman is concerned, there is a gaging station there. What may be needed is engineering information down below.

Mr. Scoggins:

Isn't there about a thousand miles of that river? It would take a whole lot of time to go over all that.

Mr. Robertson:

I presume, gentlemen, I am more responsible for this meeting than any other man here. I was at two meetings of the Compast Committee, at Santa Fe. I was up here at a meeting with the Texas section of the Commission just after the first engineers' report was submitted. I came up here with the view, not of making a fight on anybody, but to agree, to get what we want by co-operation. I went to Eagle Pass with Charlie Clark, chairman of the State Board of Water Engineers, to get them down there to get together. We drove nearly 4- or 500 miles telling them what we had to tell them about this meeting up here today. We told them the compact had been signed by the three commissioners and the representative of the United States Government, that it was up for ratification or would be at the next session of the legislature, and was required to be approved by the Congress, and that we thought somebody ought to come up here and enter some discussions about it. I am very happy at the conclusion and outcome of this meeting. Lar-

edo, Eagle Pass, Presidio—some of those places—haven't taken a lot of interest in this compact. Now we are certainly getting a lot of first-hand information from the discussions, pro and con.

When we left Eagle Pass we drove down to Laredo. We asked the secretary of the Chamber of Commerce to get a representative bunch of the Laredo people together. There is no organized irrigation district there. We asked him to call them together at ten o'clock on a certain morning. He had there some ten or twelve men, members of the agricultural committee of the Chamber of Commerce. We didn't have much time at Laredo. We didn't talk with the people at Presidio, at all, but we did tell them we were trying to get some such meeting as this and wanted some representative from every section of the river, where we could wash out our differences. We didn't come up here to unload our pack of troubles or to pick a fight with anybody, but to try to learn something, to work out the problems that confront us. We are pleased with the reception we have met with from Mr. Clayton, from the Elephant Butte Irrigation District of New Mexico, from the El Paso Water District, and from Mr. Fiock, over there, of the Reclamation District. We came up here in a co-operative spirit and not in any antagonistic spirit.

Mr. Muller asked about prospective dams up the river. I said I didn't know of any, but I think he had confused in his mind the dams you spoke of in the lower river. Those three dams that you mentioned, that the Boundary Commission were working on, are the outgrowth of some ten or twelve years' work, first by the International Water Commission created in 1924, but the Mexicans declined to appoint a commissioner until 1927. Beginning with that year, the International Water Commission gathered quite a considerable volume of data, published a report, with all manner of maps and charts outlining the cultivated areas, the areas under some manner of irrigation or water appropriations, the prospective area that might be irrigated, the number of acres under any manner of development. And I think the same things were done in Mexico. About 1932 Congress saw fit to consolidate the International Water Commission with the International Boundary Commission. Dr. Elwood Mead was a director. Mr. Lawson, Lansing H. Beach, and W. E. Anderson were the three commissioners. About 1932, after making this report, the three commissioners resigned, and President Harding appointed L. M. Lawson as Water Commissioner and as Boundary Commissioner, so he did double duty. So, over a period of ten or eleven years somebody has been gathering data on the uses of water along the Rio Grande, and most of them are available in Mr. Lawson's office. Excerpts from the compilation of those data I have seen, and from it you can find that they determined the proper regulation of this stream was to dam the river about midway between Eagle Pass and Laredo for the main storage reservoir, again at Salineno, down in Starr County, more of a regulatory dam, then to put one somewhere in the Big Bend. Besides the selection of those dam sites, the Commission had certain surveys made as to the storage capacity of the reservoirs to result. They also investigated the possibility of putting a dam across the stream at Candelaria.

This whole thing I think hinges on a treaty with Mexico. Our people of the lower Rio Grande valley are in the attitude that what we want is water. We don't care how we get it, so we get it. If it is necessary to jump through a hoop, all right. We will do it. We are willing to co-operate with anything and anybody that will do anything we believe will further our interests. The Rio Grande flows around 4,000,000 acre-feet annually that pours into the Gulf of Mexico that nobody gets any benefit from. Of course a lot of that comes when we don't want it down there and you don't want it up here. In certain years there are floods

that are a menace, and, as has been pointed out, there are quite numerous violations of our treaty with Mexico, and it is absolutely essential that we have storage. Without storage, we are sunk. We are ready to do anything to advance treaty negotiations with Mexico. I have been working on this thing personally for twenty-one or twenty-two years. I haven't got discouraged yet. A few weeks ago somebody said to the Vice-President: "How is the situation on the Rio Grande?" Mr. Garner said, "Just like it was ten years ago, six months ago."

Mr. Scoggons:

I don't believe you want our water.

Mr. Robertson:

If you would keep your salt along with your water, you would be welcome to it.

Mr. Harwell:

There is one thing I should like to make absolutely clear: I have been back to Washington frequently, and I know the attitude of the people on the Colorado. As Mr. Kirkpatrick said a few moments ago, if you had dams you wouldn't be up here about water. Now here is the situation: it isn't Mexico that is standing in your way. It is the basin States on the Colorado. You can leave Mexico out. Mexico wants water from the Colorado just as bad as you want water from the Rio Grande. What agency is capable of taking the action necessary to work this out? In times past, in all our experience, there never has been an opportunity such as you are presented with today. I am saying this from my heart, without any effort to get you to do something against your real interest. Fortunately, the National Resources Committee is represented here, and that committee can do something with those fellows there. Not you nor anybody else, not even the Boundary Commission can hope to accomplish, in my opinion, what that Committee can easily do, and I think that you should feel that you are fortunate in having available a federal agency able to control such a wide influence, not only on those people in the departments and bureaus at Washington, those able to do something about your problem, but also on the people there in the seven basin States. I really believe that in a reasonable length of time the National Resources Committee could effect a treaty between Mexico and the United States that would compose all the differences among those people on the Colorado and all these problems would be solved. I mean that sincerely.

Mr. Kirkpatrick remarked that you certainly want to avail yourselves of the services of the National Resources Committee, so why not get together, name a steering committee, follow the advice of some of the speakers here about how to proceed, and then if you want to talk matters over with us any further, we shall be glad to get together again tomorrow.

Mr. Robertson:

I want to go down the river and see both sides at first-hand.

We came up here to ask you gentlemen for an agreement. I take it for granted that your explanation why you can't enter into such an agreement is perfectly reasonable. I don't believe you could if you would.

But I would like to ask Mr. Fiock about the quantity of water he has been releasing for the last three years. I understand you have been using very considerably less than you actually needed. If you are to use more, there will naturally be more to flow back into the stream.

Mr. Fiock:

Yes, the more water used, the more the return flow.

Mr. Robertson:

And the more you use the less salt there will be in it. If you apply more water to your own land, that naturally increases the flow at the lower end. Is that right? I got that idea from Raymond Hill. You had in 1936 only 102,000 acre-feet at Fort Quitman.

Mr. Phillips:

That was in 1935. We started the year with one-half year's water supply.

Mr. Robertson:

What I had in mind was, if you have the water and apply more to your district, would you come somewhere near utilizing all that you are entitled to regularly?

Mr. Fiock:

If we required the use of more water, the prospects are we would use the full allotment, that is we would automatically release the full amount.

Mr. Robertson:

That is what I was getting at. If we can't get a verbal or written agreement, would you, to the best of your ability, co-operate so as to release as much as possible and let it go on down the stream?

Mr. Fiock:

We will use all we are permitted to use out of Elephant Butte, that could safely be let out of the reservoir. The drainage water resulting from that use and augmented from the runoff during rainy season would be what would go past our project.

Mr. Robertson:

What I am trying to get at is the question of co-operation—not to pin you down to any definite quantity but to . . .

Mr. Fiock:

Anything that is done that would affect this project must of course be concurred in by the two irrigation districts and other interested parties. It would take the concurrence of the three agencies—the two districts and the Bureau of Reclamation.

Mr. Phillips:

We will co-operate to the full extent of our ability.

Mr. Harwell:

From a purely selfish interest, as far as the district at El Paso is concerned, it is necessary to pass excess amounts of water in order to maintain the salt balance. We are concerned about the salt balance, so it naturally follows that our interests are not adverse to yours when it comes to a matter of passing water down to the lower areas. We need to pass plenty, unless we are circumscribed by the balance in the reservoir.

Why wouldn't it be desirable for you gentlemen to get together and talk with two or three of us some time before you leave, and see whether or not there is anything else we could contribute to this situation, and if any of you want to go down or up the river to see those diversions or the new works upstream, or anywhere else, we will make transportation available to you.

The meeting was then adjourned.

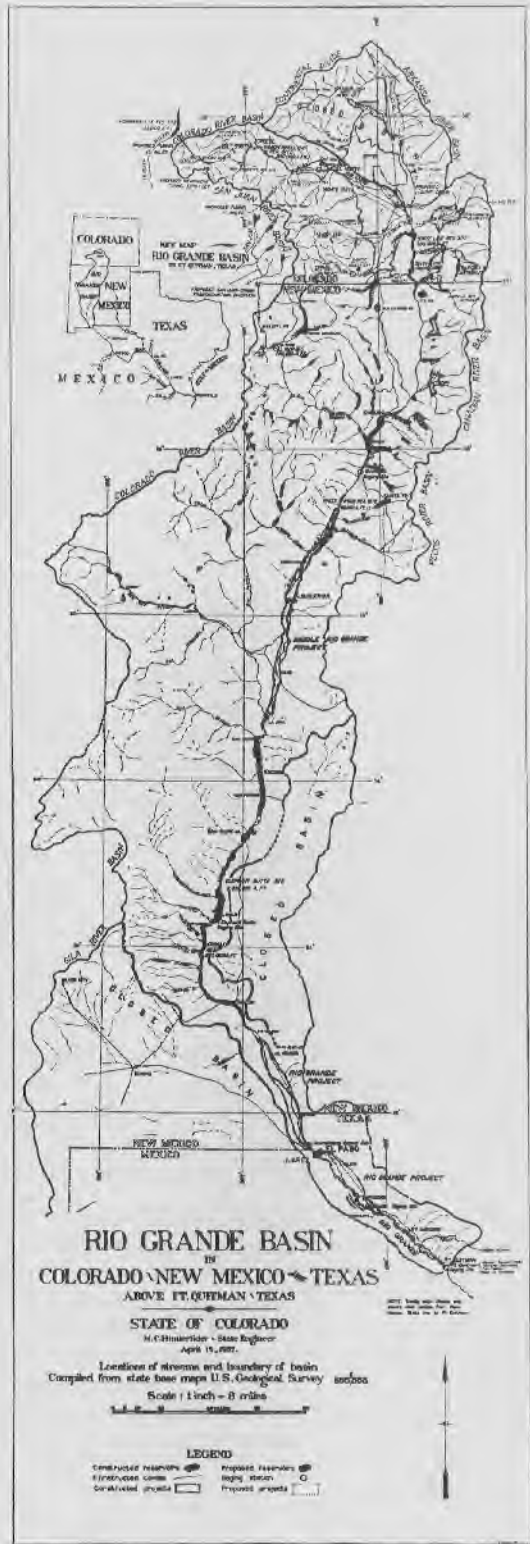
RIO GRANDE BASIN COMPACT



THE BRADFORD-ROBINSON PTG. CO., DENVER



SIGNING OF THE RIO GRANDE COMPACT AT SANTA FE, NEW MEXICO, MARCH 18, 1938.



His Excellency
Governor Teller Ammons
State Capitol
Denver, Colorado.

Sir:

As Interstate River Commissioner, representing the State of Colorado, I have the honor and satisfaction of transmitting herewith for your consideration, and further disposition, the accompanying Interstate River Compact or Agreement, which it is believed equitably allocates the waters of the Rio Grande Basin originating above Fort Quitman, Texas, between the States of Colorado, New Mexico, and Texas.

This permanent Compact, it is believed, fully protects present and future uses of waters in the San Luis Valley, and the San Juan Basin in Colorado against exportations of water out of that basin for use in the Rio Grande Basin in New Mexico, except upon the conditions stated in the Compact. It also safeguards the rights of the water users under federal reclamation projects in New Mexico and Texas, recognizes the rights of Indian tribes, the Federal Government's obligation to Indian tribes, and to the Republic of Mexico under existing treaty obligations.

When ratified by the Legislatures of the three states, and approved by the Congress of the United States, this Compact will have composed some forty years of differences between these states, and the pending suit in the Supreme Court of the United States between the States of Texas and New Mexico and its citizens, and will permit extensive water conservation measures in the San Luis Valley, which have these many years been held in abeyance, due to opposition from the citizens of the two lower states and the Federal Government.

This Compact was signed at Santa Fe, New Mexico, at 5:30 P. M. on March 18, 1938, by

M. C. Hinderlider, Commissioner for Colorado,
Thomas M. McClure, Commissioner for New Mexico,
Frank B. Clayton, Commissioner for Texas, and

Approved by S. O. Harper, Chairman, representative of the
President of the United States,

following negotiations since December 10, 1934. It replaces the temporary five-year compact, signed at Santa Fe on February 12, 1929, the life of which was later extended by action of the Legislatures of the three states to June 1, 1936, and again thereafter to October 1, 1936, on which latter date it was allowed to expire.

The temporary compact, signed in 1929, provided that "not later than June 1, 1935 (the date of the expiration of the temporary compact), a Commission of three members shall be con-

stituted, to which the Governor of each of the signatory states shall appoint a Commissioner, for the purpose of concluding a compact among the signatory states, and providing for the equitable apportionment of the use of the waters of the Rio Grande among said states. The Governors of said states shall request the President of the United States to name a representative to sit with said Commission.

The Commission so named shall equitably apportion the waters of the Rio Grande as of conditions obtaining on the river and within the Rio Grande Basin at the time of the signing of this Compact * * *."

Pursuant to such authority, Commissioners duly appointed by the Governors of the three states, together with a representative of the President of the United States sitting as chairman of the Commission, have carried on negotiations since December 10, 1934, looking to the consummation of a permanent compact.

The fundamental intent and objective of the former temporary compact was the "equitable apportionment of the use of the waters of the Rio Grande among said states."

During the period 1933 to 1935, inclusive, the State Engineer of Colorado carried on field investigations and studies, to ascertain the extent of past uses, future requirements, and need for stabilizing the water supplies of the San Luis Valley through the construction of additional regulatory reservoirs, and concerning other related matters. These studies were conducted under the immediate supervision of Engineer R. J. Tipton.

The most serious problem of water supply in the San Luis Valley is the distorted uses made of the available water supplies as the result of unregulated streamflow. To correct this condition, the citizens of the San Luis Valley have struggled for more than forty years to secure the construction of regulatory reservoirs, but in these attempts have been successfully opposed by the water users in the lower states, who have taken the position that additional reservoirs of magnitude in the Valley would result in extended uses of water in Colorado, to their great detriment. In this view, they were joined by agencies of the Federal Government, which has extensive investments along the Rio Grande in New Mexico and Texas. As a result, embargoes were placed upon further reservoir development in the San Luis Valley.

The first embargo was instituted by order of the Secretary of the Interior in 1896, but was finally removed in 1925. Later a further embargo imposed by presidential mandate, issued on September 23, 1935, provided that no approval should be given of "any application for a project involving the use of Rio Grande waters without securing from the National Resources Committee a prompt opinion on it from all relevant points of view."

Following the announcement of this further embargo, an agreement was entered into on December 3, 1935, between the representatives of the National Resources Committee and the

Commissioners representing the three states, whereby a joint investigation would be made to determine the present and potential water and land resources of the Rio Grande Basin, and other factual data needful to a full understanding of the problems in each of the three states, which factual data might be used in effecting an equitable division of the waters of the river.

The Rio Grande Joint Investigation was carried out under the immediate supervision of Mr. Harlowe M. Stafford, acting under the general direction of Dr. Harlan H. Barrows of the University of Chicago, Professor Frank Adams of the University of California, and N. C. Grover, Chief Engineer of the U. S. Geological Survey, who represented the National Resources Committee. The results of the investigation were later reviewed by Mr. J. C. Stevens, consulting engineer of Portland, Oregon. Much credit is due these gentlemen and their corps of able assistants for their very constructive work.

This joint investigation, which required an expenditure of about \$400,000, of which \$18,333 was contributed by each of the three states, was carried out under the general supervision of the Water Resources Committee of the National Resources Committee, through the collaboration of the U. S. Bureau of Agricultural Engineering, the U. S. Geological Survey, the U. S. Bureau of Reclamation, the American Section of the Rio Grande International Boundary Commission, and other federal agencies, and the Engineering Departments of the States of Colorado and New Mexico.

This study, officially known as the Rio Grande Joint Investigation, was carried on continuously throughout the year 1936 and a portion of 1937. The final report was submitted to the Commissioners for the three states in June, 1937. This investigation constitutes what is believed to have been the most comprehensive, and in many respects detailed study ever made of the water and land resources of a river basin in the arid West.

The study and conclusions confirmed the former position taken by Colorado, with respect to the feasibility of extensive reservoir development in the San Luis Valley without material injury to the interests of the lower states, and in addition provided the factual data from a disinterested agency, upon which the three states could agree as a basis for further negotiations.

Beginning on December 10, 1934, the Compact Commissioners and their legal and engineering advisers have held six conferences, all at Santa Fe, at which lay representatives of the water users throughout the Upper Basin were in attendance.

Following the first two meetings, on December 10, 1934, and January 28, 1935, the representatives of the National Resources Committee attended all the conferences, which occurred on December 2, 1935; March 3, 1937; September 27, 1937; and March 3, 1938, at which latter meeting the Compact was signed.

The successful outcome of these negotiations may be ascribed in a large degree to the earnest desire of all concerned, to find

a solution of this most difficult interstate problem, which had already engulfed the citizens of two of the states in a bitter controversy in the Supreme Court of the United States, in which Colorado was almost certain to become a party, and to a growing realization that these states must substitute constructive statesmanship for the blighting effects of long uncertain litigation, with resultant stagnation in needed development.

Special credit is due the Engineering Committee, appointed to assist the Commissioners. This Committee consisted of E. B. Debler, representing the United States' Commissioner; R. J. Tipton, adviser to the Colorado Commissioner; John H. Bliss, adviser to the New Mexico Commissioner; Raymond A. Hill, adviser to the Texas Commissioner; and H. C. Neuffer, consultant for the Middle Rio Grande Conservancy District. This Committee worked out the schedules of water deliveries and other technical features on which the Compact is based.

The Committee of Attorneys, consisting of Honorable Ralph L. Carr, Honorable George M. Corlett, Burnis Gandy, and Clifford H. Stone, of Colorado; Honorable A. T. Hannett and Fred E. Wilson, of New Mexico, and Richard F. Burgess and Edwin Mechem, representing the interests under the Elephant Butte project in New Mexico and Texas, in consultation with the Commissioners, prepared the final draft of the Compact. Assistant Attorney General Shradler P. Howell participated in the earlier stages of the negotiations, and Attorney General Byron C. Rogers in the last stages of the deliberations.

Mr. Vincent P. Miles, representative of the Attorney General of the United States, attended the last conference of the Compact Commissioners and rendered a most valuable service by his wise counsel, patience, and keen sense of understanding of the difficulties with which the states were confronted.

To all these, I desire herein to acknowledge my appreciation and sincere thanks for their invaluable services.

The problems with which the Commissioners and their advisers were confronted involved more complications than have arisen in any previous interstate river controversy, from the following causes:

First. It long has been known that the total water supply furnished by the Rio Grande, even when fully regulated, was barely sufficient to meet the needs of old developed areas;

Second. The need for regulation of stream flow in the San Luis Valley, without injury to the rights of New Mexico and Texas;

Third. Serious conflicts of claims between water users under the Federal Elephant Butte Reclamation Project, and those in upper New Mexico and Colorado;

Fourth. Claims of the Bureau of Indian Affairs in behalf of its Indian charges;

Fifth. The claims of the Department of the Interior, as a result of Federal expenditures through the U. S. Bureau of Reclamation;

Sixth. The interests of the Reconstruction Finance Corporation, by virtue of loans to the Middle Rio Grande Conservancy District;

Seventh. The interest of the Department of State, arising out of the Federal Government's treaty obligations to Mexico;

Eighth. The more recent problems arising out of the construction of the Caballo Reservoir below the Elephant Butte Reservoir, and certain other activities of the American Section of the Rio Grande International Boundary Commission;

Ninth. Claims and counter-claims arising out of the pending interstate suit between Texas, New Mexico, and the Middle Rio Grande Conservancy District;

Tenth. Threatened intervention in this suit by the Federal Government.

Attached hereto will be found a map which discloses the general physical conditions of the Rio Grande Basin above Fort Quitman, Texas, together with an analysis of the provisions of the Compact and its effect upon the interest of our state.

Four verified, original, exact drafts of the Compact, signed by the Interstate River Commissioners at Santa Fe on March 18, 1938, have been transmitted by Chairman S. O. Harper to the Secretary of the Interior. The first draft, which constitutes the authentic Compact, has been deposited with the Secretary of State at Washington, D. C. The three other original copies have been certified by the Secretary of State and transmitted to the Governors of the signatory states.

As Commissioner for the State of Colorado, I respectfully recommend that the Compact, as signed on March 18, 1938, be transmitted with a special message to the next regular session of the Legislature for ratification.

I take this opportunity to express to you and to Ex-Governor Johnson my deep appreciation for the confidence reposed in me as the official representative of our state during these important negotiations, which, together with the splendid cooperation of the water users of the San Luis Valley, and those associated with me in this work, affords a large measure of compensation for the years of effort expended in attaining our objective—a permanent solution of the Rio Grande problem.

Respectfully submitted,

Denver, Colorado,
November 15, 1938.

M. C. HINDERLIDER,
Commissioner for Colorado.

RIO GRANDE COMPACT

The State of Colorado, the State of New Mexico, and the State of Texas, desiring to remove all causes of present and future controversy among these States and between citizens of one of these States and citizens of another State with respect to the use of the waters of the Rio Grande above Fort Quitman, Texas, and being moved by considerations of interstate comity, and for the purpose of effecting an equitable apportionment of such waters, have resolved to conclude a Compact for the attainment of these purposes, and to that end, through their respective Governors, have named as their respective Commissioners:

For the State of Colorado—M. C. Hinderlider

For the State of New Mexico—Thomas M. McClure

For the State of Texas—Frank B. Clayton

who, after negotiations participated in by S. O. Harper, appointed by the President as the representative of the United States of America, have agreed upon the following articles, to-wit:

ARTICLE I.

(a) The State of Colorado, the State of New Mexico, the State of Texas, and the United States of America, are hereinafter designated "Colorado," "New Mexico," "Texas," and the "United States," respectively.

(b) "The Commission" means the agency created by this Compact for the administration thereof.

(c) The term "Rio Grande Basin" means all of the territory drained by the Rio Grande and its tributaries in Colorado, in New Mexico, and in Texas above Fort Quitman, including the Closed Basin in Colorado.

(d) The "Closed Basin" means that part of the Rio Grande Basin in Colorado where the streams drain into the San Luis Lakes and adjacent territory, and do not normally contribute to the flow of the Rio Grande.

(e) The term "tributary" means any stream which naturally contributes to the flow of the Rio Grande.

(f) "Transmountain Diversion" is water imported into the drainage basin of the Rio Grande from any stream system outside of the Rio Grande Basin, exclusive of the Closed Basin.

(g) "Annual Debits" are the amounts by which actual deliveries in any calendar year fall below scheduled deliveries.

(h) "Annual Credits" are the amounts by which actual deliveries in any calendar year exceed scheduled deliveries.

(i) "Accrued Debits" are the amounts by which the sum of all annual debits exceeds the sum of all annual credits over any common period of time.

(j) "Accrued Credits" are the amounts by which the sum of all annual credits exceeds the sum of all annual debits over any common period of time.

(k) "Project Storage" is the combined capacity of Elephant Butte Reservoir and all other reservoirs actually available for the storage of usable water below Elephant Butte and above the first diversion to lands of the Rio Grande Project, but not more than a total of 2,638,860 acre feet.

(l) "Usable Water" is all water, exclusive of credit water, which is in project storage and which is available for release in accordance with irrigation demands, including deliveries to Mexico.

(m) "Credit Water" is that amount of water in project storage which is equal to the accrued credit of Colorado, or New Mexico, or both.

(n) "Unfilled Capacity" is the difference between the total physical capacity of project storage and the amount of usable water then in storage.

(o) "Actual Release" is the amount of usable water released in any calendar year from the lowest reservoir comprising project storage.

(p) "Actual Spill" is all water which is actually spilled from Elephant Butte Reservoir, or is released therefrom for flood control, in excess of the current demand on project storage and which does not become usable water by storage in another reservoir; provided, that actual spill of usable water cannot occur until all credit water shall have been spilled.

(q) "Hypothetical Spill" is the time in any year at which usable water would have spilled from project storage if 790,000 acre feet had been released therefrom at rates proportional to the actual release in every year from the starting date to the end of the year in which hypothetical spill occurs; in computing hypothetical spill the initial condition shall be the amount of usable water in project storage at the beginning of the calendar year following the effective date of this Compact, and thereafter the initial condition shall be the amount of usable water in project storage at the beginning of the calendar year following each actual spill.

ARTICLE II.

The Commission shall cause to be maintained and operated a stream gaging station equipped with an automatic water stage recorder at each of the following points, to-wit:

(a) On the Rio Grande near Del Norte above the principal points of diversion to the San Luis Valley;

(b) On the Conejos River near Mogote;

(c) On the Los Pinos River near Ortiz;

(d) On the San Antonio River at Ortiz;

- (e) On the Conejos River at its mouth near Los Sauces;
- (f) On the Rio Grande near Lobatos;
- (g) On the Rio Chama below El Vado Reservoir;
- (h) On the Rio Grande at Otowi Bridge near San Ildefonso;
- (i) On the Rio Grande near San Acacia;
- (j) On the Rio Grande at San Marcial;
- (k) On the Rio Grande below Elephant Butte Reservoir;
- (l) On the Rio Grande below Caballo Reservoir.

Similar gaging stations shall be maintained and operated below any other reservoir constructed after 1929, and at such other points as may be necessary for the securing of records required for the carrying out of the Compact; and automatic water stage recorders shall be maintained and operated on each of the reservoirs mentioned, and on all others constructed after 1929.

Such gaging stations shall be equipped, maintained and operated by the Commission directly or in cooperation with an appropriate Federal or State agency, and the equipment, method and frequency of measurement at such stations shall be such as to produce reliable records at all times.

ARTICLE III.

The obligation of Colorado to deliver water in the Rio Grande at the Colorado-New Mexico State Line, measured at or near Lobatos, in each calendar year, shall be ten thousand acre feet less than the sum of those quantities set forth in the two following tabulations of relationship, which correspond to the quantities at the upper index stations:

DISCHARGE OF CONEJOS RIVER

Quantities in thousands of acre feet

Conejos Index Supply (1)	Conejos River at Mouths (2)
100	0
150	20
200	45
250	75
300	109
350	147
400	188
450	232
500	278
550	326
600	376
650	426
700	476

Intermediate quantities shall be computed by proportional parts.

(1) Conejos Index Supply is the natural flow of Conejos River at the U.S.G.S. gaging station near Mogote during the calendar year, plus the natural flow of Los Pinos River at the U.S.G.S. gaging station near Ortiz and the natural flow of San Antonio River at the U.S.G.S. gaging station at Ortiz, both during the months of April to October, inclusive.

(2) Conejos River at Mouths is the combined discharge of branches of this river at the U.S.G.S. gaging stations near Los Sauces during the calendar year.

DISCHARGE OF RIO GRANDE EXCLUSIVE OF CONEJOS RIVER

Quantities in thousands of acre feet

Rio Grande at Del Norte (3)	Rio Grande at Lobatos less Conejos at Mouths (4)
200	60
250	65
300	75
350	86
400	98
450	112
500	127
550	144
600	162
650	182
700	204
750	229
800	257
850	292
900	335
950	380
1,000	430
1,100	540
1,200	640
1,300	740
1,400	840

Intermediate quantities shall be computed by proportional parts.

(3) Rio Grande at Del Norte is the recorded flow of the Rio Grande at the U.S.G.S. gaging station near Del Norte during the calendar year (measured above all principal points of diversion to San Luis Valley) corrected for the operation of reservoirs constructed after 1937.

(4) Rio Grande at Lobatos less Conejos at Mouths is the total flow of the Rio Grande at the U.S.G.S. gaging station near Lobatos, less the discharge of Conejos River at its Mouths, during the calendar year.

The application of these schedules shall be subject to the provisions hereinafter set forth and appropriate adjustments shall be made for (a) any change in location of gaging stations; (b) any new or increased depletion of the runoff above inflow index gaging stations; and (c) any transmountain diversions into the drainage basin of the Rio Grande above Lobatos.

In event any works are constructed after 1937 for the purpose of delivering water into the Rio Grande from the Closed Basin, Colorado shall not be credited with the amount of such water delivered, unless the proportion of sodium ions shall be less than forty-five percent of the total positive ions in that water when the total dissolved solids in such water exceeds three hundred fifty parts per million.

ARTICLE IV.

The obligation of New Mexico to deliver water in the Rio Grande at San Marcial, during each calendar year, exclusive of the months of July, August and September, shall be that quantity set forth in the following tabulation of relationship, which corresponds to the quantity at the upper index station:

DISCHARGE OF RIO GRANDE AT OTOWI BRIDGE AND AT SAN MARCIAL EXCLUSIVE OF JULY, AUGUST AND SEPTEMBER

Quantities in thousands of acre feet	
Otowi Index Supply (5)	San Marcial Index Supply (6)
100	0
200	65
300	141
400	219
500	300
600	383
700	469
800	557
900	648
1000	742
1100	839
1200	939
1300	1042
1400	1148
1500	1257
1600	1370
1700	1489
1800	1608
1900	1730
2000	1856
2100	1985
2200	2117
2300	2253

Intermediate quantities shall be computed by proportional parts.

(5) The Otowi Index Supply is the recorded flow of the Rio Grande at the U.S.G.S. gaging station at Otowi Bridge near San Ildefonso (formerly station near Buckman) during the calendar year, exclusive of the flow during the months of July, August and September, corrected for the operation of reservoirs constructed after 1929 in the drainage basin of the Rio Grande between Lobatos and Otowi Bridge.

(6) San Marcial Index Supply is the recorded flow of the Rio Grande at the gaging station at San Marcial during the calendar year exclusive of the flow during the months of July, August and September.

The application of this schedule shall be subject to the provisions hereinafter set forth and appropriate adjustments shall be made for (a) any change in location of gaging stations; (b) depletion after 1929 in New Mexico at any time of the year of the natural runoff at Otowi Bridge; (c) depletion of the runoff during July, August and September of tributaries between Otowi Bridge and San Marcial, by works constructed after 1937; and (d) any transmountain diversions into the Rio Grande between Lobatos and San Marcial.

Concurrent records shall be kept of the flow of the Rio Grande at San Marcial, near San Acacia, and of the release from Elephant Butte Reservoir, to the end that the records at these three stations may be correlated.

ARTICLE V.

If at any time it should be the unanimous finding and determination of the Commission that because of changed physical conditions, or for any other reason, reliable records are not obtainable, or cannot be obtained, at any of the stream gaging stations herein referred to, such stations may, with the unanimous approval of the Commission, be abandoned, and with such approval another station, or other stations, shall be established and new measurements shall be substituted which, in the unanimous opinion of the Commission, will result in substantially the same results, so far as the rights and obligations to deliver water are concerned, as would have existed if such substitution of stations and measurements had not been so made.

ARTICLE VI.

Commencing with the year following the effective date of this Compact, all credits and debits of Colorado and New Mexico shall be computed for each calendar year; provided, that in a year of actual spill no annual credits nor annual debits shall be computed for that year.

In the case of Colorado, no annual debit nor accrued debit shall exceed 100,000 acre feet, except as either or both may be caused by holdover storage of water in reservoirs constructed after 1937 in the drainage basin of the Rio Grande above Lobatos.

Within the physical limitations of storage capacity in such reservoirs, Colorado shall retain water in storage at all times to the extent of its accrued debit.

In the case of New Mexico, the accrued debit shall not exceed 200,000 acre feet at any time, except as such debit may be caused by holdover storage of water in reservoirs constructed after 1929 in the drainage basin of the Rio Grande between Lobatos and San Marcial. Within the physical limitations of storage capacity in such reservoirs, New Mexico shall retain water in storage at all times to the extent of its accrued debit. In computing the magnitude of accrued credits or debits, New Mexico shall not be charged with any greater debit in any one year than the sum of 150,000 acre feet and all gains in the quantity of water in storage in such year.

The Commission by unanimous action may authorize the release from storage of any amount of water which is then being held in storage by reason of accrued debits of Colorado or New Mexico; provided, that such water shall be replaced at the first opportunity thereafter.

In computing the amount of accrued credits and accrued debits of Colorado or New Mexico, any annual credits in excess of 150,000 acre feet shall be taken as equal to that amount.

In any year in which actual spill occurs, the accrued credits of Colorado, or New Mexico, or both, at the beginning of the year shall be reduced in proportion to their respective credits by the amount of such actual spill; provided, that the amount of actual spill shall be deemed to be increased by the aggregate gain in the amount of water in storage, prior to the time of spill, in reservoirs above San Marcial constructed after 1929; provided, further, that if the Commissioners for the States having accrued credits authorize the release of part, or all, of such credits in advance of spill, the amount so released shall be deemed to constitute actual spill.

In any year in which there is actual spill of usable water, or at the time of hypothetical spill thereof, all accrued debits of Colorado, or New Mexico, or both, at the beginning of the year shall be cancelled.

In any year in which the aggregate of accrued debits of Colorado and New Mexico exceeds the minimum unfilled capacity of project storage, such debits shall be reduced proportionally to an aggregate amount equal to such minimum unfilled capacity.

To the extent that accrued credits are impounded in reservoirs between San Marcial and Courchesne, and to the extent that accrued debits are impounded in reservoirs above San Marcial, such credits and debits shall be reduced annually to compensate for evaporation losses in the proportion that such credits or debits bore to the total amount of water in such reservoirs during the year.

ARTICLE VII.

Neither Colorado nor New Mexico shall increase the amount of water in storage in reservoirs constructed after 1929 whenever there is less than 400,000 acre feet of usable water in project storage; provided, that if the actual releases of usable water from the beginning of the calendar year following the effective date of this Compact, or from the beginning of the calendar year following actual spill, have aggregated more than an average of 790,000 acre feet per annum, the time at which such minimum stage is reached shall be adjusted to compensate for the difference between the total actual release and releases at such average rate; provided, further, that Colorado or New Mexico, or both, may relinquish accrued credits at any time, and Texas may accept such relinquished water, and in such event the state, or states, so relinquishing shall be entitled to store water in the amount of the water so relinquished.

ARTICLE VIII.

During the month of January of any year the Commissioner for Texas may demand of Colorado and New Mexico, and the Commissioner for New Mexico may demand of Colorado, the release of water from storage reservoirs constructed after 1929 to the amount of the accrued debits of Colorado and New Mexico, respectively, and such releases shall be made by each at the greatest rate practicable under the conditions then prevailing, and in proportion to the total debit of each, and in amounts, limited by their accrued debits, sufficient to bring the quantity of usable water in project storage to 600,000 acre feet by March first and to maintain this quantity in storage until April thirtieth, to the end that a normal release of 790,000 acre feet may be made from project storage in that year.

ARTICLE IX.

Colorado agrees with New Mexico that in event the United States or the State of New Mexico decides to construct the necessary works for diverting the waters of the San Juan River, or any of its tributaries, into the Rio Grande, Colorado hereby consents to the construction of said works and the diversion of waters from the San Juan River, or the tributaries thereof, into the Rio Grande in New Mexico, provided the present and prospective uses of water in Colorado by other diversions from the San Juan River, or its tributaries, are protected.

ARTICLE X.

In the event water from another drainage basin shall be imported into the Rio Grande Basin by the United States or Colorado or New Mexico, or any of them jointly, the State having the right to the use of such water shall be given proper credit therefor in the application of the schedules.

ARTICLE XI.

New Mexico and Texas agree that upon the effective date of this Compact all controversies between said States relative to the quantity or quality of the water of the Rio Grande are composed and settled; however, nothing herein shall be interpreted to prevent recourse by a signatory state to the Supreme Court of the United States for redress should the character or quality of the water, at the point of delivery, be changed hereafter by one signatory State to the injury of another. Nothing herein shall be construed as an admission by any signatory state that the use of water for irrigation causes increase of salinity for which the user is responsible in law.

ARTICLE XII.

To administer the provisions of this Compact there shall be constituted a Commission composed of one representative from each State, to be known as the Rio Grande Compact Commission. The State Engineer of Colorado shall be ex-officio the Rio Grande Compact Commissioner for Colorado. The State Engineer of New Mexico shall be ex-officio the Rio Grande Compact Commissioner for New Mexico. The Rio Grande Compact Commissioner for Texas shall be appointed by the Governor of Texas. The President of the United States shall be requested to designate a representative of the United States to sit with such Commission, and such representative of the United States, if so designated by the President, shall act as Chairman of the Commission without vote.

The salaries and personal expenses of the Rio Grande Compact Commissioners for the three States shall be paid by their respective States, and all other expenses incident to the administration of this Compact, not borne by the United States, shall be borne equally by the three States.

In addition to the powers and duties hereinbefore specifically conferred upon such Commission, and the members thereof, the jurisdiction of such Commission shall extend only to the collection, correlation and presentation of factual data and the maintenance of records having a bearing upon the administration of this Compact, and, by unanimous action, to the making of recommendations to the respective States upon matters connected with the administration of this Compact. In connection therewith, the Commission may employ such engineering and clerical aid as may be reasonably necessary within the limit of funds provided for that purpose by the respective States. Annual reports compiled for each calendar year shall be made by the Commission and transmitted to the Governors of the signatory States on or before March first following the year covered by the report. The Commission may, by unanimous action, adopt rules and regulations consistent with the provisions of this Compact to govern their proceedings.

The findings of the Commission shall not be conclusive in any court or tribunal which may be called upon to interpret or enforce this Compact.

ARTICLE XIII.

At the expiration of every five year period after the effective date of this Compact, the Commission may, by unanimous consent, review any provisions hereof which are not substantive in character and which do not affect the basic principles upon which the Compact is founded, and shall meet for the consideration of such questions on the request of any member of the Commission; provided, however, that the provisions hereof shall remain in full force and effect until changed and amended within the intent of the Compact by unanimous action of the Commissioners, and until any changes in this Compact are ratified by the legislatures of the respective states and consented to by the Congress, in the same manner as this Compact is required to be ratified to become effective.

ARTICLE XIV.

The schedules herein contained and the quantities of water herein allocated shall never be increased nor diminished by reason of any increase or diminution in the delivery or loss of water to Mexico.

ARTICLE XV.

The physical and other conditions characteristic of the Rio Grande and peculiar to the territory drained and served thereby, and to the development thereof, have actuated this Compact and none of the signatory states admits that any provisions herein contained establishes any general principle or precedent applicable to other interstate streams.

ARTICLE XVI.

Nothing in this Compact shall be construed as affecting the obligations of the United States of America to Mexico under existing treaties, or to the Indian Tribes, or as impairing the rights of the Indian Tribes.

ARTICLE XVII.

This Compact shall become effective when ratified by the legislatures of each of the signatory states and consented to by the Congress of the United States. Notice of ratification shall be given by the Governor of each state to the Governors of the other states and to the President of the United States, and the President of the United States is requested to give notice to the Governors of each of the signatory states of the consent of the Congress of the United States.

IN WITNESS WHEREOF, the Commissioners have signed this Compact in quadruplicate original, one of which shall be

deposited in the archives of the Department of State of the United States of America and shall be deemed the authoritative original, and of which a duly certified copy shall be forwarded to the Governor of each of the signatory States.

Done at the City of Santa Fe, in the State of New Mexico, on the 18th day of March, in the year of our Lord, One Thousand Nine Hundred and Thirty-eight.

(Sgd.) M. C. HINDERLIDER.

(Sgd.) THOMAS M. McCLURE.

(Sgd.) FRANK B. CLAYTON.

APPROVED:

(Sgd.) S. O. HARPER.

ANALYSIS OF COMPACT

BY

M. C. HINDERLIDER

The terms of the Rio Grande Compact accomplish two major purposes: First, they protect the present use of water in the various sections of the basin by setting up schedules of delivery of water at the Colorado-New Mexico stateline and at San Marcial, which is at the head of the Elephant Butte Reservoir, and by fixing the average annual releases from Elephant Butte Reservoir. Second, the terms of the Compact permit the construction and operation of additional reservoirs above Elephant Butte Reservoir to regulate the water that is being used at the present time, and to capture and make usable, for beneficial use in the Upper Rio Grande basin, water which otherwise would spill from Elephant Butte Reservoir and be lost.

The schedules of water deliveries are based upon the relation found to exist between the annual inflow into, and the outflow from, the San Luis Valley in Colorado for the years 1928 to 1937, both inclusive, and the relation between the flow at Otowi Bridge in northern New Mexico and the flow at San Marcial for all years of record prior to 1930 (pre Middle Rio Grande Conservancy period).

The Colorado-New Mexico stateline schedule is divided into two parts, one applying to the Conejos stream system and the other to the Rio Grande proper. Required deliveries by the State of Colorado are taken as the sum of the required delivery by the Conejos system and by the Rio Grande proper, less ten thousand acre-feet. The separation of the stateline schedule into the two parts will permit the fixing of responsibility for any depletion, or the proper allocation of credits resulting from increased deliveries of water through future drainage developments.

Since the stateline schedules are based upon the relation between the inflow and outflow for the period 1928 to 1937, present uses of water in the San Luis Valley plus ten thousand acre feet per year are recognized by the Compact. The use of water in some of the years of this period was the maximum in the history of irrigation in the Valley. Deliveries in exact accordance with schedules are not required on an annual basis. The Compact provides for a system of accounting whereby deviations from the deliveries required by the schedules are set up as debits or credits to the state making the deliveries. In other words, if more water flows across the Colorado-New Mexico stateline in any year than is required by the schedules, Colorado is credited with the surplus. If less water is delivered than required by the schedules, Colorado is debited with the deficiency. The credits and debits are allowed to accumulate subject to certain conditions.

Variations between the actual deliveries of water and the

scheduled deliveries may result from two causes, or a combination of the two, the first of which is natural and the second of which may be caused by man. Natural variations may be due to variations in precipitation on the valley floor; unduly high or low runoff from the foothills areas in relation to the flow of the Rio Grande and the Conejos; or to a year of high runoff following one of extremely low runoff, which will tend to cause a high consumption in the Valley in that year.

In the case of Colorado, yearly or accumulated debit departures of as much as 100,000 acre-feet from the schedules of required deliveries, due to such natural causes, are allowable. The maximum annual and cumulative debit departure between the actual river flow in the past at the stateline, and the required deliveries under the schedules, has been less than 50,000 acre-feet. The allowable 100,000 acre-feet departure, therefore, is sufficient to protect Colorado against shortages, due to vagaries of nature, in meeting the required deliveries of water at the stateline. Deliveries of water in excess of those required by the schedules, through a bookkeeping system, may be applied to reduce debits, and in the absence of debits are allowed to accumulate as credits. Such credits may be reduced either by unusable spill from Elephant Butte Reservoir, or by departures on the debit side from deliveries as required by the schedules.

Man-induced departures between the actual flow of water at the stateline, and the flow required under the schedules, may be due to the withholding of water in reservoirs, constructed after 1937, as a result of which debits will result; or they may be due to an increased flow brought about by additional drainage development or the release of water held over in reservoirs constructed after 1937, or both, in which case credits to the state will result. If debits are caused by the withholding of water from the stream in future reservoirs, such water is that which otherwise would have been stored in Elephant Butte Reservoir, unless Elephant Butte Reservoir were at such a stage that the water would have spilled had it not been stored in new upstream reservoirs.

The terms of the Compact, therefore, provide that debits may accumulate in any amount so long as an equivalent amount of water is held in storage in future reservoirs, provided, however, that any portion of the water so stored which otherwise would have spilled from Elephant Butte Reservoir, becomes the property of the owners of such reservoir or reservoirs.

Since Elephant Butte Reservoir will spill frequently during those periods when water will be available for storage in future reservoirs above Elephant Butte, and since such spills will eliminate all debits against Colorado and upper New Mexico, future reservoirs can operate freely under the terms of the Compact.

Conversely, deliveries of water in excess of the requirements under the schedules are credited to those areas making the same,

so long as such excess deliveries remain in storage in Elephant Butte Reservoir. Such excess deliveries or credits are considered as floating on the top of Elephant Butte Reservoir, and if the stage of project water in storage in Elephant Butte Reservoir rises, causing a spill, the water which is then in the reservoir to the credit of the upper areas, is reduced by the amount of any spill which cannot be beneficially used below Elephant Butte Reservoir.

In order that the area above the latter reservoir shall have practically exclusive right to the consumption of the water which would otherwise spill from Elephant Butte Reservoir, the average annual release from that reservoir is fixed at 790,000 acre-feet, which includes 60,000 acre-feet required to be delivered to Mexico by the existing treaty. For the same reason, the storage capacity of Elephant Butte Reservoir is fixed at 2,638,800 acre-feet, the original capacity of this reservoir.

The following brief comments on each article of the Compact are intended for a clearer conception of the terms and provisions thereof.

Article I is descriptive of the compacting agencies and major terms as used in the Compact.

Article II provides for the establishment and maintenance of standard gaging stations at predetermined points along the river, for collecting hydrographic data needful for a proper administration of the provisions of the Compact.

Article III sets up the schedules of relationship between the total water supply furnished by the Conejos and its tributaries, and the outflow to the Rio Grande, and also the relationship between the total water supply furnished by the Rio Grande at Del Norte and outflow at the stateline, less contributions from the Conejos River basin, as determined by conditions of inflow and outflow since 1928 (the former temporary compact provided that the conditions on the river should remain as of 1929), and makes provisions for correcting this relationship between inflow and outflow resulting from new depletions of inflow, or increase of inflow resulting from importation of water from the Colorado River basin.

While the obligation to meet the schedule of stateline deliveries rests upon the San Luis Valley as a whole, it is believed that a division of the obligation as between the Conejos and Rio Grande will better enable the water users to apportion among themselves their relative responsibilities in meeting the total obligations of Colorado.

The obligation of Colorado to deliver water, as set up by the Compact, is 10,000 acre-feet per annum less than the amount of water indicated by the tables of relationship between inflow and outflow.

This Article also permits Colorado to increase its consumptive uses of water out of the Rio Grande and Conejos Rivers to the extent that water may later be delivered at the stateline from

the Closed Basin, and to the extent that the quality of water recovered from the Closed Basin is suitable for irrigation uses.

Article IV sets up the schedules of relationship between the total water supply furnished by the Rio Grande at Otowi, New Mexico, which is located 78 miles south of the Colorado-New Mexico stateline, and that furnished at San Marcial near the upper end of Elephant Butte Reservoir, and the obligation of New Mexico to make deliveries of water annually to the Elephant Butte Reservoir in accordance with such schedules, subject to certain provisions and adjustments resulting from changes in location of gaging stations, depletion of streamflow at Otowi after 1929, depletion of runoff during July, August and September from tributaries between Otowi and San Marcial by works constructed after 1937, and by virtue of transmountain diversions into the Rio Grande between the Colorado-New Mexico stateline and San Marcial.

Article V provides for the abandonment or changes in the location of gaging stations by the unanimous decision of the Rio Grande Compact Commission.

Article VI provides for certain allowable departures from the schedules of required deliveries of water by Colorado and New Mexico in any calendar year. Such variation in any year by Colorado may amount to as much as 100,000 acre-feet, together with larger debits resulting from holdover storage, without violating Colorado's obligation to meet its schedule of deliveries at the stateline. This provision is necessary to permit future diversions in Colorado in any year by presently decreed appropriations in the San Luis Valley in substantially the same manner in which the diversions and uses have been made in past years. Colorado, however, must always retain in storage reservoirs sufficient water to repay any debits due from failure to meet the required schedule of stateline deliveries. It should be noted that this obligation applies only to reservoirs constructed after 1937, and in no way affects the rights of present reservoirs in Colorado to store water within the limits of their present decrees.

This Article also provides that Colorado or New Mexico may not accumulate annual credits in Elephant Butte reservoir in excess of 150,000 acre-feet of water. This limitation is designed to prevent unsound expansion of development which otherwise might result from accumulations of large annual credits, and which also might reduce the available capacity of that reservoir to regulate the portion of the river flow to which the lands under the Elephant Butte project are rightfully entitled.

Paragraph six of Article VI provides that the Commissioners of the upper states, which have accrued credits in Elephant Butte Reservoir, may authorize any part of such credits to be used under the Elephant Butte project, if in their judgment failure to release such credits would result in "actual spill" from the Elephant Butte Reservoir. This would permit, at times, a greater use of water under that project for reduction of salinity in the lands which, if not used, would pass over the

spillway and be wasted down the river. It should be noted, however, that such releases of credit water belonging to an upper state is entirely optional with the Commissioner of the state holding such credits, and would not be agreed to unless, in his judgment, the stage of storage in Elephant Butte Reservoir at that time, or the prospect for an abnormally large runoff from the basin above, would definitely indicate that such credits would later be floated out over the spillway, or through the flood release valves of Elephant Butte Reservoir, of which no beneficial use could be made.

This Article also provides for reduction in the amount of credit water held in Elephant Butte storage, and debit water held in reservoirs in upper New Mexico and Colorado constructed after 1929, to compensate for losses due to evaporation.

Article VII prohibits increase in storage of water in reservoirs in Colorado and New Mexico constructed after 1929, whenever there is less than 400,000 acre-feet of usable water in storage in Elephant Butte Reservoir, provided, however, that, if the total releases of usable water from that reservoir since the effective date of the Compact, or the last actual spill from the reservoir, have aggregated more than an average of 790,000 acre-feet per year, including required deliveries to Mexico, the time and amount of minimum storage in Elephant Butte Reservoir shall be adjusted for the excess deliveries.

Article VIII provides for the releases of water from storage reservoirs in Colorado and New Mexico constructed after 1929, to the extent of accrued debits against those states at "the greatest rate practicable under the conditions then prevailing", sufficient to bring the quantity of usable water in Elephant Butte storage to 600,000 acre-feet, and to insure a release from that reservoir of 790,000 acre-feet in such year.

This provision is to prevent shortage under the Elephant Butte Reservoir due to the withholding of water which would otherwise have been in storage in that reservoir. The terms of the provisions are such that the release of the water can be made at a rate to protect structures and property along the Conejos and Rio Grande against high stages of flow, and to insure that the releases of reservoir water may be made in such manner as not to encroach upon the stream channel capacity to the detriment of the use of such capacity by Colorado appropriators.

Article IX is a recognition of the right of the U. S. Government or New Mexico to make importations of water into the Upper Rio Grande Basin under conditions that will insure the protection of vested rights, present and future uses of water, and full development in the San Juan Basin in Colorado.

Article X assures to the state or governmental agency which makes an importation of water from the San Juan basin into the Upper Rio Grande Basin, the proper credit for such importation. This provision should be read in connection with subparagraph (c) of Article III.

Article XI is a most important declaration of principle with respect to the responsibility of an upper state, or citizen thereof, for the quality or character of the water flowing from an upper state into another state, and is designed for the protection of the interests of the upper state and its water users. It will be noted that there is now no question concerning the quality or character of the waters of the Upper Rio Grande Basin, but any state may at a later time raise this question in an action before the Supreme Court of the United States, should it decide that a change in quality or character of the waters in later years justifies such action.

Article XII sets up the machinery for the administration of the provisions of the Compact. The conception of the Commissioners and their advisers was that there should be as little interference as possible with the control by the duly accredited state authorities, and the present uses of water in each state, by the joint Commission for the administration of the Compact. While it was recognized that the provisions of the Compact are not self-executing, and hence require some administration aside from the collection of hydrographic data, et cetera, it will be noted that any action taken by the Commission must be unanimous. This is designed to protect the rights of any one state against concerted action by a mere majority of the members of the Commission.

Article XIII makes provision for minor modifications of the provisions of the Compact which later years may show to be desirable. Such changes, however, cannot affect the fundamental provisions of the Compact, nor their operation, and may be made only by unanimous consent of the members of the Commission, and then are operative only when such unanimous action has been ratified by the Legislatures of the signatory states, and consented to by the Congress of the United States.

Article XIV is designed to protect Colorado and New Mexico against any increases in future uses of water by Mexico over and above the 60,000 acre-feet recognized by treaty. By the provisions of this Article, any decrease in uses of water by Mexico would be to the benefit of the water users under the Elephant Butte Reservoir.

Article XV is a declaration that the Compact is based solely upon the conditions peculiar to the Rio Grande Basin, and that any provisions therein contained do not establish any general principle or precedent applicable to other interstate streams.

Article XVI is a recognition on the part of the signatory states of the rights of Indian tribes and of the obligations of the United States to such tribes, and to the Republic of Mexico under existing treaties.

Article XVII provides that the Compact shall become effective when ratified by the Legislatures of the signatory states and consented to by the Congress of the United States.

WHEREAS, On March 18, 1938, an interstate compact equitably apportioning the waters of the Rio Grande above Fort Quitman, Texas, was executed by commissioners for the States of Colorado, New Mexico and Texas and approved by a representative of the United States government; and,

WHEREAS, it appears from the terms of said compact that the rights of the people of Colorado in the country drained by the Rio Grande to use the waters thereof for the development of the San Luis Valley have been established and assured;

NOW, THEREFORE, BE IT RESOLVED by The Colorado Water Conservation Board in regular session assembled at Denver, Colorado, this 28th day of October, A. D. 1938, that the General Assembly of Colorado at its next regular session be requested and urged to ratify such compact and to urge the Congress of the United States that similar action be taken to the end that such compact may be fully validated, approved and confirmed.

Passed, adopted and approved this 28th day of October, A. D. 1938,

TELLER AMMONS,
Chairman.

Attest:

VENA POINTER,
Secretary.