

TRANSCRIPT OF
PROCEEDINGS
of the
MEETING OF COLORADO RIVER BASIN STATES

Held at
PHOENIX, ARIZONA
June 22nd-23rd, 1938.

ATTENDANCE AT THE MEETING OF THE SEVEN BASIN STATES
HELD AT PHOENIX, ARIZONA, JUNE 22nd-23rd, 1938.

U. S. GOVERNMENTAL DEPARTMENTS.

Bureau of Reclamation:

E. B. Debler, Denver, Colorado;
L. J. Foster, Yuma, Arizona.

International Boundary Commission:

H. J. S. Devries, El Paso, Texas;
R. G. Hosea, El Paso, Texas.

National Resources Committee:

Dr. B. M. Woods, Berkeley, California;
J. C. Stevens, Consulting Engineer, Portland, Ore.

Geological Survey:

John H. Gardner.

National Park Service:

M. R. Tillotson, Grand Canyon, Arizona.

REPUBLIC OF MEXICO.

Morelos Gonzales, Consul, Phoenix, Arizona;
Rafael Fernandez MacGregor, International Water
Commission, Mexican Section.

ARIZONA:

Governor R. C. Stanford;
Donald C. Scott, Secretary Colorado River
Commission, Phoenix;
Alma M. Davis, Member Colorado River Comm., Mesa;
J. A. Mulcahy, Member Colorado River Comm., Tucson;
Howard S. Reed, State Engineer, Phoenix;
Swan A. Ericson, State Certification and Dam
Control Engineer, Phoenix;
Jesse C. Wanslee, State Water Commission, Phoenix;
Edwin T. Stewart, Engineer State Water Commission,
Phoenix;
Sheldon K. Baker, Consultant, State Planning
Board, Phoenix;
Lin B. Orme, Salt River Valley Water Users
Association, Phoenix;

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ARIZONA (Continued):

Hugo B. Farmer, Secretary Gila Project Association,
Yuma;
J. D. Walkup, Secretary Chamber of Commerce, Flagstaff;
J. H. Smith, State Senator, Mohave County, Arizona.

CALIFORNIA:

Evan T. Hewes, Chairman Colorado River Board,
El Centro;
W. P. Whitsett, Chairman Metropolitan Water District,
Member Colorado River Board, Los Angeles;
E. F. Scattergood, Chief Engineer, Los Angeles Dep't
Water and Power, Member Colorado River Board;
H. C. Gardett, Assistant Chief Engineer, Bureau of
Light and Power, Los Angeles;
F. H. Fowler, Consulting Engineer, L. A. Bureau of
Light and Power, San Francisco;
S. B. Robinson, Counsel, L. A. Department of Water
and Power, Los Angeles;
A. E. Chandler, Special Counsel, L. A. Department
of Water and Power, San Francisco;
Northcutt Ely, Special Counsel, L. A. Dep't of Water
and Power, Washington, D. C.;
Ira Aten, Director, Imperial Irrigation District,
El Centro;
M. J. Dowd, Engineer Imperial Irrigation District,
El Centro;
C. H. Morrow, Imperial Irrigation District, El Centro;
Arvin B. Shaw, Jr., Counsel, Palo Verde and Coachella
Irrigation Districts;
Fred D. Pyle, Hydraulic Engineer, San Diego.

COLORADO:

Clifford H. Stone, Director and Secretary, Water
Conservation Board, Denver;
John B. O'Rourke, Member Water Conservation Board,
Durango;
Byron G. Rogers, Attorney General of Colorado, Denver;
Hume S. White, Governor's Advisor, Eagle;
R. J. Tipton, Engineer Advisor Upper Basin States,
Denver;
George M. Corlett, Rio Grande Water Users Association,
Monte Vista;
Ralph Carr, Denver;
A. W. McHendrie, Pueblo;
John H. Shippen, Denver;
Alva A. Swain, Denver.

NEVADA:

Alfred Merritt Smith, State Engineer and Secretary
Colorado River Commission, Carson City;
C. F. DeArmond, Engineer Colorado River Commission,
Las Vegas.

NEW MEXICO:

Thomas M. McClure, State Engineer, Secretary
Interstate Stream Commission, Santa Fe;
A. T. Hannett, ex-Governor.

TEXAS:

W. E. Anderson, Water Users Association Lower Rio
Grande Valley, San Benito;
A. L. Montgomery, Attorney Water Users Association
Lower Rio Grande Valley, San Benito;
C. S. Clark, Texas Board of Water Engineers, Austin;
R. T. Stuart, Harlingen.

UTAH:

William R. Wallace, Chairman Colorado River
Commission, Salt Lake City;
G. A. Giles, Assistant Attorney General,
Salt Lake City;
Sumner G. Margetts, Member State Planning Board,
Salt Lake City.

WYOMING:

Dan W. Greenburg, Director State Planning Board,
Cheyenne;
Perry W. Jenkins, Member State Planning Board,
Water Conservation Board, Cora;
John D. Quinn, State Engineer, Cheyenne.

THE CHAIRMAN: Gentlemen, we of the Colorado River Commission of Arizona are deeply appreciative of the great interest you have shown in this meeting, not only the interest but the large attendance and representation from the various states. We have matters which we consider of great import to all of us to work out. You have the printed agenda or program here and we may have to make some little change in that, but after the first two items on that I will explain further why it is necessary to make some changes and explain it at that time. In order that we may get under way, I want to introduce to you now Governor R. C. Stanford, Governor of our state, who will give you our address of welcome.

GOVERNOR STANFORD: Mr. Chairman and gentlemen: A great many of you gentlemen are used to be welcomed and I have been called here this morning to give you a word of welcome and that is an old matter to you probably. It is not all in saying you are welcome, but from this conference is expected a great deal to be done for the West. I consider it the most important conference that Arizona has ever had. It doesn't take a great number, but, gentlemen, we recognize who you are and we know that you have in your power to make a great empire of this western country. I do welcome those of you who have come so far, from Washington, from all of the different states and everywhere, and then, too, I welcome those of our own citizens of Arizona who have come here from other places, Yuma, Flagstaff, Kingman and elsewhere. I welcome all of you to this conference

today. I also welcome those representatives from the Republic of Mexico and our great sister state of Texas.

Gentlemen, I want your indulgence in the matter of reading a few remarks, and I have written them out because I want to be quoted accurately. The only reason for it, I always thought I should speak what I want to speak, but I find it necessary sometimes to be able to have it quoted accurately to have it written, and for a moment I want to read to you some observations I have in order that it might be of some help to you and that I might lead on to a thing that will develop our country. I feel that the Government is just asking us at all times now to get ready to do something and that the funds are at hand, the man-power is at hand. It seems with the men we have before us today something could be accomplished whereby we could make use of the federal government's aid that is offered us to do something with the waters and power of our river and with your indulgence I will read these other remarks I have to make to you.

On June 9, 1938, I wrote to Secretary of State Hull that release of Colorado River waters stored by Boulder Dam to fulfill power contracts would result in the water going down the stream to be used in Mexico, unless steps are taken to prevent it. I requested him to warn and notify the proper officials of Mexico against any attempted impairment of Arizona's rights to such water. Having 42.6 per cent of the drainage basin of the Colorado River, and no

other water on which to depend, Arizona of course has been deeply concerned in this water problem, especially since we are a young state with our growth ahead. It is generally conceded that to obtain the proper and fullest development of a stream system its waters must be developed and used first in the upper reaches of the river system, which results in innumerable reuses of reflow water. The upper basin states have 50 per cent of the river's drainage area, and there need never be any limitation on the amount of water the upper basin states use within the Colorado River system, as the reflow would return below. Nor need there be any objection to the upper basin states taking a limited amount of water outside of the river system. Nevada, with five per cent of the drainage area, can use only a limited amount of water, to which no state has ever voiced objection. California has approximately two and one-half per cent of the drainage area, and whatever amount of water she takes she would remove entirely from the river basin. It therefore has always been the view of the basin states, and the view of California, as I understand, that a definite limitation should be placed on the amount of water California takes. Arizona, with 42.6 per cent of the river's drainage area should have the remaining water in the United States. Mexico will eventually have more than enough water from the reflow.

It may be thought that the Santa Fe Compact would be a matter that we would not have to enter into today. Because

of the fact that you are here from different states, it might be good manners not to bring up the Compact unless it is really necessary, but it is necessary to ask your indulgence a minute on that subject.

The Santa Fe Compact attempts to place a perpetual limitation on Arizona of less water than she already uses, and would thereby also prohibit the right to reuses of the reflow water which is the major benefit of the river. Under the water and power contracts made by the Secretary of the Interior subject to the compact and the Boulder Canyon Project Act, the Colorado River waters, including the upper basin states allocation, would be compelled to go to Mexico as Arizona could not touch a drop of it under the compact. Unless the water is diverted into Arizona above Boulder Dam there is no place for it to go except to Mexico and except an area of land in Arizona below the Boulder Dam.

Certainly by Arizona's stubbornness, as some may seem to think it is, we now come to realize that the Santa Fe Compact is not a sacred document for the compact allotment to the upper basin is 7,500,000 acre feet, and I think it is accurate to say that the ultimate use of the upper basin will be far less than this amount. However, as stated, Arizona has no desire or need to limit the upper basin states in their use of waters of the Colorado River within its basin.

While the United States Supreme Court has ruled that Arizona is not bound by the Santa Fe Compact since she did

not ratify it, it is still more significant that recent court decisions have established that interstate water division compacts are unconstitutional even if ratified by the state legislatures, since such compacts violate both state and federal constitutions and water laws and subvert property rights. It is impossible to divide water in perpetuity as the Santa Fe Compact attempts. The courts are the sole and best avenue for the determination of water rights, and are always open to make adjustments necessary to conform with changing conditions and to obtain highest beneficial use of water as the law requires.

On the basis of these facts, reclamation principles and court decisions, our states can cooperate and a constructive program can be adopted by us to benefit all parts of the river basin. I know that Arizona is inclined to make all possible concessions in order to progress in this. My statements have been made from the deepest desire for the benefit of all states concerned and for the conservation of our land and water resources and the nation's welfare which depends thereon.

Gentlemen, I have a lot of faith in the results of your deliberations. I am proud that you have come, repeating of course that it is the most important conference that our city and our state has ever had, and we are expecting that you will bring about good results. It is a fact I am sure that our Colorado River Commission will aid and help you in every way it possibly can. Once more, gentlemen, I welcome you to this state and to our city and I am sure that aside

from the work you render you will feel you have been benefited by coming to this wonderful state, but you will not recognize it if you will give to it as other states should have, if proper adjustment of water and power rights in the Colorado River system.

Thank you.

THE CHAIRMAN: I would like for a moment to outline briefly the purpose of this meeting. The purpose of the meeting is to consider a question which is vital to all the basin states of the Colorado River as we see it. Briefly it is this, that the waters of the Colorado River to a great extent are now going unused into the Pacific Ocean. It is the key to progress in this western country and to these seven basin states. Our sister republic, Mexico, has great acreages which can be brought under productive use by the waters of the Colorado River. We feel at this time that we would like to see the picture as it is as to whether or not as we see it these benefits from the Colorado River, its development and the uses of its water on the arid lands of these basin states will be neglected, we will lose the benefits for all time, or whether we can develop in a cooperative way, shoulder to shoulder, these great resources. We have made an investigation and a study of this, and Mr. Scott, Secretary of our Commission, and an engineer himself and the one to whom we want to give credit at this time for the preparation of this report and the compilation of the data we have collected, which you have

now, Mr. Scott will discuss that. That is the purpose of the meeting, to discuss this international question of the Colorado River. I am glad the Governor mentioned what he did about the Compact because I think some of you here thought if we mentioned compact you would have to have on a life preserver or would be on dangerous ground. It is not our purpose to discuss the Compact at this time. We have a big question before us, but on the other hand we want you to understand if you want to mention the Compact and it has a bearing on it, let us be out in the open with it. The six basin states have ratified the Compact; Arizona has not ratified it, so we just as well look at it in that way, but that need not stand in the way of cooperative effort in ironing out any difficulties which may arise. We of Arizona want to extend an invitation to the upper basin states to sit in with us and look in larger measure to the development of the Colorado River that we all get its benefits, standing shoulder to shoulder and working it out in a cooperative way. This report is not a report of propoganda, it is a report and a gathering of facts as nearly as we could get them from all available sources and if there is anything in there that is incorrect, any incorrect statements, we would appreciate it if that will be brought out and called to our attention because we have no intention of putting anything in there except the facts as we have gathered them. I want to state further that in the discussion of it it has aroused

a great deal of interest over the nation. We have had requests from Texas that they have their representatives sit here in the meeting and we have extended them the invitation, and there are present this morning also representatives of the Republic of Mexico and the International Boundary Commission. From the very nature of this, it will be necessary to go into executive session with the basin states' representatives and we would like to explain to those visitors who have come as observers that with no intent of discourtesy to them, but in the nature of the problem itself it will be necessary to consider some of these questions in executive session. Arizona has outlined this program as much as possible in accordance with the views of the other basin states, but we haven't been in close contact, and they have problems that they would like to submit at this time relative to this. We have permission to discuss in a confidential way, which will require an executive session, a report from the Secretary of State, Honorable Cordell Hull, and it will be necessary to do that. I want to tell you openly and frankly the reason for these things, and while some of these meetings will be open to those who desire to listen in, and we have invited a number from Arizona to sit in and listen, there will be some of these meetings where we will have to ask all those except the accredited delegates from the state to leave us in executive session, and when that time comes I will announce it, and please understand it in the proper way. This is a business meeting and we don't want to waste our

time, but want to get results from it. Without further explanation I will ask Mr. Scott to explain the report he has prepared for you.

MR. SCOTT: The Arizona-Colorado River Commission has endeavored to secure reliable information pertaining to the development of the Delta region of the Colorado River in Mexico.

We have also tried to secure the same information on the tributaries of the Rio Grande which originate in Mexico.

This information has been secured from the most reliable sources at our command. We realize that we have not been able to fully cover the subject, but hope that we will be able to draw upon the knowledge of many of you gentlemen who are well qualified to discuss this subject.

During the months of January and February, Mr. Hugo B. Farmer-- who is with us today-- made an extensive investigation of the Mexican Delta Region. The purpose of this investigation was to ascertain the following:

1. The extent and character of land reclaimed after construction of Boulder.
2. The amount of land now being cultivated.
3. Plans for future developments.
4. The kinds of crops produced.
5. Method of financing projects.

The Mexican Delta lands investigated are situated partly in the state of Sonora, Mexico, and partly in Lower

California, or the territory of Baja California; the Colorado River being the dividing line between the two states. In making this investigation, trips were made over the area by automobile. In Baja California, these investigations were extended to a point about 60 miles south of Mexicali.

In the state of Sonora, or on the east side of the River, trips were made through the Mexican colonies below San Luis and as far south as El Gulfo, a Mexican fishing village. During all of these trips, notes and pictures were taken and many people interviewed.

The development reported was astonishing.

Looking back over the records, we find that in 1913 Mr. E. C. LaRue reported that there were 50,000 acres in cultivation; in 1920 it was estimated that there were 190,000 acres in cultivation. Mr. Farmer reports that his figures show 424,000 acres in cultivation today.

The average annual increase in acreage for the period 1913 to 1935 was 6,800 acres, jumping to 74,600 in the period 1935 to 1938. This increase was made possible by the construction of Boulder Dam, with the consequent control and regulation of the River flow.

The Mexican Agricultural Engineer reports that the lands now in cultivation in Baja California are as follows:

Lands held by foreign interests, namely, the Colorado River Land Company, 32,000 acres.

Lands controlled by the Central National Land Bank and

farmed by the Agrarians, 274,000 acres.

Lands farmed by small owners, 69,000 acres.

Lands farmed by owners of large tracts (300 acres or more), 45,000 acres.

Lands being colonized by small owners, not Agrarians, 79,000 acres.

Making the total of 467,000 acres in cultivation, not including the 32,000 acres owned by the Colorado River Land Company.

There still remains 494,000 acres of undeveloped agricultural land in this region, making a total of 961,000 acres which are irrigable in Baja California.

In the State of Sonora, south of the boundary line between Arizona and Mexico, there are 370,000 acres of reclaimable land of which a very small portion is actually in cultivation, the total irrigable land being 1,330,000 acres.

The Agrarian policy, recently adopted by Mexico, together with the advantages and safety provided by the construction of Boulder Dam, has been responsible for the rapid development in this area.

Prior to the Agrarian movement in Mexico, the Colorado River Land Company, an American corporation, held more than 800,000 acres of land in the Mexican Delta and had improved more than 200,000 acres. During the past two years all of this land has been expropriated by the Mexican Government except about 35,000 acres.

The Mexican Agrarian law provides that fifteen or more citizens may organize a collective group and, in turn, may make application for a tract of land for community use. An Engineer of the Mexican Department of Agriculture will make an investigation and if he approves, he will select a tract of land equalling 62 1/2 acres for each male Mexican citizen of legal age. This group will then proceed to farm this land under the general supervision of the Mexican officials.

These projects are financed under the National Banking Act, which became effective on January 1, 1936, which was founded for the purpose of giving the Mexicans of the poorer class financial aid in the development of farming land in the Republic of Mexico. This Bank was established with a capital of 120,000,000 pesos.

This Bank provides the farmers with farm implements, seed, water and the other necessities to conduct general farming, and also has general supervision of the farming and control of the crops, paying each male Agrarian two pesos a day for sustenance of himself and family.

In the Mexicali Valley there are 5,000 Agrarians organized into 50 collectives, and through them the Bank is financing 150,000 acres of wheat, 200,000 acres of cotton, 50,000 acres of barley, and 5,000 acres of vegetables.

The acreage of the independents financed by the Bank is as follows:

Cotton, 7,500 acres; Wheat, 4,200 acres; Alfalfa,

750 acres.

The Mexican Government is constructing a new railroad between Mexicali and Rocky Point, on the Gulf of California, in the state of Sonora. The Government has already spent 7,000,000 pesos building 160 kilometers and now has an appropriation of 3,000,000 pesos to complete the road to Rocky Point, a remaining distance of 45 kilometers. The Government is also preparing to build a wharf and other facilities at Rocky Point to accommodate sea-going vessels.

It is evident from the activities of the Mexican Government that they are contemplating an extensive development program in this region.

Mexico, in order to carry out her plans, desires to exchange Rio Grande waters for waters of the Colorado River.

Mexico, to promote the treaty, implies that unless this treaty is effected they will further deplete the Rio Grande by developing irrigation projects within their country.

We have endeavored to secure information regarding such projects and find that there are five projects under construction, or contemplated, which will affect the international waters. Four of these are on the Rio Grande watershed; the fifth, on the Tiajuana River, which crosses the international boundary line into southern California.

We have designated these projects by number:

No. 1 is located in the states of Coahuila and Nuevo Leon and deals with the development on the Rio Salado and the Don Martin Reservoir.

No. 2 deals with the development along the Rio Conchos in the State of Chihuahua.

No. 3 is the project at the confluence of the Rio San Diego and the Rio Grande in the state of Chihuahua.

No. 4 is south of El Paso on the Rio Grande in the state of Chihuahua.

No. 5 is a small project near Tia Juana, in lower California.

Mexico has comparatively little storage on the tributaries of the Rio Grande, having to resort to pumping in many instances to meet the local demand. From the information available at this time, Mexico is depleting the flow of the Rio Grande 1,600,000 acre feet annually and now has well prepared plans for future development which will increase this amount to 2,659,000 acre feet annually. Water available to the United States under present conditions would necessarily be excess flood waters and, with so little hydrological knowledge of the Rio Grande watershed in Mexico, it is possible that Mexico is offering to exchange an unreliable or non-existent quantity of water for a well regulated and reliable supply of Colorado River water.

It is absurd that we should consider the exchange of water over which we have control for water which we do not

control.

COLORADO RIVER WATER NOW GOING TO MEXICO:

Prior to the construction of the Boulder Dam, the United States and Mexico used the entire flow of the Colorado River during the dry seasons; during abnormally dry years, both the Mexicans' and the Americans' land suffered from a lack of water. During the flood season there was always the prevailing danger of flood. Boulder Dam having been constructed for the dual purpose of flood control and storage, has completely altered this situation.

From reliable records taken at gauging stations along the Colorado River, it has been determined that, in the past, the mean annual discharge at Boulder Damsite has been more than 17,000,000 acre feet. Providing there is only normal development in the Upper Basin States in the near future, it is reasonable to assume that there will be an average of not less than 15,000,000 acre feet of water entering Lake Meade annually for the next few years. When Boulder Reservoir is full, which it is estimated will be within the next year, 15,000,000 acre feet of water will be released annually to provide storage capacity for flood control. This water so released will first be used to develop power, and later used to satisfy the irrigation demands in the United States and Mexico.

The present total irrigation demand for stored Colorado River water in Arizona, California and Nevada is approximately 3,100,000 acre feet annually. In the near

future, when the projects under construction in Arizona and California are complete, this use will be increased to approximately 4,600,000 acre feet annually. The reservoir losses from Parker and Boulder Reservoirs will amount to about 800,000 acre feet annually. By deduction, it is evident that, upon the filling of Boulder Reservoir, there will be 11,100,000 acre feet of well regulated flow going into Mexico annually. In the near future, there will still be 9,600,000 acre feet going to Mexico. This quantity will gradually be reduced in proportion to the rate at which projects are developed in the Colorado River Basin within the United States.

Mexico has no moral or legal right to the benefits derived from the construction of Boulder Dam. It has been conceded that she has a right, granted by comity, to the amounts of water used prior to the construction of Boulder Dam, namely, 750,000 acre feet. A large scale reclamation program in the Mexican Delta region at this time would create an awkward international situation.

It has been estimated by the Bureau of Reclamation that it will require five years and \$3,000,000.00 to complete a comprehensive survey of the Basin. This information is required before a coordinated plan of development can be assured. There are many factors entering into such a plan; consideration must be given not only to the use of this water for agricultural purposes, but for the development of power and domestic use.

The projects must be well planned in order that they may be economically feasible and in conformity with an intelligent plan which will result in this water being beneficially utilized wholly within the United States.

It is only during this development period that there will be a large volume of water going to Mexico which will ultimately be used in the United States.

Before the completion of Boulder Dam, much of the present Delta area was at the mercy of a shifting, treacherous river that inundated the lowlands, cutting new channels and dooming the best part of it to be a fertile wasteland. During this period only the lands protected by levees could be put into cultivation, and this acreage was limited by the water available from the normal flow of the Colorado River.

To avoid this inevitable complication, notice should be served on Mexico that they are developing this land at the risk of the water being withdrawn when needed in the United States. This notice should be served through the proper authorities, and should be accompanied by all of the available supporting evidence possible.

I believe that covers briefly the outline of the information that we have been able to gain on this subject and I think that many of the details, or more detailed information, is given in the report we have prepared. I think Mr. Farmer will be glad to answer any questions in regard to his findings on the ground below the border in

Mexico and I am sure he can give you more information on this and can answer any questions you may care to ask him.

THE CHAIRMAN: At this time I would like to read a telegram which will be self-explanatory. It is addressed to Mr. Scott, Secretary of the Colorado River Commission, Phoenix, Arizona.

"With reference your telegram June 9th, as you are aware from my letter of June 9th, a representative of the International Boundary Commission will attend the meeting. However, since there are no treaty negotiations in progress between the United States and Mexico concerning Colorado River-Rio Grande waters, you will appreciate that discussion of this subject would be premature.

Cordell Hull,
Secretary of State.

Here is a letter addressed to Mr. Scott, which I think will be interesting to those present here:

"Dear Mr. Scott: I appreciate the information contained in your letter of June 10th and wish very much that I could attend the conference to be held in Phoenix on June 22nd. Unfortunately the summer session of the University begins next week and it is essential that I be here. I understand that B. M. Woods and John C. Stevens will attend the conference. Both of them, as you know, are familiar with the problems of the Colorado River. Mr. Stevens was special consultant to the Rio Grande joint investigation and made a systematic review of its findings. Messrs. Woods and Stevens will represent the National Resources Committee adequately at the conference. My great interest in the problems to be considered leads me deeply to regret the fact that I must be in Chicago next week. I could have attended the conference at almost any other time.

Very sincerely yours,
Harlan H. Barrows."

Many of you know Mr. Barrows and his fine work. We regret he cannot be here. Now, there is a matter at this time that I wish to present to those assembled here. We have had the request from Texas that they have representatives at this meeting to sit in on the meeting. Also

the Mexican government has asked through the members of its International Boundary Commission to attend the meeting this morning. I am going to take the liberty at this time of asking permission that the representatives from Texas, if they care to do so, to make a statement to the meeting if they have anything they would like us to consider then we can take that under consideration. I think before we go further with our meeting it is necessary for the other basin states, or the representatives of the other basin states to consider in executive session our procedure from here on in the discussion of this problem inasmuch as it is international and from the telegram from Secretary Hull you will see the significance of it. At the same time we want to extend the courtesy to the representatives from Texas and the Republic of Mexico, and I would ask if the representatives from Texas are here and would like to make a statement to those assembled here as to anything they may have in mind.

MR. R. T. STUART: Mr. Chairman, we are here to listen. We do not care to make any statement at this time. We are here to learn and do what we can to be helpful.

THE CHAIRMAN: Will you not give us your name, please?

MR. STUART: R. T. Stuart from the Rio Grande valley.

THE CHAIRMAN: Is there any other representative from Texas who desires to make a statement? (No response.) Any representative from Mexico who desires to make a statement?

MR. MORELOS GONZALES: We come here only as observers. We have no statements to make, but only are here to listen and be in touch with what you discuss about Mexico. That is our only thought in coming here.

THE CHAIRMAN: Will you give us your name, please?

MR. GONZALES: Mr. Morelos Gonzales, Consul at Phoenix, Arizona, and Mr. Rafael Fernandez MacGregor, International Water Commission, Mexican Section.

THE CHAIRMAN: We have here a representative of our own Federal Government, who I understand is here in the capacity of observer, and was sent here as a representative of our government on the International Boundary Commission, and I wish to extend the courtesy to him if he has any statement to make to us. I don't want to get these gentlemen involved in anything, but I think they can state their position better than I can.

MR. DEVRIES: I have nothing to say except an expression of appreciation and gratitude at the opportunity afforded to be present at the preliminary general discussion of your Basin States meeting, and it represents a very constructive effort to have a new understanding of one another's problems, which is always an excellent aid to a final and complete understanding. The privilege of being here is especially appreciated, being in this community, which has always been a pioneer of irrigation in this country, and on behalf of the Boundary Commission I appreciate your invitation to be present.

THE CHAIRMAN: Are there any other representatives of the Federal Government who have any special interest here and would like to make a statement? This is a meeting for the Colorado River Basin states, and there are some matters which, as I explained before, we will have to consider in executive session.

MR. FARMER: Was it the desire I make any statement here to follow up Mr. Scott?

THE CHAIRMAN: Yes, but not at present. The time has not yet come for that, as there are some other matters that will be necessary to consider before we continue the discussion of Mr. Scott's report. We do want to acknowledge the presence of representatives from the Interior Department, State Department and the Bureau of Reclamation. If there is any one in the capacity of observer who would like to make a statement at this time, we would like to have you do that. Now, some of these meetings will be open. However, in the discussion of Mr. Scott's report, which we will enter into later, I will ask those who are here who are not delegates, not to enter into the discussion as this is a business meeting and is confined to the discussion of the problems of the meeting and to those accredited delegates from the various states. Some of the meetings will be open to those who care to listen, but not to participate unless authorized to do so, so please keep that in mind. We have come to the place where we will ask all of those who are not accredited

delegates from the basin states to withdraw, and then in a short time we will be able to announce our procedure in the discussion of these things in accordance with the wishes of those states interested, and we haven't been able to confer with them up to this time except by telegram or long distance. If those will kindly withdraw who are not accredited delegates from the various states, the other sessions will be open to you.

EXECUTIVE SESSION.

THE CHAIRMAN: There is one announcement I would like to make for the benefit of every one, especially those outside the state. The management of the hotel has put at our disposal a number of rooms on the mezzanine floor, number 202, 203 and 207. They will accommodate from twenty to thirty people and they are open to you any time you care to use them. If you want to use them, just feel free to do so as the management has put them at our disposal for these two days. I think at this time it would be proper to announce that this evening we have arranged a banquet in this room at this hotel for all our outside friends who are here at this meeting, and it will be given to you without cost to you, and we will be glad to have you attend. We thought that would be a good time and place because it will be more or less open to the public to attend, and if each state would give their viewpoint on this, it would be a good time and place for

that to be given. We have rather a full program and I will ask each of the state delegations to get together during the day and designate whom you would like to have represent you at the banquet this evening, and if you will let me know we will make note of that.

Now, gentlemen, this is the time when it is for you to decide just how we should proceed here. You understand what the situation is, some of the confidential matters that can only be discussed in this group, by the permission of the Secretary to discuss this Stevens report, which is not open to the public, so we must respect that. The outside delegates from Texas and Mexico naturally, while interested in the meeting, it is possible we couldn't discuss as freely and openly as we would like to, these matters pertaining to the Mexican situation. The meeting is open to you and we would like you to determine how we shall proceed, as to which shall be open and which should be in executive session, or how far shall we go with our open meetings? We attempted to outline a program here in conformity with this subject and treat this subject and hold to it, but after all is said and done we may not have set it up in the best way, but you are here and it is your meeting and there is no reason it cannot be changed to conform with the best interests of the group here.

MR. STONE: Mr. Chairman, I think we all appreciate the significance of the statement that you made as to

certain matters of concern only to the accredited delegates of the Colorado River basin states. This arose largely through the fact that we have observers from the Republic of Mexico and from the state of Texas. Of course, this meeting, as we understood it in the beginning, was for the purpose of discussing or, rather, studying the problems on the Colorado River. It was to hear report and to enable the various states in the Colorado River basin to become advised of the facts. In other words, it was more, as we understand it, in the nature of, we might say, a fact-finding meeting, if that is a proper use of the term. We understand there are certain complications and matters involved because of there being the two rivers which affect part of the states of the Colorado River basin. It seemed to Colorado, Colorado being one of the states where that situation exists, that the matter of policy as between the two rivers could not be fully determined or discussed at this time. When I say as between the two rivers, I mean for a discussion or final conclusion as to the matter of joining the two rivers in a consideration of an international problem. It seemed to us that there are certain elements that should come into the picture which cannot properly be done at this time in a meeting of this kind because all of the representatives not being present from interests other than the Colorado River itself. So I should like to make the suggestion that this meeting, which no doubt will be followed by other meetings, when we have

had an opportunity to digest this material which has been presented, that this meeting be confined to a consideration of the facts and the problems existing in the Colorado River Basin, and that in so far as the Rio Grande is concerned that it only be brought in in executive session through the presentation of facts, or we might say engineering factual information, so that that may be considered for the further determination of policy as between the two rivers. It has been pointed out by the State Department in the telegram which was read here today that at the present time no treaty negotiations are pending, therefore the Department did not care to make any statement. I think we might well take that cue here, that we listen to the information and get all of the facts and reserve judgment until some future meeting. In line with that it seems to me we should take up in executive session the Jacobs Stevens report and perhaps a presentation of the engineering factual information on the Rio Grande in executive session. I perhaps have more or less indefinitely stated our position on it, but until we can crystallize the situation further it seems that is as near as we can approach the subject. Mr. Chairman, perhaps to get this matter before the group here, the present representatives of the Colorado River Basin states, and in order to present the matter for discussion, I make a motion to the effect that this conference be confined to a study and consideration of the factual matters dealing with the Colorado River

Basin and, incidentally, bringing in only factual information on the Rio Grande, all such matters to be considered in executive session.

MR. WALLACE: I rise for the purpose of seconding the motion, but my understanding is that there is a matter of five million acre feet of water wasted into the Gulf of Mexico out of that river, and that possibly 60 per cent of that water is in the nature of flash floods. We might pass a resolution, if the facts justify it, calling the attention of the United States authorities to the fact that the possibilities of the development of the Rio Grande are sufficient to care for the lands that are irrigable under that stream. I second the motion.

THE CHAIRMAN: You have heard the motion that this conference be confined to a discussion of the problem of the Colorado River with Mexico and the factual figures on the Rio Grande.

MR. SCATTERGOOD: As I understand the motion, it is very broad and very definite in its terms, and will preclude passing any such resolution as Mr. Wallace spoke of. I think the purposes of this meeting are to be confined solely to a discussion of the factual data and material regarding the Colorado River and the Rio Grande. It is not definite whether the motion means all things respecting the Colorado River Basin shall be discussed solely in executive session, but it did say specifically all respecting the Rio Grande shall be discussed in executive session by us

representing the seven states, and it seems reasonable, in other words, it carries with it the impression of what is going to become of those who are here to listen in if there is to be any discussion whatever other than executive. Secondly, it seems to preclude any resolution for expression that might go forth to the Federal Government from this conference asking that notice be given to Mexico respecting the putting to use, the development of lands through the use of the waters of the Colorado River that are being stored and passing out meantime unused, to the effect that eventually, if it is the intention to use them in the United States and develop lands through the use of them, as suggested by the report of Mr. Scott, they do it at their peril in the sense that it may be taken away in the future. There may not be any negotiations on with Mexico at this time, but there is putting the use of those waters going on at this time and it seems to me that perhaps, I don't want to express an opinion definitely about this because it was very rightly said by the gentleman from Colorado, the more we know of the facts the better position we are in to act respecting the position of the Colorado River Basin states, but it would seem, tentatively speaking, that certainly those waters are being put to use down there and there may not be negotiation for years, and certainly that notice should be given regarding it now so that when negotiations are undertaken there will not have been that sort of work going on without notice, and Mexico call

the attention of the United States representatives to the fact that they have been allowed to go ahead and spend their money down there all this period of time without any warning or notice, we would be in the position of having stood by and allowed it to go on.

MR. WALLACE: Unless the Republic of Mexico is inclined to consider these rivers and accept them together, I certainly would object to the passage of any resolution which precludes us from the possibility of making those resolutions which the facts here develop will cause to be necessary to be passed. If Judge Stone's resolution precludes the possibility of any resolutions that we would like to make, I would withdraw my second to that motion. I would like to hear from Judge Stone.

MR. STONE: In clearing the motion, I would like to state it was not intended to preclude the matters mentioned by Mr. Scattergood and does not preclude the making of resolutions which we care to make, but it is to state a policy that at this time and until the facts are more fully developed we should reserve for future consideration the rather delicate question of involving the two rivers by action taken at this time. Does that make it clear?

THE CHAIRMAN: The intent of the motion is to direct our activities in this discussion that we would discuss the matters of the Colorado River in the United States with these basin states. That in the consideration of the Rio Grande only as pertain to that and affect our interest, and

It is simply a matter not to be iron-clad, but to direct our energies and our time that we will discuss these things and not wander off into the by-paths, and get something done. That was my understanding why Judge Stone put the motion. Naturally we can enlarge upon that if those here assembled in this meeting should care to do so. We know what we are going to talk about and we wont depart from it, and our program will develop as we go along. You have heard the motion and the intent of it has been discussed.

MR. SCATTERGOOD: Will you have the motion read as it will appear on the minutes of the meeting?

THE CHAIRMAN: Will you state it again, Judge Stone?

(The motion was read by the Reporter as follows: "To get this matter before the group here, the present representatives of the Colorado River Basin states and in order to present the matter for discussion, I made a motion to the effect that this conference be confined to a study and consideration of the factual matters dealing with the Colorado River Basin and, incidentally, bringing in only factual information on the Rio Grande, all such matters to be considered in executive session.")

(The foregoing motion was put and carried.)

THE CHAIRMAN: I would like to suggest at this time and anticipate a little bit, it is very vital that we have at the end of these meetings something definite and concrete to direct us further, and with your permission I

would like to appoint a committee at this time, a committee on recommendations to present at the close of the meeting what further action should be taken in this matter. I will ask Judge Stone to act as chairman of that committee and each state delegation select a member to act with Judge Stone. I present that to you at this time and as they sit through these meetings they can take their resolutions or anything they want to as to what we are going to do about it when we get through. If there is no objection I will appoint that committee. Judge Stone, will you act as chairman of the committee, and each of you delegates from the various states choose one of your number to act as a member with Judge Stone in that capacity.

MR. SCATTERGOOD: Do we understand that this committee will suggest resolutions to this conference?

THE CHAIRMAN: Prior to adjournment they will bring back their resolution or recommendations as to what should be done. Maybe we can determine at this time in a rough way what should be considered in executive session. There is one matter, the Stevens-Jacobs report, which must be.

MR. STONE: One other would be the report of the factual information on the Rio Grande.

THE CHAIRMAN: Yes, that report on the Rio Grande river. I think that would come after we finish the discussion of Mr. Scott's report. Shall we continue now the discussion of Mr. Scott's report in executive session or shall we leave it open to those who want to listen in?

MR. STONE: I move we leave it open. I would suggest, inasmuch as the papers were read in open meeting, that the rest of them be permitted to hear Mr. Farmer in various discussions.

THE CHAIRMAN: Without objection then we will consider it that way, that in the discussion of this we will hold an open meeting. When we say "executive session" I want your opinion on this, who should be here outside of the representatives of the various states, all those who come representing their state, or representatives, we have some representatives of the United States Government and Government officials, and Bureau of Reclamation. Is there any objection to those gentlemen sitting in on the executive session? And about the press, the reporters are now absent from the room, and they asked me if they could have or know something about this afterwards and in these executive sessions I think they would respect any wishes made as to not make public or report anything that was not desirable.

MR. STEVENS: Speaking of this report which I am going to discuss at the executive session, I suggest that no representatives of the press be present at that meeting.

THE CHAIRMAN: Very well. You are going to discuss the Jacobs-Stevens report?

MR. STEVENS: Yes, sir.

THE CHAIRMAN: That is scheduled for this afternoon. Mr. Farmer, I thought, would lead the discussion in this

and go on to the present uses of the Rio Grande, and the Jacobs-Stevens report would crystallize that for us. With that objection then we will hold the Jacobs-Stevens report until this afternoon. The executive session then, as I understand it, will preclude the press reporters, or is there any exception you want to make to them.

MR. SCOTT: Mr. Chairman, I would suggest at this time that we take up relations along the Rio Grande there, with some factual data, I believe there are men here who are qualified to discuss that subject, and owing to the fact that a representative of the Boundary Commission is here only as an observer, I feel certain there must be men here who have information in regard to that subject who would probably fit into this thing right now, and I would like to hear some discussion as to whether that could be brought in at this time.

THE CHAIRMAN: I would like to ask Mr. Tipton, in your discussion of that do you desire that in executive session?

MR. TIPTON: I think that is up to the wishes of the Conference. I have no objection to discussing it in open session, but the conference might have some objection to its being discussed in open meeting. I think the motion stated that the Rio Grande situation should be discussed in executive session, but as far as I am concerned personally either way will be satisfactory, and also it is entirely up to the conference whether they want me to discuss the Rio Grande.

THE CHAIRMAN: You would be willing to discuss that with us, Mr. Tipton?

MR. TIPTON: Yes, sir.

THE CHAIRMAN: What is the wish of the meeting as to whether it will be an open or executive session?

MR. TIPTON: I might add further it possibly might put the conference in a little freer position due to the fact that Texas representatives are here to have the matter discussed in executive session first. I am just making that suggestion.

MR. WALLACE: May we invite Mr. Debler, who I suppose has information as to the reclamation examinations of that river and Mr. DeVries of the Boundary Commission, should they not be here.

THE CHAIRMAN: I think so.

MR. WALLACE: I move that discussion be in executive session and that these gentlemen having to do with the Boundary Commission be present.

THE CHAIRMAN: I am sorry I didn't make that plain, that those people could sit in on the executive session.

MR. GREENBURG: Did I understand that the committee of which Judge Stone is chairman is to formulate these various things, these questions you are speaking of now?

THE CHAIRMAN: Whatever they seek to recommend as they get the sense of the meeting.

MR. GREENBURG: I assume the various states have selected their representatives and they can get together.

MR. FARMER: Wouldn't it be well in view of the fact that some of the representatives of the government are not present and are not having an opportunity to hear things we are willing for them to hear and that the committee has not had an opportunity to get together, that we take a recess until one-thirty, and then take matters up.

THE CHAIRMAN: We have some matter before that, Mr. Farmer. Without objection we will go ahead with the open meeting, with the continuation of Mr. Scott's report and will follow that up by an executive session by Mr. Tipton on the Rio Grande waters.

MR. SCATTERGOOD: I am a little late, but I move that the Chairman be authorized to make such statement as in his judgment he thinks is fitting to the newspapers regarding this executive session.

(The above motion was seconded and unanimously carried.)

THE CHAIRMAN: I would like to say at this time through my error and oversight that in the executive sessions we would like to have in those sessions any representative of the United States Government, any member of the Department of Reclamation or Bureau of Interior or Secretary of State, we ask you to sit in on the executive sessions if you wish. You will pardon me for that oversight. In any further executive session we will ask you to be present with us. We will continue the discussion of Mr. Scott's report, the discussion to be led by Mr. Hugo Farmer of Yuma.

MR. FARMER: Mr. Chairman, I assume I should go ahead and make some kind of statement regarding the trip and investigation which I made into the condition in the Mexican Delta of the Colorado River.

THE CHAIRMAN: I would suggest if there is any one here who would like further information or any particular subject discussed, make it known and perhaps that would answer the questions some of them may have now, and then you could enlarge upon that.

MR. FARMER: I thought if I made a little statement it might give them something to think about.

THE CHAIRMAN: I think some of them have some questions they want to ask. We will throw this open to discussion of any questions you may want to ask Mr. Farmer.

MR. STEVENS: As I recall the figures, the statement was made there was some 400,000 acres already in cultivation. Do you mean to infer those are under irrigation and are now receiving water?

MR. FARMER: The statement made by me was from the investigation made there was something over 400,000 acres either in cultivation or in preparation for cultivation at the present time.

MR. STEVENS: That puts it in a little different light. I made a little trip down there myself last fall and I was informed by some of the Mexican engineers who were very courteous and gave us every opportunity, that there was some 400,000 acres under ditch.

MR. FARMER: I think that is correct.

MR. STEVENS: We have the authentic figures for 1936. I cannot give them to you exactly, but in round figures 201,000 acres actually receiving water in 1936. I haven't seen the figures for 1937, but there are and have been for many years something over 400,000 acres under ditch, but only about half of it actually irrigated.

MR. FARMER: There are new lands being prepared for irrigation and cultivation. For instance, at one point about 53 miles south of Mexicali and below the river Hardy we examined one piece of land that had, roughly, I would say at least 2,000 acres that was levelled and bordered and I was told it was to be irrigated by pumping water from the River Hardy. Another tract that has other lands, not under the old ditch, but something like 42 miles south and east of Mexicali, in which there was some new land being put in, there was quite a little cotton; in fact, I took a picture of some very luxuriant cotton in that locality and quite a little wheat being planted in there. I got the information in three ways, a statement from the president of the Chamber of Commerce at Mexicali in the form of a letter which was written to me and which I have here, in which he outlined the lands in cultivation and being prepared for cultivation and stated the amount of land in the Mexican Delta. I received a statement direct from the man in charge of the Banco Ejidal, Mr. Jacobo Aragon at Mexicali, in which he outlined to me and stated

and wrote down in this little book in his own handwriting the figures which he said the bank was financing the cultivation of, and that is 150,000 acres in wheat, 200,000 acres in cotton, 50,000 acres in barley, and 5,000 acres in vegetables. This is his own handwriting, his own book that he gave me and I assumed it to be correct. He is the general manager of the Banco Ejidal and he said he was financing the Agrarian movement in Baja California, and he stated there was fifty of these "ejidos" or communities then organized and he gave me the names of those communities and I have the list of names with me that he gave me at that time. In addition to that there was 19 colonies I have the names of which were independent of these communities which were being formed and financed in other ways. In fact, the Banco Agricola, Mr. Saenz, who is the man in charge of that bank at Mexicali, told me about the 31st day of January that his bank was contemplating the financing of 40,000 acres in cotton down at the Ockerson Levee. He said they were financing the farming at that time of some 10,000 or 12,000 acres in wheat and in cotton, his bank was, but that his bank did not finance the Agrarians, but was financing quite a number of the colonists. From the letter I received from the president of the Chamber of Commerce in Mexicali, they stated there was a large number of independent farmers who were not being financed by that bank, but in other ways, from independent farmers. In trying to ascertain the acreage in the Delta, I took

some maps with me and at the various points I visited I tried as near as I could to ascertain where I was on the map and corrected the map accordingly, both as to the irrigated areas and as to the whole Delta, and after I came back to Yuma I had those areas centimetered by engineers and they gave me the acreages that I included in the report. I might say one thing that was rather interesting to me. I made four different trips into the Mexican Delta, one going to the fishing port of El Gulfo. Coming back we endeavored to get out to the river Colorado wherever we could. We got about 50 miles south of the international boundary line, there was quite a settlement there at one time, some old adobe buildings, large timbers there. I made all the inquiries I could and I understand that Mr. Guillermo Andrade established a place there something like 100 years ago. This Mr. Guillermo Andrade received a promise or oral statement from Porfirio Diaz, who was at one time president of the Republic of Mexico, in which he gave him orally all the lands of the Mexican Delta, the Baja California area and the area on the Sonora side, but that oral donation or gift was never approved by the Mexican Congress; at least that is the information I received from people who I think were quite well informed. The acreage I arrived at was something like 1,350,000 acres of land that could be reclaimed in the Mexican Delta.

As near as I can say, the Mexican Delta along the boundary, it extends somewhere near 60 miles in width. The

good lands extend somewhere near 60 miles to the south.

MR. WALLACE: What amount of water would that require?

MR. FARMER: I am not an engineer, but let me get this over to you, you are never going to be able to deprive that land of water. A large amount of that land is underlaid by a water table and will always have water. If you develop the Gila project, there will be a return flow according to engineers of something over 2,000,000 acre feet that they will get anyway. I would say there was at least 500,000 acres of land in that section, as near as I can estimate, that used to be overgrown largely with tules. That land must have been overflowed every year prior to the construction of Boulder Dam, otherwise those tules would not have grown upon it. Some of this land extends up to the mountains along the west side of the Delta for a long way, and there was dead tules all over the country. That land must be tremendously rich. The old, decayed vegetable matter and the mud from the Colorado River, and certainly they can put it in and farm a large amount of it. I will grant you there is something over 100,000 acres of land in there that they may never farm because of the various river channels and bad marshes in that delta, but I think it is safe to say there is at least 1,200,000 acres of land in that Mexican Delta that can be farmed. I am perfectly willing to answer questions.

MR. WALLACE: What is the estimated amount of water?

MR. FARMER: As I said, I am not an engineer, but if

you figure the underground water, it will probably be at least four acre feet to irrigate that land successfully. There will be a large amount of that water always under that delta which can be obtained by pumping. I don't know how much firm water the United States will grant to the Republic of Mexico, but certainly there will be always a large amount of water, and from irrigation in our section of the country I would say it would require three to four acre feet per year to irrigate lands in this part of the United States, and I think that is true in the Mexican Delta.

THE CHAIRMAN: Are there any questions any one would like to ask Mr. Farmer?

A VOICE: Is there any pumping?

MR. FARMER: There is some pumping in there. There is pumping on the west side of the river in several locations, and I am told-- there is not so much development on the east or Sonora side of the Colorado River, something like 10,000 acres in cultivation there as near as I understand, and that is being irrigated largely from water from the Yuma Project.

A VOICE: The pumping is from the water table?

MR. FARMER: Some pumping from the water table and some pumping from the canals, and I understood there was some pump being put in there-- at that time they were going to put in something like 1,500 acres of wheat and were going to pump from a slough alongside the river six

or eight miles south and west of San Luis.

MR. WALLACE: Where do they get the power?

MR. FARMER: They use the Deisel engine to a certain extent. I don't think they have electric power. As to the plans of the Mexican Government I don't know exactly, but I do know they were constructing a railroad across the Mexican Delta when I was down there. I spent two nights at El Doctor, that is the railroad construction camp on the mesa and it is something like 75 miles south and east of Mexicali. I had the pleasure and privilege of riding on the speeder from El Doctor to Mexicali and you get a wonderful view of the Colorado River from that raised elevation along the railroad. I noticed a large group of Mexicans working on some new clearing something like 50 miles from Mexicali on the south side of the railroad and on the north side something like 35 miles from Mexicali there was some land being bordered up and they said there were several sections along there just being put in at that time. So there is quite a lot of new land being put in there, but any one would be presumptuous to go down and say there is so many acres actually in cultivation. I did determine there was about so much land, or at least the engineers determined it for me at the places I went. Going around over the canals and having, as near as I could, the measure and seeing the land that was in preparation for cultivation outside of that area and being cleared, I thought it was reasonable in view of the fact of the letter

from the Mexicali Chamber of Commerce and in view of the fact of the statements of the man who was financing most of the development down there, Mr. Aragon, there was something like that much land either in irrigation or in preparation for irrigation in the Mexican Delta of the Colorado River, and I believe I am safe in saying there was about 10,000 Mexicans in the Mexican Delta of the Colorado River. I arrived at that statement by the statement of Mr. Aragon there was at least 5,000 men in these communities which were organized and there was 19 colonies, and I have the names of those-- this is the original statement he wrote for me giving me the names of the communities already organized, and here are the names of the 19 colonies that they say are established in that country, and the Colonial Carranza, I was told that involved an acreage of something like 23 or 24 thousand hectares. They said there was somewhere near 500 families in that colony, and that is something like 35 miles south of Mexicali and extends clear across the country to the mountains on the west side. They told me there was a large number of independent farmers, and Mr. Del Rio, the paymaster of the Mexican railroad, told me they were employing some 600 men on the railway; that they had appropriated some 7,000,000 pesos for the construction of the road and had the money necessary to complete it down to Rocky Point and that they expected to finish that sometime in June. He stated they were also constructing harbor

facilities at that point and it was the purpose of the Mexican Government to ship the produce of the Mexicali Valley into Mexico for use by the Mexican people, that is carrying out the policy of the Agrarian movement which is to develop Mexico for Mexicans. I think they are perfectly right, I don't blame them a bit for trying to develop everything they can. Yesterday in talking with the immigration man in Yuma, he told me there were 285 Mexicans went through Yuma about the first of June, who were leaving through the port of Nogales, going down to the Mexican Delta. There is no reason for them going down there except to develop those lands.

MR. WALLACE: Did you discuss water supply with Mr. Aragon?

MR. FARMER: No, I did not. Mr. La Fon, who was a member of the Commission of Irrigacion for Mexico, I talked with him about their water and he said they were building a dam on the San Juan River and he hoped that after that was finished they would get more water for the Mexican Delta.

MR. JENKINS: Is this water allocated to the land or is it limited by government control?

MR. FARMER: What water?

MR. JENKINS: The water for the lands, is it under a permit system?

MR. FARMER: No, not that I know of. They have a contract on the Sonora side for a certain amount of water from the United States Reclamation Service for a limited area

of land.

MR. JENKINS: Does the Mexican government have any laws controlling the amount of water or the use of water?

MR. FARMER: I couldn't answer that. I know they are getting their water through the Imperial Canal system and the water they are irrigating with from the canal. They are getting water from some places with pumps.

MR. JENKINS: That must be under permits then.

MR. FARMER: I couldn't tell you about that, but the fact is the water is running down there, the land is there and they are using some of the water on some of their land and, as I understand it, there was an agreement-- other people in this audience can give you more information about that, but they were to get a certain percentage or half of the water that flowed through the canal that was used to irrigate the Imperial Valley, and they were getting a lot of their water from that source. I understand the Agrarian people have taken over most of the land originally farmed by the Colorado River Land Company. I saw a Spanish book which gave some detailed information about the San Juan dam.

MR. WALLACE: Where is the river?

MR. FARMER: I think it flows into the Rio Grande somewhere south of the Mexican boundary. He said they were constructing a dam on the San Juan River.

MR. WALLACE: They expect to get water by exchange of the Colorado River?

MR. FARMER: He didn't say how they expected to get it.

MR. STONE: Were you able to ascertain the acreage under existing canal or irrigation system?

MR. FARMER: I would say that the acreage, as near as I could-- as I say, I went around the area that seemed to be under existing canals and as near as I could estimate it was something over 400,000 acres. It was not all in cultivation.

MR. STONE: That is under existing irrigation systems?

MR. FARMER: Yes, sir, but some of the land is rough and could not be farmed under that system.

MR. STONE: Did you find evidence of an alternating of tracts so as to show a greater utilization of water?

MR. FARMER: I couldn't say as to that-- I was only in that area-- I made four trips and the actual time I was in there was something over two weeks. I made four different trips during January and February of this year and tried to find out what was on the ground and what was being done at the present time, but that wouldn't give me much opportunity to determine who had farmed this land or the fact whether they had last year irrigated this land and next year whether they irrigated this other land.

MR. WALLACE: How much land is there irrigable under the old Imperial Valley Canal?

MR. FARMER: I think Mr. Hughes could give you much better information on that than I can.

MR. WALLACE: I mean in Mexico under the Imperial Valley Canal.

MR. FARMER: That is rather a hard question. The Sierra Plata Canal runs around the south part of the development and runs back into the United States. I included other area that is over to the east of what is known as the Black Butte and that section, and I don't understand that that water is returned or used back in the United States. I don't know about that, but I would say something perhaps around 200,000 acres in that easily. There is a lot of land over to the east and south of the Sierra Plata Canal in cultivation, a lot of cotton out there and a lot of wheat out there. I don't know all their canal systems, I didn't examine them.

MR. JENKINS: I believe you said they were getting water under a contract with the Bureau of Reclamation?

MR. FARMER: That is a limited amount on the east side of the river.

MR. JENKINS: Do you mind telling what the essentials are of that contract?

MR. FARMER: I don't believe I would be competent to do that. I saw a check or something, I believe it was around \$1,200.00, that was being paid for the use of the drainage water or something of that kind. It was not firm water from the regular canal, but the drainage water that they had a right to pump and they were getting some of that pumped drainage water from the canals on this side of the boundary.

MR. DEBLER: For the purpose of the record, and in

order to avoid any thought that the Bureau of Reclamation has made any contract with the Government of Mexico for water supply, it might be well to state the character of that contract. I just wanted to avoid the impression, the contract in fact arises from the fact that the south end of the Yuma Project, the country being level, it is very necessary that the Yuma Project have a drain going through the river in order to dispose of the surplus water of the project. For many years that water was taken from the river and eventually disposed of. To offset the rising river levels, it became necessary to pump that water and at the time the Mexican interests wanted the use of that water and we made a contract for a period of ten years to lift that water out of our drains and instead of lifting it into the river to lift it into the eastern end of the valley, as the result of which the Mexican interests can use that water. They make a payment of \$1,000.00 a year. The contract was one for ten years and has been extended for a period, I don't know whether it is five or ten years, is cancellable at any time, is not a contract for water, but is merely a contract to lift our drainage water to that level. We have no contract for the delivery of any water.

MR. WALLACE: How much water?

MR. DEBLER: I believe there is about a 50-second foot pump at that place if I remember right. What I wanted to bring out is that we haven't any contract to supply the Government of Mexico with any water.

MR. HEWES: Doesn't the record show there was about 46,000 acre feet pumped in 1936 of that drainage water?

MR. FARMER: I couldn't tell you. I didn't investigate that. I was trying to find out the amount of land being farmed below the boundary and I went down the east side and examined the colonies as much as I could and tried to ascertain where they were getting their water.

MR. JENKINS: I am anxious to know if there is any legal system whereby the amount of water is allocated to definite areas of land in Mexico, and where these appropriators acquire their right to use and whether there is a limitation. Can you tell us that, Mr. Stevens?

MR. STEVENS: I cannot.

THE CHAIRMAN: Is there any one here who can give us this information, how the Mexican landowner acquires his right to the water?

MR. DOWD: Outside of the water received from the Mexican company, which is a subsidiary of the Imperial Irrigation District, the water is handled by permit, and when a person wishes to utilize water from the stream they file an application with the Department of Agriculture and Development in Mexico City for so many liters, or so many cubic meters, and that is published in the Bureau Official of Mexico and the permit is granted, but no water rights are granted in Mexico. They do not have the system we have of prior use, but in that way the various users along the stream are allowed to take water out of

the stream. The main body of land is being irrigated through the canal system which also irrigates the Imperial Valley. In 1905, when the Imperial Valley really got under way, it was found necessary for that company to develop the valley to start with, it was found necessary to organize a Mexican subsidiary company in order to bring water through Mexico. That company was organized and obtained a concession from the Mexican Government under which this private company was permitted to divert and carry water through Mexico to the Imperial Valley, one of the terms of that contract being that up to one-half of the amount of water taken through Mexico should be delivered upon demand for use on lands in Mexico, and it has been under that concession that the development of a major portion of the lands in Mexico has gone ahead. I would hesitate to throw any kind of a damper on this meeting, as I think it is very apparent as to what it is leading to, but when I hear so many wild reports about Mexico, about what they are able to do, I feel that some statement should be made in regard to it. It was a break for the United States when Mexico adopted its Agrarian Policy. Had the American interests stayed in Mexico in the development and utilization of the lands in Mexico, we would have a far different picture than we have at this time because those American interests were going ahead with the development and utilization of the land down there and would see that it was much better handled than under

the present system. Those of us who have followed this Agrarian movement, the way they are handling their crops and farms, we realize as far as the development of land in Mexico, it will not begin to be as serious under this Agrarian Policy as it would have been had the American interests been permitted to have stayed in Mexico and continued with the development. I will say this, it has not made possible the irrigation of any more land in Mexico, that is, the amount of storage in Boulder Dam. The amount of water released from Boulder Dam has been about what is required for the irrigation of lands in cultivation in the United States and Mexico. As a rule, there hasn't been more than five hundred or a thousand second feet passing the Imperial head-gate. Many times we have taken the entire flow of the Colorado River since Boulder Dam was constructed, so that outside of the land that is irrigated from the Imperial Canal system, plus maybe this 10,000 acres along the mesa, plus maybe 10,000 acres along the river where they pump a little water, and plus this land down along the Rio Hardy, which has now gone salt because of the lack of surface flow, they find the water they are pumping now is salty and they will not get a crop this year. I will say there is not over a maximum of 250,000 acres in Mexico in crops at the present time. They have farmed what land they could. They haven't farmed it wisely nor efficiently. They are developing a tremendous drainage problem and all down below the

Colorado River there is a tremendous area that is subject to high tides and is very salty. Certainly the problem has been minimized rather than increased by the development of Boulder Dam. We feel the situation has been tremendously improved by the construction of Boulder Dam, and there isn't any need of any alarm as to what is going to happen in the next few years. If we proceed in an ordinary manner, the situation will take care of itself.

THE CHAIRMAN: The statement was made that since Boulder Dam was put in that a certain limited amount of water has been going down the river and used in the Delta, but when Lake Mead fills up you will have a considerable increase in the flow which will be available to these lands.

MR. DOWD: Yes, there will be considerable increase in the flow.

THE CHAIRMAN: In two years from now there may be an entirely different picture.

MR. DOWD: To a certain extent, but until the lower Colorado River is controlled, which will require a great deal of money, there won't be a great increase in the use of land. I happened to attend the meeting of the International Water Commission in Mexico City, and I know at that time there were certain American interests very much interested in procuring a treaty. We didn't feel the time was right for a treaty with Mexico, but the statement was made to us that Mexico was not interested in the

amount of water which it might receive under a treaty, but what Mexico was interested in was the amount of money which Uncle Sam would be putting into the control of the Colorado River. The American interests are now out down there, they have been frozen out finally, but that was the consensus of opinion, that Mexico was not concerned in the amount of water they would receive by treaty as they would be with the amount of money that Uncle Sam would put up in the control of the lower Colorado River. I know from discussion with engineers they are trying to raise that question now because they know until that river is controlled from the boundary line south for a matter of 30 miles south, the utilization of land in Mexico is seriously doubted. As it is now, this particular section of Mexico is isolated from the balance of Mexico and they have felt by having a railroad to the Gulf it would put them in direct touch with other parts of Mexico in getting rid of their products.

MR. FARMER: Haven't they greatly expedited that construction work?

MR. DOWD: They have started in to go ahead with the work and they have added a few miles to the railroad. The railroad was constructed across the main channel of the Colorado River many years ago.

MR. WALLACE: What is the length of that railroad?

MR. DOWD: It will take something like 100 miles to reach the Gulf.

MR. WALLACE: Is that the entire length of the railroad?

MR. FARMER: About 187 miles from Mexicali to the Gulf.

MR. JENKINS: The matter is not clear in my mind as to the amount of water that might be demanded or might be required for the land that is in cultivation and will come in cultivation. Is there no maximum limits to the use?

MR. DOWD: Limit by whom?

MR. JENKINS: By the Mexican Government.

MR. DOWD: The Mexican Government makes no attempt to limit the amount of water. Neither do they set up any priorities. Under our concession by which our subsidiary company operates the canal system in Mexico, it is stated we shall never claim a prior water right by reason of that concession. They don't have water rights like we do.

MR. JENKINS: How do they prorate the amount of water in the stream if there is no priority or limit to the use?

MR. DOWD: They don't attempt to.

MR. JENKINS: It is just a case of "grab"?

MR. DOWD: Yes, sir. We have been delivering in the last several years from our canal system about 800,000 acre feet. Before the depression we were delivering about that amount, around 750,000. We are now delivering about 800,000 acre feet, the reason for that being that with the control of the Colorado River certain lands in the old

Volcano Lake area which had been irrigated with siphons, since the control of the Colorado River it can be irrigated that way, but now they are all being irrigated that way. I am speaking of the canal which irrigates the Imperial Valley, which comes through Mexico. Under this concession neither the State of California nor the United States government is involved. It places no obligation whatsoever upon the United States government or the State of California. It is a contract entirely between a Mexican corporation and the company.

MR. WALLACE: Mr. Farmer makes the statement that it might require about four acre feet per acre. Have you any opinion on that point?

MR. DOWD: You can get any figure you want from five hundred thousand to a million and a half, depending on what you include. They can eventually, I believe, put in around six hundred or seven hundred thousand acres in that area down there, but as far as total acreage goes you can get most anything you want. The duty in that country is somewhere around four or four and a half acre feet. These various tracts of land apply directly to us for water, not to the Mexican Government. We have this blanket concession for the carrying and delivering of water through Mexico.

MR. JENKINS: This permit is only a current permit, or what is the period of time?

MR. DOWD: No period of time. In other words, a man

makes application to us for water. He is the owner or operator of the land and no period of time is stated.

MR. HILGEMAN: I would like to ask Mr. Dowd a question.

THE CHAIRMAN: The discussion is limited to the delegates, please. Is there any other discussion on this matter. I would like to say that the Arizona Colorado River Commission employed Mr. Hugo Farmer to make first-hand information and report to the Commission, and with his report and other available data Mr. Scott was able to get, he compiled this report and the Commission has prepared a number of copies of this which we will be glad to have you take with you for further study and we have extra copies if you require them. It is now twelve o'clock.

MR. JENKINS: I would like to ask Mr. Dowd one more question. How much water are you under contract to deliver in Mexico through the canal.

MR. DOWD: Our concession is in cubic meters, but in second feet we are given permission to divert and carry through Mexico up to 10,000 second feet.

MR. JENKINS: That is the year around?

MR. DOWD: Every second of the day, every day of the year.

MR. JENKINS: Have you expressed that in acre feet?

MR. DOWD: Ten thousand second feet would be around seven and a half million acre feet per year. It is not

practical in an irrigation system to use a flow like that the year round. At the present time our deliveries in Mexico run from a minimum of 50 or 75 second feet in the winter time to a maximum of a thousand second feet in the summer time.

MR. JENKINS: On what basis was that contract made with Mexico between the company and Mexico for the delivery of 10,000 second feet?

MR. DOWD: That was simply a concession by which this company was given the right to carry that much water through its canal system.

MR. JENKINS: Given the right by whom?

MR. DOWD: By the Mexican government, given to a private Mexican corporation. At that time, of course, if I may add further, little was believed could be done in that particular section. Ten thousand second feet was arrived at by considering the needs of the Imperial area and although that was written in at the time, it was not considered very important.

MR. FARMER: I would like to add one thing. The International Boundary Commission held meetings lasting something like 18 months in 1928 and 1929 and they offered the Mexican government, just as horse traders, I believe, 750,000 acre feet annually, and the Mexican representatives contended for 3,600,000 and finally reduced their claim to 3,480,000, based on what one-fourth of what they claimed to be the flow of the Colorado river.

That is the only record I heard of that Mexico had made any claim or demand.

THE CHAIRMAN: For this afternoon's session we still have the matter of the "Relation of present uses and available water from the Rio Grande and Colorado rivers." We will go into executive session on that. Immediately at one-thirty we will have an open session with a discussion by Mr. Debler of the water requirements for ultimate development in the Colorado Basin within the United States.

MR. STONE: May I ask that this committee announced by the Chairman meet at one o'clock in Room 202.

THE CHAIRMAN: Is there anything else before we adjourn for lunch?

(No response.)

THE CHAIRMAN: We will recess until one-thirty.

(Thereupon the conference recessed until one-thirty P. M., June 22, 1938.)

1:30 o'clock P. M., June 22, 1938.

THE CHAIRMAN: Before we continue the discussion I am going to ask Judge Stone if he has any recommendations to report at this time.

MR. STONE: Mr. Chairman, I wish to report that the committee met and organized. The committee consists of E. T. Hewes of California, Perry W. Jenkins of Wyoming, J. A. Mulcahy of Arizona, A. M. Smith of Nevada, Governor A. T. Hannett of New Mexico, William R. Wallace of Utah,

and Clifford H. Stone of Colorado. The committee desires at this time by action taken in the committee to recommend that the report of Mr. R. J. Tipton on the engineering facts and conditions having to do with the Rio Grande be made in open session and that the State of Texas be asked to submit any report or statement of facts which they desire to make concerning the Rio Grande, referring of course to the lower river below Fort Whitman, and that consideration of those reports or any action or determination be reserved for recommendation to the Colorado River Basin states.

THE CHAIRMAN: Is there any objection. Mr. Tipton, have you any objection to the discussion in open meeting?

MR. TIPTON: None whatsoever.

THE CHAIRMAN: The delegates from Texas, I would like to ask you if you would care to participate in the manner Judge Stone has outlined.

MR. STUART: We would be pleased to.

THE CHAIRMAN: Mr. Debler was the first on this afternoon's program and the one we left off this morning would follow immediately after that, so without objection we will hear from Mr. Debler on the first one and consider Mr. Tipton's report after that. We will ask Mr. Debler to speak on his subject at this time. Mr. Debler is the engineer for the Bureau of Reclamation with offices at Denver. I might state also we have had a little trouble getting on record what has been discussed, so those of you

who enter into the discussion will you please announce your name so the reporter can get it, and speak loud enough so we all may hear.

MR. DEBLER: I have been asked to say something about the requirements for investigations in the Colorado River Basin to determine the water requirements in the basin; to determine and lay the ground work for the comprehensive plan of development which was intended to be reported as early as 1931 in the Boulder Canyon Project Act.

Section 15 of that Act called for such a report by the close of 1931, authorized an appropriation of \$250,000.00. No appropriation whatever was made up to the close of 1931 and no report could be made. Since then there have been several appropriations, something like \$400,000.00 has been spent in mapping the lands now irrigated, in mapping and classifying lands considered capable of irrigation and cultivation, but with little regard for the possibilities of economically irrigating such lands and with little regard for the amount of water that might be available for their irrigation. The arable land survey has so far extended over all of the states above Lee's Ferry, and cover a very large part of Arizona, notably the Gila Project and the Parker Valley. There remains in Arizona the Little Colorado River basin, the Williams River basin and minor scattered areas other than along the Colorado River itself, together with some scattered areas in the state above Lee's Ferry. That was of necessity the

first step in the work because no one had any real comprehension of the amount of land that was worth irrigating in the basin. Many of us had ideas. In fact, in 1923, in the report on the Colorado River Basin, which was the start of the Boulder Canyon Project Act, it was very largely based on promoters' filings in the offices of the various state engineers. I don't need to tell you about how much information is back of the ordinary promoter's report. There remained the work of mapping reservoir sites not already mapped, of determining the sites that are from an engineering standpoint capable of use, of determining the water supply available, including the installation and operation of a number of gauging stations for a sufficient time to establish relationships with the longer time key stations. There remains studies of where power might be developed, studies of silt control, studies of flood control. There remains the mapping of what I have called the irrigated pasture lands to the basin lands which could not stand the cost of a regulated irrigation supply, lands which to a large degree have soils too shallow or too poor to be worth plowing, but land, nevertheless, very useful in connection with the livestock industry, which after all the biggest industry in the Colorado River Basin. I have made an estimate it would take one and one-half million dollars to finish this comprehensive investigation. I am

inclined to believe I may still be somewhat low. We have tentatively laid out a program of carrying on that work at a rate which will complete it in about five years. I say tentatively because it is anybody's guess how much money may be appropriated to the Bureau of Reclamation for the investigation work. The program could be finished probably in about three years if funds were appropriated with sufficient rapidity, but certainly not in much less time than that because in work of that kind there are interrelated steps, you cannot take up every phase of a number of projects in one locality at the same time. It is something like the picture puzzles we had here a year or more back. You fit a part at a time until you get the whole together.

Now, I want try to go into figures as to how much of our water we can use in the upper basin or in the lower basin. It is too early to say that. We have all made plenty of guesses. I don't think any of us can make a very close guess. It involves too many factors of water, economic and engineering. I believe thus far, however, that the upper basin no doubt has a very good opportunity of approaching its initial allotment of seven and one-half million acre feet annually. We don't know how close, it doesn't look like it will be exceeded, but even at that I don't want to be a prophet, it might be exceeded, in the possibilities.

In the lower basin, I think all of us have known that

if we could throw to the winds every question of money that the possibilities for the use of the Colorado River are so great that there is no chance of there being enough water to cover the land. There are, however, questions of economics that must be considered and it is only for that reason that the matter of allocation of waters among the states becomes important in the future, when each state will have the benefit of the facts regarding the possibilities of utilization. As long as we are in Arizona it might be well to recount the things that have been suggested for investigation. There is, of course, always the High Line, which has so often been mentioned. You are all familiar with that. There is no use in my detailing that project. It goes to a man's head just to look at the country that might be covered, an enormous expanse of excellent land. We have in the Little Colorado River basin a very limited water resource, not a great land resource because so much of the land in that basin is so poor. We have a problem there of finding ways of supplementing the water supply of those small areas that are already irrigated on the southern tributaries of the Little Colorado River. Any number of so-called "water hole" projects have been suggested in northeast Arizona. I don't know that we can go into detail in investigating every one, it would take far more money than we have any hope of getting in the near future. The Little Colorado is a very heavy silt carrier. If we

could put off the silting of Boulder Dam we are extending the income of that power plant for a much longer period, in fact, increasing it almost from the start by being able to keep more live storage there for power for a longer period of time, so we must give consideration to a silt control reservoir on the Little Colorado. Naturally it would have to be toward the lower end of that stream where it would not interfere with irrigation. Then we have little tributaries in the northern part of the state. We got in Denver only about ten days ago a letter from a man living in northwestern Arizona who wanted to know why his portion of the state was being neglected, who was responsible for not doing any investigation work or construction work in that particular part of the state, why was the state of Utah being favored. All I could do at the time was to suggest that he write to Mr. Davis or Mr. Scott and we could then consider the program. I am merely bringing that up because some of you people may have forgotten that a part of Arizona is north of the Colorado River and there are some people actually living up there who are interested in developments. We have gotten any number of letters from people living on the Williams River, suggesting irrigation development and flood control, and we will have to look into that. There are possibilities near Needles on the east side of the river. They will be very much improved in connection with the construction of the Bullshead Dam because it will

provide a high diversion and provide another source of power for pumping. The Bullshead reservoir has to be investigated. It is, of course, absolutely essential in the operation of the Colorado River as time goes on because the coordination of power and irrigation requirements cannot be conducted to best advantage at the Boulder Dam. If we operate the Boulder Dam so as to secure the best power income, and naturally not only the power contractors are interested in that but so is everybody and every state interested in the income from power at Boulder Dam, it means we must be able to let water out of Boulder Dam at such times of the year as it is of most advantage to the power contractors. That does not fit in with irrigation necessarily, so the Bullshead Dam is needed to coordinate the two uses so as to be able to let out water for power when it is needed for power and to hold it back when needed for irrigation.

Coming further down the river we know there are some numerous small possibilities of pumping areas on the east side of the river from Needles all the way down to the Imperial dam and the possibilities grow as you raise the pumping lift. Who can tell us today what the limit of that pumping lift is? We know that the lifts on the Gila Project run from 50 to 425 feet without taking account of the grade in the canals. Is that too high a lift or is it not? It is a matter to be considered. Then the Gila River itself is a tributary of the Colorado and our

investigation should logically cover that basin. We know that the surface waters are pretty well controlled on that stream today, or at least will be with the completion of the Bartlett Dam. The remaining surface waters on that stream are minor, and in time it will pay to conserve them in one way or another. It may be as time goes on we wont need any more reservoirs there, but may be able to put the water in the ground where it is not lost by evaporation and use it that way entirely. There are detached valleys in the Gila basin, detached valleys where neither the ground nor the surface waters reach the Gila River itself or any tributary of it. In those valleys there are opportunities for ground water development, I don't know to what extent, but we hope to find out.

We have flood control problems on the Gila. You have one above the Safford Valley. I don't know whether there are others, but I know there is one on Queen Creek. You have a flood control problem at Sentinel. There always will be some floods generated in the desert country and there will be a big investment below Sentinel in the Gila Project and in the Yuma Project. It does not look likely we will have the enormous floods which were experienced possibly before the Coolidge, the Roosevelt and the Bartlett dams were built, but we do know from history that some very big floods have originated on the streams to the west of Phoenix and they can originate there again, so we need flood control at the Sentinel site. It is not

an easy problem even there. We know from our past work, which is far from complete, that we have down there a lava blanket on a lot of sand and gravel with the river already cut through the lava, and down in the softer materials, so it is a nice little engineering problem to find out what kind of structure can be put in there and can be expected to stay.

There is a possibility of power development above the Boulder Dam at the Bridge Canyon dam. Its possibilities are intriguing because it is by far the nearest power site in Arizona to your most important metal resource region. It does not look like a very difficult dam either. Who know how soon we may have the money to build a dam there if copper ever goes up, and possibly if copper does not go up. Then there is the power resource above the Grand Canyon region and below Lee's Ferry. It does not look like that area would be used very soon, but then I am not a very old man yet and I have seen a lot of things happen in this country in the power game, so who knows how soon that area may be needed to produce power.

In the matter of irrigation for grazing, the ideas that I have in mind are the desirability of irrigating the fringes of the national forest, the areas that are by nature suited to fall and spring grazing in the more northerly region, and I presume the same is true to some extent even in the mountainous areas of Arizona, areas which in my opinion will be very useful indeed for the

support of the roving herds of sheep and cattle.

We must give consideration in these studies to quality of water. It is not enough to say that you have an acre foot or two acre feet or three acre feet of water per year for an area of land. It must be water which you can actually use to produce crops. That is becoming an important problem at the lower ends of every stream system. We know there is plenty of water in the ocean, but you cannot make anything grow with that and we know that some of our streams in their lower regions are becoming like ocean water, not to the same degree, but, nevertheless, to the degree that the waters are not useful for agricultural purposes. The qualities of water are also important in connection with your industrial and municipal uses. Any housewife can tell you what hard water does with her laundry or with her skin. That is becoming a very important problem in connection with all municipal water supplies. Only in the last two weeks a statement came out in our Denver paper how much the water supply was improved in bringing over the western slope water which is now beginning to come over in some quantity, with the hardness being reduced by 75 per cent. That is reflected in a very big reduction of the soap bill for the city. For industrial purposes the hardness of water is also very important. You have no industries of any large magnitude in the Colorado River basin today, but you have an enormous resource of minerals, both metallic and non-metallic, the use of which

in the future is going to take lots of water. Arizona has much of this, Wyoming, Colorado, Utah, Nevada, they all have them, they will all be interested not only in the quantity but also in its quality.

Then last but not least let me mention recreational uses. I doubt very much that the State of Arizona would like to have the Grand Canyon National Park wiped off the map and say "we will keep that as a power resource for the future." I have no doubt the State of Arizona much prefers that as a national park. Since a national park is a better income producer than it would be as a power site. Aren't there possibly other areas in Arizona that should be preserved the same way rather than irrigated or put to use as power resources? That is a very live question in every western state, but in connection with that let me say we must be careful not to let the recreational enthusiasts run away with us. There is all too much tendency for the commercial clubs to look to the income of a few thousand dollars a year from a number of "tin can tourists" and give up a natural resource worth millions. All these matters must be taken into consideration before we have a report on the comprehensive development of the Colorado River system. I thank you.

THE CHAIRMAN: Does anyone care to ask Mr. Debler any questions or discuss this further?

(No response.)

THE CHAIRMAN: Evidently, Mr. Debler, you have covered

this to everybody's satisfaction. Now, if there is no objection we will have Mr. Tipton's report.

MR. TIPTON: I am here as engineering advisor of the Governors' Committee of the Upper Colorado River Basin States. The reason I have been asked to discuss this particular subject is due to my knowledge of the lower Rio Grande situation, acquired when acting in the capacity of Water Consultant to the National Resources Committee in connection with the problems of the Western Gulf area. My discussion will be directed entirely at the factual matters in connection with the problem. These are matters which this group should thoroughly understand, since the lower Rio Grande and the Colorado River have been chosen to be hooked together by the Republic of Mexico in the discussion of treaties. I may have other matters to discuss in connection with the problem, which will be in connection with policy and conclusions, but I presume that portion of my discussion will be in executive session rather than here.

I am going to attempt to describe the situation that exists on the lower Rio Grande and in doing that necessarily I will have to give some data and statistics with respect to run-off, irrigated acreages and allied matters. You all know how unreliable short-term stream flow records are. One's conception of the available water supply in a basin changes as additional records become available. In general, the records on the lower Rio Grande are rather

short, although for some of the stations there are fairly long-time records which were gathered by measurements in early periods. Recent investigations have disclosed that many of those records are very unreliable and such records are being revised in the light of more recent information.

My discussion of the water supply will relate to the approximate period 1922 up to date; some records extend only from 1924 up to date and some from 1922 up to date. There will not be taken into consideration the early records which I mentioned, many of which are rather unreliable.

I think you all know the Rio Grande basin naturally divides itself into two parts from the regional standpoint or functional standpoint, the upper Rio Grande and the lower Rio Grande. Those two parts of the Rio Grande basin can be considered entirely separate from one another. The division between the two basins is at Fort Quitman, Texas, some little distance below the city of El Paso. My discussion will relate practically entirely to the lower Rio Grande. All of the water in the upper Rio Grande has been utilized for a great many years by irrigation in that portion of the basin, in Colorado, New Mexico and the western part of Texas around the city of El Paso. The only portion of the water of the upper Rio Grande which flows into the lower Rio Grande is the unusable return flow, amounting at the present time to some 200,000 acre feet, or slightly over; some years it

drops below that amount. In the lower Rio Grande, starting at Fort Quitman, the division point, the flow of the river increases a considerable amount until at the Gulf of Mexico at the present time, considering the period of record which I indicated my discussion would relate to, the flow at the present time amounts to over 4,000,000 acre feet, approximating 5,000,000 acre feet. The map which has been placed on the wall shows the lower Rio Grande area as I have described it. The map purports to show the present water supply, the water supply being indicated by the width of the colored band which is superimposed upon the various stream systems. The band is divided into two colors, green and red. The green area indicates the contribution made to the river from the area in the United States. The red band, or the width of the red band, indicates the contribution by the Republic of Mexico above any particular point. Fort Quitman, which is the division point between the upper and lower basin, is shown at this point about two-thirds of the way up on the map and at the left hand side of the map. The entire area as shown on the map is about 118,000 square miles in extent, as I remember it, approximately 80,000 square miles of which is in the Republic of Mexico and approximately 38,000 square miles of which is in the United States, lying in the states of Texas and New Mexico.

The significant thing about the division of areas is that 80,000 square miles of the area of the lower Rio

Grande are in the Republic of Mexico and about 38,000 square miles in the United States. As a consequence of this, the major portion of the water supply of the lower Rio Grande originates in the Republic of Mexico. I shall briefly describe the situation and shall quote a few statistics which may or may not be of interest to this group, but it is necessary to quote those in order to get a complete picture. It is estimated that the total virgin water supply of the lower river-- and I think most of you know what the term "virgin water supply" means-- it is the total run-off that would exist if there was no development whatsoever on the stream; it is the original run-off without taking into consideration consumption by the present uses. It is estimated that the virgin water production of the lower Rio Grande is about 6,900,000 acre feet. Of that amount it is estimated there is produced in the Republic of Mexico approximately 4,800,000 acre feet and in the United States about 2,100,000 acre feet. That is the original virgin production. It is estimated under present conditions of development and for the last 10 or 13 years the supply reaching the Gulf of Mexico has approximated 4,700,000 acre feet average per annum, of which about 3,500,000 acre feet originated in the Republic of Mexico and about 1,200,000 acre feet originated in the United States.

Beginning at Fort Quitman, as I stated before, there is a negligible flow amounting to about 200,000 acre feet.

There is no material contribution to the river until the city of Presidio is reached. A short distance below that city there is a tributary to the river on the Mexican side, the Rio Conchos, which contributes at the present time slightly over 1,000,000 acre feet per year. The river gradually increases and picks up as we progress down stream. The major contribution to the river from the American side is from the Pecos River, which enters near Langtry, and the Devils River, which enters the main Rio Grande a short distance above Del Rio. Along that stretch of river there is an appreciable contribution from springs on both sides of the river and from surface run-off from small tributaries. As we go down the river there are no material contributions except from small tributaries until we get down to the Rio Salado, which enters the river from the Mexican side between Laredo and Rio Grande City. I have forgotten the contribution by that river, but I think it is in the neighborhood of four or five hundred thousand acre feet. Progressing down stream to a point directly opposite Rio Grande City, and Rio Grande City is a very significant location as I shall bring out shortly, immediately opposite that city there enters the river, the water produced in the Rio San Juan, a tributary originating in Mexico. That river contributes slightly over a million acre feet. In other words, of the three and a half million acre feet contributed by the Republic of Mexico at the present time, one million is contributed by the Rio Conchos

and one million by the Rio San Juan. That gives briefly the water supply situation. In other words, there is about 70 per cent of the water of the lower Rio Grande which originates in the Republic of Mexico and about 30 per cent which originates in the United States.

The major irrigation development on the Rio Grande in the United States is in the Brownsville area, starting at Rio Grande City and extending on down to the Gulf. The water supply which passes Rio Grande City is the measure of the water which is usable for irrigation in the Brownsville area. There are approximately 400,000 acres of land irrigated in the lower Rio Grande, excluding the lands which are irrigated on the Pecos in New Mexico, and of that amount there are only some thirty or forty thousand acres which are irrigated above Rio Grande City, the largest single area being around Presidio.

MR. WALLACE: Is that 400,000 acres in the United States?

MR. TIPTON: Yes, sir. The area around Presidio represents thirteen to fifteen thousand acres. I don't know what the present situation is because there is some abandonment of area in that locality due to the poor quality of water serving the lands above Presidio. There are around 350,000 acres actually irrigated, with a little more acreage under ditch in the so-called Brownsville area. That acreage is irrigated by pumps. There are about 35 pump headings between Rio Grande City and the Gulf, some

twenty of which are of fairly major character. The headings must all be pumps since the stream is international, and diversion dams cannot be constructed.

There is another fairly large development on the American side which is taking place in the vicinity of Eagle Pass,-- the so-called Maverick County Water Improvement District. The original construction was commenced several years ago by a power company. The diversion dam washed out and the company got into difficulties and finally the area was organized into an irrigation district or water improvement district as it is called in Texas. Funds were made available through P. W. A. and that development is progressing. Another project is under way-- Mr. Anderson, who is present, is the consulting engineer on that-- the Willacy County Water Improvement District, which is the furthest removed of any development from the river in the Brownsville area. While there is a large surplus of water going to the Gulf so far as total quantity is concerned, the regimen of that flow is not at all times parallel with the demand and the quantity during some portions of some years is below the demand. Last week the flow at Rio Grande City was far below the requirements-- the irrigation requirements-- and even got so low that the domestic and stock water supply was threatened. The normal demand on the water at Rio Grande City ranges around 1,500 second feet and sometimes is as high as 2,000 second feet. Last week the flow got down to 900 second

feet or lower. I think an appeal was made by the irrigators in this lower region to the State Department to ask the Mexican Government whether it would be possible to release some water from the Don Martin reservoir on the Rio Salado to relieve the situation and it was found the Don Martin was dry. The situation has been relieved by rains, but there are frequent periods when serious shortages are threatened. Shortages in the past have not developed to the extent there have been severe crop losses, but there are continual threats that there will be losses. The portion of the 5,000,000 acre feet at Rio Grande City which can be considered firm water is a fairly small part of the total.

On the Mexican side up until 1928 or 1929, irrigation development along the tributaries was somewhat negligible. In connection with the reclamation policy and program of the Republic of Mexico which was initiated along about 1926, there was one project developed on the Rio Salado, another one initiated the construction of which is nearing completion on the Rio Conchos, and another one has just been initiated on the San Juan. The project that was completed in 1929 is popularly called the Don Martin Project. The Don Martin dam is situated immediately below the two major tributaries, which come together to form the main Rio Salado directly west of the city of Laredo. That reservoir, as I remember it, has a capacity of some 1,123,000 acre feet and was proposed to serve an area of

some 116,000 acres of land. However, I understand that due to the apparent limited water supply tributary to the reservoir there is some movement afoot to decrease the area to be served. Some reports indicate the area might be decreased 50 per cent.

The next large development that is nearing completion in Mexico is the Conchos Project. At the time the Elephant Butte reservoir was completed the construction of a large reservoir was completed on the Conchos in the State of Chihuahua located about this point (indicating). This dam is called the Conchos dam or the Boquillas dam, and has a capacity of 2,550,000 acre feet. It was constructed primarily for power purposes by English interests. Under the reclamation policy of the government of Mexico an irrigation project has been initiated on the Conchos and the water released from the reservoir is to be used for the irrigation of lands lying along the main Conchos immediately below the point where these two tributaries come together (indicating), near a little town by the name of Camargo. There are in that project some 116,000 or 120,000 acres, some 60,000 acres of which are to be developed immediately. There is being constructed in addition to the main reservoir, two or three diversion dams which not only have the function of diverting the water, but are able to some extent to re-regulate the water, power being a feature of the project.

On the San Juan, construction has started on a

reservoir located relatively near the main stream opposite Rio Grande City. That reservoir will be used for flood control and irrigation; I don't know whether power is a feature of the project. The lands to be irrigated by that project lie along the Rio Grande proper, parallel to it, in the Republic of Mexico. In addition to the storage developments which I have described, there has been constructed a gravity heading on the main stream opposite the Brownsville area to cover lands in the Matamoras area, which lies immediately opposite Brownsville in the Mexican section.

All of these developments in Mexico, of course, will tend to deplete the supply of water available for the irrigation of the area on the lower Rio Grande in the United States. It is predicted, and I concur in those predictions, that there is ample water in the river to take care of any reasonable development which might take place in both countries. However, the big need on the lower river is storage. In order that the large present surplus water supply can be made firm water and be made available for use, storage must be provided on the main stream and on the tributaries in Mexico. The most logical sites are on the main stream. There are two or three such sites on the main stream susceptible of development. Two which have been proposed as a solution of the problem are the El Jardin site and the Salineno. The El Jardin lies between Laredo and Eagle Pass. The Salineno site is

situated near the point where the Rio Salado joins the main stream. The El Jardin reservoir would have a capacity of some 3,000,000 acre feet and the Salineno some 450,000 acre feet. The El Jardin would be used for conservation or hold-over storage and the Salineno as a terminal regulating reservoir. If those two reservoirs were constructed it is anticipated the situation would be taken care of for many, many years. Construction of those dams cannot take place without an international agreement as to their construction and operation.

I hesitate to predict what the limit of development on the river might be. I have been identified with the Colorado River problem for many years and I have participated in the steps leading up to a prediction as to what the ultimate development in that basin might be, and I agree with Mr. Debler that we are treading on rather precarious ground when we attempt to make those predictions. However, one function of an engineer is to make estimates based on the available information and to indicate plainly that such estimates represent the best judgment that can be brought to bear upon the problem at the time with the data which are available. With that understanding I will make a prediction as to what the ultimate development might be in the lower Rio Grande basin and how it might be effectuated.

It is estimated that when ultimate development has taken place, there may be as little as 500,000 to 600,000

acre feet of water flowing to the Gulf unused. That water will represent largely spills from the El Jardin reservoir and from the reservoirs situated on the Mexican side. It is estimated on the basis of the available acreages in the two countries that the ultimate consumption in the United States, excluding the Pecos, might approach some two million three or four hundred thousand acre feet, which is some million and a half acre feet more than the present estimated consumption, and that in Mexico it might approach some four million acre feet, which would leave flowing to the Gulf some five to six hundred thousand acre feet. Some eight hundred and thirty thousand acre feet of it would be coming from the Republic of Mexico. In other words, there would be some consumption by the American side of water originating in Mexico.

Summarizing the situation which I have attempted to describe, 70 per cent of the water supply of the lower Rio Grande originates in Mexico. While there is a large surplus going to the Gulf at the present time, only a small part of that can be considered firm. The solution on the lower Rio Grande is storage. While it might be desirable to have an allocation of water-- it probably would be a necessary element in the treaty-- by far the greatest need is storage to make usable and dependable the surplus water which exists at the present time and will exist for many, many years.

One short word about the upper Rio Grande. There has

been some confusion at times as to the Rio Grande and the Colorado River situation. There are some who have thought the major element which will be involved in treaty negotiations will be the consideration of the upper Rio Grande. It is conceivable that a reconsideration of the upper Rio Grande might ultimately be forced into the picture, I don't know about that, but the main element involved in the international situation at present are the lower Rio Grande and the Colorado River.

The international situation on the upper Rio Grande came to a head in 1896. The 1890's on the Rio Grande was a period of very low water supply due to natural causes. Development in Colorado, on a major scale, started in 1880 and progressed at a very rapid rate until large areas were under canal by 1890. A combination of circumstances brought the international question to a head, which led to certain restrictions being placed on the river, directed mainly at the prevention of the construction of reservoirs above El Paso. Finally, in 1907, a treaty was entered into between the United States and Mexico whereby there was ceded to Mexico in perpetuity 60,000 acre feet of water for use around the Juarez valley. In order that the United States could be sure of fulfilling the treaty obligations, the Elephant Butte reservoir was constructed and the United States Reclamation Project was brought into being as an incident to that development. The most recent development in connection with that question has been the

construction of the so-called American Canal. Prior to the construction of the All-American Canal, which is just going into operation.

MR. HOSEA: It is called the American Canal, not the All-American.

MR. TIPTON: Prior to its construction both the United States and Mexico received water from the river at the so-called international dam, the American side taking the water in the Franklin Canal, and the Mexican in the so-called Acequia Madre. There was no control by the United States, naturally, over the diversion of water by the Republic of Mexico. Finally the American Canal was constructed with a heading on the river immediately above the point where the river ceases to be the boundary between the United States and Mexico. The water for American use is taken out by that canal, brought down to the Franklin Canal and the amount which has been allocated to Mexico by the treaty is allowed to pass the American dam to be diverted as formerly through the Acequia Madre. I think that completes my statement, and I will be glad to answer any questions that I can answer.

MR. WALLACE: Mr. Tipton, you mentioned a number of reservoir sites. Did you give the capacity of those sites?

MR. TIPTON: Yes, and in addition there is the Big Bend site. If you will notice on the map where the river makes the big bend to the southward, there are several

reservoir sites in that area, the most feasible of which is one called the Big Bend site, located on the main stream at a point below the mouth of Rio Conchos. Many of the reservoir sites have almost unlimited capacity, and the capacity is determined as that which will be required properly to regulate the available water. The feasibility of the Big Bend reservoir and the size to which it should be constructed will depend entirely upon the extent the flow of the Rio Conchos will ultimately be depleted by use in Mexico. There are only those three reservoir sites on the main stream that have been brought into the picture definitely as good sites and sites that should be considered for future development.

MR. WALLACE: But the fact, as you understand it, it has reservoir capacity enough so that you can conserve the water of that river so only about 600,000 acre feet of water will reach the Gulf?

MR. TIPTON: That is correct.

THE CHAIRMAN: In conformity with the recommendation of the committee, I think we should hear from our Texas friends and will ask you to come up here and present your story as you see it. Mr. Anderson of Texas.

MR. ANDERSON: There is very little for me to say on the situation. Mr. Tipton has given a very excellent statement of the facts. I can only add a few words to emphasize some of the points. We are now getting about four and a half million acre feet of water down at the head of the principal valley. We are using about 800,000 acre feet of that water a year. Some years we have ample supply; other years we are short in some periods of the year. We have just passed through rather an acute period of shortage. Now there is ample water as Mr. Tipton indicated. The only problem is to store that water and to determine the amount of the stored water to be used in Mexico and the amount in the United States. We have several times requested the national government to initiate a treaty with Mexico on this matter. They have taken it up and made a good deal of study, but they have always come back with the report that we can do nothing on the Rio Grande until the questions on the Colorado are considered also. We would be perfectly satisfied to consider the Rio Grande alone, but other people are not so satisfied so we cannot get what we have to have on the Rio Grande until there is some settlement on the Colorado also. There have been a good man statements made that the Rio

Grande people will benefit by the water that might be permitted to go from the Colorado into Mexico. We don't conceive any such idea. We think the question of the division of the waters of the Colorado between the United States and Mexico is purely a Colorado question. The question of the division of the waters of the Rio Grande and the building of storage dams and the conservation of those waters is, so far as we are concerned, purely a Rio Grande proposition. I want to assure you, gentlemen, that we do not want to ride into heaven on your wings at all. We think we have enough water to take care of the situation and all in the world we need is a treaty with Mexico and turned free to build these storages. Thank you.

THE CHAIRMAN: I believe from what Mr. Anderson has told us, that alone in clearing that up in our minds has justified this meeting. I would like to ask Mr. Anderson this question, Do you see anything in this problem of the waters of the Colorado River and the waters of the Rio Grande, as far as Mexico is concerned, whether there is any conflict between the interests of Texas the the basin states of the Colorado River?

MR. ANDERSON: None whatever, except Mexico will not consider one unless it considers the other.

THE CHAIRMAN: So far as Texas is concerned, you have no quarrel with us in the Colorado River basin states.

MR. ANDERSON: No, sir, absolutely none.

MR. STUART: The only thing we want to say is that if

we all get together we will be happy.

THE CHAIRMAN: We thank you for your expression in clearing that up. We have heard various rumors and are glad to get it straight, that we were just about to be traded out of the waters of the Colorado. We want to say we can join hands with you in your problem and will be glad to do that. The next is the discussion of the State Department Confidential Report, the Jacobs-Stevens Report, by Mr. Stevens. I think it is your desire that this be handled in an executive session.

MR. STEVENS: Yes, sir.

THE CHAIRMAN: Have you any objection to the Texas people sitting in at the executive session?

MR. STEVENS: As far as I am personally concerned I don't object to anybody. I came here with the express authority from the Secretary of the Interior to whom the report was made for the Department of State and that authority was restricted to its discussion in executive session. I feel obligated to respect that request. Whatever you may call an executive session is satisfactory to me. As far as I am concerned, I don't even object to the press being here, but I think the boss probably would.

THE CHAIRMAN: Would the boss object to the representatives from Texas?

MR. STEVENS: Not at all I don't think. Whatever you define as an executive session will be satisfactory to me.

THE CHAIRMAN: Under the conditions I will ask the

Texas representatives to remain.

MR. STEVENS: I would ask that the members of the Planning Board of Arizona also remain.

THE CHAIRMAN: I would ask that the Federal representatives and those of the Bureau of Reclamation also to sit in. All others we will ask to withdraw while this is being discussed.

(At this point a short recess was taken, after which proceedings were resumed as follows:)

EXECUTIVE SESSION.

THE CHAIRMAN: I think it would be proper to have Mr. Clark of the Texas Board of Water Engineers to say a word about this problem in addition to what Mr. Anderson has said.

MR. CLARK: Mr. Chairman, I don't know as I can add anything to what Mr. Anderson has said, but being a representative from the State of Texas, as a member of the Texas Board of Water Engineers, it probably would be proper for me to say to you that what Mr. Anderson has told you is heartily concurred in by me and by my board. I wish to let you know that is a statement coming from Texas, and I make it as a representative.

THE CHAIRMAN: I think that statement coming from the members from Texas has cleared up a lot of muddy water both in the Rio Grande and Colorado, and we appreciate that attitude and I think I am safe in saying that you will find cooperation in your problems, in dealing with

your problems, from the Colorado River basin states. Now, Mr. Stevens, I will turn the time over to you.

MR. STEVENS: Mr. Chairman, this report which I am to discuss this afternoon was made for the Secretary of the Interior and addressed to him. It was requested by the Department of State, who requested the Secretary of the Interior to select two engineers who would make a joint report of the waters unused in the Colorado River at the present time and as may ultimately be conceived. The engineer selected was Joseph Jacobs, consulting engineer, and myself. Mr. Jacobs has had many years experience on the Colorado. He began his early career in railroad work in the Salton Sea and this lower Gila Basin, and has been more or less intimately connected with the Colorado River situation ever since. He is at present on the staff of the Bureau of Reclamation and is not able to be here today.

My connection with the Colorado River has been rather short. I have known it through my professional career in the West, but only in a casual way until I was asked to serve about three years ago as consultant for the Colorado River Basin by the National Resources Committee. My experience and contact with it has been gleaned by study and from physical examination in the field during the last three years. I have seen some of the territory, not all. I have examined all the records I think there are and read considerable about it, but compared with Major Jacobs'

contact I must plead that my contact has been briefer than his. The report is entitled "Surplus Waters of the Colorado River System," a joint report to the Secretary of the Interior by Joseph Jacobs and J. C. Stevens, and is dated December 31, 1937.

I am going to briefly give you an idea of the scope and conclusions in the report and then throw the matter open for discussion. In the first place let me say that we had to do the best we could with the data in hand. If we had the reports that Mr. Debler spoke of this morning that could be completed in from three to five years at the expense of two million dollars, we would have had a much better foundation for the final conclusions in the report. We had to make them, however, from such data as we had. Our report contains many qualifications and conclusions which I will read to you in the final analysis because the data are incomplete and recognized so. Nevertheless, the report is the best that could be done with our limited ability and the data in hand at that time. Our interpretation of the instructions was to determine as nearly as possible from all available data the amount of water in the Colorado River at the international boundary line.

(At this point Mr. Stevens read various portions of the Jacobs-Stevens report, which was not available to the Reporter and is included in this transcript.)

MR. FARMER: Mr. Stevens, it is true, is it not, that your board recommends that gauging stations be established

at the lower boundary for future information?

MR. STEVENS: We had considerable difficulty in attempting to adjust the stream flow records obtained at Yuma to the international boundary line because there are channel losses in that stretch, return waters coming in in that stretch and adjustments have to be made. We consider if it was physically possible and at all practicable, in view of the great necessity to know the amount of water Mexico was getting, we recommended a gauging station be established at the upper boundary. I would not supplant the Yuma station at all, but keep them going simultaneously for a while at least, but if we can get a station at that point it would greatly simplify and give us much needed information.

MR. JENKINS: In the consumptive use you expressed that as probably as great as two acre feet and a mean of about one point three.

MR. STEVENS: When you get down to this country right here where you have practically a twelve months irrigation season, the maximum we found was about three acre feet and the minimum about one acre foot in the higher altitudes.

MR. JENKINS: You haven't attempted to express that in percentage of water applied?

MR. STEVENS: Not at all.

MR. JENKINS: The amount applied varies with the state as well as the location?

MR. STEVENS: It varies very materially. The Yuma

Project has been using six to seven feet; the Palo Verde eight feet. However, in this valley where the necessity for conservation is very great and where pumping from ground water is used to recover the return water, the actual amount applied is comparatively low and the greater portion of it is consumed. You might apply eight or ten feet and yet only consume one.

MR. JENKINS: I see in the recent report from the Department the return flow is expressed as reaching a maximum of about 50 per cent. It seems to me like it might be higher than that.

MR. STEVENS: There are no hard and fast figures that you can tie to. If you divert six feet and only consume two, two-thirds of it is return water. I have known of some instances where return water has gone as high as 75 and 80 per cent.

MR. JENKINS: That is very important in the consideration of consumptive use of water in the upper basin.

MR. STEVENS: You will find in this report all the data showing the diversions and returns and the balance being water consumed.

MR. WALLACE: What water did you allocate to the Imperial Valley?

MR. STEVENS: We didn't allocate it, Mr. Wallace, we used priorities. There are seven priorities, the first, Palo Verde, second Yuma, third, mostly for the Imperial District, the fourth is 550 to the Metropolitan District,

the fifth is 550,000 more to the Coastal Plain, Metropolitan District, and the sixth is, I think, 300,000 acre feet divided between the Imperial District and a small quantity for Palo Verde. The Palo Verde District apparently has the first priority and the earliest irrigation in the valley.

MR. WALLACE: What is the amount for the Imperial Valley?

MR. STEVENS: The third priority, it is rather complex. There was 3,300,000 acre feet involved in the third priority and from that must be deducted the first and second priorities from Imperial and Yuma, and the Imperial District gets the balance. We have a statement here as to just what was allocated. The total sum of the California priorities is 5,566,000. I forgot to mention San Diego as the fifth priority.

MR. JENKINS: In the Colorado River compact those priorities are not attached to the storage water.

MR. STEVENS: They are set forth in all the contracts for storage. I think their priorities were established by some board in California, I am not sure that I know the exact name of it.

MR. ROGERS: How long have you been working on this report?

MR. STEVENS: Mr. Jacobs started in October, I believe and we finished it about the end of January. The Bureau of Reclamation turned over to us all the data and we had considerable help from their office that was allocated to

this work. This is not a report of the Bureau, but they did furnish the personnel and assistance to help compile it. I want to say this, that the Bureau of Reclamation is a veritable mine of information. They were most helpful in the compilation of this report. There is a lot of compilation here and it had to be done quickly and they were most helpful in getting this out.

MR. JENKINS: I would like to move an expression of thanks from this body for this report which comes from the National Resources Board. It has been very comprehensive and very helpful to us.

(The above motion was duly second.)

MR. STEVENS: Let us make that to the Secretary of the Interior. It was made to the Secretary of the Interior at the request of the Secretary of State.

THE CHAIRMAN: Judge Stone, will you see that your committee draws up a suitable resolution to that effect? From what has developed this afternoon and from the report of the gentlemen from Texas, the situation has been entirely changed and it seems to me, it is now four-thirty, I think we better call it a day pretty soon, and with your consent, Judge Stone, we would like to defer the consideration of what you had on the program until tomorrow, and refer to your committee a revamping of this program of what we should consider tomorrow. Some of these subjects have been cleared.

MR. STONE: I think that is a good suggestion and I

will be glad to assume that task.

THE CHAIRMAN: If any one has any suggestion to make, you may consult the committee of which Mr. Stone is chairman and when we convene in the morning we will hear the recommendation of the committee on the program we should consider tomorrow. I might say again to the people from Texas we are appreciative of your clearing up the situation and taking the silt out of the water.

MR. STUART: We are only too glad that you understand us.

THE CHAIRMAN: I want to say again at the banquet this evening for all of the out-of-state people, representatives of the Federal Government will be guests at the banquet. We will have the banquet here at eight o'clock.

MR. FARMER: I move we adjourn, Mr. Chairman.

(The motion was seconded and unanimously carried, and the conference was adjourned until nine-thirty A. M. June 23, 1938.)

10:00 o'clock A. M. June 23, 1938.

All parties being present as heretofore noted, proceedings were resumed as follows:

THE CHAIRMAN: If you will come to order, please, we will begin our morning session. First I want to ask Mr. Stevens, who reported to us yesterday, to make a statement. It seems there is a variance in what he said and the record.

MR. STEVENS: There was some inquiry about the consumptive use rate, which I stated the average was 1.35 feet. I want it clear that that only applies to the upper basin, not to the entire Colorado River. I want the record to show that.

THE CHAIRMAN: Thank you. This morning we are to be guided by the Committee on Resolutions. They have been in session for some time and I will ask Mr. Stone to make his report at this time.

MR. STONE: Mr. Chairman and gentlemen: The committee has not completed its work and we do not at this time make a complete report. Yesterday we were charged with the duty of recommending a program for today. It was explained by the Chairman and evident to all of you that because of matters that transpired yesterday it was necessary to somewhat change the program. The Committee therefore recommends that the program today be as follows: First, the National Resources Committee, methods of approach by Dr. B. M. Woods, who is the Regional Director of the National Resources Committee. Mr. Woods is here and he is substituting for Dr. Barrows, whose name appears on the program. We are fortunate indeed in having Mr. Woods, and I am sure he can cover this subject in a very satisfactory way. It is somewhat changed from the subject which was assigned to Dr. Barrows. Second, Mr. DeVries of the Mexican Boundary Commission. We suggest he make a statement as to the Commission and its functions. I have talked to Mr. DeVries and, as stated to you yesterday, he is not in position to

cover the subject assigned to him, but can make certain statements with respect to the duty and functions of this commission. The third item is the one which was left over from yesterday, a talk by myself. I do not expect to fully cover that subject, as it has been covered by various speakers, but shall make some statements with respect to the matters indicated by the subject assigned to me. The committee further reports that we have a resolution which will be presented after these other matters are taken care of and which will be the fourth item on the program, and appearing on the program now as "Consideration of Permanent Organization of Colorado River Basin States to secure facts and deal with the Problem." That is the fourth item on the program and it will be brought before this conference by a further report and resolution which we shall submit when that is reached on the program. That is all we have to submit at this time. However, may I say we are going to ask the indulgence of the Chairman and you gentlemen that we shall have adequate time immediately following lunch to draw up a number of recommendations and resolutions which have been discussed by the committee. These resolutions contain matters of importance to this conference and may I suggest that since we are here and are dealing with this problem that we should take sufficient time this afternoon to draft those resolutions and have a full discussion in the conference. Surely out of this conference there should come some definite action concerning some of the matters

which have been discussed here and the basis for which has been laid by certain reports made to this conference.

THE CHAIRMAN: Is there any resolution you wish to present at this time?

MR. STONE: No resolution, but may I ask that we present those resolutions when the fourth item on the program is reached?

THE CHAIRMAN: You will take these items up then in the order in which you have named them?

MR. STONE: Yes, sir.

THE CHAIRMAN: I want to express appreciation for the work of the committee because this is a work meeting. You will notice we haven't anything on the program for entertainment or trips or anything. We thought you people came here to work and we feel that the committee has done a real service to this conference in their deliberations to get out of this conference the good we are able to get from it. We do appreciate the time and effort they have given to it, and without objection we will follow their recommendation on our program here. First I will ask Dr. Woods to speak to us, and I want to say this also, inasmuch as we have had to change the order of the program, that you people who talk to us talk as freely and openly as you want to. We will leave it in your hands to give us what you think best. Dr. Woods of the National Resources Committee.

DR. WOODS: Mr. Chairman, ladies and gentlemen:

I thought it might be of interest to review briefly

the mode of approach of the National Resources Committee in attempting to describe its studies of the drainage basins of the United States and of their ultimate development, partly because the plan has itself been an evolving one and has taken on a broader and broader form with the passage of the several years.

In 1934 the National Resources Committee undertook, I believe for the first time, to formulate a picture of the ultimate water developments of the drainage basins of this country and for that purpose it procured the services of a number of prominent and competent engineers and each of them was to report upon a specified area. Out of that study it got quite a picture of the situation, but not a program of attack. In 1936 this was broadened and as the result of a rather careful study in which the planning boards of the states and other state agencies participated and the Federal agencies participated, the National Resources Committee succeeded in publishing what I believe is a historical document. It is, so far as I know, the first compilation in a single sitting of the possibilities of water development throughout the entire nation. It would seem surprising that we haven't had that before. Of course, we have had, and it is important not to overlook, the large number of studies that have been made by individual agencies for their own problems. The larger agencies, the Bureau of Reclamation, for example, and other Federal and state agencies, have published exhaustive reports and

a few states had developed rather complete water plans. You have alluded to the work in California and I suspect that California has spent fifteen years' work on its own water plan and devoted a great deal of time, energy and money to the project which led to the rapid development in that state. In 1937 the Committee felt that the next step in this was to make it more democratic. Up to that point-- and I will say a few words about the men who participated presently-- up to that point the plan had been one in which the consultants wrote the reports. Last year it was felt if planning development of those basins was to be effective there must be participation of all the agencies concerned. That meant that the state must participate officially along with the Federal agency. That there should be local meetings held, the state representatives should be appointed by the states themselves and there should be local meetings held at which the program of all the agencies might be discussed, projects which were in line by the different Federal and state agencies might be laid before the meeting and out of those discussions there might evolve a going plan and from that ultimately a program.

The meetings of 1937, held in the Colorado basin, were for reasons which then seemed good, divided. The Upper Basin group met two or three times at Denver; the Lower Basin group met here at Phoenix two or three times. The meetings were attended by representatives on the Federal side from the Department of the Interior, including the

Bureau of Reclamation, the National Park Service, the Division of Grazing, the Bureau of Indians Affairs, and I will probably forget one or two of those, the Department of Agriculture. A number of agencies were represented, Soil Erosion, Forest Service, Bureau of Agricultural Engineering, and these were supposed, if occasion arose-- Biological Control-- these were supposed to consult other bureaus of their departments and bring into the picture the programs that might be evolving. The Army participated through the Army Engineering Corps, the Federal Power Commission was represented, the International Boundary Commission was particularly interested in the meetings of the lower basin. From the states we had representatives appointed by the governors, usually nominated by the planning boards, and in some cases by other agencies also. The participation in the group was pretty well divided. Many of you, if not most of you, participated in those meetings. I got acquainted with most of you at those meetings or in connection with them. I mention them in some detail because it represents a philosophy of approach. It was the thought that out of those meetings could grow a method of procedure which would develop a plan and the plan would be based upon the facts. It is my judgment, Mr. Chairman, that the conference made great progress yesterday in discussing certain relations along the Rio Grande because we had an admirable presentation of the facts as the basis of our discussion. My great chief in the University of

California, whose tragic death was noted last week, Dr. Campbell, had a wonderful way of coining epigrams. He used to say to me, "It is a wonderful thing to have the facts on your side; they work for you twenty-four hours a day." When we can get the facts down they work for both sides, and that is the reason we can get together on many such understandings. The National Resources Committee endeavored to get the best engineers in order to collect these facts. It was not necessary in most cases to go into the field to get original data. It was to encourage the agencies properly assigned to getting those facts together. For example, the National Resources Committee is not organized to undertake construction nor field investigation on its own account. What it is concerned with is encouraging the programs of the agencies which are so organized and which have these duties. Among the engineers who have been in the meeting here who are on the staff of the National Resources Committee is Mr. Sheldon F. Baker, who is the consultant to the Arizona State Planning Board here at Phoenix and who was an active participant in the lower Colorado studies last year. Mr. Tipton, whom you all met yesterday and who was assigned the Western Gulf Area last year and who has other connections that you know about, made a study of the lower Rio Grande. Mr. Stevens presented to us yesterday a report which he did not prepare for the National Resources Committee, but he has been for several years in charge of its studies with reference to

the Colorado River basin and was consultant in this most interesting cooperative endeavor on the Middle Rio Grande, where he was the chief engineering consultant.

The fourth that I want to mention is Mr. Fowler, who has not been on the program, but who is here, and in 1936 was general director of the entire investigating at Washington of the basins of the entire country, and who at the present time and last year has been consultant for the Upper Missouri.

You will note a very interesting thing, that these engineers have been in nearly every case assigned to work outside of their basins. You might say, What is the reason for that? That was the result of a long discussion as to the psychology and efficiency of the situation. It was felt that an engineer would be more at home in applying his knowledge and methods to the situation if he could work in an area where he had not done a great deal of professional work in the past and where he would therefore not have any embarrassments. It was not thought likely that any one of these engineers would be affected in his judgment unduly by his past relations should he work in his own area, but there would obviously be some embarrassment entailed. Consequently, we moved them around and if any of you think that a man cannot learn something about a basin pretty promptly, all you have to do is examine the results.

The effort in these programs, as I said, has been to bring in all these interests, to look to a program that

would take account of all factors. Some of the purposes under consideration in the program has been irrigation, domestic supply, power, flood control, livestock, industrial navigation, land management, including programs of erosion, watershed control and other purposes which fall in the list which I will not attempt to enumerate. The thought has been that out of the discussion there might evolve a plan and then a program, and that every one of the agencies that has a responsibility in this endeavor would make its contribution, make its own plan, and would in due time try it out. In other words, the National Resources Committee is not a constructing or administrative agency in any of these fields. It has conceived its purpose to that of fostering the planning side. I do not think there is anything more important to us than to set down common sense plans, to get even approximately, if not the year, then the decade in which we would attempt to carry out parts of the plan, to lay out not only plans of a program to include some approximate financial estimates and to revise the planned program as we make progress. A meeting of this sort is of the utmost importance because here we bring together what might be called the policy-forming groups to pass upon the merits of the evolving plan, and it is my hope we shall discover better and better methods as we make progress for evolving these plans and programs and carrying them into effect.

I am very sorry, may I say, in closing, that Dr.

Barrows was not able to be here and talk to you about the Rio Grande joint investigation. I think it would be most interesting to you to have him outline the organization that was effected, the remarkable and highly satisfactory way in which so many of the different administrative and constructive agencies and policy-forming groups got together, first to gather the facts. The facts were gathered, in my judgment, in detail that has never been approached in any other drainage basin. If some of the engineers disagree, I will be glad to have them speak up, but certainly that area was studied technically as no other, as far as I know, has been studied. When the time came for forming policies out of which might grow a compact among the states there was no essential disagreement as to the facts. That to my mind is the best of planning and the thing in which we must be interested as time goes on. This conference has been a great revelation to me, I have found it highly profitable to be here and I hope the work of the Drainage Basin committees in the Colorado this year will reflect some of the spirit of this meeting and will aid in progress.

THE CHAIRMAN: Are there any questions any one would like to ask Dr. Woods? We appreciate your remarks and your instructions, Dr. Woods, and are glad to cooperate with your agency in every way we can. We will ask Mr. DeVries now-- I want to say in the beginning Mr. DeVries was loaned to us as an observer and so whatever he has to say we want

him to say freely without any restrictions. We will appreciate anything you have to say, Mr. DeVries.

DR. WOODS: Might I add a word I overlooked. The National Resources Committee is publishing the reports prepared in these basin committees last year, but due to the great volume of business in the Government printing office it has not been able to get them out. It was hoped they would be available by April or May. They will almost certainly be available by the first of September and it is our thought that all persons interested in the Colorado River Basin should have copies of those reports and I will welcome applications for them, if, Mr. Chairman, you will be willing to pass on such applications. I am hopeful that those reports, which contain not merely a description of the basin and its problems and some outline of a plan for its development, but also a fairly complete list of the projects which have been proposed by all the agencies.

THE CHAIRMAN: I would appreciate that very much. We will continue our efforts in this way, I will ask you to do this, will you give our secretary just what we want to ask for?

DR. WOODS: Yes.

THE CHAIRMAN: And any others who want them, if you will give your name to our secretary, we will forward the list to Dr. Woods. All right, Mr. DeVries.

MR. DE VRIES: Mr. Chairman, and ladies and gentlemen:

As the Chairman of the meeting very kindly advised you, I am here in sort of a mute capacity and consequently anything I have to say I offer very humbly and with the thought of cooperating with you for the very nice cooperation that your Chairman and Secretary in their great tolerance in trying to understand the viewpoint of what might at first seem a very laborious procedure, but which I am sure you all appreciate, which is in the very nature of things not inappropriate. Without taking much of your time because I know you have some things of great urgency and more specifically ascribable to your purposes in being here than to hear some general dissertation, I will tell you as briefly as I can what the function and nature and work of the International Boundary Commission between the United States and Mexico consists.

In the first place I think perhaps I am fortunate in attempting to present to a group of people who have already a full concept of physical things. The International Boundary Commission deals with physical things. On the one hand they control-- let us consider for example a chain of mountains, one peak in relation to the other and the foothills in the distance. Those things are immutable and inseparable. You cannot do anything about them at all, although I list among my friends in the distinguished engineers among you today people who try to transfigure or perhaps I better say succeed in transposing nature into man's will. Some of the great works that are

going on all over the country and perhaps right here in the Southwest are some of the most outstanding examples of what engineering science has been able to do, but those things become somewhat localized and while you can change some physical things you cannot change them all, you cannot change the underlying principle that dominates as Nature made it. The reason for that Commission is this, here on the International boundary you have certain physical problems not susceptible of treatment by sitting down and writing diplomatic notes from one country to another. They must be treated just as you treat your farm when you go out and irrigate, and all the letters and notes you write and other superficial things that go on in relation to this, after all, you take your shovel and go out and irrigate your land because you are dealing with physical facts. You cannot sit in your living room and write about getting the north forty irrigated this afternoon, you have to get out and irrigate it. That is what the International Boundary Commission deals with, physical facts. I suppose it is only natural that things of that kind might seem a little mysterious, some people ascribe to it an aura of mystery and cannot understand it. As a matter of fact, the way the International Boundary Commission has developed in the past, it deals with essential physical things in a tangible, practical way, but if I can digress for a moment, let us sketch back to the inception of the International Boundary Commission and what gave rise to its problems and

how they are handled. The reason that is of interest here is because out of the representatives of the eight states present at this meeting four of those states are very intimately related to the international boundary.

The Rio Grande from El Paso to the Gulf of Mexico, some 1,300 miles, every inch of that course is the international boundary. On one side you have one sovereign nation and one on the other. The same is true from El Paso west to the Pacific, you have over 600 miles of land boundary. The problems differ, of course, between the land boundary and the water boundary. They differ in that their physical attributes are different, but you still have present the same common factor, that on one side is one sovereign nation invested with all the rights and on the other side you have another complete sovereign, complete in itself.

I think perhaps sketching back to say perhaps 1848, the initial boundary treaty, we find the engineers were the first, naturally because it pertained to their science, to demark and define the last boundary between the point where it left the water boundary and proceed west through New Mexico, Arizona and California to the Pacific. There was a great deal of hardship attended the early efforts as testified to by some of the documents we have brought down to us now nearly a century ago, when you compute it roughly. Those people came out and surveyed the boundary and it was established and has been maintained substantially

the same with very minor changes and adjustments.

Following that was the 1852 treaty. The first actual land survey came after the 1852 treaty. Then as time went on, you are all familiar with the old maxim that necessity is the mother of invention. I think we might say the same thing is true in the development of the historical background of the Boundary Commission. The subsequent treaties that have been developed can all be identified with some development with the actual, physical necessities of the case. For example, the treaty of 1848-1852 laid down the boundary between El Paso and the Gulf of Mexico and El Paso west to the Pacific in a very definite and well-defined manner on paper, but you are all familiar with the characteristics of western streams and particularly streams that have exceedingly high flow at times and very little at others and their characteristics change their course. That gave rise in the course of the Rio Grande and the Colorado River in your state of Arizona, Mr. Chairman, and shared with you by California as a boundary, some 20 miles of characteristic changes in the stream bed. That gave rise again or brought home very definitely the fact that there was a difference in the situation that we confront here on the border over what is in internal situation. For example, Nebraska and Iowa, there was litigation afoot a number of years ago, but it was all peacefully settled and put up to the Supreme Court in the nature of arbitration establishing the boundary between Nebraska and Iowa, but

between two separate sovereigns we have a somewhat different situation, and that gave rise first in the treaty of 1889, that is when the International Boundary Commission was established. Prior to that, in 1882, it had been determined that the rule of action would be what all my friends at the bar among the legal profession in attendance here will readily understand as the rule of property in relation to riparian doctrines and river changes, that if a change in the river occurred through effusive action there was no change in the demarkation of the boundary, but if it was a gradual flow erosion the boundary followed the water course. That rule seemed to work all right, but particularly here in the case of the Rio Grande and Colorado rivers effusive changes resulted in little areas being left on either side of the river which remained in one or the other country, so growing out of that came the treaty of 1889, which set up the International Boundary Commission, in which commission there was vested the duty to consider controversies arising on the international water boundary growing principally out of changes in the course of the stream. Following that, in 1905, there had been cut on the Rio Grande and Colorado some fifty-eight bancos. They were little areas left on one side of the river or the other. In the treaty of 1888, where an effusive change occurred, those areas remained under the sovereignty and jurisdiction of the country to which they pertained before the river changed. We had a long national boundary which

was changed every little ways by these changes in area and the result is that you had some parcels of land in physically what we would say was in Mexico because it was on one side of the river and those which were in the United States for the same reason, but really those areas pertained to the jurisdiction and sovereignty of the country from which they were cut. That condition was met by the treaty of 1905 and there the rule was set up where areas of certain dimension and number in population occurred in that fashion, that they should be eliminated from the 1882 treaty and would thereafter be under the sovereignty of the country on whose side they were physically situated after the river changed. I have gone into that in some length because it is simply historical in showing the development and the physical reason behind the treaties that have actuated the two nations in administering the boundary.

Following that, as the area common to the country on either side of the boundary developed we find conditions of advancing agricultural and industrial development. That brought with it more interest and more values, more interest in the properties adjacent to the boundary, and out of that grew certain necessities for certain deliberations by the Boundary Commission in an effort to administer the actual boundary in relation to this development.

As you know, there was a Water Commission established and in the interim I might say that throughout the periods of development of the boundary commission the thing that

has actuated or characterized their organization has been the application of practical engineering to the administration of the boundary. The reason, of course, to you, ladies and gentlemen, is obvious. Again you had the physical factors to deal with.

Some six or seven years ago the Water Commission's functions were consolidated with the Boundary Commission. That gives you a picture of how the International Boundary Commission is interested in the things that go along with the boundary problems. You have to deal with, as I said at the outset, a physical condition that can only yield to engineering treatment and adjustment. For example, at Tijuana, between California and Lower California, there was a problem of sanitation involved which loaned itself very readily to the treatment and discussion and settlement of two sections of the Boundary Commission. I may say reciprocal to the action of the United States in formulating a personnel consisting largely of engineers, essentially and primarily an engineering personnel, Mexico has selected some of her best engineers, men of very high type and capable of very fine standards of performance from a technical standpoint and have been for many years been engaged on the Mexican section of the Commission. The result is that many things have yielded to treatment in that manner.

Perhaps in winding up this dissertation, which I didn't mean to make so lengthy, I leave with you this thought, the

problems of the Boundary Commission are not confined only to matters of exchange of views and discussions in diplomatic tenor, but they also involve the application of engineering solution. For many years, and it is natural that it would be so, in the early development here of a pioneering boundary country, the international boundary presented a sort of a line that characterized the inhabitants with a limitation that was not true in internal matters. For example, in the forty-eight states of the Union we very readily treat, just as you gentlemen present from the various interested states today are treating on things, but in the final analysis the opportunity is not so easily presented where you have a physical situation completely controlled and dominated by nature that is still embraced with differences that grow out of a complete, independent sovereign control artificially superimposed on this physical condition. We are all familiar with approaching physical problems with physical solutions and you have very much the same problem to meet and very much the same thing to solve. The International Boundary Commission is not in the true sense of the word, it is not particularly a diplomatic agency. It is a fact finding body and sort of an agency that seeks out the facts and translates them to a common denominator comprehensible to both countries and agreeable to both countries, leaving the application of those facts to the diplomatic arm of the respective governments. Fortunately, Mexico has assigned to the Commission

some of its most capable and able engineers and technicians and with that background they are able to reduce many things to a common factor, although it is still of necessity and doubtless should be characterized by some differences in the very nature of things with the methods, criterions and bases of engineering defenses which have to be reduced to a common understandable basis. Thank you very much.

THE CHAIRMAN: Thank you very much, Mr. DeVries, for your instructive talk. If there is nothing further, I will turn the time over to Judge Stone to discuss those things which he would like to present to us at this time.

MR. STONE: Mr. Chairman and ladies and gentlemen: The subject which was assigned to me and as it appears on this agenda was "Utilization of Colorado River Water in the Republic of Mexico and how it is affected by the Colorado River compact." It is obvious that it would be quite unnecessary and it seems to me inadvisable to discuss this subject fully or even to attempt a full discussion as set forth in that subject.

In the first place, it can be clearly seen that this encompasses nearly all of the papers, all of the discussion which has been presented here to you. It considers, or includes, rather, the reports which were made, the analysis of the Jacobs-Stevens Report, the statements which have been made here by others. In the second place, it involves an instrument over which there has been some controversy

and we are meeting here in a spirit of common accord for the purpose of developing the Colorado River and bringing about a realization of the utilization of the waters of that river. However, the Colorado River Compact is an instrument which has been approved by six states. It is an instrument which has been approved by the Congress of the United States. It has been followed by the adoption of the Boulder Canyon Project Act. Then following that and under the provisions of section 15, there is being now attempted a survey of the basin for the purpose of determining what the utilization of the waters should be. We know, too, that in nearly all of the projects which have been authorized, the Act which authorizes the project provides that it shall be constructed and operated in accordance with the provisions of the Compact and the Boulder Canyon Project Act. Then, too, this subject which I am to discuss has to do with the effect of the Compact on the division of water or the delivery of water to the Republic of Mexico. If these projects have been constructed in accordance with the provisions of the Compact and in accordance with the provisions of the Boulder Canyon Project Act, it follows that the Compact is very much in the picture. So it seems proper from that point of view this subject may be approached.

First may I call your attention to the provisions of the Compact which are controlling in this matter. All of you are familiar with the provisions of the Compact

respecting the division of the waters of the river as between the upper and the lower basin states. In Subdivision C of the compact it is provided that if, as a matter of international comity, the United States of America shall hereafter recognize in the United States of Mexico any right to the use of any water of the Colorado River system, such water shall be supplied first from the waters which are surplus over and above the aggregate or the quantities specified in Paragraphs A and B, and if such surplus shall prove insufficient for this purpose, then the burden of such deficiency shall be equally borne by the upper basin and the lower basin, and whenever necessary the states of the particular division shall deliver at Lee's Ferry water to supply one-half of the deficiency so recognized in addition to that provided in Paragraph D. Now, A and B, cited in that paragraph, are the provisions in regard to the division of the water between the upper and lower basin.

I think, too, I should call your attention to Subdivision F, which provides, further equitable apportionment of the beneficial uses of the waters of the Colorado River system unapportioned by Paragraphs A, B and C may be made in the manner provided in Paragraph G any time after October 1, 1963, if and when either basin shall have reached its total beneficial consumptive use as set out in Paragraphs A and B.

It is easy to conclude and I need not comment on that

because the result is obvious, that any treaty which would exceed the unapportioned amount would result in the taking of water from the Colorado system apportioned by the Compact to the two groups of states. Of course, that would be a result which all should attempt to prevent. This report made by Mr. Stevens yesterday indicates about what may be expected in that matter. That is a comprehensive report which indicates what we may expect in the way of utilization in the United States, and, therefore, what we may expect to be the balance which could be given or, rather, allotted to the Republic of Mexico without interfering with the utilization contemplated in the Compact in the United States of America.

Referring again to the projects and the development already accomplished, may I call your attention and impress this thought, that if these projects were constructed in accordance with the Compact and the Boulder Canyon Project Act, and that is a valid provision, then it follows that even projects already constructed might, if an undue amount were allotted to Mexico, be affected by a treaty. We should also keep in mind that under the Compact followed by the Boulder Canyon Project Act, the power created at the dam was sold. It is through the sale of that power that the dam is paid for. Funds arise from the sale of that power to amortize the cost. That is made possible through the Compact, so inevitably the Compact is tied into the utilization of the water, whether from irrigation

or from power.

I wish now to refer to some matters which are related to the Compact. First, I stated last night Colorado, I think, more than any other state has been involved in interstate litigation respecting rivers rising in that state. We have been a pioneer and it has been to our expense and very heavy expense many times in this matter of working out legal problems having to do with interstate streams. In 1901 the case of Kansas against Colorado was filed. A decision came I believe in 1907 and it was through that decision that the Supreme Court announced the principle of equitable apportion among states through which an interstate stream passed. It is the opinion of many lawyers and held by many in Colorado that that opinion announced the principles that compacts were possible and would be upheld. At the present time the state of Colorado is involved in four other interstate suits. Some of them are nearing completion, in one there is a petition for rehearing. In another, the case of Nebraska against Wyoming and Colorado, there is now coming to the front an important and, I think, a question of prime importance to the states and I want to mention that later.

In a recent case, the La Plata and Cherry Creek Ditch Company brought suit against M. C. Pinterlighter, who is the State Engineer of the State of Colorado. That suit arose over a compact between New Mexico and the state of Colorado. Under the provisions of that compact an

allocation of water was made in the La Plata between the two states. The engineers of the respective states were made the administrators under the compact. They were charged with the duty of dividing the water in accordance with its terms. Their duties involved the rating of water, taking all of the water at certain low stages from Colorado and passing it to Wyoming and then rating it back to the State of Colorado. In Colorado the La Plata and Cherry Creek Ditch Company raised the point that such a compact was invalid, that it involved the vested rights of water in accordance with the constitution and the statutes of the State of Colorado, and the suit was brought to enjoin Mr. Hinterlighter from carrying out the provisions of the compact. That suit had a devious course through the state courts. It went to the Supreme Court of the State of Colorado and the Supreme Court of that state held that that compact and its terms interfered with the vested rights of citizens of the State of Colorado and refused to enforce the provisions of the compact and to enjoin the engineer from carrying out its provisions. The suit went to the Supreme Court of the United States. An argument was made before that tribunal last winter. In March of the present year, the early part of March, a decision was rendered by the United States Supreme Court holding that the compact was valid and that vested rights within the state in the matter of adjusting the rights between states could be disregarded.

That decision was based upon the principle that when a state grants vested rights, recognizes appropriations under its constitution and statutes, it does so subject to a law termed "common law" in the matter of interstate streams that every adjudication within a state is subject to the principle of equitable apportionment of the waters of the stream among the states through which that stream passes. It followed that comparatively early announcement of the Supreme Court of the United States concerning a stream on the Atlantic Seaboard. The court said in that case that an interstate river is more than an amenity, it is a treasure, it represents a necessity of life which must be apportioned among those who have power over it. That is a controlling principle; it encompasses a matter of equitable apportionment. So, you can readily see, in March of this year the Supreme Court of the United States unequivocally held that compacts between states were valid. It has been a question debated by lawyers, strenuously argued in court, whether the Supreme Court prior to that time had announced the validity of such compacts and where such compacts interfered with vested rights within the state, whether they would be upheld. In this case, any one reading it whether he is a layman or a lawyer, can come to no other conclusion but that there is no question as to the decision of the Supreme Court of the United States. It seemed well that I should call your attention to that at this time because it is a recent

decision and one which has not been called to the attention of all those interested in the development of the law on interstate streams.

In our gathering here today we have the Attorney General of Colorado and Mr. Carr of Colorado, who argued that case, and we have the District Judge who decided that case in the lower court, so if there are any questions concerning it, I think they can be answered here by them.

I have referred to Section 15 of the Boulder Canyon Project Act. That provision was mentioned by Mr. Debler in explaining to you what was planned by the Reclamation Bureau in the way of making a survey for the purpose of bringing about the proper utilization of the waters of the Colorado River. Recently the Reclamation Bureau requested of all of the states a statement of the plan of the various states for such a development. That plan no doubt has been submitted by each of these seven states that is to be carried forward by the survey of specific projects and by a survey and consideration of a general plan of development. With that in mind, the four upper basin states appointed a committee consisting of two from each state to work out a plan of comprehensive development. That matter is to be considered at Yellowstone Park. This committee of eight constitutes a fact-finding commission. It is incurring expense for the purpose of getting data prepared by competent engineers and I

apprehend that a worth-while report will be forthcoming at that meeting. That plan could be well carried out in the entire basin because, as indicated here, the seven states should work as a unit in recommending and agreeing upon a comprehensive plan. There has been much water under the bridge, there has been some bitterness, but it seems to me all that should be disregarded and a constructive policy adopted whereby we will go down the line as a unit, the entire basin, and bring the force of our Congressional delegations in supporting all developments which look toward this comprehensive development. I think we have no comprehension as to these projects, that one group of states may interfere with the other. These reports, the Jacobs-Stevens Report and other reports with which you are familiar show clearly that there is water there for a development which we have in mind. It has been said here that the lower states have no desire to interfere with the development of the upper basin states. It is reported by Mr. Stevens and others that we probably cannot consumptively use more than 6,500,000 acre feet and we are entitled to 7,500,000 acre feet. This development can go forward I am sure on a constructive basis and we should work to that end.

I want now to refer to another matter which is not indicated by the subject assigned to me, but since I am discussing and have mentioned some of these legal problems I want to call your attention to certain developments

in the case of Nebraska against Wyoming, in which Colorado is an interpleader defendant. In that case a petition of intervention was filed by the Attorney General of the United States asking that the United States be permitted to intervene in that case and come in for the purpose of defending the rights of the United States in preserving and protecting the waters which are allotted or appropriated to reclamation projects. That might have been all right if the petition had gone only that far, but in this petition the definite claim was made that the United States was the owner of all of the unappropriated water in the arid states or in any state. That presented in my mind a serious challenge. This petition in intervention was answered and argument made on behalf of state control of water by the attorneys general of the three states involved, namely, Nebraska, Wyoming and Colorado. As the result of that argument and without passing upon the question of the ownership of the water, the Supreme Court of the United States permitted the United States to intervene in that suit. It was understood, however, that an amended petition would be filed, and in that amended petition no claim to unappropriated water would be made, that is, that the United States owned all of the unappropriated water. Recently an amended petition has been filed and in that petition the United States again asserts the claim, this time in more adroit language, nevertheless it is there. It is quite evident that this

question must be finally determined in the hearing of this case, the final hearing that may come. It may be quite a while yet before that will come to the attention of the court, but the states involved in that suit must in their answer deny that claim and lay the basis for the presentation of the question to the Supreme Court of the United States. There is nothing which these arid states hold as more sacred. They claim, I think, without a question the right of the ownership and control of the waters in these states and not in the Federal Government. It is under that law that our water development has gone forward. We have said that in reclamation the United States was a trustee and appropriated this water for the benefit of the users in the projects and that the United States was in no different position than that of any individual appropriator of water. It is proposed in this suit to set aside that principle. I should like to submit to you that in a meeting of this kind there is no more important question before the arid states than that question of ownership and control in the states of waters in these streams, I refer, of course, to the unappropriated water. Some of it has been appropriated and is in individual ownership, but certainly here is a time when all of these united must come to the defense of the principle which we have so long recognized and which we now assert. I make these statements not in condemnation in any way of the Reclamation Bureau because there is something more

involved than mere projects. It is a principle which will be applied to future projects, governmental projects as well as individual projects. It is one of impelling importance and one which we must follow closely. I suggest that you from the other states should take an interest in this suit and should assert in every way possible in bringing about a proper determination of that question. The Supreme Court of the United States has the right, of course, to the final opinion, as some lawyers say, to the final guess, but this is more than a guess, the position of these states is supported by long lines of decisions, as we believe, it is supported by our development, and certainly we have a cause which should be carefully and fully followed up. The Senators from most of these states have taken an interest, Congressmen have taken an interest. There are many ways that this question can be approached and I think we should lose no time in approaching this subject and being sure that we secure a proper determination of it.

Mr. Wallace has suggested I say something about the Flood Control bill. I am not in a very good position to speak on that because I haven't seen the actual provisions of the bill. The provisions which I have seen did not interfere in any way whatever with the ownership or control of the water in the states. I talked to Senator Johnson and Senator Adams of our state when that matter was up. Both of those men are familiar with water rights

and the principles which we stand for, and it is their position that that bill does not in any way, not one word or sentence, interferes or challenges the ownership or control of the waters in these states. That is their opinion. I haven't seen the amendments which were mentioned in the press reports so I cannot say from the point of view of an analysis of those provisions. I think that is a subject which should be reserved until we have had time to analyze the Act which finally went through Congress.

I believe, gentlemen, that is all I should discuss under this subject. I have attempted to approach it on the basis of what seems right and just in adjusting any questions involving the international boundary, and approached it, and have approached it, with the feeling at all times that we should proceed in a very constructive way to develop our water resources. I think we need not quibble too much over legal technicalities and over certain provisions of the compact. As I said, it is in the picture and very definitely so and yet I believe as time goes on we shall find these states marching down the line together working out a development and in the end the Compact will not be violated and we will all have developments well worth while, something which will mean future prosperity for these states. If there are any questions, I shall be glad to attempt to answer them.

A VOICE: Has there been any application for a

rehearing in the La Plata case?

MR. STONE: When was that decided, General Rogers?

MR. ROGERS: Yes, there is an application for rehearing now pending before the Supreme Court of the United States, but the decision was unanimous with the exception of Judge Cardozo, who did not sit at the hearing.

MR. CHANDLER: I have a statement you will be glad to hear. I am speaking now out of turn as I am here today as a representative of Los Angeles and if I may switch, I want to speak as a representative of San Francisco. It so happens in protecting the water supply of San Francisco on the Tuolumne River we are now confronted by 50 different actions brought by lower riparian owners. One of these actions has to do with riparian owners in the foothills of California and while we were preparing our defense in those cases the United States Supreme Court in April, 1935, decided the case of the Portland Cement Company versus the California-Oregon Power Company, the case arising on the Rogue River in Oregon, and in that case the United States Supreme Court followed the supreme courts of the states of Oregon and South Dakota in interpreting the provisions of the Desert Land Act of March 3, 1877, and therein held that by the terms of that act all riparian rights of the United States were applicable, that is, for patents passed out by the Government after March 3, 1877, the title to the land only was granted and the water retained. Judge Sutherland who wrote the opinion

and which is a unanimous opinion, really gave a historical sketch, almost a eulogy of the doctrine of appropriation, and according to him, and it seems lawyer-like, viewing titles as an abstractor would view them, that by that Act Congress intended to retain the waters to be appropriated under the appropriation acts of each of the desert land states and passed on to the grantee the title of land only. Now, to come to our point of view, if it be-- going back I think we must all understand that it is only by a claim to riparian rights that the Government can assert any title to water and for many years-- I joined the United States Reclamation Service as assistant chief of the Land and Legal Division in 1905, so I was with the Service when all the evidence was being prepared by the United States as intervener, although I didn't have any personal part in that, in Kansas versus Colorado, and in earlier years there were many in the government service, and I refer now particularly to departments of the Interior Department who wished the Government to assert its paramount title under the riparian doctrine, and at times we have been fearful in different states of what certain Assistant Attorneys General were then asserting, but we do now think unless the United States Supreme Court can be led to do the thing which, so far as I know, it never has done, turn completely topsy turvy and overturn the unanimous opinion of Judge Sutherland, which same opinion was prepared as dicta in two later cases, we will have that stand which means just

as you, Judge Stone, have asserted the view of these western states to have been for many years, that the doctrine for appropriation only is to be recognized.

Summarizing this, the Desert Land Act provides that the waters of all non-navigable streams shall be retained for appropriation under the state laws and Mr. Justice Sutherland said in that opinion that the Act means just that, that after March 3, 1877, an acre of land conveyed by the Government regardless of what kind of title it so conveyed-- it so happened the land in controversy in Oregon was taken up under the Homestead Act-- that that went on as land only and as far as the Government had any interest in the water, that water was retained for appropriation under the laws of the state. Now, San Francisco has a great material interest in that opinion, so as a representative of San Francisco I wish to join with the representatives of the three states in seeing that that is done.

MR. JENKINS: With regard to the recent bill enacted by Congress, there were certain definite things in that bill to which exceptions were made by the western Congressmen and, if you will allow me, I would like to call attention to two or three paragraphs that it definitely interfered with the rights of the western states to the waters. One is that Congress has repealed the Act of June 15, 1936, which specifically protected the rights of the states and confirmed their control over unappropriated waters within

their borders. That was one particular thing that our western Congressmen and Senators protested against. This is the statement that is in question, "Notwithstanding any restrictions, limitations or requirements of prior consent provided by any other act, the Secretary of War is hereby authorized and directed to acquire in the name of the United States title to all land, easements and rights-of-way necessary for any dam or reservoir project with funds heretofore or hereafter appropriated for such purpose," making a very definite reference to the Reservoir Act. Now, the purport of that is shown in the final statement that "specifically Oklahoma and Texas, the Government acknowledges their right to continue to exercise all existing proprietary rights of supervision and jurisdiction over the waters of all tributaries of the Red River within their borders." That is showing there is a distinction between the rights as exist in Texas and Oklahoma over the rights as exist by appropriation in the other western states. I think there is a very definite attack in that bill upon the rights of the western states.

MR. DE VRIES: With Judge Stone's permission, whose opinion I value very highly, I would like to comment very briefly on the Wyoming-Colorado intervention motion.

MR. STONE: I take it there may be some further discussion not in the way of questions, but in discussion, so I will sit down.

MR. DE VRIES: I don't say this in any sense to

disparage in the least Judge Stone's valued opinion and comment. I think it is one of the most wholesome things that has occurred in some time, that he has invited your attention to a thing that should be the subject of thought. However, I know he did not intentionally omit reference to the background of the intervention or proposal of the United States to intervene in the case of Wyoming and Colorado on the La Plata. The reason I am making these comments is because I have had for some time the pleasant privilege of serving the Department of the Interior as legal advisor in the field and expect to do so in the future. Therefore, I simply rise to mention a matter that is within my knowledge of the reason that actuated the proposal of the United States to intervene in the Wyoming-Colorado case.

In proposing the intervention, the Secretary took special care to invite-- I don't wish to disparage Judge Stone's comment because it is very necessary that the western states are alert and analyze these problems, but in proposing intervention in that case the Secretary of the Interior particularly emphasized the fact that the presentation basis for intervention of the United States in that litigation is not an attempt to assert a principle in derogation of the section in the Reclamation Act which avowedly and clearly and unequivocally states the policy of the United States respecting water rights in the various western states. It is not an effort to derogate from

that position or in derogation of that statute, but it was essential in that case and very largely, as Judge Stone has remarked, the concept of the western states that the National Government is in the situation of a trustee. In that particular case the Secretary of the Interior emphasizes he does not propose intervention in that case as to initiation of a principle that is anything new or different or an effort to diminish the power or control of the states over the waters of the western area. The whole reason for the intervention in that suit and the statement of the position of the United States in relation to ownership of waters was simply a historical delineation of the background rather than an effort to state a principle new and different from that announced clearly in the Reclamation Act itself. It is quite important to bear that in mind because the motion to intervene in that case was predicated on the sheer necessity of showing a historical background of the relationship of the United States to the development of the West, and I feel sure that the Secretary of the Interior would be the very first to come in, Judge Stone, for his interest in this matter, but in the same breath he probably would make it clear that the necessity for presentation of the matter in that light in this particular case arose through delineating the historical background of the thing and to carry out the very idea that Judge Stone mentioned, sort of a trusteeship. In that particular case, there were certain aspects of it

which neither state in the final analysis has the undenied right to administer these things, neither state chose to present those matters in the case which was before the court and in an effort to present the case it was essential to delineate the historical basis of the legal thesis on which it proceeded. Thank you

MR. ROGERS: I just want to disagree with the gentleman who has just had the floor for the simple reason that if that was the case we have no objection to the Reclamation Department of the United States Government or anybody else intervening in the suit. The facts of the case are simply these, that the North Platte project with an appropriation, a dam was built in the state of Wyoming in which the waters are used to irrigate lands in the state of Wyoming and the state of Nebraska. As was pointed out, they claimed that the only thing the United States Government is attempting to assert is to protect a valid appropriation made pursuant to the laws of the state of Wyoming and Nebraska. If that is all that the Government is asserting in the suit, that would be fine and nobody would object to it coming in, but here is what the petition of intervention has filed. I might back up and say that originally the state of Nebraska sued Wyoming prior to the time Colorado became a party to the suit. Wyoming in her answer and in her attempt to get the suit dismissed suggested that the Secretary of the Interior was an indispensable party to the suit and until the Secretary was made

a party defendant the suit could not proceed, but the Supreme Court of the United States in 1935 said that under the Reclamation Act as we construe it the appropriation there was like any other, that is, the appropriation of the Department of the Interior was like any other appropriator upon the river and that the State of Wyoming spoke for the appropriators within her state and therefore the Secretary of the Interior was not an indispensable or necessary party to the suit.

Then this petition of intervention asked to establish two things, first, that their appropriation, that is, the appropriation of the Department of the Interior was free of any sovereign control of any state whatsoever, which is exactly contrary to the provisions of the Reclamation Act, which requires them to comply with the local law when they make their appropriation. That is number one. Number two is that of the unappropriated water the United States be decreed the owner thereof, which in effect repeals the Desert Land Act of 1877. Here is the inevitable result. If the contentions made by the United States Government are upheld, that means that every appropriation made by any agency of the United States Government, their appropriation shall be free of any control whatsoever by any of your state engineers or any of your state water commissioners, so you can readily appreciate what would happen if the Federal Government on their appropriation should be free of any control whatsoever of any state regulation.

It means they will run the river. If they are decreed the owners of the unappropriated waters of the stream, then you repeal the Desert Land Act that the gentlemen from California has referred to and your doctrine of appropriation which has been applied for many years in the West goes out the window and the Federal Government will have complete control of all the waters. That is the inevitable result if the Supreme Court should sustain those contentions, and I might say at the time the petition of intervention was filed the Attorneys General of the three states went to Washington and conferred with the Department and we pointed out the inevitable result if the Supreme Court should sustain those positions and they stated, as the gentlemen stated this morning, it was not their desire to do anything other than protect appropriations already made. We then and there made an offer to the Department that they could come in and sit in and see that their appropriations were protected. That offer was refused and we went to the Supreme Court with the argument and without any consideration of the water rights or the relative interests of anybody, the court said, "If the United States Government wants to intervene, we will permit them." We then believed the petition of intervention would be confined purely to the right of protection which they have a valid right to do, but I have since learned that the petition was filed and the two obnoxious points which we asked to have eliminated are in there,

changed only in one respect in which they say they acquiesced to the appropriation rather than consented.

I believe every western state should take an active interest in this litigation. I might also state that within the state of Nebraska at the present time I believe they are trying the suit in the case of United States versus Tilley, the same doctrine of government complete ownership of the water is being asserted in that case and perhaps if it is carried on, will get to the Supreme Court of the United States before this case, because it will years before they finish the testimony in the Nebraska-Wyoming-Colorado suit. I am at a great loss to understand how in one instance the Bureau can say they are only interested in protecting the appropriations they have made and then by the pleadings filed set up the two doctrines that their appropriations are free of any state control and, second, that they are the owners of unappropriated water, and at the same time say they are not insisting upon it. They put it in black and white in one instance and say "no" in the other. If it is in black and white before the Supreme Court, that is what will be before the Court to pass on.

MR. DE VRIES: I want to present an apology to the Attorney General of Colorado, who has made a very excellent statement here, and to Judge Stone I apologize for appearing as wishing to present an argument.

MR. HILGEMAN: May I ask a question of the Attorney

General?

THE CHAIRMAN: After the meeting you may ask them anything you want to.

MR. WALLACE: I was in the city of Washington and discussed with the attorneys the matter that is before you and, as I understand it, the position of those attorneys-- I being a layman-- that history will prove conclusively that the United States of America never turned over the definite title of the western waters to the states and that the Desert act and the Reclamation Act are simply acts of Congress that permit the states to have the management of those waters, and it is undoubtedly the intent of these attorneys to determine definitely that the United States owns the basic rights now. That is absolutely the position as I understand it, and I think I understand the English language. The statement was made to me, "What difference does it make to you western states if the United States owns the title, if under the Reclamation Act they permit the state to manage these waters." That is the position as I understand it, and I think I understand the English language, and if it is the purpose of these western states to attempt to establish definitely that they own these water rights, it is time to get very, very busy.

THE CHAIRMAN: Judge Stone, we want to thank you for your clear and understandable way in which you have presented these subjects to us. I want to say that the

enlightenment you have given us that what was true six months ago is not true now, that in the interim the United States Supreme Court has spoken, which changes our conception of our rights and the meaning of treaties and compacts. The State of Arizona was very much exercised about a year ago when the Secretary of the Interior through executive order by which he was empowered by an Act of Congress withdrew from entry all lands in Arizona not filed upon. In itself that didn't seem very far reaching, but we find in Arizona, and you will find in all your western states, they withdrew from entry anything which had not been proven upon or title secured, and it took out of the control of those who had appropriated the water, every spring or water hole for stock water and was putting the title back in the United States Government. It was putting many of our stock men out of business because they had improved these water holes and it was putting them out of business. Through our Water Commissioner and through our Attorney General, and on the advice of Senator Hayden, we understand the only way that could be protected was to take it to the Federal Court and have it determined whether or not the Soil Conservation Act would entitle the United States to file upon those. Many of these people had not filed upon these rights, but had used the water for many years. I am not able to say at this time just what the status of that is, but it was my information a few months ago that the only recourse would be to take it to the Federal Court to

determine whether the United States Government by that Act of withdrawal could acquire a right to these water holes and springs and streams which had been used for that purpose. It is vitally necessary at this time that these western states should understand the encouragement that is being made at this time in various and devious ways to change our water law and our water rights, and what affects one state will undoubtedly affect all the other western states. As Judge Stone was speaking it brought to my mind this condition that exists. It is now twelve o'clock.

MR. MAXWELL: May I ask a question?

THE CHAIRMAN: Not now, Mr. Maxwell, but ask all the questions that you wish when we adjourn.

MR. MAXWELL: I was merely following up the line of questions that were asked Judge Stone. I didn't want to intrude any new idea.

THE CHAIRMAN: If you wish to take that up with Judge Stone, very well. We must insist upon that because so many have asked permission, which we haven't been able to grant to do that very thing.

MR. MAXWELL: I received a written communication requesting me to attend this meeting and I would like to know for my own information whether I am here by right or by permission.

THE CHAIRMAN: You were invited to listen.

MR. MAXWELL: The word "listen" wasn't there.

THE CHAIRMAN: Well, we will give it to you now. That

was the intent of the invitation, that you were invited to attend, but not to participate.

MR. HILGEMAN: The gentleman who just spoke is the father of the Reclamation Act under which all this wonderful work has been done, and I think we can all sit still and listen to George H. Maxwell, who spent his life in this work.

THE CHAIRMAN: You are out of order, Mr. Hilgeman. What is the wish of the meeting?

MR. STONE: As indicated in the report which the committee made, we have several resolutions and recommendations which we wish to make. We have one ready now, but it is twelve o'clock and that can be read when the others are presented. May I ask that we have time after lunch to prepare those resolutions. I would suggest that we be given until two-thirty.

THE CHAIRMAN: I would like to make this suggestion to those who have indicated that you want to be here, that our recommendations committee will be meeting and you may present to them anything you want brought before this conference, and I trust you will take it in the spirit in which it is given. We came here to work in an orderly manner. We will adjourn at this time until two-thirty P. M.

(Thereupon at twelve o'clock noon the conference recessed until two-thirty P. M. this day.)

4:15 o'clock P. M., June 24, 1938.

All parties being present as heretofore noted, proceedings were resumed as follows:

THE CHAIRMAN: We trust you will overlook this delay, but the committee has been working hard and they have completed their labors. We will ask Judge Stone to present what his committee has.

MR. STONE: Before presenting these recommendations and resolutions, I would like to remind you this was not an easy task. I know it is hard to wait, but some of these matters involved considerable discussion and it was not easy to put them in proper language. Some of them should probably be redrafted to clearly express what we wish. I want to read resolution number one as follows:

"WHEREAS it appears desirable as speedily as possible to bring about a comprehensive development of the water resources within the Colorado River Basin, and

"Whereas to effect such purpose it is necessary for united action on the part of all of the states within the Basin to form an organization representative of the entire Basin, and

"WHEREAS this conference has been initiated by the Arizona Colorado River Commission with the help and approval of similar commissions in other states charged with the duty of formulating plans and policies with respect to the development of the Colorado River,

"NOW, THEREFORE, BE IT RESOLVED that the Commissions

in the various states charged with the development of plans for the utilization of the water of the Colorado River effect a permanent committee of two members from each of the seven states within the Basin and that until such committee is appointed and organized the present committee authorized by this conference be continued, and in order that said committee shall function as speedily as possible a meeting be held not later than the first of September of the present year to consider any problems that may properly come before it and specifically the problem of legislation which may be proposed to the Congress of the United States to carry out a program of development within the Basin."

MR. STONE: I move the adoption of Resolution No. 1.

(The motion was duly seconded and, without discussion, unanimously carried.)

MR. STONE: I will read Resolution No. 2.

"WHEREAS the question of a treaty with the Republic of Mexico providing for a division of the waters of International Streams is a matter of very great importance in which the seven states of the Colorado River Basin have a vital interest and concerning which full data are not now available,

NOW, THEREFORE, BE IT RESOLVED that this question be referred to the Seven States Committee, appointed under authority of this conference, for a study with instructions to report its findings to the next meeting of the

representatives of the Colorado River Basin States.

"BE IT FURTHER RESOLVED that, in accordance with the interests of the Colorado River Basin States and the policy of the State of Texas as expressed by its representatives to the Conference, the Colorado River Basin States oppose the exchange of water from the Colorado River for use of water in any other international stream."

MR. STONE: I move the adoption of the resolution.

(The motion was duly second and, without discussion, unanimously carried.)

MR. STONE: Mr. Chairman, I will read Resolution No.3:

"WHEREAS the United States of America has filed a petition of intervention and have been permitted to intervene in the case of Nebraska versus Wyoming with Colorado interpleaded, now pending in the United States Supreme Court;

"WHEREAS, by the terms of the pleading heretofore filed, the United States Government has taken the position, first, that all appropriations heretofore made pursuant to the reclamation act in compliance with the laws of the various states wherein the appropriation was made are taken by the United States Government free and clear of any sovereign supervision of any or all states where the appropriation was made; second, that the United States Government is the owner of all unappropriated waters in the natural streams;

"NOW, THEREFORE, BE IT RESOLVED by the representatives

of the Colorado River basin states, duly assembled at Phoenix, Arizona, that the United States Government be requested to withdraw and withhold the contentions that all appropriations made by the United States Government are free of sovereign control and that the United States Government is the owner of all unappropriated waters.

"BE IT FURTHER RESOLVED that this organization of the Colorado River basin states will notify and interest all arid land states in the western half of the United States in this matter, and the various states be requested to intervene and oppose the false contentions asserted by the United States Government.

"BE IT FURTHER RESOLVED that the appropriate authorities of all states be requested to contact their Congressional delegation and use all legal and proper means to prevent the United States Government from asserting such false contentions that will ultimately lead to chaos in the arid states.

"BE IT FURTHER RESOLVED that this resolution be forwarded to the Secretary of Interior and the Attorney General of the United States and all members of the Congressional delegation of each state of the arid West."

MR. STONE: Mr. Chairman, I move the adoption of the resolution.

MR. CARR: The language claims the "unappropriated waters in the natural streams." It should be the "non-navigable streams."

MR. STONE: Do we understand that in voting on this it will carry that correction?

THE CHAIRMAN: Very well. While the correction is being made we will have the other resolution. With this correction being made, is there any discussion or any other corrections to be made in the opinion of any one here? Perhaps if you would explain what the resolution means.

MR. GREENBURG: I was just wondering what effect that one word might have in that resolution, the word "false." We have a case in the Supreme Court of the United States right now and that is a pretty definite statement there.

MR. STONE: The theory of that is, from the point of view of these western states, it is a false contention. The United States Government takes the opposite view, but from our point of view our contention is correct.

MR. GREENBURG: I am just questioning the effect the word might have on the case.

MR. MC HENDRIE: It strikes me that the Government is not exactly in that position. They may be wrong, but "false" carries to my mind the idea of wilful and deliberate misinterpretation, not only erroneous, but knowingly erroneous. I would move to amend the resolution by substituting the word "erroneous" for the word "false" everywhere it occurs.

MR. GREENBURG: Second the motion.

MR. STONE: I think that is a good suggestion, Mr.

Chairman.

THE CHAIRMAN: That is the motion, that we substitute the word "erroneous" for the word "false."

(The motion referred to was unanimously carried.)

MR. STONE: Mr. Carr made this one correction and I will ask him to make this other correction, and we will go ahead with the resolutions. This is resolution No. 4:

"WHEREAS the seven states of the Colorado River Basin in conference at Phoenix, Arizona, on the 22nd day of June, 1938, were privileged to listen to an analysis of the Jacobs-Stevens report prepared by the Department of Interior for the Department of State, and that the opportunity to hear such analysis was made possible through the consent of the Department of State,

"NOW, THEREFORE, BE IT RESOLVED that the Conferees express their appreciation for the presentation of this report for their consideration and extend their thanks for the opportunity of hearing said report to the Secretary of State, Honorable Cordell Hull, and the Secretary of Interior, Honorable Harold L. Ickes."

MR. STONE: I move the adoption of the resolution.

(The motion was duly seconded and unanimously carried.)

MR. STONE: Resolution No. 5:

"RESOLVED that the representatives of the seven Colorado River Basin States in conference at Phoenix, Arizona, this twenty-third day of June, 1938, recommend to the Governors of the seven states that they petition and urge

the President of the United States of America to allocate to the proper Federal authorities or departments sufficient funds to complete the comprehensive plan of development of the resources of the Colorado River Basin within the period of two years."

MR. STONE: You will observe this carries one other thought, aside from the allocation of funds, the position that it should be completed within two years. I move the adoption of the resolution.

MR. GREENBURG: Did I understand the resolution to say that the survey would be completed in two years.

MR. STONE: That is correct. The committee invites discussion of this if any one feels this is not proper.

MR. GREENBURG: Second the motion.

MR. SHAW: Didn't Mr. Debler say it couldn't be done in three years.

THE CHAIRMAN: The motion is open for discussion.

MR. GREENBURG: I think the resolution is all right except in one particular, I believe at this time if we are ever going to have funds allocated for the proper study that they should be allocated out of these funds which are now available through the P. W. A. and other branches that will be at the disposal of the Federal authorities. I can see no reason why this resolution should not be set up in such a way that the funds will be available in the two years, but may continue as is necessary for the final studies. As I understood it, Mr. Debler indicated it would

take five years to complete the studies on the Colorado River. However, I believe if we are ever going to get any funds, we better get them now.

MR. STONE: That is the purpose, Mr. Greenburg.

MR. WALLACE: I will say you can do the job if you can get the money in two years.

MR. GREENBURG: I assume that Mr. Debler's statement was based upon the amount of money that he expected and not what he could get. No doubt they could speed it up, hire more men and get to work. We have been here eight years in this thing and we haven't completed it yet.

MR. STONE: It may be that two years is an unreasonably short time.

MR. GREENBURG: We completed the study of the Rio Grande in ten months with sufficient funds. I think we better ask for the funds.

MR. JENKINS: The resolution is that there be set aside a fund sufficient to complete. I believe Mr. Debler and others have stated if they had the funds they could complete the studies, but this resolution is to call for a sufficient fund and it can be done if we have enough money.

MR. TIPTON: I think the resolution is all right. I don't believe the study can be completed within two years. I don't think it is a question of funds. I think if the proper Federal agency, the Bureau of Reclamation, otherwise had the funds, it would be a question of men. The Bureau at the present time has \$175,000.00 to expend during

the next fiscal year and at the present time they are having some difficulty in getting enough men to spend that amount of money. I repeat that I believe the resolution should be adopted as it is and put that problem up to the proper Federal agency. There are many investigations being carried on over the country and all of the competent men available for that kind of work are being absorbed. You must realize that to make this investigation a very large area must be covered, many survey parties must be organized. It is not particularly difficult to get rodmen, chainmen and the lower grade workers. In engineers it is becoming exceedingly difficult to get men who are competent to direct the work in the field and in the office. I know that is true in the question of the Gulf area, where all of the major rivers are under investigation. I discussed that with the Army engineers last Friday and they indicated it was quite difficult to get the proper men to supervise the work. Those men are few and far between on account of the lack of opportunity to build up that sort of experience, so that will be where the difficulty is. I don't think there will be any particular difficulty about getting the funds if an organization of this sort goes after the funds very strenuously, but there will be difficulty about getting the key men, but that is not the problem of this organization.

THE CHAIRMAN: Is there any further discussion?

MR. GILES: I move to amend this resolution. The

Government knows what they can do and I don't believe they will dillie dallie about it if they have the funds. I would like the language of that resolution to read something like this, that a sufficient fund be allocated and that the work commence without delay and continue to completion with all possible haste, or something of that sort.

MR. WALLACE: I am sorry to have to disagree with my distinguished colleague, but we waited six years and we didn't get the reports we thought we should and the reading of this resolution will impress upon the Government that we are very much in earnest and it is necessary that this work be completed with the dams built if we are going to have the planned development in time to make a treaty with Mexico on the division of these waters. It is time now that we have this available data. The Boulder Canyon Project Act was passed in 1928, that is ten years ago, and the points made by Mr. Tipton are right, but on the other hand I would like to impress upon all agencies of the Government the urgency of this situation. I would very much like to see the resolution passed as it has been read.

THE CHAIRMAN: Any further discussion?

(No response.)

THE CHAIRMAN: We will vote upon the resolution as read by the Chairman of the Resolutions Committee.

(Thereupon the motion to adopt Resolution No. 5 was unanimously carried.)

MR. STONE: Resolution No. 6 reads:

"WHEREAS the Boulder Canyon Project Act was by its terms adopted 'for the purpose of controlling the floods, improving navigation and regulating the flow of the Colorado River, providing for storage and for the delivery of the stored waters thereof for reclamation of public lands and other beneficial uses exclusively within the United States,'

"THEREFORE, BE IT RESOLVED that the Governors of the seven Colorado River Basin states recommend to the appropriate officers of the Federal Government that they request such officers to give notice to the Government of the Republic of Mexico that in harmony with the policy so declared in the Boulder Canyon Project Act, it is the policy and purpose of the Government of the United States of America to reserve for use within the boundaries of the United States of America all waters of the Colorado River which may be stored or impounded therein to the end that the Government of the United States of Mexico, the citizens of that republic, and the owners of Mexican lands may have direct and timely notice and warning that the use by them of any of such waters as may temporarily flow into Mexico shall establish no right, legal or moral, to the continued use of such waters."

MR. STONE: I move the adoption of the resolution.

MR. JENKINS: Second the motion.

THE CHAIRMAN: Any discussion? (No response.)

(Thereupon the motion to adopt Resolution No. 6 was

unanimously carried.)

THE CHAIRMAN: The transcript of the minutes of the meetings will be made by the Commission of Arizona and we will make sufficient copies to supply all of you, and if you need extra copies, because I think the proceedings will be interesting to other people. We would like to get an indication from those who desire a copy of the transcript of these proceedings so we may get an idea how many we will have to have and they will be furnished you if you will give our Secretary your names and how many copies so we will know how many to prepare.

MR. WALLACE: It is understood that each state will have a copy?

THE CHAIRMAN: Yes.

MR. JENKINS: I wonder if each registered delegate here might have a copy sent to his address and about three extra to the Governor.

THE CHAIRMAN: Could we leave it this way, that we will mail a copy to each of those present at this conference, the accredited delegates, with three to the Governor of the respective states, and if you desire any more copies, to let our Secretary know.

MR. STONE: Resolution No. 7 reads-- before I read it may I state the record should show that Mr. Ely of California proposed this resolution:

"RESOLVED, that in appreciation of the work of Delph Carpenter, Pioneer in the development of the resources for

the Colorado River Basin and kindly friend of every neighbor in that work, the delegations of the seven states of the Basin, assembled at Phoenix, Arizona, this twenty-third day of June, 1938, transmit to him their affectionate and respectful greetings."

MR. STONE: I move the adoption of the resolution.

(The motion was seconded and Resolution No. 7 was unanimously carried.)

MR. STONE: I desire to offer Resolution No. 8:

"RESOLVED by the conference of the Colorado River Basin States that the conferees assembled express our appreciation and thanks to the Governor of the State of Arizona and the Arizona Colorado River Commission for the splendid way in which this meeting has been initiated and carried forward and the entertainment which has been offered to the conferees here assembled."

I move the adoption of the resolution.

MR. JENKINS: Second the motion.

(Resolution No. 8 was unanimously carried.)

MR. STONE: I understand it is proper for me to prepare and send to each of the states copies of these resolutions.

THE CHAIRMAN: What is the recommendation of your committee?

MR. WALLACE: I think that is proper, if the Chairman will go over those resolutions and send copies to the delegations.

THE CHAIRMAN: If it will be helpful to you people, we can include those in the transcript.

MR. WALLACE: I would like to move that Mr. Stone continue to act as Chairman of the committee that has been appointed, and Mr. Smith of Nevada continue to act as Secretary, and the other members be selected in the proper order and their names added to the committee under the supervision of Judge Stone.

THE CHAIRMAN: The question that comes to my mind at this time is, inasmuch as this may be a new membership, I am wondering if it wouldn't be advisable to leave the organization of that membership to the Committee, not that I have any objection to your selection.

MR. WALLACE: The Committee is to continue for some time, and apparently its first meeting is to be held in September.

THE CHAIRMAN: You want to get a going organization on a going basis, I see your point, and I think it is well taken. Of course, on the other hand, the conferees here assembled can express their wish to have it that way.

MR. STONE: In line with the suggestion made by Mr. Wallace that there should be an amendment, I think Mr. Wallace will agree to it that as soon as this committee is fully appointed that it is understood they will then proceed to organize the committee and that the present officers merely continue until the new organization is formed.

THE CHAIRMAN: Then your motion is that Mr. Stone continue as chairman of the committee and Mr. Smith as the secretary until the other members are appointed and then they may organize as they see fit.

(The above motion was duly seconded and unanimously carried.)

MR. FARMER: I would move at this time that all resolutions be incorporated in the transcript and then every one will have a copy of the resolutions as adopted.

THE CHAIRMAN: Naturally that would follow.

MR. STONE: I will leave a copy of all the resolutions with the Reporter.

THE CHAIRMAN: May we have Resolution No. 3 read as amended?

(Thereupon, Resolution No. 3 as amended was read as follows:

"WHEREAS the United States of America has filed a petition of intervention and have been permitted to intervene in the case of Nebraska versus Wyoming with Colorado interpleaded, now pending in the United States Supreme Court;

"WHEREAS, by the terms of the pleading heretofore filed, the United States Government has taken the position, first, that all appropriations heretofore made pursuant to the Reclamation Act in compliance with the laws of the various states wherein the appropriation was made are taken by the United States Government free and clear of

any sovereign supervision of any or all states where the appropriation was made; second, that the United States Government is the owner of all unappropriated waters in the non-navigable streams;

"NOW, THEREFORE, BE IT RESOLVED by the representatives of the Colorado River Basin states, duly assembled at Phoenix, Arizona, that the United States Government be requested to withdraw and withhold the contentions that all appropriations made by the United States Government are free of sovereign control and that the United States Government is the owner of all unappropriated waters.

"BE IT FURTHER RESOLVED that this organization of the Colorado River Basin states will notify and interest all arid land states in the western half of the United States in this matter, and the various states be requested to intervene and oppose the erroneous contentions asserted by the United States Government.

"BE IT FURTHER RESOLVED that the appropriate authorities of all states be requested to contact their Congressional delegation and use all legal and proper means to prevent the United States Government from asserting such erroneous contentions that will ultimately lead to chaos in the arid states.

"BE IT FURTHER RESOLVED that this resolution be forwarded to the Secretary of Interior and the Attorney General of the United States and all members of the Congressional delegation of each state of the arid West.")

MR. STONE: I move the adoption of Resolution No. 3 as amended.

MR. GREENBURG: Second the motion.

(The resolution No. 3 as amended was unanimously adopted.)

MR. STONE: In line with Resolution No. 1 wherein it is attempted to set up a committee of the seven states, you will observe that it is necessary for the various states to appoint their representatives on that committee. There it was stated that they be appointed by the Commissions of these various states. Unless somebody sees to it that that is done, we may go along for some time before that committee is appointed. It seems to me that committee ought to be appointed at as early a date as possible. The committee that has been functioning during this conference is willing to continue until that is organized, but we believe it should be done at an early date so that the members may get to work, and unless it is impressed upon the various states that we get in touch with their various Commissions and have these names certified, we may be rather delayed in getting the committee, and there should be some one to whom these designations should be certified. I believe we should have an understanding as to where those designations should be sent.

THE CHAIRMAN: Would this meet your condition, that each state appoint and notify you of the official selection of those representatives on that committee?

MR. STONE: I would be willing to do that, but it seems to me it would be more appropriate if the designations were certified to you as the Chairman of this conference.

MR. GREENBURG: As far as Wyoming is concerned, our Governor will make the designation and I shall advise him of the purport of the resolution and I have no doubt he will name his choice immediately. I am rather inclined to think, inasmuch as the meeting has been called by the Governor of Arizona, that perhaps these certifications should come back here.

MR. STONE: The reason I made the suggestion that they be certified to Mr. Davis is because this meeting, as I understand it, was called by the Arizona Commission. Is that correct?

THE CHAIRMAN: Yes, sir.

MR. STONE: Mr. Davis has acted as the chairman of this conference and it seems entirely proper that the names should be certified to him.

MR. GREENBURG: I think you are right.

MR. FARMER: I will make a motion at this committee be appointed and certified to the Chairman of the conference here within two weeks of the present time.

MR. GREENBURG: Second the motion.

(The above motion was unanimously carried.)

THE CHAIRMAN: We will be glad to do what we can to facilitate this and to get it on a going basis. I think

we have no time to lose and to get the benefits we must get some action. Could I request then that the representatives of the states take that resolution back with you and present it to your Governor, or whatever body will make the appointment, and comply with this last motion.

MR. STONE: It would seem to be well to supplement that with a letter from you as Chairman.

THE CHAIRMAN: I think it would facilitate it if you yourself would take it back to your own states. It would have a standing that they would like to get, at least they would know you are in full accord with them. Is there anything else from your committee, Judge Stone?

MR. STONE: Not from our committee. I believe that completes our report.

THE CHAIRMAN: With your permission I want to extend the thanks and appreciation of this gathering today to the delegates to this conference, to extend our appreciation and gratitude to this committee, to Judge Stone and those who worked with him. They have put in considerable time, given it thought and these I believe will be history making events. It was necessary that we give due deliberation to this and I want to extend our appreciation to them for the work they have done and the thought they have given it and I believe they have directed us along the path of progress to another milestone.

MR. FARMER: There was a request made that Mr. Carr, who argued the case, make some presentation of the case

involving the intervention by the Federal Government and also the decision affecting the Compact rights, holding compacts to be valid.

THE CHAIRMAN: That suggestion is before you at this time.

MR. CARR: Mr. Chairman, the Attorney General of Colorado conducted those matters and is in a better position to speak than I am. If any talking is to be done, it should be done by the Attorney General I think.

THE CHAIRMAN: I think it is very appropriate that we have a little more along that line as it may have a direct bearing upon our future development in these western states. What is the wish of the conference here at this time? Do you desire to hear further from the Attorney General of Colorado?

MR. FARMER: In order to get it before the house, I make a motion that the Attorney General of Colorado be requested to discuss the case, particularly involving the holding of the United States Supreme Court that the compacts between the states were valid.

THE CHAIRMAN: While personally I would like to hear that, I happen to know there are some of the conferees who are waiting to go. They have been patient and waiting to hear the last of the resolutions and I would hesitate to arbitrarily pass upon that, but I will leave it to you.

MR. WHITE: Mr. Chairman, I am from Colorado and a very good friend of Mr. Carr and the Attorney General. I

believe that a motion to adjourn is always in order.

MR. WALLACE: Just a minute. We have had with us in this conference the representatives of the great state of Texas. They have been very helpful and it is evident if these seven states can get together and have the cooperation of the State of Texas in the settlement and development of our district and we can aid them in theirs, that it would be a very happy event, and I very earnestly hope, and I want the record to show, that we welcome and hope to have the continued cooperation of the great state of Texas.

THE CHAIRMAN: Without objection that will be entered into the minutes. May I say a word before you put your motion? The Arizona Colorado River Commission found itself in rather a precarious condition. We have lots of good advice from honest and sincere people that it was hopeless to try to get together with you people, but our experience has taught us when you sit around the table with men we find we can get some place. We do appreciate the efforts of you people. We know you have come a long distance away from your work and your homes and it has been at considerable expense, and our hope is that it has been worth all the expense and time that you have given to this, and from this meeting we will find a new road to travel that we haven't traveled yet, and that is the road of full cooperation, and while we have been guilty perhaps of leaving out some of the niceties of a convention, what

we were concerned with was that we get down to work and do something. We wanted to present to you as we saw it the seriousness of the Mexican situation with respect to the Colorado River, and to look at it from every angle. That was the sole purpose of our meeting, realizing that intelligent people, seeing the picture, if you saw it as we did, would attempt to do something about it, which leads us to further doing something about it, in having a development program, making it what it is, a national problem worked out in cooperation between the various states, so we appreciate your coming here. The program as outlined was done at the suggestion of the other states. We tried to get their ideas as to what would be profitable to discuss, and meeting their suggestions and our desires also, we kept out of the meeting everything except what we came here to discuss. Quite a number of people requested that they speak before this conference, but we have had to refuse them all. If any of those people desire to talk to you or you desire to hear them after we adjourn we will be glad to have you hold any meetings that you want to. We would not take the responsibility of having anything except the matters under discussion and so we in Arizona want to say to you that we want to work in full cooperation, in fairness to you, to understand your problems and what your needs are and we desire to present to you as we see the picture what our needs will be. We have called this conference and I believe the occasion merits all the

time and effort and expense we have given to it. We want to express our appreciation and thanks to the other states for the time you have given us in sitting in with us to do this. I believe we have passed a milestone in the development of the Colorado River.

MR. STUART: I just want to express our appreciation and again assure you gentlemen that the State of Texas is not expecting to trade other people's property for something of their own. If we can serve you in any way, we will come to you day or night, and you may expect the full cooperation of the Texas delegation in Congress to help you in your problems.

THE CHAIRMAN: Mr. Stuart, I think I can extend to you the same cooperation on behalf of all these Colorado River Basin states.

MR. WHITE: I now move you that we adjourn.

MR. GREENBURG: Will you permit me just a second, please, sir-- Speaking to the members of this conference, I think we owe Mr. Davis deep appreciation for the splendid manner in which he has presided over these proceedings and the fairness and impartiality, and I feel it is worthy of the fine service he has rendered here personally as Chairman to extend him a sincere vote of thanks, and I so move and will ask for a vote of this conference. All in favor of such an expression, signify by rising, please.

(The above motion was unanimously carried as indicated, and the conference was adjourned.)