

MINUTES OF THE

11TH MEETING

COLORADO RIVER COMMISSION

The eleventh meeting of the Colorado River Commission was held at Bishop's Lodge, Santa Fe, New Mexico, on Saturday morning, November 11th, 1922, at 10:00 A.M.

There were present:

Herbert Hoover, representing the U. S.,	Chairman
R. E. Caldwell,	" Utah
Delph E. Carpenter,	" Colorado
Stephen B. Davis, Jr.,	" New Mexico
Frank C. Emerson,	" Wyoming
W. F. McClure,	" California
W. S. Norviel,	" Arizona
James G. Scrugham,	" Nevada
Clarence C. Stetson,	Executive Secretary

In addition, there were present:

Governor Thomas E. Campbell of Arizona
Governor Merritt C. Mechem of New Mexico

Edward W. Clark, Joint Commissioner and Advisor for Nevada.
Arthur P. Davis, Director, United States Reclamation Service, Department of the Interior and Advisor to Federal Representative.
Ottamar Hamele, Chief Counsel, United States Reclamation Service, Department of the Interior and Advisor to Federal Representative.
George L. Hoodenpyl, City Attorney, Long Beach, California
C. C. Lewis, Assistant State Water Commissioner and Advisor for Arizona.
Richard E. Sloan, Legal Advisor for Arizona.
Charles P. Squires, Joint Commissioner and Advisor for Nevada.
Dr. John A. Widtsce, Advisor for Utah.

The meeting was called to order by Mr. Hoover.

The minutes of the tenth meeting were read by the Secretary.

MR. HOOVER: If there is no objection the minutes will be accepted as read.

(The minutes were thereupon unanimously approved.)

The first matter we need to consider is the method of procedure; that is the manner of making the most expeditious progress. I understand that two or three Commissioners have formulated suggested pacts as a basis of discussion and I am wondering whether the other delegates that have arrived have themselves formulated any ideas. Have you (addressing Mr. Scrugham) given any more thought to it?

MR. SCRUGHAM: No, I have not.

MR. McCLURE: At your request, Mr. Hoodenpyl of Long Beach, California, has outlined something which he will be pleased to present.

MR. HOOVER: Have you got it now?

MR. McCLURE: No. He said he would like, if agreeable, to present it if he could have ten or fifteen minutes.

MR. HOOVER: (Addressing Mr. Emerson) Did you formulate some project?

MR. EMERSON: Nothing in written form. I have some ideas.

MR. HOOVER: We can proceed in a great number of ways. We can enter upon a general discussion as to principles, or take up the forms of compact that have been prepared. I would like to hear what your views are as to how we shall proceed.

MR. SCRUGHAM: I suggest we take up the states alphabetically and let the representative of each state present, - or whoever he desires to present it for him, - such proposals as he may have to offer. We could commence with

Arizona.

MR. HOOVER: Is that agreeable to the others?

MR. S. P. DAVIS: I think it is a very wise suggestion.

MR. HOOVER: I should be glad to hear from Arizona.

MR. NORVIEL: Mr. Chairman, we have a suggested form of pact. I might say that we have the dotted lines on it. (Handing copies to members of the Commission) This draft is similar to the one that was sent to the Commissioners some weeks ago. A few little changes have been made in it which we think are clarifying, both in the language and, perhaps, in conformity to more nearly accord to law and I ask the consideration of this writing at the proper time.

We have discussed questions in general at our various meetings heretofore so that I do not think an introductory statement will be necessary or worth while at this time. I ask the consideration of this form and, when the time comes, that it be taken up for discussion.

MR. HOOVER: Don't you think it will be desirable that we go through it in detail so as to fully understand it?

MR. NORVIEL: Perhaps it would be better to read it at this time. Someone, - the Secretary, - might read it so that we will be sure that all of us have at least heard it before it is discussed.

MR. HOOVER: I think it might be helpful if it was read. We can give a moments consideration to a determination of what are the underlying principles in the proposal.

In all suggestions made there are certain simple underlying principles. Our problem at the start may well be a discussion of principles. The actual form of documentation or reduction of those principles is secondary and can be got at fairly easily. I suggest that Mr. Stetson read it.

(Thereupon Mr. Stetson read the form of compact presented by Mr. Norviel)

MR. STETSON: (reading)

"COMPACT PROVIDING FOR THE EQUITABLE DISTRIBUTION OF THE WATERS OF COLORADO RIVER AND ITS TRIBUTARIES.

"The United States of America and the States of Arizona, California, Colorado, New Mexico, Nevada, Utah and Wyoming, being desirous of providing for the equitable distribution of the waters of Colorado River and its tributaries among the said States, and of protecting the interests of the United States therein; of removing all causes of controversy between said states appertaining to said river and its waters, and being moved by considerations of interstate comity, have resolved to conclude a compact for these purposes, and

"WHEREAS, There is urgent necessity for the immediate control of the floods of the Colorado River in such manner as to remove permanently the menace of overflow and the consequent loss of life and destruction of property and to conserve for beneficial uses the unused waters of the river, and to that end there should be constructed at the earliest possible date a large dam or dams at some suitable point or points on the lower river of sufficient size to form a reservoir with capacity to store at least the average annual flow of the river; and

"WHEREAS, by authority of the Congress of the United States and of the Legislatures of each of the States of Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming, a commission composed of a representative of the United States of America and of each of said states has been duly appointed to negotiate and enter into a Compact respecting the future utilization and disposition of the waters of the Colorado River and its tributaries to the end that the rights of the United States and of each of said States inter sese with respect to said waters may be definitely fixed and determined and the proper and full development of the region included within the Colorado River Basin be advanced thereby: and

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"WHEREAS, subject to ratification and approval by the Congress and by the Legislatures of said States the terms of such Compact have been agreed upon by said Commission as follows:

ARTICLE 1.

"The States of Arizona, California, Colorado, New Mexico, Nevada, Utah and Wyoming mutually agree among themselves and with each other and with the United States of America that with respect to the use, distribution and utilization of the waters of the Colorado River and its tributaries, where such use and distribution within any state may affect the use and distribution made within another state, the following general principles shall be recognized and enforced as controlling in all interstate controversies or disputes relating thereto, any law or custom of any state to the contrary notwithstanding.

"First For the purpose of this compact, the Colorado River Basin is to be regarded as embracing the entire watershed of the Colorado River within the United States and also the Imperial and Coachella Valleys, and is to be considered as one economic unit; and

"For the purposes of this compact and when used herein Colorado River shall be understood to include main stream and all tributaries of that river; and

"The application of water for agriculture as used herein shall mean the application of water upon the land for any purpose, where the water is applied to promote the growth of vegetation; and

"Power, as used herein, is understood to mean both water power directly applied and hydro-electric power.

"Second. The following definitions are agreed upon:

"(a) By the word "appropriation" as herein used is meant a diversion of water from its natural channel, including diversions from storage reservoirs, and its application to a beneficial use and the creation thereby of legal rights to such diversion and use, as recognized and enforced generally in states where irrigation is practised and where the common law doctrine of riparian rights is not in force:

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"(b) By the phrase "priority of appropriation" as herein used is meant that an earlier appropriation is in right of diversion and use superior to a later appropriation.

"Third. The common law doctrine of riparian rights shall not apply or be enforced within the basin.

"Fourth. Existing rights of appropriation within the basin are to remain unaffected by this compact.

"Fifth. Appropriations of water hereafter made shall be restricted to beneficial uses. The beneficial uses herein recognized are river control, municipal and domestic, agriculture, and power.

"Sixth. An appropriation of the waters of the Colorado River may be made for agriculture only when the application of water to such use at the place of use shall be economically feasible, and when the application of water to such use may yield only a meager and unprofitable return it shall be deemed a waste and be prohibited.

"Seventh. The proprietary right that may be acquired by an appropriator of water from the Colorado River for a beneficial use shall be limited to the usufruct. The quantity of water to which an appropriator shall be entitled under his appropriation shall be the amount reasonably needed for the particular use for which the appropriation is made when the same is applied without unnecessary waste. Beneficial use shall be the basis, measure and limit of the right of appropriation, and any use that may not be justified as such beneficial use shall be prohibited.

"Eighth. During the period of _____ years from the date of the ratification of this compact, appropriations from the waters of the Colorado River shall be made subject to the following limitations:

"1. Appropriations made for each of the several uses recognized in this compact shall as a class have preference in right of use in the following order:

First: River control.

Second: Municipal and domestic.

Third: Agriculture.

Fourth: Power.

"2. As between appropriations made for the same general use priority of appropriation shall prevail.

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"3. The law of each state shall govern appropriations made therein only insofar as the same shall not be inconsistent with any of the provisions of this compact.

"Ninth. Appropriations made from the Colorado River after the expiration of said period of time, or if said period of time be extended by agreement of the parties hereto, then after the termination of such extension, shall be made in accordance with the limitations of Section Eight hereof, except that any and all such appropriations without regard to the particular use for which they may be made, shall be inferior in right and servient to any and all appropriations made prior to and during said period of time and any extension thereof agreed to as hereinbefore provided.

"Tenth. In times of scarcity due to prolonged or unusual drought within the basin each state shall be entitled, as a matter of right, to have an equitable apportionment made of the available waters based on appropriations as herein defined, to the end that appropriators within said state shall receive a fair, just and equitable proportion of said waters in accordance with the limitations and provisions of this compact.

"In any suit for the enforcement of the foregoing provision the court shall have power to grant such relief and adopt such remedy as may in its discretion be deemed necessary or proper.

"Eleventh. Whenever any dam and other incidental works shall be constructed on the Colorado River in whole or in part within any state for the generation of hydro-electric power, by virtue of ownership being vested in the United States, shall be exempt from taxation, said state shall be entitled to an allocation or allotment of free power generated or made possible by such works, of commercial value equal to and in lieu of the revenue such state would receive if such dam and incidental works were taxable by the state.

"Twelfth. Whenever in any state any dam and incidental works for the generation of hydro-electric power, primarily or as a by-product, are constructed under license, permit or franchise granted by such state said state may reserve in any such license, permit or franchise, and whether such reservation be made or not the State shall have the right to take over, maintain and operate any such dam and incidental works as may be provided in said license, permit or franchise, upon the condition that it shall pay to the licensee, permittee, or holder of said franchise the fair value of the property taken, and if all the property constructed or created under such license, permit or franchise be not taken, such property being dependent on the license, permit or franchise for its value, then it shall pay

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also the reasonable damages such licensee, permittee or holder of such franchise may suffer, caused by the severance of the property taken from the property not taken. Such right to take shall not be exercised until the expiration of the license, permit or term period of the franchise provided in the laws of the state under which such license, permit or franchise is granted. Provided that such right shall be exercised subject to any paramount right the United States may possess.

"Thirteenth. No water shall be diverted from the Colorado River Basin for use outside of the Basin as herein specified, except it is now agreed that within the State of Colorado there may be so diverted not to exceed _____ acre feet per annum; and within the State of Utah there may be so diverted not to exceed _____ acre feet per annum. Provided, however, it is agreed that this paragraph is not intended to and does not establish a legal right of intermountain diversion of water from the Colorado River Basin, nor a precedent therefor.

"Fourteenth. Where it is more advantageous or economical to divert water from the Colorado River in one state for use in another state, which may also include the storage of water in one state for use in another, such storage and diversion shall be permitted.

"Fifteenth. All actions, suits or proceedings that may be brought to enforce any of the provisions of this compact shall be deemed to be controversies between states.

ARTICLE 11.

"First. The Congress of the United States shall provide a continuing commission to be called the Colorado River Commission to consist of three persons, residents of the states within the Basin, to be appointed by the President. Said Commission shall be empowered and directed to make a study of all subjects that relate to the conservation and utilization of the waters of the Colorado River for beneficial uses; to investigate the use and disposition of such waters that shall be made in each of said states; to make reports from time to time as to the results of such study and of such investigations, and to make recommendations to the United States and to the several states based thereon.

"Second. In any action, suit or proceeding brought to enforce any of the provisions of this compact, the reports made by said Commission shall be admitted as proof of the facts recited therein.

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ARTICLE 111

"This compact shall take effect upon its ratification and approval by the Congress of the United States and by the Legislatures of the States of Arizona, California, Colorado, New Mexico, Nevada, Utah and Wyoming.

"In testimony whereof, we, the undersigned, representative of the United States, and representatives of each of the States of Arizona, California, Colorado, New Mexico, Nevada, Utah and Wyoming, by the authority in us vested, have each signed our names hereunto, at the City of Santa Fe, New Mexico, on the _____ day of November, in the year of our Lord, One Thousand Nine Hundred and Twenty Two:

Chairman
Representative of the United States

Commissioner
Representative of Arizona

Commissioner
Representative of California

Commissioner
Representative of Colorado

Commissioner
Representative of New Mexico

Commissioner
Representative of Nevada

Commissioner
Representative of Utah

Commissioner
Representative of Wyoming"

MR. HOOVER: For a better understanding of this proposal, we could reduce it to certain contained principles so that we should not take time with discussion of phraseology or minor questions. I just made a note as I went along, rather to illustrate what I had in mind, of the fundamental principles as I understand the pact: The Colorado River Basin to be regarded as the entire watershed including the Imperial and Coachella Valleys; that the principle of prior utilization throughout the basin should rule, with a limitation of time during which that rule would operate. Is that correct?

MR. NORVIEL: Yes, sir, that is correct. The vital principle of the whole thing is to stay as nearly with the law as is possible. We have fixed a period, or we have allowed a period to be fixed. It is flexible at this time. The Commission shall fix the period of time for which this shall operate. We have segregated the classes, or they really segregate themselves. First, river control, which is hardly a use of water but we recognize that the first thing in the river, perhaps, to be done is to control the river, to control the flood. The next use is municipal or domestic. The next is agriculture and the last is power. Each of these in their use takes precedence over those that follow. For instance, agriculture is servient to municipal and domestic uses all through. Power is servient to both municipal and domestic and agriculture uses, - for this period of time at least.

There being, as we understand it, a desire on the part of the whole of the inhabitants of the Valley, or of the Basin, that

at least no prior appropriation right shall attach to power, if at all, at least for a long time, so the time is left open for the Commission to fix.

MR. HOOVER: It would seem that the first principle is definition of the basin including the California Valleys. Second, the rule of prior utilization to operate throughout the basin for a definite period.

MR. NORVIEL: Yes.

MR. HOOVER: Third, that there should be priorities of beneficial use as between river control, agriculture, power and so on; fourth, there is a limitation of water to beneficial use by its economic purpose in agriculture.

MR. NORVIEL: Yes, that is it.

MR. HOOVER: Fifth, that the electric power plants/^{built}by the government or any public body should thereby furnish power in lieu of taxes and the right of states to acquire private plants should be provided.

MR. NORVIEL: Yes, private plants or any plants.

MR. HOOVER: And sixth, the limitation of diversion of water outside of the basin, and seventh, a continuing commission for determination and study,-

MR. NORVIEL: For continual study of the needs in the basin.

MR. HOOVER: I am not sure whether it is your wish to discuss this now, or whether the rule should obtain that all the different proposals should be before us. I think we would probably get further if we have all the proposals first.

MR. McCLURE: I suggest that we have the others read and I think your suggestion that a skeleton of each be prepared is apropos.

MR. HOOVER: Perhaps we might designate one of our legal members just to skeletonize the principles that underlie each pact.

MR. S. B. DAVIS: It seems to me from the statement of the Chairman as made we all understand what the underlying principles of Mr. Norviel's suggestion are anyhow. I doubt very much if it would add very much if we,--

MR. NORVIEL: There is no intention of making anything complex in it. It appears to me one or two readings of it through would clarify the whole thing.

MR. HOOVER: I think California is next in line. Would you (Addressing Mr. McClure) like to offer any proposal?

MR. McCLURE: No, sir, not at this time.

MR. HOOVER: Then we come to Colorado.

MR. CARPENTER: On behalf of Colorado I have prepared a draft of compact along the basis of the fifty-fifty division of the entire flow of the river. The members have all received copies of this compact and they have so reduced my stock that I only have a copy at hand that is really the first draft. I will have extra copies prepared and submitted, however, during the recess. I think everybody, about all of them here, have copies. Colonel Scrugham, did I give you a copy?

MR. SCRUGHAM: No. Have you an extra one?

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MR. CARPENTER: You may use that one. (Handing paper to Mr. Scrugham) Is it the desire that the compact be read?

MR. HOOVER: I think it would be very useful.

MR. CARPENTER: I might say there have been various minor changes, constructive suggestions as to minor changes, in this pact but all of those look to the matter of phraseology and for our purposes the first draft that I sent out will probably cover the situation.

(Thereupon Mr. Stetson read the form of compact offered by Mr. Carpenter)

MR. STETSON: (Reading)

"COMPACT OR AGREEMENT FOR THE EQUITABLE APPORTIONMENT OF THE WATER SUPPLY OF THE COLORADO RIVER AND OF THE STREAMS TRIBUTARY THERETO.

"The United States of America and the States of Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming, being desirous of providing for the equitable distribution and apportionment of the waters of the Colorado River and its tributaries among said States and of protecting the interests of the United States therein and of removing all causes of present and future controversy between them in respect thereto, and being moved by consideration of interstate comity, pursuant to the Acts of the Congress of the United States and of the Legislatures of the said States respectively, have resolved to conclude a Convention for these purposes and have named as their Representative and Commissioners:

The President of the United States of America,
Herbert Hoover, Secretary of Commerce of the
United States, Representative of the United States;

The Governor of the State of Arizona, W. S. Norviel,
Commissioner for the State of Arizona;

The Governor of the State of California, W. F. McClure,
Commissioner for the State of California;

The Governor of the State of Colorado,
Delph E. Carpenter, Commissioner for the State of
Colorado;

The Governor of the State of Nevada,
J. G. Scrugham, Commissioner for the State of Nevada;

The Governor of the State of New Mexico,
Stephen B. Davis, Jr., Commissioner for the State of
New Mexico;

The Governor of the State of Utah;
R. E. Caldwell, Commissioner for the State of Utah; and

The Governor of the State of Wyoming,
Frank C. Emerson, Commissioner for the State of Wyoming.

Who, after having communicated to one another their respective powers, found to be in good and due form, have agreed upon the following articles:

ARTICLE 1.

"The territory included within the drainage area of the Colorado River and its tributaries and all lands now and hereafter watered from said stream, within the United States of America, for the purposes of the equitable apportionment and distribution of the uses and benefits of the waters of said river, shall hereafter be considered to consist of two divisions which are hereby designated as The Upper Division and the Lower Division respectively.

"The long established crossing of the Colorado River above the great canyon thereof and situate about one mile below the mouth of the Paria River and at the point indicated as 'Lee Ferry' on the topographic sheet for Echo Cliffs Quadrangle (Arizona), edition of 1891, reprint of 1913, published by the United States Geological Survey, and as 'Lee's Ferry' on the map of the State of Arizona published by the Department of the Interior, General Land Office, in the year 1912 and compiled and drawn by Daniel O'Hare, is hereby designated as the point of demarcation between the two divisions of said streams, and said crossing and point of demarcation shall be indicated and designated in this compact by the use of the words 'Lee's Ferry'.

"The Upper Division shall comprise those parts of the territory of the States of Arizona, Colorado, New Mexico, Utah, and Wyoming within and from which waters naturally drain and flow into the Colorado River and its tributaries above Lee's Ferry and also of all lands within said States now or hereafter served with waters diverted from said stream and its tributaries above Lee's Ferry.

"The Lower Division shall comprise those parts of the territory of the States of Arizona, California, Nevada, New Mexico, and Utah within and from which waters naturally drain and flow into the Colorado River and its tributaries below Lee's Ferry and also of all lands within said States now or hereafter served by waters diverted from said stream below Lee's

Ferry and from all tributaries which enter said stream below said point.

ARTICLE II.

"The waters of the Colorado River and of all the streams contributing thereto within the United States of America, shall be equitably divided and apportioned among the States of Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming and between those portions of the territory of each of said States included within the Upper and Lower Divisions of said river, as defined by Article 1, hereof, in the following manner:

"1. The flow of the Colorado River shall be divided between the territory included within the two divisions of said river upon the basis of an equal division of the mean or average annual established natural flow of said river as heretofore ascertained and recorded at Yuma, Arizona, and for such purpose it is hereby found, determined and agreed that the mean or average annual flow of the Colorado River at Yuma, Arizona, from the year 1902 to the year 1921, both inclusive, has been seventeen million four hundred thousand (17,400,000) acre-feet and that of said mean or average annual flow eighty-six per cent (86%) or fourteen million nine hundred and sixty-four thousand (14,964,000) acre-feet thereof has flowed in said river at Lee's Ferry and that fourteen per cent (14%) or two million four hundred and thirty-six thousand (2,436,000) acre-feet thereof has entered said stream through streams contributing to the flow of said river between Lee's Ferry and Yuma, Arizona.

"2. The States of Colorado, New Mexico, Utah and Wyoming jointly and severally agree with the remainder of the High Contracting Parties that the diversions from the Colorado River and its tributaries and the uses and consumption of water within the Upper Division shall never reduce the mean or average annual flow of the Colorado River at Lee's Ferry over any period of ten (10) consecutive years, below a flow equivalent to thirty-six per cent (36%) of the agreed established average annual flow of the river at Yuma, Arizona, as defined in paragraph one (1) of this Article, to wit, below a flow of six million two hundred and sixty-four thousand (6,264,000) acre-feet, and that not less than said minimum mean or average annual flow shall hereafter pass Lee's Ferry for the use and benefit of the territory included within the Lower Division of said river; and the aforementioned States do further jointly and severally agree that they will cause to flow annually in said river past Lee's Ferry, in addition to the aforesaid minimum average annual flow, an amount of water equivalent to one-half the annual requirement for delivery to the Republic of Mexico as provided in Article III. of this compact.

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ARTICLE 111.

"The High Contracting Parties agree that the duty and burden of supplying any waters from the flow of the Colorado River within the United States of America to the Republic of Mexico or to any part of the territory of said nation, in fulfillment of any obligation or obligations which may be determined to exist or which hereafter may be fixed, by treaty between the two nations, shall be equally apportioned between and equally borne by the Upper Division and the Lower Division of the Colorado River within the United States of America; that the annual delivery at Lee's Ferry; by the States of the Upper Division, of a quantity of water equivalent to one-half the annual amount required to satisfy any such international obligations shall be a complete fulfillment of the provisions of this Article by said States; and that the States of the Lower Division shall contribute annually a like amount of water from those waters of the river annually to pass Lee's Ferry for the Lower Division, as provided by Paragraph two (2) of Article 11. of this compact, and from the flow of tributaries entering the river below Lee's Ferry, and further, shall cause the water contributed by both divisions to be delivered to the Republic of Mexico in conformity with any such treaty obligations.

ARTICLE IV

"A continuing joint Commission is hereby designated which shall consist of ex officio, the State Water Commissioner of the State of Arizona and the State Engineers of the States of California, Colorado, Nevada, New Mexico, Utah, and Wyoming, or of the officials of said several States upon whom may hereafter devolve the duties of ascertaining the flow of streams now performed by the named State officials; and of a person to be designated by the Director of the United States Geological Survey or by the official of the United States of America upon whom may hereafter devolve the duties of ascertaining the flow of streams now performed by said named official; and it shall be the duty of said joint commission to make provision for ascertaining, determining, and publishing the annual flows of water in the Colorado River at Lee's Ferry and, if hereafter one or more Reservoirs are created at or in the vicinity of Lee's Ferry by the erection of a dam or dams across the channel of the Colorado River at any point or points between the mouth of the San Juan River and a point ten (10) miles below Lee's Ferry, to make provision for ascertaining, determining, and publishing the flow of water which would have annually passed Lee's Ferry had no such dam or dams been constructed.

ARTICLE V.

"The High Contracting Parties agree that compliance with paragraph two (2) of Article II of this Compact by the States of Colorado, New Mexico, Utah, and Wyoming shall wholly relieve and exempt the States whose territory is in part in-

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cluded within the Upper Division and users of water within said Division from causing any additional amount or amounts of water to flow past Lee's Ferry for the benefit of the territory included within the Lower Division, and from any and every other or additional claim or assertion of right to or servitude upon the waters of the river within the Upper Division for the benefit of the Lower Division or of any users of water therein; and that no claim of prior, preferred or superior right to the use and benefit of any part of the waters of the Colorado River or of any of the tributaries thereof, within the Upper Division, other than the amounts agreed to be caused to flow past Lee's Ferry by said paragraph two (2) of Article II, shall be made, asserted or recognized on behalf or for the benefit of the territory included within the lower Division; and, further, that subject only to the fulfillment of the obligations expressed by said paragraph two (2) of Article II and to the third paragraph of this Article, each of the States whose territory is in part included within the Upper Division shall have, possess, and enjoy the free and unrestricted uses and benefits of the waters of said river and of its tributaries as the same may flow within its territory of the Upper Division, according to the constitution and laws of each said State.

"And further agree that all rights, claims, and privileges with respect to the use and administration of any reservoir or reservoirs hereafter constructed within the Upper Division for flood control or other benefit of the territory included within the Lower Division, shall be and remain inferior, subordinated, and subservient to the superior and preferred rights of diversion, use, and consumption of the waters of the Colorado River by the States and for the benefit of the territory included within the Upper Division, expressed in paragraph one (1) of this Article; and that all waters which may be discharged from any such reservoir or reservoirs for carriage in said river to the Lower Division and all waters stored in any reservoir created by the erection of a dam across the channel of the river at any place between the mouth of the San Juan River and a point ten (10) miles below Lee's Ferry, shall constitute and be considered as a part of the waters which it is agreed shall pass Lee's Ferry from the Upper Division by paragraph two (2) of Article 11 of this compact.

"The States of the Upper Division, to wit, the States of Arizona, Colorado, New Mexico, Utah, and Wyoming do jointly and severally agree that any and all claims which now or hereafter may exist or arise between any of them with respect to the uses and benefits of the waters of the Colorado River and of any of its several tributaries within the Upper Division or with respect to any claimed, contemplated, or desired servitude or servitudes by or for any one or more of them and upon the streams or territory of any one or more of the others

thereof, are specifically reserved for separate consideration, settlement or consent by those of said States so involved, and the signing and ratification of this compact shall not be construed or interpreted as a recognition of or consent to any claim, privilege or servitude upon the streams within any State of the Upper Division except to the extent necessary to fulfill the express provisions of this compact and not otherwise.

ARTICLE VI.

"The High Contracting Parties agree that, subject at all times to the rights to the diversion, use, and consumption of the waters of the Colorado River and of its tributaries for the benefit of the territory included within the Upper Division but within the limitations defined by this compact, and subject to the fulfillment of the obligations expressed in Article III, and further subject to the provisions of the second paragraph of this Article, each of the States whose territory is in part included within the Lower Division shall have, possess, and enjoy under the constitution and laws of each said State, and within its territory, the free and unrestricted uses and benefits of the waters of those tributaries which enter the Colorado River below Lee's Ferry and of all waters of said river which may pass said point from the Upper Division in conformity with paragraph two (2) of Article II and with Article III of this compact.

"The States of the Lower Division, to wit, the States of Arizona, California, Nevada, New Mexico, and Utah do jointly and severally agree that any and all claims which now or hereafter may exist or arise between any of them with respect to the uses and benefits of the waters of the Colorado River and of the several tributaries within the Lower Division, including any allocation of the burdens incident to a fulfillment of Article III, or with respect to any claimed, contemplated or desired servitude or servitudes by or for any one or more of them upon the streams or territory of any one or more of the others thereof, are specifically reserved for separate consideration, settlement or consent by those of said States so involved, and the signing and ratification of this compact shall not be construed or interpreted as a recognition of or consent to any claim, privilege or servitude by any State of the Lower Division upon the streams which enter the Colorado River below Lee's Ferry or upon said river or that part of the waters thereof by this compact agreed to be delivered from the Upper Division, except to the extent necessary to fulfill the express provisions of the compact and not otherwise.

ARTICLE VII.

"The High Contracting Parties agree that the uses of the water of the Colorado River within the United States of America for purposes of navigation shall be and remain inferior,

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subservient, and subordinated to the diversions, uses, and the necessary consumption of the waters of the stream and its tributaries for domestic, municipal, agricultural, power, manufacturing, and other similar purposes and shall not prevent or interfere with the construction, maintenance, and operation of such works or means or diversion and storage as may be necessary or essential to effectuate such preferred and superior beneficial uses.

ARTICLE VIII.

"The High Contracting Parties agree with respect to the States of each Division of the Colorado River inter sese, that all rights to the use of any of the waters of said stream and of its tributaries within the Division for purposes of generating power or of manufacture, hereafter shall vest and be exercised in all respects as inferior, subservient, and subordinated to all present and future uses and necessary consumption, of the waters within the Division for domestic, municipal, agricultural, and other similar purposes and shall not hinder, interfere with or prevent the construction, maintenance, and operation of such works or means of diversion and storage within the Division as may be necessary or essential to effectuate such preferred and superior beneficial uses, provided, however, that the provisions of this Article shall not apply to or interfere with the intrastate regulation and control of the appropriation, uses or distribution of waters within any State according to its constitution, laws and the decisions of its courts.

ARTICLE IX.

"The High Contracting Parties agree that the division, apportionment, and distribution of the waters of the Colorado River provided by this Compact and the methods adopted and the principles applied, are based entirely upon the physical and other conditions peculiar to the stream and to the territory drained or to be served and that none of the High Contracting Parties in any way concede the establishment of any general principle or precedent by the concluding of this compact and particularly with respect to the equitable apportionment of or the rights of the States to the waters of other rivers or with respect to the disposition inter sese, of the waters of streams tributary to the Colorado River and common to two or more States whose territory is included within either Division; and the concluding of this compact shall not be construed as a recognition of an acknowledgment by any of the contracting States of any principle or precedent by virtue of which any State may lay claim to or establish any servitude for its use or benefit upon the territory or the streams flowing within any other State or States.

ARTICLE X.

"This compact or agreement shall become operative when ratified and approved by the legislatures of each of the signatory States and by the Congress of the United States, and notice of the ratification and approval by the legislature of each State shall be given by the Governor of such State to the Governors of the remaining States and to the President of the United States, and notice of the approval by the Congress of the United States shall be given by the President of the United States to the Governors of all the signatory States, as soon as may be convenient after said respective ratifications, and upon such ratification and approval this Convention shall become operative and in full force and effect as of the date of the approval thereof by the Congress of the United States.

"IN WITNESS WHEREOF, the respective Representative and Commissioners have signed this compact or agreement, in a single original, which shall be deposited in the archives of the Government of the United States of America and of which a duly certified copy shall be forwarded to the Governor of each of the signatory States.

"DONE at Santa Fe, State of New Mexico, this _____ day of October One Thousand nine hundred twenty-two.

For the United States of America:

For the State of Arizona:

For the State of California:

For the State of Colorado:

For the State of Nevada:

For the State of New Mexico:

For the State of Utah:

For the State of Wyoming:

MR. HOOVER: Just to get my own mind clear I made this note as to principles and no doubt Mr. Carpenter can check it. I, the Colorado River basin is to include the entire drainage together with the Imperial and Coachella Valley, - -

MR. CARPENTER: And all lands served.

MR. HOOVER: Outside of the basin as well?

MR. CARPENTER: Yes, sir.

MR. HOOVER: 2, that the rule of equitable apportionment shall be applied to the basin; 3, that the basin be divided into the upper division and lower division, the point of demarkation being Lee's Ferry below the mouth of Paria River; 4, that the lower division shall be apportioned 36% of the average flow during ten years at Lee's Ferry.

MR. CARPENTER: An amount equivalent to 36% of the Yuma flow. Not 36% of Lee's Ferry flow. An amount equivalent to 36% of the established flow of Yuma.

MR. HOOVER: I was wondering, just for a short consideration, what does that work back to at Lee's Ferry? Under this plan it works back to some automatic figures, doesn't it?

MR. CARPENTER: I don't remember now, I am not prepared to say just how that proportion runs to Lee's Ferry. The average annual flow through a period of ten years at Lee's Ferry should be equivalent to 36% of the established average annual flow at Yuma.

MR. CALDWELL: During the same years?

MR. CARPENTER: No, we have already established the annual at Yuma over a 20 year period.

MR. HOOVER: Then a correct statement should be the lower division should be apportioned a percent of average flow during ten years equal to 36% of the flow at Yuma ?

MR. CARPENTER: Yes.

MR. HOOVER: Then you contemplate here a transfer of that determination to Lee's Ferry, don't you ?

MR. CARPENTER: Yes, we take into account the inflows above Yuma and below Lee's Ferry. They are to be deducted from the one-half supply due to the lower basin and the resultant net figure will be given to pass Lee's Ferry.

MR. HOOVER: Well, the principle is that the determination is to be transferred as provided at Lee's Ferry.

MR. CARPENTER: Yes.

MR. HOOVER: 5, Mexico is to be provided by equal deductions from the upper and lower divisions; 6, a permanent Commission to determine flow at Lee's Ferry.

MR. CARPENTER: And limited solely to that purpose, simply to establish the fact.

MR. HOOVER: 7, use within state boundaries to be based on state laws, subject only to apportionment between the upper and lower division.

MR. CALDWELL: Pardon me, Mr. Chairman, I thought I noticed another idea of Mr. Carpenter's at that point. State laws were to govern except as between divisions. It is also provided that they should at a later date agree among themselves as to how they should distribute between themselves.

(NOTE: Top half of this page omitted from photostatic copy)

MR. CALDWELL: In each division?

MR. CARPENTER: Of course the provision respecting the navigation overlaps both divisions.

MR. HOOVER: This would be a correct statement. Use within state boundaries to be based on state laws subsequent to a state agreement as to the apportionment among states within each division; 8, priorities in each division as to agricultural, domestic and municipal. That turns those around. You had them turned around the other way, - power and navigation. In other words, you started in by giving the purpose which had least priority first; I just inverted it. Those are the main principles, aren't they?

MR. CARPENTER: Yes, all of it proceeding upon equal apportionment of waters as recorded at Yuma between the two divisions of the territory served and drained.

MR. HOOVER: In the main it consists of the rule of actual equitable apportionment, in which this pact shall establish the first step as between the upper and lower division.

MR. CARPENTER: Yes, sir, leaving the states in each of the two divisions to work out their local problems as the facts may justify, the facts in each case being more or less at variance with the facts that might obtain in another case within the division.

MR. HOOVER: New Mexico?

MR. S. B. DAVIS: We have nothing at this time.

MR. HOOVER: Nevada has nothing?

MR. SCRUGHAM: No, sir.

MR. HOOVER: Mr. Caldwell, I believe you have some suggestion of a pact.

MR. CALDWELL: Mr. Chairman, it is well known to the members of this Commission, I think, what my idea was originally with respect to the development of the Colorado River and the principles on which a pact could be based.

Briefly stated, I thought in the beginning that we had a brand new river here, practically, with a good opportunity to strike rights out boldly and scientifically develop the river. In view of the fact that it is pretty well established that there was water enough for all in case such a thing were attempted, it would be the surest way to make the river yield everything that was necessary for it to yield for the benefit of the inhabitants of the states.

The states who happen to be situated on the lower portions of the river were very much concerned because, as they put it as I understood it, they could not fasten upon any water right surely and say that it belonged to them and therefore capital would be frightened away from any venture which they might propose.

In Salt Lake City at the Hotel Utah, Chairman Hoover, asked if it might not be possible to, - inasmuch as we had not been able to arrive at a satisfactory basis for the partition of the water of the Colorado River on a basis of land available

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to be irrigated in each state, whether or not it would not be possible to partition the water. With this thought in my mind I wrote out, in as brief a fashion as possible, what I thought might be done along this line. I do not consider the suggestion as exactly scientific, but it may be the very best thing to do, everything considered.

I am offering this proposition here as being tentative. I am not committed to it in any definite, absolute sense, but I should say to the Commission that I am seriously in earnest and I have no mental reservations with respect to it whatever. Of course I expected it would be criticised and added to, but I should be very much chagrined if anything is taken away from it because I thought I had got it down to an irreducible minimum.

I may state that the compact provides for partition of the water between the basins very much as outlined by Mr. Carpenter's draft here, and that it deals particularly with the unappropriated water of the Colorado River.

Now I think, Mr. Chairman, with those remarks, in conformity with your procedure and as you have outlined, that this may be read.

Perhaps I should apologize for not having copies here for every member of the Commission. I was not sure that members of the Commission would care to see it, so I didn't supply the copies.

(Thereupon Mr. Stetson read the form of compact offered by Mr. Caldwell)

MR. STETSON: (Reading)

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" A COMPACT AGREEMENT ENTERED INTO, BY CONSENT OF THE UNITED STATES OF AMERICA JOINTLY AND SEVERALLY BETWEEN AND AMONG THE STATES OF WYOMING, COLORADO, UTAH, NEW MEXICO, NEVADA, ARIZONA, AND CALIFORNIA PERTAINING TO THE APPORTIONMENT, FOR BENEFICIAL USE, AMONG THE STATES NAMED OF THE UN- APPROPRIATED WATER OF THE COLORADO RIVER AND ITS TRIBUTARIES.

- - -
PREAMBLE

"Pursuant to certain appropriate concurrent legislation by the States of Wyoming, Colorado, Utah, New Mexico, Nevada, Arizona and California, by the respective legislatures thereof, and the United States of America, by its Congress, whereby it is provided that, with the consent of the United States of America, the above named States may enter into a compact agreement among themselves providing for an equitable apportionment of the waters of the Colorado River among said states for their use and benefit; and providing that for the purpose of drafting such a compact agreement the organization of a commission, consisting of a representative from each of the said States to be appointed by the respective governors thereof, should be organized; and whereas said commission has been duly organized and has deliberated upon the question involved, it does hereby and now agree upon the following articles:

ARTICLE 1.

"For the purpose of easy reference herein, the interested States of Wyoming, Utah, Colorado, New Mexico, Arizona, Nevada and California shall be termed the BASIN STATES: The Colorado River drainage area in Wyoming, Colorado and Utah and the portions of Arizona and New Mexico now naturally drained into the main Colorado River at or above the point described in Article 111 hereof shall be termed UPPER BASIN: and the territory of the Basin States in the Colorado River drainage area not included in Upper Basin, shall be termed LOWER BASIN.

ARTICLE 11.

"The beneficial uses to which the water may be applied in the order of preferential rights is as follows:

1. Irrigation including river control.
2. Domestic and culinary.
3. Power, manufacturing and mining.
4. Sundry purposes involving the consumption of water.
5. Navigation.

ARTICLE 111.

"For the purpose of partitioning and apportioning the
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rights to the use of water from, or of the Colorado River System between and among the Basin States, the Colorado River System is divided geographically into Upper Portion and Lower Portion at a point on the main Colorado River, near or at Lee's Ferry in the State of Arizona and near the south boundary of the State of Utah and more particularly described as follows:

ARTICLE IV.

"Upper Portion shall include the main Colorado River with all water tributary thereto, above the point described in Article III.

"Lower Portion shall include the main Colorado River with all water tributary thereto, below the point described in Article III.

ARTICLE V.

"In partitioning and apportioning the waters of the Colorado River System between the Upper Basin and the Lower Basin, the unit of measurement used in such partitioning shall be the acre foot.

ARTICLE VI.

"Subject to the provisions of Article II hereof, and as between and among the Basin States, rights to the use and control of water of or from the Colorado River System, shall take priority of right from the date of appropriation provided that:

"1. The total and aggregate of all priorities of rights running to the Lower Basin from, or at the point described in Article III hereof, shall never be in excess of 6,000,000 acre feet per annum.

"2. The Upper Basin shall be permitted unrestricted use within its boundaries of tributaries arising within its territory and flowing into the Lower Basin.

"3. Reserve storage shall be provided in an amount of not less than 6,000,000 acre feet at a location on the Colorado River lying above the point described in Article III, to protect the Upper Basin against periodical dry years and annual waste to the gulf of California through and past the Lower Basin.

"4. Beneficial use shall be the basis, the measure and the limit of all rights to the use of water in the Basin States.

"5. Storage of any water of the Colorado River System shall not initiate a right to the use of water as between the Upper Basin and the Lower Basin.

ARTICLE VII.

"This compact is subject to modification:

"1. By unanimous request and consent of the Basin States, and

"2. To meet the just requirements of any international agreement that may hereafter be made and entered into by and between the United States of America and the United States of Mexico affecting Colorado River water rights determined by this compact.

MR. CALDWELL: May I just say, Mr. Chairman, the principal idea I had in writing this draft was to stick more particularly to the idea of something that would be in the nature of a basis on which we could build outside of the compact, rather than make the compact cumbersome with details.

MR. HOOVER: Well, reduced somewhat the same way, the pact would come somewhat to this: 1, The basin to include the drainage area of the Colorado and the Imperial and Coachella Valleys. I gather, rather by indirection, that you cover the whole area on which water could be utilized rather than on a strictly drainage basin.

MR. CALDWELL: You have read Coachella and Imperial Valleys into it.

MR. HOOVER: I was trying to get a conception of it. I didn't want to put anything into your mouth. 2, the rule of prior utilization shall be applied within the basin; 3, the basin to be divided into two divisions, below and above Lee's

Ferry; 4, Priorities of utilization in Lower division as against upper division should never exceed six million acre-feet per annum; 5, storage shall be provided with a minimum of six million acre-feet above Lee's Ferry; 6, priorities in use to irrigation and so on as I had them set down, and 7, I rather gather by inference than a direct statement, that the interstate relation within each division to proceed on the rule of prior utilization. Is that right ?

MR. CALDWELL: Yes, sir.

MR. HOOVER: Has Wyoming prepared a proposal ?

MR. EMERSON: I haven't any draft of a compact, but in my mind there are very definite basic principles that must be established to form a basis for a compact and I believe the Commission has got to decide upon certain basic principles to work from if we are going to get any place at this meeting, and I am willing to just rehearse those verbally as they appeal to me.

MR. HOOVER: Should we first consider the principle of what we include in the basin?

MR. EMERSON: No, not necessarily. Still, that is a secondary question.

MR. HOOVER: Oh yes.

MR. EMERSON: It is something we can easily agree upon, I believe, and the question is whether or not we shouldn't consider, first, primary basic principles to determine whether or not we can agree upon those. For instance, I think first and

is
foremost the question of whether or not there can be a definite allocation of water as between the several states, or as between certain divisions that have been suggested. Now there is something basic, to my mind. As far as I have studied the position in Wyoming there must be a definite allocation at this time if we subscribe to a compact so the question of allocation might be taken as one of the basic questions we must decide. Allied with that is whether or not,-

MR. CALDWELL: May I ask a question there?

MR. EMERSON: Yes.

MR. CALDWELL: Do I understand that allocation would reach to the allocation between the states as well as between the basins?

MR. EMERSON: Not necessarily. Not necessarily, no. As far as I have thought, for instance, this question of the theory of allocation between an upper and lower division is rather appealing, leaving the settlement between the states in the two divisions to be worked out later between the states affected themselves.

MR. SCRUGHAN: I see no reason why we should not agree upon some reasonable allocation between the upper and lower division.

MR. NORWIEL: By allocation you mean quantity of water?

MR. EMERSON: It might mean quantity of water or an acreage. The way I see it now, the only practical way is upon quantity of water,--volumes of water.

Then I would say another vital question that we need to consider is to what extent federal control should be

applied to this river. We have a representative of the United States and we have an Enabling Act of Congress so I presume that is a thing we would be entitled to pass upon, and it is a very important question, in my mind.

The third question would be that of preference rights. That has all been treated in these compacts.

MR. SCRUGHAM: Do you mean as between irrigation, power and so on?

MR. EMERSON: Yes. For instance, in each case domestic and municipal use has been given preference over irrigation. I can't conceive that there should be any preference of those rights over irrigation, except as acquired by condemnation of irrigation rights.

Another question that should be considered is whether or not judgment should be passed upon economic feasibility of any development, or whether that should be left to the economic law.

To my mind those are main basic questions that must be decided, upon which the determination can be made as to whether or not we can agree.

MR. CARPENTER: Mr. Chairman, in the draft which I submitted I make navigation subservient to all other uses, and power subservient to the remaining uses and leave the matter of preference between domestic and irrigation unsettled for the reason that all domestic rights are negligible in quantity and are largely, if not altogether, controlled by the local law of the states so I went no further, in my definition of preferences, than to say navigation should be subservient

to other uses and then in turn that the power for manufacturing should be subservient to the remaining uses. It was my thought that it is unnecessary to proceed further because, as I say, of the negligible effect of domestic uses.

The word "municipal" I included. The more I have thought of it the more I was inclined to think it should be eliminated. It is too broad a phrase. The thought at that time was this; that there have arisen questions as to whether or not a diversion by a city for use in sprinkling streets, for illustration, is domestic use and my idea of the using the word "municipal" was to include such uses as followed as incidental to municipal development. It has been called to my attention that the word "municipal" might be taken to include power development by a municipality which was not my intent and inasmuch as I do not differentiate it in defining the preferences as between agriculture and domestic, leaving them to take care of themselves, the word "municipal" might just as well be eliminated.

MR. CALDWELL: On that line, Mr. Chairman, I call attention to the fact that in the draft that I submitted I think I said domestic and culinary for much the same reasons Mr. Carpenter has pointed out.

MR. HOOVER: Isn't the broad principal here something of this order; that there should be a division of the water between the states in the upper and the lower groups. Then comes the question as to what rule shall dominate the inter-relations in each group. In other words, each group

may adopt priority of utilization or equitable division, as it may see fit. As Mr. Emerson points out, the first question is whether we can agree to a division of the states into two groups with an equitable apportionment of water between the groups.

MR. S. B. DAVIS: After, all, that amounts, to some extent, only to avoiding a certain amount of difficulty. Finally and lastly there must be a definite allocation as among the individual states rather than among the groups. All that I see in the group idea is that we shove off to the future that much responsibility. For my own part I would much rather, if it is possible to do it, make a definite allocation of water to each one of the states and only if that becomes impossible would I say that it was wise to start in on a group basis.

MR. EMERSON: I agree with Judge Davis on that. You get your fundamental consideration of whether or not allocation is possible, take it either, as you may, definitely for each state or between the two groups. Of course, if all seven states and the United States can agree at this time and each can be assured that his state had proper protection, it would be very desirable to get it right down to the state, individual states; but the question is, can it come that far? As I understand it Mr. Norviel's form of pact proposes no definite allocation at this time. I can't conceive, from the Wyoming standpoint, of any form based upon that as a premise that we can sign.

MR. NORVIEL: I started out with that view and I worked hard and studied for a long time and the more I worked at it the more difficult it seemed to be and the more impossible of administration in the future and the more I became convinced that it would be impossible even after the allocation was made to administer the water on any kind of a basis other than an acreage basis,- and that apparently was not acceptable, - so I have taken in lieu the principle that seems to me to be the most just, legal, accurate and correct principle that evolved can be in a matter of this kind.

MR. EMERSON: In some of my letters to you I discussed the difficulty as to working out an allocation in practice. To my mind and from my experience in administering water supplies, it seems to me that a plan could be worked out that would be fairly simple and entirely practical.

MR. NORVIEL: I think that is the exact tenure of our compact. We have adopted the most simple, practical, feasible proposition that has been proposed.

MR. EMERSON: That is in your own estimation.

MR. NORVIEL: And as to the division of the basin into two division, it isn't, as I conceive it, what we were appointed for. It doesn't arrive at any conclusion, and, as it is stated, it leaves the two divisions to work out their own salvation on whatever plan they may choose in the future and as Colorado and all of the states have asserted that they are "Simon Pure" appropriation states, no doubt they will follow that principle hereafter as before and the southern states,

so-called in the division, are also "Simon Pure" appropriation states, except in California, and I think insofar as the Colorado River Basin is concerned they renounce all riparian rights and accept absolutely the law of appropriation. Therefore it leaves the two divisions of the basin to work out their own salvation which does not mean anything.

MR. EMERSON: Mr. Norviel, it seems to me it means practically the whole thing to solve the problem we have in hand now. You look at this thing in a big way; it is a conflict between the states of the lower river and the states in the upper river. If you can solve that conflict why that is the biggest thing we can do.

MR. NORVIEL: I think that is what I have indicated here. If you will read carefully the suggestion I make, I think you will find there is a solution there as clear as a clear sky.

MR. HOOVER: Your principle, as I understand it, is prior utilization throughout the basin up to a certain point and thereafter an apportionment at some period.

MR. S. B. DAVIS: I understand his proposition is this; that there is a straight race as to development for a certain unnamed period, at the end of that period there is priority for whatever water has been put to beneficial use, and there is nothing whatever said as to what should be done after that period.

MR. NORVIEL: The period of time may be extended, or leave it to the next generation,--

MR. S. B. DAVIS: (Interrupting) But this pact says nothing as to anything after that period.

MR. NORVIEL: I think it does.

MR. S. B. DAVIS: It says you can make a new pact, but you could do that anyway.

MR. NORVIEL: I differ with you again. If you will read the ninth section I think you will find it different.

MR. S. B. DAVIS: I may have misunderstood it, but I didn't gather there was anything definite with regard to the period after expiration of the first time.

MR. NORVIEL: If you will read section nine you will find it is taken care of. Of course this period may be extended, and after that, or after the extension, it is all taken care of. If you read section nine I think you will agree.

MR. EMERSON: It is just the thing that would happen if we didn't have any compact.

MR. NORVIEL: Suppose we don't enter into a compact. I think the law is clear.

MR. EMERSON: If you don't enter into a compact we haven't got the team work and co-operation of the seven states we should have.

MR. NORVIEL: That is just the reason why I have drawn the compact.

MR. CALDWELL: Wherein the compact doesn't touch a matter, I presume we are governed by the state and federal laws with respect to water rights, and under the draft that I have proposed the only difference between Mr. Norviel's and mine in

that respect is that I propose a partition of the waters, while he doesn't propose any. But, as in the division, there would remain the priorities, based on appropriation, just as he has it.

MR. CARPENTER: Mr. Chairman, I want it understood right at the start, the suggestion I made was purely in conformity with a request. I have no pride of expression or opinion. The legislation by Congress under which we are functioning, which gave us consent, specifically gives us permission to equitably apportion the waters of this river. Under the decisions of the Supreme Court laid down years ago when that consent is given we have full power to deal with the subject matter. The State of Colorado could not look with favor upon any plan which would degenerate into a mere contest of speed whereby an unfortunate, an unnatural growth would be forced in one section in order to keep pace with what might be a natural development in another section. Neither can we look with favor upon a permanent control by a super-government. Priority is worthless fiction unless administered. It is a useless expression unless enforced and in order to enforce it, it will require the intermeddling of a super-power, created, if you please, by surrender of local power. Secondly, when you proceed to reduce the adjustment to one of a definite fixing of quantities, or limitations of use as to each state, you have to proceed to a degree of refinement that is hazardous and at this time calls for a knowledge which no man possesses.

We do not have and cannot obtain, except by long years of study hereafter, basic data upon which to work. Between states in either of these great divisions very different principles should be applied on each different and distinct river, and may have to be applied. The facts are different. For illustration, some of the rivers rise in the mountains to wither away on the plains before they reach the lower states within a division. Others are increasing rivers as they flow out from their original source. The territory is new, the conditions will develop and if allowed to develop naturally will call for the ultimate solution between the interested states as respects any particular river.

In preparing the draft which I have submitted, I first proceeded upon the theory of the individual allocation. My advisors and I myself found ourselves in the position of saying that, as respects a virgin territory, we would be called upon to fix an artificial limitation that might work great injustice later. The river is new, the territory is new, and, thereby, after studying stream after stream that flowed out from the mouth it became evident that it would be unwise and imprudent to attempt to deal definitely with each detailed river, - each individual tributary stream.

Proceeding upon that hypothesis, or proceeding upon that conclusion, it became then a problem of seeing if it could not be worked out on a divisional basis, that divisional basis largely having been fixed by nature. We have a great catchment basin like the receptacle basin of a funnel; we have the funnel neck, the canyon, and below the territory that receives

the water through this funnel neck with certain additional supplies arising and flowing in that territory, so, in order to attempt to work the problem out and avoid the conflict, that would be invariably provoked in this counsel, if you were to attempt to go into detail with respect to each state, it was thought by us more prudent to strike at the root of the whole problem on a divisional allocation of the waters of the river.

The upper states cannot, - should not, - economically be compelled to develop, as development will proceed with a proper flood regulation. As an incident to that flood regulation there will naturally occur many developments in irrigation, growth of cities, development of power in the lower territory, - and it should so develop; it is right that it should. On the other hand, it would be a far cry to say that the upper states must be penalized if they do not keep pace, or court disaster, - if they attempt to keep pace, hence the divisional idea.

As far as I am personally concerned, I have no copyright upon the idea. It is a composite expression of various members of this Commission and learned men.

It was advanced before this Commission by Director Davis; not in the exact form that I have suggested, but division below the mouth of the San Juan was suggested by him. The point below the mouth of the San Juan is one of nature's divisions of this area. It separates the area, not only in division of water as the water flows, but climatic conditions. The natural conditions of the country are segre-

gated; hence, if I may return to basic principle, we do not feel that it would be wise or prudent or just to encourage on unnatural contest, or rivalry for development, on the whole river, but that the very future of our states, as well as of our Nation, depends upon leaving that development to follow its natural course as economic and human conditions warrant, and none of the people in our upper states could feel comfortable and or look with favor on the control of the river by a super-agency, which would not only control every diversion we would make, when we bring it down to a close analysis, but would even go so far as to say that the meadow lands of the high regions of Wyoming must bow down to the desert lands of California or Arizona in the matter of reclamation and that we must bow to the will of any agency that would so determine.

Thus I have tried to briefly state a few of the obstacles that confront us and if it be left entirely to the legal basis, that basis is simply the method that the court might or might not adopt when forced to the extremity in trying to arrive at some adjustment of conditions after the causes have come into being. We are now proceeding before those causes arise with the very object of avoiding the conflict and I believe that our jurisdiction is broad and our powers are full to proceed irrespective of the technical, legal feature.

I might make the one further statement that any simple solution that will permit us to help the lower territory

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develop and at the same time protect us from paying a penalty for having extended that aid, and will allow our people to develop their institutions as the future conditions may warrant, will be entirely acceptable to my state and that so far as the proposal I have made is concerned, it may be offered by any other member, it may be sponsored by any one or more members, it may be torn to bits and reconstructed. I have no pride of expression or opinion in the matter. It is simply offered as a suggestion for a compact along the lines of basic principles there contained. I see many faults in phraseology that will have to be corrected. I would not care to subscribe/ ^{to} it in its present form, because it is not a finished document. It may be rejected or taken apart or subsequently incorporated and made a part of the draft made by another with perfect freedom.

MR. EMERSON: Mr. Chairman, doesn't this discussion all continue to show that whether or not there can be a definite allocation of some kind at this time is possibly the primary point upon which we will agree or disagree? It seems to me it is. That is the first,- it seems to me that is the first thing that the Commission should attempt to decide, as to whether or not we can get together upon the question of allocation.

MR. HOOVER: Isn't there a wide difference between allocation as between each individual state and,-

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MR. EMERSON: (Interrupting) Yes, it sub-divides itself into different questions.

MR. CALDWELL: As I understand it, that is exactly the question we are discussing, as to whether or not we can arrive at a partition of the waters between the basin, -

MR. HOOVER: Between each state, or between the two divisions?

MR. CALDWELL: Upper and lower basin.

MR. HOOVER: I understood Mr. Emerson's discussion to go back to a division as between the states.

MR. EMERSON: No, it is immaterial for the present whether or not between states or whether between divisions. It is just a question of whether we can get together on an allocation on some basis.

As I look at it now, the allocation as just between these two great divisions is practical and no doubt the simplest solution and it will be proper if it goes far enough. Judge Davis would like to see the matter go further, to the individual states. When we do that we are getting into more refinement and,-

MR. SCRUGHAM: (Interrupting) More danger of failure to secure approval of the pact by the interested states.

MR. EMERSON: Considerable controversy and, yes, more danger, I am inclined to agree with that, but I would like to repeat, Take this problem as a whole and it is a question of conflict of interests between the lower division of this river and the upper and if we can solve that, whether we go any further or not, we have accomplished the main purpose.

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MR. CARPENTER: If I may exercise one further thought in the record, Insofar as the upper basin is concerned, my state becomes a guarantor in large measure for the delivery of this water because of the fact that the major part of the water of the river flows from its territory and we, after careful thought and study of the matter, are prepared to say that we are willing to undertake that, to the degree; expressed in the suggested draft, we believe the sum total of our uses will always so leave the stream that nature will itself take care of that underwriting.

MR. CALDWELL: I just wanted to get straight myself so I will know how to think on this proposition. Mr. Chairman, it seems to me that we could well confine our discussion for the present exactly to the point, and precisely to the point, as to whether or not we may be able to agree to a partition of the water as between the upper basin and the lower basin at or near some point as described in the drafts.

MR. SCRUGHAM: I suggest you call each representative of each state, yes or no, on the principle or partition of water between the upper and lower basins.

MR. NORVIEL: Let's first find out whether that is what we are here for.

MR. HOOVER: Is not this a question Mr. Norviel of whether we go back to our previous elaborate discussions on apportionment to each state? I think we most all of us more or less mentally abandoned the notion that we could ever agree upon an apportionment to each state.

MR. NORVIEL: I can conceive of no way to administer it.

MR. HOOVER: Let's take that subsidiary issue before we go to the main issue between basins.

MR. CALDWELL: I was perhaps thinking backwards in this thing, Mr. Chairman, but on the presentation of Mr. Norviel here it appeared, unless there is some change in his point of view, that we may never get a partition even between the basins. If that were settled we might, it is true, strike some snag in partitioning among the states, but we would have one point settled and that is the point that comes squarely up to us now. That is the difference as between these two drafts.

MR. NORVIEL: You wouldn't believe we could succeed on a partition between each individual state ?

MR. CALDWELL: Not in the artificial way which I think you may have in mind. I think we could not.

MR. HOOVER: What is your impression, Mr. McClure?

MR. McCLURE: Mr. Chairman, two weeks ago I spent a full day attempting to outline some definite allocation to the states, going back to the minutes of our sixth meeting in Washington and looking all through the tables, A. B. and C, and I gave it up in despair; as desirable as it may be to allocate definite amounts to the different states, I think it quite an impossible task at this time.

MR. HOOVER: Mr. Carpenter, what is your view on that particular point ?

MR. CARPENTER: Without going into detail, I am convinced by two months consideration of the subject, that it is out of the question.

MR. HOOVER: Judge Davis ?

MR. S. B. DAVIS: I still think it is what ultimately must be done and it was contemplated by the law under which we are constituted.

MR. HOOVER: I judge, Mr. Emerson, you think it is still feasible to consider that ?

MR. EMERSON: I think it is possible. I haven't heard anything from Mr. Norviel that would assure me we could do that. It seems to me the first thing to do is to see whether they would consider any allocation, whether it is between states or between divisions.

MR. HOOVER: I thought perhaps if we could get some of the brush-wood cut away we could settle down to consider the question of division between groups. I gather you don't think it is practical at the present time to make a compact on the basis of apportionment to each state. Now as between the upper and lower basin.

MR. CARPENTER: You mean actual allocation.

MR. NORVIEL: It could be done on an acreage basis, and only on an acreage basis. You can't administer,--

MR. CALDWELL: (Interrupting) Let's have Mr. Emerson's views.

MR. EMERSON: I recognize it would be much more difficult to secure an allocation as between the two divisions on an acreage basis rather than on quantities of water.

MR. HOOVER: Are you prepared to abandon that discussion now, the apportionment to each state ?

MR. EMERSON: Yes, sir.

MR. HOOVER: Then I suggest, Mr. Norviel, that unless you have changed your mind from your original remark, that we abandon the discussion of apportionment as between states.

MR. NORVIEL: Apportionment of water, -division of water?

MR. HOOVER: Yes, on an acreage or any other basis of division to each state.

MR. NORVIEL: I have gotten away from that.

MR. HOOVER: Then we come to the consideration as to whether it is possible to make a division between groups of states.

MR. NORVIEL: The same question comes up as to the administration, of the water.

MR. HOOVER: In what sense do you think it has to be administered if we just confine it to a division at Lee's Ferry.

MR. NORVIEL: Well, under Mr. Carpenter's plan, as he suggests an average of ten years, this year there might be an abundance of water and he might send thirty million acre-feet. That then would satisfy for the next five or six years and he wouldn't have to send down any but how it would be administered I can hardly understand. It would leave a river in a flashy, -contemplates a flashy condition of the river; contemplates in dry seasons when everybody needs water holding back all, or they could hold back all of it and then supply at some future period within the future, within the ten year period, the amount that they had held back they would have to make up.

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That, it seems to me, would be a very bad method and impossible of administration and of course would not be satisfactory to the lower states.

MR. S. B. DAVIS: Isn't that an objection in detail, Mr. Norviel, rather than an objection to the general principle? The general principle involved?

MR. NORVIEL: The principle is founded, as I take it, or perhaps borrowed, from that prepared by the Geological Survey in connection with the Reclamation Service. They made an exceedingly careful study of the supply of water and the acres to be cultivated, - now cultivated and to be cultivated, - and divided the basin in two divisions and they arrived at the conclusion that the water could be divided, 35% above and 65% below at that point, not considering, as I take it, any of the inflow in the lower basin. Now this reverses, - takes the principle in the main, but reverses the quantity of water and not only reverses the quantity of water, but fixes a ten year period within which they may take all and make it up in another year, or, in cases of large floods in the early part of the ten year period, they could send down large floods and then take all during dry periods after that.

MR. S. B. DAVIS: What I was trying to get at, Mr. Norviel, was this; without discussing the percentage division, whether fifty-fifty, sixty-forty, or what ever it may be, will you discuss the principle.

MR. NORVIEL: We are willing to discuss any principle that comes within the purview of the business on which we are engaged.

MR. S. B. DAVIS: In other words, the general principle would be satisfactory to you if the details worked out.

MR. NORVIEL: I don't know as I would say that now.

MR. S. B. DAVIS: That is what I was trying to get at now.

MR. NORVIEL: I am willing to discuss it, whether it is satisfactory or not.

MR. HOOVER: Well, on the detail or secondary question of the ten year revolution of the cycle, Mr. Norviel avoided that difficulty at once by giving a positive minimum. That is the fact, is it not Mr. Norviel?

MR. NORVIEL: Yes, sir.

MR. SCRUGHAM: Mr. Norviel, doesn't Mr. Caldwell's suggestion answer your objection, fixed on a positive, definite minimum?

MR. NORVIEL: That in effect,--

MR. SCRUGHAM: Based on the stream flow in past years?

MR. NORVIEL: That, of course, would have to be one of the considerations.

MR. SCRUGHAM: Doesn't that answer your objection?

MR. NORVIEL: Answer the whole objection? No, no.

MR. SCRUGHAM: What is your other objection?

MR. NORVIEL: I don't believe, Governor, we are ready to go into all of those things right at this time.

MR. SCRUGHAM: I mean your objection to the allocation of water between the upper and lower basins ?

MR. NORVIEL: It leaves the work undone. Now that would leave us in Arizona to go into the upper basin and, I suppose, have to sit in their discussions and help them arrange the distribution of their water, and it leaves Arizona also in the lower basin to assist in the distribution of the water between the states in the lower basin.

MR. EMERSON: I do think there is a great advantage in deciding the questions now in the mind of everybody as to the conflict of interests between the big lower group and the big upper group.

MR. NORVIEL: I think it would be much easier to fix that in some other way.

MR. EMERSON: Your compact doesn't fix anything except to go ahead as though we didn't have any compact. What advantage is there in your compact to the upper states. Will you tell me that ?

MR. NORVIEL: To the upper states. ?

MR. EMERSON: Yes.

MR. NORVIEL: I have meant to have no advantage to any of the states in the pact. That is just what I have avoided, and the reason why we have written it is that there may be no advantage to any state and I think that is what we ought to do.

MR. CALDWELL: That is a pretty good definition of no compact or agreement, Mr. Norviel.

MR. EMERSON: Your compact just means this;-

MR. NORWIEL: (Interrupting) If we are here to get advantage, to work out some advantage for ourselves, why then I think, --

MR. EMERSON: (Interrupting) We are here to work out advantage to the whole seven states.

MR. NORWIEL: Yes, that was the plan I worked on.

MR. EMERSON: Your form of compact gives the whole advantage to the lower states.

MR. CARPENTER: Mr. Norviel, may I bother you? What is uppermost in the thought of all your people is the proposition of immediate large construction, isn't it? The sooner you can get it the better, - both Arizona and California.

MR. NORWIEL: Of course, I imagine Colorado has the same hope and wish.

MR. CARPENTER: I say very frankly to you we have no desire to dash into construction.

MR. NORWIEL: We are not in that position.

MR. CARPENTER: I used that word thoughtlessly. We have no desire to rush with our construction, knowing that so to do would cause unfortunate reaction.

MR. NORWIEL: I don't think there is any such notion in Arizona.

MR. CARPENTER: You have large structures you wish to put in for protection of your territory, as well as for development of that territory.

MR. NORVIEL: We expect to develop our territory too, necessarily slow. I can't anticipate of our development being much faster than yours.

MR. HOOVER: Perhaps you could answer Mr. Norviel's criticism on the matter of administration. My understanding of your pact is that the upper states should guarantee the lower states. I am wondering whether or not he fully understood that.

MR. CARPENTER: Yes, the upper,- Mr. Norviel's interpretation is technically and theoretically, but not practically sound. In the first place, we in my draft assure them an average annual flow over a ten year period. That naturally will come up and down with the flow of the river. His objection presumes that we would be able physically to withhold all the water during a lean year and, in truth, the lower country is always dry and the drought affects the upper country primarily, with the resultant effect that it diminishes the diversions in the upper country where it is possible to divert, and the waters lower down pass on down anyway and a physical study of the problem will reveal that we could not take all the water of the river if we might so wish, and nature has so shaped that country that while there are bound to be the low and high years and hence the rule of averages, nevertheless we will never be able to wholly deplete the river and flood control automatically will solve that up and down phase of the river by the storage facilities which will be imperative to protect the Imperial Valley.

MR. HOOVER: I thought Mr. Norviel considered that your

pact implied the necessity of some super-administration and I was wondering if you could satisfy him on that point?

MR. CARPENTER: No, it doesn't. The thought in my pact was this; that I suggested there a Commission, - any other instrumentality will be equally satisfactory, by which the quantity flowing in one year will be definitely ascertained, and that is as far as it goes. The rest will take care of itself automatically. I felt it unnecessary to enter any further into administration simply because of the natural and physical conditions obtaining. There is a psychology to be met. The allocation must not be out of proportion, and while the outside maximum that we may divert depletes, or in other words the minimum to flow across the interstate line may be expressed in apparently a lower figure, the physical fact remains that we probably could never reach that point, but in order to meet the human element in the upper territory the figure adopted must be fair and just. The pact simply provides that in a ten year period the average annual delivery shall never fall below a certain amount.

MR. HOOVER: Disregarding any detail as to method of apportionment between different divisions, that is, quantity of apportionment, as to whether by percentage, minimum acre feet, or what not, and assuming that the upper states failed to deliver that quantity to the lower states, I assume the lower states would have a right in action against all users in the upper states. Is that in your mind?

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MR. CARPENTER: It is. In such instances they would have a perfect right to enforce the pact and the sole question then would be to compel us to turn down the water.

MR. HOOVER: What is arising in Mr. Norviel's mind is that it would be necessary/ to have some super-organization as legal action would be too late.

MR. CARPENTER: If that time should arrive and we should so deplete the river, that would be the only instance that I know of whereby courts might be called upon to act, and in that event the only question then left for the court will be, did we or did we not deliver the water and, if not, the courts would then compel us to deliver the water and that would be the sole question for determination. The facts would have been determined by the agency, the Commission or whatever it might be, and there would be nothing to dispute about except the question of whether we had or had not delivered the water and if we had not then we could be forced to do it. I believe that as between the divisions, that is the only thing that is left open for the courts' intervention. I have tried to avoid the principle of multiplicity of suits and actions between divisions, simplifying it down to one fact which is to be fixed and determined and declared by our own agency; and to the question of whether or not we have lived up to that obligation, and if not, then the Supreme Court of the United States could force us to do it, because, when this compact is adopted it becomes the law of the land.

MR. NORVIEL: If the quantity of water suggested in the compact is to remain --

MR. CARPENTER: (Interrupting) The quantity of water,-- let me interrupt, I took as simply expressive of principle. As to the figures, I would wish those figures to be corrected to state the truth, the facts, whatever they may be.

MR. NORVIEL: But holding to the fifty percent ?

MR. CARPENTER: Fifty percent of the whole flow of the river as between the two divisions.

MR. NORVIEL: As to that sort of division all that Mr. Carpenter has said would be true because that much water, I conceive, will always go down the river. I don't think there is any possibility of their ever using the excess over that much water in the basin. With all the intermountain diversions they can perhaps in the future make up whatever the future may bring forth in the way of assistance towards such diversions and still there would be an abundance of water to leave the State of Colorado. In other words, Colorado is now putting herself, or fixing herself with an absolute unrestricted use of the water for all time with a very large abundance over and above the amount that she, --

MR. EMERSON: (Interrupting) How do you feel it is unrestricted.

MR. NORVIEL: It is unrestricted, in this; that this amount of water will go down the river and Colorado will have perhaps that much more than she can ever use in the state,

taking her engineers' figures as a basis.

MR. EMERSON: I thought we started out with the general idea that there is water enough for all.

MR. NORVIEL: If there is water enough for all then why this division and this restriction on the amount of water flow ?

MR. CARPENTER: Because when that question came up objection was immediately raised from below that there was no point at which we would be compelled to stop and there was no guarantee or protection. I have fixed a minimum beyond which we dare not go and you will have the surplus. Of course, it goes to you and you may use it and enjoy it.

MR. NORVIEL: It remains an unrestricted right above and a restricted right below.

(Hereupon Mr. George L. Hoodenpyl, of Long Beach, California was brought into the meeting by Mr. McClure.)

MR. HOOVER: Mr. McClure thought it might be desirable to have Mr. Hoodenpyl's suggestion before us while considering the others.

MR. G. L. HOODENPYL: Mr. Secretary, at the Phoenix meeting the Chairman requested me to embody the suggestions I offered at that time in the form of a compact. I told you at that time I hesitated doing anything like that, still in compliance with his request I have done that the best way I could, and I want to say that it is my own proposition, not representing any particular section, not representing California, but simply my suggestion as to what might be done in the matter.

With your permission I will read what I have drafted.

(Whereupon Mr. Hoddenpyl presented the following paper as a form of suggestion for compact.)

" COLORADO RIVER COMPACT

"In order to provide for unity of control and promote the speedy development of the Colorado River and its tributaries, the states of Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming, thru whose territories the water of these rivers flow, do hereby cede to the United States of America full and complete control of the disposition and use of the waters of the Colorado River and its tributaries; and the right to impound or divert, or otherwise dispose of or use the waters of any of these streams shall not be acquired or exercised, except by the United States of America, without the written permission of the United States of America, issued with such restrictions and upon such terms and conditions as shall insure the beneficial use of such waters; expressly reserving, however, to the appropriators thereof, and to their successors in interests, all waters already appropriated to beneficial use so long as the same shall be beneficially used; and provided that the disposition and use of the waters of these streams, including appropriations already made, shall be so regulated that one-half of the normal flow of the water in the Colorado River at Lee's Ferry shall be always available for disposition and use in the states of Colorado, New Mexico, Utah and Wyoming and one-half thereof shall be always available for disposition and use in the states of Arizona, California, and Nevada, and in the Republic of Mexico.

"The United States of America does hereby accept the foregoing cession upon the terms and conditions therein mentioned and for the purposes therein expressed."

“(End of Paper)”

MR. HOODENPYL: I would simply say this in regard to the matter: It occurs to me that the only way this can be handled is by one single head,- one single authority, and the only authority we have that can efficiently handle the matter is the Federal Government, and the fewer strings placed upon the Federal Government in the operation, development and use of these waters, the better for all concerned.

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It was suggested at one time that the matter be placed in the hands of a commission. It occurs to me that the Department of the Interior is thoroughly able to handle and take care of this proposition, if it should come under that Department ; or, if the Federal Government desires a Commission, the Federal Government should handle it by the appointment of such a commission.

I suggest a division of the waters, and not being an engineer I am not at all fixed on that division, - it may be that the division is improper and should be made at some other point, or perhaps it should be on some other pro rata than that which is submitted, but I simply present this outline on this kind of a scheme. The rights already accrued should be respected, so long as they continue to be used in a beneficial way,- that is, the waters now appropriated. When that ceases the Federal Government can withdraw the privilege of the use of those waters and turn them to beneficial uses. Then the Government, having a great deal of data in regard to this river, could control it from time to time. And I urge also particularly that the division of the waters should be based upon the normal flow,- not upon the average flow as one defines the average flow, saying that territory north or south shall have one-half of the average flow. It might not be sufficient in lean years, whereas, the use of the normal flow,- and by normal flow I think is clearly meant all the waters flowing past the given point at a given time, plus all diversions above such point, would insure a continuous dependable flow.

And it occurs to me that in the development of this river, it might be necessary for the Government to have absolute actual control at all times, so that in lean years the waters could be apportioned at the time, and not based upon any period of time, as it is possible that the average would not fit some particular year. So that all persons who desire to develop the river could go into this country and be protected right from the beginning.

I believe a scheme worked out somewhat along this line would result in the most efficient and economical development of the river, and I think we ought to be willing to turn this matter over to the Federal Government, because the Federal Government is the only agency representing all parties in interest, and would have no cause or desire, so far as I can see, to do anything except that which would be for the general good.

MR. HOOVER: Thank you very much. (Thereupon Mr. Hoodenpyl withdrew from the meeting.) This problem of the division between the upper and lower divisions of the Colorado River, would it be entirely infeasible, in your mind, disregarding the matter of the division in quantity,--assuming that the quantity,-- or that by some method that ample water for the southern division could be arrived at,-- do you think the principle involved is infeasible ?

MR. NORVIEL: No, I wouldn't say that.

MR. HOOVER: If we were to go on with that consideration, isn't it largely the finding of a principle which is feasible ?

If we could get a proper method of division and a method of enforcement ?

MR. NORVIEL: Yes sir, that would be alright, but of course, in the quantity of water now suggested there would be none. The water will always run down, and I think that much water will always go by that place, but that amount of water would not take care of the needs below.

MR. CARPENTER: Aren't you figuring the whole burden of the Mexican lands?

MR. NORVIEL: No, I am not. As you suggested, in dealing out one-half of the requirements of the Mexican lands,- but having deducted from the fifty per cent the amount of water carried by the Gila and the Williams Rivers, and these are very flashy streams and only run occasionally and not places where the water could be held, and in the past years they have been of but little value and they have done no one very much good, not even California, because they go down in floods, and as a rule California can only take a small portion of the floods, which means they will continue to go on to the sea until they can be controlled.

MR. CARPENTER: In order to avail yourselves of the use of that water you must control it.

MR. NORVIEL: Yes. I understand.

MR. SCRUGHAM: Is your objection solely one of amount, or one of the principle of the proposal ?

MR. HOOVER: Is the percentage too small, is that the objection ?

MR. NORVIEL: Well, that is one of the objections.

MR. HOOVER: Just one ?

MR. NORVIEL: Yes.

MR. HOOVER: What are the other objections ?

MR. NORVIEL: There will be time for them when we arrive at the point of adjusting the percentage.

MR. HOOVER: Then you think the idea is infeasible ?

MR. NORVIEL: And another would be the time,- the period. Of course we want to be in a position where we would not necessarily be dried up for five years and flooded for the next five years.

MR. EMERSON: The normal minimum flow suggested will take care of that.

MR. CARPENTER: Yes, we will fix the minimum flow to take care of that.

MR. NORVIEL: We are working on the flow of the rivers, we have not anything definite, but we will have in the next few months I hope.

MR. HOOVER: I think we have Mr. Davis' figures, for the present use it amounts to what ?

MR. A. P. DAVIS: About five hundred and eight thousand acres in the division, requiring about three million four hundred and fifteen thousand acre feet for its irrigation.

MR. HOOVER: That includes the present use ?

MR. A. P. DAVIS: The present development. The total present and future development according to the assumed duty of water, seven million four hundred and fifty thousand acre feet, including a half supply for eight hundred thousand acres

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in Mexico.

MR. HOOVER: About seven million two hundred thousand, including Mexico?

MR. A. P. DAVIS: Yes sir.

MR. NORVIEL: And how much in the upper states ?

MR. A. P. DAVIS: The present development in the upper basin is about one million five hundred and thirty thousand acres.

MR. HOOVER: That one million five hundred and thirty thousand acres you have already deducted ?

MR. A. P. DAVIS: That one million five hundred and thirty thousand acres, in addition to two and a half million acres possible, which would require, we think, about three and three-quarters million acre feet of additional water.

MR. HOOVER: Above ?

MR. A. P. DAVIS: Above, for consumptive use.

MR. HOOVER: Have you yourself interpreted this thing back to Lee's Ferry ?

MR. A. P. DAVIS: About one million acre feet less than at Yuma, so that would be about sixteen and a half million acre feet at Lee's Ferry, of which, on the present contemplation four million acre feet is needed in the upper basin and seven million two hundred thousand in the lower basin.

MR. CARPENTER: Including Mexico ?

MR. A. P. DAVIS: Including Mexico, yes, a half supply for 800,000 acres.

MR. HOOVER: If you are translating it back to Lee's Ferry that would eliminate the Gila.

MR. CARPENTER: Yes sir, when you go back to Lee's Ferry that would eliminate the Gila, the Little Colorado, and all those streams flowing into the river between Yuma and Lee's Ferry.

Adjourned until eight o'clock Sunday evening.

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.

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