MINUTES OF THE

12th Meeting

COLORADO RIVER COMMISSION

The twelfth meeting of the Colorado River Commission was held at Bishop's Lodge, Santa Fe, New Nexico, on Sunday evening, November 12th, 1922, at 8:00 P.M.

There were present:

Herbert Hoover,	representing	the U.SChairman
R. E. Caldwell,	11	Utah
Delph E. Carpenter,	ii	Colorado
Stephen B. Davis, Jr.,	ii .	New Mexico
Frank C. Emerson,	ű	Wyoming
W. F. McClure,	ú	California
W. S. Norviel,	11	Arizona
James G. Scrugham,	ii.	Nevada
Clarence C. Stetson,	Executive Sec	retary

In addition, there were present:

Thomas E. Campbell,	Governor of Arizona.
Arthur P. Davis.	Director, United States Recla-
,	mation Service, Department of
	the Interior and Advisor to
	Federal Representative.
Ottoman Hamele,	Chief Counsel, United States
	Reclamation Service, Department
	of the Interior and Advisor to
	Federal Representative.
C. C. Lewis,	Assistant State Water Commis-
	sioner and Advisor for Arizona.
R. T. McKisick.	Deputy Attorney General and
,	Advisor for California.
R. I. Meeker,	Deputy State Engineer and Ad-
	visor for Colorado.
Richard E. Sloan,	Legal Advisor for Arizona.
Dr. John A. Widtsoe,	Advisor for Utah.
	*

The meeting was called to order by Mr. Hoover.

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MR. NORVIEL: Mr. Secretary, inasmuch as I did not receive a copy of either of these proposed compacts or drafts until Thursday evening, and Friday morning, I haven't had sufficient time to go into the analysis of the language. I have a few questions I would like to ask to clarify some of the points raised in these compacts. I don't feel like entering into any discussion of the proposed compacts until these matters may be clarified by answer, and I would like to have the answers either in writing or transcribed so that I may study them. Then we will take up the general discussion, if it is the will of the Commission, on these proposed drafts. Until then I do not feel like entering into a general discussion of the main question.

MR. HOOVER: What are the questions? We might as well get to it.

MR. NCRVIEL: The first question I desire to ask is this:

Is the fifty-fifty proposition an arbitrary division of the waters or is it based on facts and conditions?

MR. CARPENTER: You mean based on facts. The fifty-fifty division plan proceeds as it appears in the tentative draft offered by me, upon the basis of the twenty-year record at Yuma. Working out from that twanty-year record, the object has been and is to ascertain how much more water must flow past Lee's

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Ferry in order that the amount when added to what comes in below, will give the lower division fifty per cent of the Yuma flow. It was my thought that the twenty-year record that we had will not be improved much by more records at that point. And the hydrographers and experts advise me that a twenty-year record on a river is adequate in its completeness and includes enough years to warrant an assumption that the average there deduced would be the average flow of the river in the future. With that in view, I took that record as a basis and worked from that premise. Does that answer your question?

MR. NORVIEL: No it doesn't touch the question at all. I will read the question again: Is the fifty-fifty proposition an arbitrary division of the waters or based upon facts and conditions? In other words, is it based on any calculation, or arbitrarily - hit or miss?

MR. CARPENTER: It is not a hit or miss. It is arbitrary in that it is proposed to divide the flow of the river equally between two divisions.

MR. HOOVER: Doesn't it proceed, Mr. Carpenter, upon the assumption that the amount of actual irrigable area is indeterminable and that it is just a broad compromise of the issues between two groups.

MR. CARPENTER: To quite a degree, yes. The data we have comports pretty well with the fifty-fifty plan of division.

MR. NORVIEL: Well then, would you say that it is arbitrary or based on facts?

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MR. CARPENTER: Both. Partly on facts and partly arbitra-

MR. HOOVER: Perhaps another answer would be that it is an attempt to compromise the situation.

MR. CARPENTER: It rather appeals to the average mind as suggestive of compromise.

MR. NORVIEL: The next question: In the proposed guarantee of 6,264,000 acre feet per annum to be delivered at Lee's Ferry, is it to be understood that this amount of water is to be delivered annually, or may it be delivered during any portion of the ten-year period, as may be determined by the Upper division?

MR. CARPENTER: It is not proposed to deliver just that amount and no more or less annually. That is to be the annual average over a ten-year period. As far as the will of the Upper Division is concerned, it was the thought at the beginning and it is still in the mind of the author, that the natural conditions would prevent any arbitrary position, but that in the event the diminution should be beyond that, which may be possible, that the Upper division should not encroach upon the flow of the stream to such an extent as to reduce it below an average annual figure of the Lee's Ferry diminution. The author of this compact makes no pretense that those figures are absolutely accurate and is not bound to the particular figures mentioned. There had to be some set of figures taken and they should be made to conform to the facts whatever they

may be ascertained to be. If you mean by your cuestion that · we might withhold the water for seven years in the upper territory and then deliver enough to make an annual average of six million odd acre feet per annum, delivered all in three years, it is not in the range of my thought that any such condition would possibly be. I might say in that regard that you may have in mind the construction of a reservoir at Lee's ·Ferry as a controlling factor. It was my thought that that would be essentially a lower division reservoir, or one for the benefit of the lower division, andit was not the thought that it would be possibly placed in a position of taking the whole flow of the river for a year, and depriving the lower territory of the benefit of that flow. That would be too abhorent. The reservoir at Lee's Ferry would naturally be a stabilizing influence for the lower territory, stabilizing the matter of delivery.

MR. NORVIEL: Let me ask the question without the amount of water. In the proposed guarantee of the certain amount of water per annum to be delivered at Lee's Ferry, it is to be understood that this amount of water is to be delivered annually or may it be delivered during any portion of the ten-year period on the arbitrary determination of the Upper division?

MR. CARPENTER: It wasn't the thought that it might be delivered under the arbitrary determination of the Upper division. It was the thought that the river would flow at that

point - some water - be it much or little. Naturally, some
years it will be much, - some years more, some less.

MR. SCRUGHAM: Wouldn't the possible objection be solved by including with the amount, a minimum flow in second feet?

MR. NORVIEL: It isn't in the compact.

MR. SCRUGHAM: You haven't any objection to inserting a minimum flow?

MR. CARPENTER: Not if you made it low enough.

MR. NORVIEL: I am trying to get at what is meant. That is all.

MR. CARPENTER: That the measured flow of the river as it runs year after year for ten years, when added together and divided by ten, should make six million some odd thousand acrefeet per annum.

MR. NORVIEL: I might ask this question then; Is the tenyear period a continuing thing, or is it just for the first ten years?

MR. CARPENTER: Yes, It says/ ten-year period. Suppose you were on the twelfth year. You take that year and include the nine preceding years. On the thirteenth year, you could take the nine preceding years.

MR. NORVIEL: The periods overlap, do they?

MR. CARPENTER: Well, you can make them overlap, yes. It is what I would call more of a progressive ten years. Each year would have nine years behind it. Those taken with the one particular year in question would make the ten-year period.

MR. NORVIEL: At the end of the ten-year period, would you take the next year?

MR. CARPENTER: Any one year, with the nine preceding years, making a total ten-year period.

MR. HOOVER: It is possible under that arrangement, however, that if there were three consecutive dry years, that all of the water might be used in the Upper states, and that in the remaining seven years a delivery of water might be made that would equalize the whole business, is it not?

MR. CARPENTER: Theoretically, yes.

MR. CALDWELL: May I ask a question?

MR. NORVIEL: As far as I am concerned, yes.

MR. CALDWELL: Suppose the figure that you mention is

6,000,000 acre feet just to make it easy, is it your idea that
preceding
during the ten years/ any year
we will say, that there should be delivered down the river

60,000,000 acre feet past Lees Ferry?

MR. CARPENTER: That there should be an aggregate of 60,000,000.

MR: CALDWELL: Is that a minimum which you guarantee?

MR. CARPENTER: Yes sir.

MR. CALDWELL: That would mean absolutely nothing. It is fallacious making an aggregate of 60,000,000 in three years or four years or—

MR. CARPENTER: It is fallacious to say that the river won't run or that we could use all of it. That states the

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impossible unless we built the reservoir away above Lee's

Ferry and arbitrarily took what came and the reservoir was so

large that we could utterly deprive the lower states of any

water at all for a three-year period. That never entered my

mind because such a thing is inconceivable. It didn't enter

my range of thought.

MR. NORVIEL: Let me ask another question that perhaps would clear it up to me. First your statement is that any year and the preceding nine years must have delivered past Lee's Ferry ten times this amount of water, whatever may be agreed on.

MR. CARPENTER: Yes, in the aggregate.

MR. NORVIEL: In the aggregate.

MR. CARPENTER: At least that much.

MR. NCRVIEL: At least that much. Suppose it should happen that the first eight years would have contributed to the lower basin 45,000,000 acre feet and it should then be in a dry cycle of years and it would be impossible to deliver the remaining amount of water in the next two years.

MR. CARPENTER: In such an event we would fail to keep the compact.

MR. NORVIEL: Then what?

MR. CARPENTER: Probably have to make it up later.

MR. SCRUGHAM: Can't you save a lot of this discussion by agreeing upon the principle of a minimum flow at once.

MR. NORVIEL: I am not discussing the question. I am just trying to get at what is meant by this language. In the proposal that one-half the allotment to Mexico is to be delivered at Lee's Ferry, is any estimate to be made of the loss by evaporation or percolation between Lee's Ferry and the point of diversion to Mexico?

MR. CARPENTER: No. That was considered. It was thought that the power benefits and other benefits that would run to the lower country would offset the losses. That power benefits would run to the lower territory, as the water flows along it would furnish an additional amount of energy that would be availed of by the lower country for their development. It was thought that that would offset evaporation losses. Let me make a further statement: If within the Upper territory, say in Colorado, a reservoir is constructed, we will have an average evaporation loss — or if a reservoir was constructed at Flaming Gorge, we will have an evaporation loss. We will have to stand that, and it was thought the power benefits would offset the evaporation loss.

MR. NORVIEL: I am referring to the half of the water you are to deliver to Mexico.

MR. CARPENTER: It was thought that all the evaporation losses along the river in such division would be offset by the power benefits, and the Mexican water with it. I may say, Mr. Norviel, — on that line of the Mexican water — that the increased loss would probably be negligible for that amount of water will be

traveling along a river already full, so to speak. You would only increase the water and you have your evaporation losses anyhow.

MR. NORVIEL: Well, that is argument, but the question was, is there to be an estimate made of the evaporation losses between Lee's Ferry and the point of diversion.

MR. CARPENTER: Yes sir, that was thought of, considered and discussed between myself and Mr. Meeker to considerable length. And as I stated at first, it was thought the power benefits in that additional amount of water would more than offset the evaporation loss.

MR. NORVIEL: That would perhaps bring another thought in that connection. It is your intention then, that whatever the evaporation loss and loss by percolation of the one-half you propose to deliver to lexico, shall be made up from the water you turn down in the amount that you have specified or propose to specify.

MR. CARPENTER: It would presumably.

MR. NORVIEL: There would be a recognition of the existing rights of appropriation or a provision made for these rights?

MR. CARPENTER: No. It was thought unnecessary. I might say there that whatever structures are built, for example, in the Upper Division would naturally be subject to existing right. there. Whatever diversions and appropriations are made in the Lower Division would naturally be subject to the existing right.

and conditions there.

MR. NORVIEL: What do you mean by "there"?

MR. CARPENTER: In the Lower division.

MR. NORWIEL: Was any estimate of the loss by evaporation and percolation between Lee's Ferry and the point of use taken into account in arriving at the estimation of 6,264,000 acrefeet?

MR. CARPENTER: No. I understand there is a loss in that section, but that was an unknown quantity.

MR. NORVIEL: I have one more question I will ask but I think it has already been answered. Is it intended in the draft of agreement to cover only the unappropriated water or the whole of the water in the basin both appropriated and unappropriated?

MR. CARPENTER: The whole of the water of the basin.

MR. HOOVER: May I ask a question there? The plan conceives a reconstruction of the river before any diversions were made at all - conceives a sort of fifty-fifty division of the river as it was before white men began to divert it?

MR. CARPENTER: It would probably result in that conclusion.

MR. A. P. DAVIS: The irrigation in the Upper Basin is now about 1,530,000 acres. The consumptive use of water on that area is about 1.54 acre feet per acre, and the amount consumed in that basin would be the product of those two figures. On the Gila, including the Salt River, there is about 400,000 acres of land irrigated; I guess something over that, speaking from

memory. I haven't seen the figures for some time but from memory between four and five hundred thousand acres. Perhaps you have it in mind, Mr. Norviel.

MR. NORVIEL: Something over 400,000 acres I think.

MR. A. P. DAVIS: Before that is entered upon, it would necessitate another thing which is discussed somewhat in my report and there is some data on it - that those figures affect the measurements at Yuma in different amounts throughout these years. The amount varies and there would have to be a presumptive increase applied to those figures at Yuma, and they would all be increased by the amount of the use above. For example, the Salt River reservoir, the large increase of consumption due to irrigation from it didn't take place until six or eight years had elapsed. That applies also to the Upper Basin. The consumptive use in the Lower Basin is much greater per acre than in the Upper basin, probably by fifty or sixty per cent. By the consumptive use, I mean per acre. The consumptive use in total would be less so that they would not quite balance. The flow at Yuma, to be increased by that amount, would have to be increased more than it would be diminished.

MR. EMERSON: Mr. Davis, you have a certain acreage and a consumptive ues of 1-6/10 acre feet for that acreage. Did that include the diversion to Imperial Valley?

MR. A. P. DAVIS: No, that was only the Upper Basin.

MR. EMERSON: How many acres?

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MR. A. P. DAVIS: 1,530,000.

MR. NORVIEL: Do you have in mind a statement made by Engineer Merriell, the engineer in charge of the Gunnison project, I think it was in Grand Junction, when he said that in six acre feet there was 20% return flow - no, 60 inches I think he said - leaving four feet of consumptive use in the project.

MR. A. P. DAVIS: I remember his testimony. A large amount of return water is diverted on the project, and used over again. I was speaking on the average, it is greater in the lower valleys than in the higher.

MR. EMERSON: Do you think it would average more than 1-6/10?

MR. A. P. DAVIS: That is as near as Mr. Conklin could estimate.

MR. NORVIEL: I would like to ask Mr. Meeker if that isn't about the result of his investigations also.

MR. MEEKER: My investigation covered the Western Slope of Colorado, and I have used a consumptive use of 1-3/10 acre feet per acre per annum.

MR. NORVIEL: As the estimated consumptive use for that state.

MR. MEEKER: Yes sir.

MR. EMERSON: I would like to ask for information, a further question, Mr. Norviel. As I understand, you don't wish to declare yourself upon the principle of dividing the river

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into these two divisions until you settle certain matters of detail that are brought up by that particular form of compact. Is that right?

MR. NORVIEL: No. I don't think you understood me. I am asking these questions with a view to arriving at an understanding of certain things so that I may study them a little more. I haven't had the opportunity to study them that I think I should have had.

MR. CARPENTER: Understand, the proposed pact is simply a suggestion of a basis for discussion.

MR. NORVIEL: But what I want at present clarified, is the meaning.

MR. EMERSON: Would you accept it as a principle, a question of division of waters as between an upper and lower division.

MR. NORVIEL: I hope to be able to tell you sometime tomorrow.

MR. EMERSON: It seems to me you should decide a general broad principle. If we reconstructed the river as to flow, it apparently might result in a little balance in favor of the lower division.

MR. A. P. DAVIS: Yes sir.

MR. NCRVIEL: Perhaps one-half million acre feet, something like that. Then there would be a question arise at once as to the evaporational losses between Lee's Ferry and the point of diversion.

MR. A. P. DAVIS: Yes sir.

MR. NORVIEL: Have you computations of that loss?

MR. A. P. DAVIS: I estimate a loss between Boulder Canyon and Yuma at about a million acre feet per annum. That is based upon measurements made at Topock and Yuma, at intervals for a period of years, which are very erratic, — and a few measurements above. Under normal conditions when there is no particular storm condition, there is a decided loss between Topock and Yuma and the measurements of the river at that time gives us the best information we have as to what that loss is. Of course, that is a net loss at the particular time, and by taking these dry times, we get at the loss, which is a variable amount. I have roughly estimated that the losses between Lee's Ferry and Yuma are somewhat larger; but not much larger than the inflow.

MR. NORVIEL: Do you mean to say the losses are larger than the inflow so that the inflow between Lee's Ferry and the Yuma dam do not compensate for the losses?

MR. A. P. DAVIS: On the average, I think that is true. That includes the inundation of between two and three hundred thousand acres of land. But the area of bottom land that overflows outside the river bed is somewhere in the neighborhood of 200,000 acres, more or less. It couldn't be very accurately determined as the river varies all the time and it can't be measured every month. And I have here also for the information of the Commission an estimate I asked for to check my own ideas,

from Mr. Grover who is the Chief Hydrographer of the Geological Survey, on inflow. It isn't complete, but I can allow for the lack. Mr. Grover estimates the Paria River an average flow of 60,000 acre feet; Kanab Creek, 30,000; Little Colorado River, 200,000; Virgin River, 233,000; Williams River 75,000. are most of them based upon meagre measurements and while individually I would from my own memory make some corrections, I would arrive at nearly the same conclusion as Mr. Grover does, excepting that he has entirely omitted all of the areas except those five streams while they include only about 2/3 of the drainage area. To complete it on the same basis, assuming that the little streams not included in these five principal streams, flow at the same average per square mile, it would bring the amount up to just a little over 1,000,000 acre feet, which is practically the same as our estimated losses, before any fiftyfifty proposition was suggested between Boulder Canyon and Yuma. I think probably the 1500 second feet loss between Boulder and Yuma was large but certainly the excess was not more than enough to balance the rest of the canyon. The losses in the canyon are relatively small, and the losses below are great because of the broad expanse covered by water.

MR. NORVIEL: Mr. Davis, one more question. Assuming you have read this compact, or heard it read, and understand its purports, does it contemplate necessarily the construction of a large dam in the lower river and the storage of water and stabilizing the flow of the river in order that the lands in the

lower basin may be served with water?

MR. A. P. DAVIS: Such a reservoir would be necessary if this compact were entered into, of course.

MR. CARPENTER: And if the minimum were reached of the delivery, it would be necessary.

MR. A. P. DAVIS: Storage would be necessary in any event.

MR. NCRVIEL: I will ask if you had in mind the storage and control of the floods of the river in the lower basin?

MR. A. P. DAVIS: Yes, in both basins. Our upper development must largely proceed from storage as well as the development below. But it does contemplate the storage and control of the floods in the lower basin.

MR. NORVIEL: It being necessary to construct a large dam in the lower river to take care of the floods to be delivered to the lower basin as its portion of the waters of the Colorado River, and on occasion perhaps of one, two or three years when no water of consequence may be added, what effect would evaporation have on the quantity of water for use in the reclamation of lands below?

MR. A. P. DAVIS: It would reduce it and under the compact as proposed by Mr. Carpenter, it would be charged against the lower basin as I understand it.

MR. NORVIEL: Could you estimate the amount of that loss by evaporation?

MR. A. P. DAVIS: Yes, it can be estimated and I can give it to you in a few minutes, very roughly. I have a table here

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of the area of the reservoirs that might be used either at Boulder Canyon or at Glen Canyon. They would not have any very different results. I think I might take Boulder Canyon as a type and with, say, 16,000,000 acre feet which would be a necessary storage to entirely control the river outside of any flood control considerations, that would expose to evaporation, an area of 80,000 acres.

MR. NORVIEL: And the evaporation per annum would be how many acre feet?

MR. A. P. DAVIS: I suppose we might assume about six feet. That reservoir would not be full, of course, all the time. In fact, under normal conditions, we are assuming it would be approaching emptiness. But we are safe in taking it at 6 feet. Assuming about one-half of it would be exposed, that would be about 240,000 acre feet per annum.

MR. CARPENTER: With respect to any reservoirs constructed in the Upper area, there would be evaporation there also, and that would automatically be cared for and deducted under this plan without any figuring.

MR. A. P. DAVIS: That is true. This compact requires, however, that the lower basin stand the loss from either Lee's Ferry, or anything below it.

MR. NORVIEL: I am just endeavoring to ascertain the approximate loss. You speak of a dam creating a reservoir with a capacity of 16,000,000 acre feet. Under this compact - this form of draft - the lower states or basin would be chargeable for all the water that passes Lee's Ferry. In such a reservoir

as you suggest, would there not be a great loss of that water because of the inability to hold it?

MR. A. P. DAVIS: Unless a larger reservoir than that was provided, there would.

MR. NORVIEL: How large a reservoir would you say was necessary.

MR. A. P. DaVIS: I should say that a reservoir with a capacity of 24,000,000 acre feet would be the wise one to build, 4,000,000 of which I assumed would be purely for flood control, the balance of 20,000,000 would entirely control the river as it has occurred in history, and these flood conditions, I am assuming, would be outside of past experience.

MR. NORVIEL: Isn't it a fact that during several years it has flowed more than that amount?

MR. A. P. DAVIS: Yes, but you are using it all the time. You don't have to use all the water that flows.

MR. NCRVIEL: Under the conditions imposed by this draft, would it be safe to deplete the quantity of water more than one-half in any one year in the reservoir?

MR. A. P. DAVIS: Yes. If you never deplete the reservoir more than one-half, it means you have a larger reservoir than you need. To use a reservoir economically you must assume that you empty it sometimes, that is, empty the storage portion of it.

MR. CARPENTER: Mr. Davis, a drought in the lower territory is indicative of a drought at the source is it not; so drought the Upper basin suffers by that as well as the lower basin, does it not?

MR. A. P. DAVIS: It probably would, yes. As a matter of fact, there are but few large diversions in the upper basin but what at some time normally take all the flow of the river now. The Grand Valley Project is the only one I know of in the Upper basin that doesn't take practically all of the water that is available in the low water seasons which we have experienced. Now if an abnormal year occurred, all those projects would be short. They would be unable to consume as they want to.

MR. NORVIEL: In those years they would be unable to turn down any water perhaps.

MR. A. P. DAVIS: No, they would close down their head-gates. The entire project in the upper basin, as a physical possibility, can be closed off and use no water. They contemplate that possibility. It is something that the upper basin is deliberately shouldering. Of course, they wouldn't do it if they felt any danger in it.

MR. NORVIEL: In other words, you think if they should deliver in a flood this year, three times the amount and then three succeeding years were dry, they would be privileged to take it all out, and that they would shoulder the same responsibility as we? This year they turn down a three year amount, and then for the two succeeding years, they would not be compelled to turn down any.

MR. A. P. DAVIS: No, that doesn't follow. The compact contemplates ten years and in nine years they could turn down

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enough to fill their contract if they were able. On the first five years they could turn down enough to save it back the next five.

MR. NORVIEL: And you think that would be shouldering the same burden as we?

MR. A. P. DAVIS: If they turn down a full supply for say seven or eight years and then two or three years of drought would come whereby they couldn't turn down that amount of water after storage is provided, these excess years would save the situation during the dry ones.

MR. HOOVER: Don't we predicate this whole operation on the creation of storage in the lower basin?

MR. NORVIEL: This is going further than I had anticipated. The questions I asked were for enlightenment only on the language and we are getting further away from what I had in mind. The other discussion is very enlightening. I am very glad to hear it, but it should come in a general discussion.

MR. A. P. DAVIS: The percentage of inflow below Lee's
Ferry in the compact Mr. Carpenter has presented, is assumed to
be 14. I am not informed of any figures on which they can be
based, possibly Mr. Meeker could enlighten us on that point.
As I take it, the Gila furnishes about 6% of the flow and some
other percentage is furnished below Lee's Ferry. In my report
you will find 14% taken as including a lot of small streams,
but it includes three important streams above Lee's Ferry, so

as I understand it the 14% is certainly too high for the flow of those streams - The Fremont, Escalante, and Paria. There is still more drainage area that isn't included in those streams.

MR. NORVIEL: If the division point is a mile below the mouth of the Paria, the Paria should be taken into consideration in the upper Basin, should it not?

MR. A. P. DAVIS: Yes.

MR. CALDWELL: Why single those streams out?

MR. A. P. DAVIS: They are streams that are included in the 14 % which should not be. The Gila, 6% and the others 8%, adding up to 14%, and it includes those three streams and a few small streams besides, and I think the flow above the Gila and below Lee's Ferry would be somewhere about 5% instead of 8%.

MR. NORVIEL: Making about 11%?

MR. A. P. DAVIS: Yes.

MR. NORVIEL: The losses would be greater than that.

MR. A. P. DAVIS: No the losses would be deducted.

MR. S. B. DAVIS: Inasmuch as Mr. Norviel is not prepared to state tonight his position on the general proposition of the division of the water between the two basins, might it not be well to proceed with the call of the states and ascertain what the position of the other states is?

MR. HOOVER: I think so.

MR. McCLURE: The fifty-fifty basis appeals to me as a fair

base for discussion.

MR. HOOVER: This is just upon the general principle of establishing a division between the upper and the lower states. (Call resulted as follows:

AYES:

R.E. Caldwell,
Col. J. G. Scrugham,
S. B. Davis, Jr.,
Frank C. Emerson,
W. F. McClure,
Delph E. Carpenter.
Utah;
Nevada;
Nevada;
New Mexico
Wyoming
California
Colorado

MR. HOOVER: I want ir. Norviel to understand that this is not a committal as to details or quantity - just the principle.

MR. EMERSON: It seems to me that the tenor of the conversation has been rather to convince him that he doesn't want to accept the general principle, that is, basing it upon these certain arbitrary figures.

MR. NORVIEL: I think you are wrong.

MR. EMERSON: If we would say that you would have 95% of the water you would agree to it. It isn't a question of detail.

MR. NORVIEL: Didn't I say yesterday that I was willing to enter into a discussion of detail, and that if the details could be worked out, I would be in favor of it?

MR. EMERSON: If we could say tonight that you would have 95% of the water that goes by Lee's Ferry, wouldn't you accept it.

MR. NCRVIEL: I think you might answer that for me.

MR. EMERSON: Then you are in a position to accept it in principle.

MR. NORVIEL: I want to clarify the language.

MR. CARPENTER: He thinks he left the impression with us that he is willing to discuss this as a matter of detail, but he isn't settled in his opinion yet.

MR. HOOVER: I think we could proceed on the line of international conferences, reaching a scttlement of principle, and then draft whatever is agreed to.

MR. NORVIEL: Well, it was not particularly the English of it, but the import at which I was trying to arrive.

MR. EMERSON: We don't want to cloud the main issue by unfavorable consideration of detail.

Meeting adjourned at 9:30 P. M. to reconvene at 10:00 A. M., Monday November 13th.

Clarence C. Stetson, Executive Secretary.

The above minutes were approved at the 27th meeting of the Commission, held at Santa Fe, New Mexico, Friday afternoon, November 24, 1922.