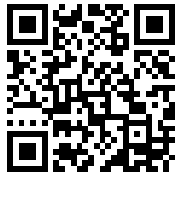

House

Public Lands Committee.
The Upper Colorado River Basin compact.

81:1 H.R.2325,H.R.2326,H.R.2327, Mar.14,15,
H.R.2328,H.R.2329,H.R.2330, 16,17,&
H.R.2331, H.R.2332,H.R.2333, 18,1949
H.R.2334

THE UPPER COLORADO RIVER BASIN COMPACT

HEARINGS

BEFORE A

SUBCOMMITTEE ON IRRIGATION AND RECLAMATION

OF THE

COMMITTEE ON PUBLIC LANDS

HOUSE OF REPRESENTATIVES

EIGHTY-FIRST CONGRESS

FIRST SESSION

ON

H. R. 2325, H. R. 2326, H. R. 2327, H. R. 2328
H. R. 2329, H. R. 2330, H. R. 2331, H. R. 2332
H. R. 2333, H. R. 2334

BILLS TO GRANT THE CONSENT OF THE UNITED STATES TO THE UPPER COLORADO RIVER BASIN COMPACT

Serial No. 5

MARCH 14, 15, 16, 17, AND 18, 1949

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THE UPPER COLORADO RIVER BASIN COMPACT

MARCH 14, 1949, 10:55 a. m.

HOUSE OF REPRESENTATIVES,
COMMITTEE ON PUBLIC LANDS,
SUBCOMMITTEE ON IRRIGATION AND RECLAMATION,
Washington, D. C.

Hon. John R. Murdock, Chairman.

Present: John R. Murdock (presiding), Clair Engle, Toby Morris, Ken Regan, Lloyd M. Bentsen, Jr., Compton I. White, Walter S. Baring, Frank A. Barrett, A. L. Miller, Wesley A. D'Ewart, Norris Poulson, Wayne N. Aspinall, John E. Miles, Richard J. Welch, William Lemke, John Sanborn, Joseph R. Farrington.

The committee had the following bill under consideration:

[H. R. 2325, 81st Cong., 1st sess.]

A BILL To grant the consent of the United States to the Upper Colorado River Basin Compact

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the consent of the Congress is hereby given to the compact, signed (after negotiations in which a representative of the United States, duly appointed by the President, participated and upon which he has reported to the Congress) by the Commissioners for the States of Arizona, Colorado, New Mexico, Utah, and Wyoming, on October 11, 1948, at Santa Fe, N. Mex., and thereafter ratified by the legislatures of each of the States aforesaid, which said compact reads as follows:

"UPPER COLORADO RIVER BASIN COMPACT

"The State of Arizona, the State of Colorado, the State of New Mexico, the State of Utah, and the State of Wyoming, acting through their Commissioners,

"Charles A. Carson for the State of Arizona,

"Clifford H. Stone for the State of Colorado,

"Fred E. Wilson for the State of New Mexico,

"Edward H. Watson for the State of Utah and

"L. C. Bishop for the State of Wyoming,

after negotiations participated in by Harry W. Bashore, appointed by the President as the representative of the United States of America, have agreed, subject to the provisions of the Colorado River Compact, to determine the rights and obligations of each signatory State respecting the uses and deliveries of the water of the Upper Basin of the Colorado River, as follows:

"ARTICLE I

"(a) The major purposes of this Compact are to provide for the equitable division and apportionment of the use of the waters of the Colorado River System, the use of which was apportioned in perpetuity to the Upper Basin by the Colorado River Compact; to establish the obligations of each State of the Upper Division with respect to the deliveries of water required to be made at Lee Ferry by the Colorado River Compact; to promote interstate comity; to remove causes of present and future controversies; to secure the expeditious agricultural and industrial development of the Upper Basin, the storage of water, and to protect life and property from floods.

"(b) It is recognized that the Colorado River Compact is in full force and effect and all of the provisions hereof are subject thereto.

"ARTICLE II

"As used in this Compact:

"(a) The term 'Colorado River System' means that portion of the Colorado River and its tributaries within the United States of America.

"(b) The term 'Colorado River Basin' means all of the drainage area of the Colorado River System and all other territory within the United States of American to which the waters of the Colorado River System shall be beneficially applied.

"(c) The term 'States of the Upper Division' means the States of Colorado, New Mexico, Utah, and Wyoming.

"(d) The term 'States of the Lower Division' means the States of Arizona, California, and Nevada.

"(e) The term 'Lee Ferry' means a point in the main stream of the Colorado River one mile below the mouth of the Paria River.

"(f) The term 'Upper Basin' means those parts of the States of Arizona, Colorado, New Mexico, Utah, and Wyoming within and from which waters naturally drain into the Colorado River System above Lee Ferry, and also all parts of said States located without the drainage area of the Colordo River System which are now or shall hereafter be beneficially served by waters diverted from the Colorado River System above Lee Ferry.

"(g) The term 'Lower Basin' means all those parts of the States of Arizona, California, Nevada, New Mexico and Utah within and from which waters naturally drain into the Colorado River System below Lee Ferry, and also all parts of said States located without the drainage area of the Colorado River System which are now or shall hereafter be beneficially served by waters diverted from the Colorado River System below Lee Ferry.

"(h) The term 'Colorado River Compact' means the agreement concerning the apportionment of the use of the waters of the Colorado River System dated November 24, 1922, executed by commissioners for the States of Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming, approved by Herbert Hoover, representative of the United States of America, and proclaimed effective by the President of the United States of America, June 25, 1929.

"(i) The term 'Upper Colorado River System' means that portion of the Colorado River System above Lee Ferry.

"(j) The term 'Commission' means the administrative agency created by Article VIII of this Compact.

"(k) The term 'water year' means that period of twelve months ending September 30 of each year.

"(l) The term 'acre-foot' means the quantity of water required to cover an acre to the depth of one foot and is equivalent to 43,560 cubic feet.

"(m) The term 'domestic use' shall include the use of water for household, stock, municipal, mining, milling, industrial and other like purposes, but shall exclude the generation of electrical power.

"(n) The term 'virgin flow' means the flow of any stream undepleted by the activities of man.

"ARTICLE III

(a) Subject to the provisions and limitations contained in the Colorado River Compact and in this Compact, there is hereby apportioned from the Upper Colorado River System in perpetuity to the States of Arizona, Colorado, New Mexico, Utah and Wyoming, respectively, the consumptive use of water as follows:

"(1) To the State of Arizona the consumptive use of 50,000 acre-feet of water per annum.

"(2) To the States of Colorado, New Mexico, Utah and Wyoming, respectively, the consumptive use per annum of the qauntities resulting from the application of the following percentages to the total quantity of consumptive use per annum apportioned in perpetuity to and available for use each year by Upper Basin under the Colorado River Compact and remaining after the deduction of the use, not to exceed 50,000 acre-feet per annum, made in the State of Arizona.

"State of Colorado, 51.75 per cent; State of New Mexico, 11.25 per cent; State of Utah, 23.00 per cent; State of Wyoming, 14.00 per cent.

"(b) The apportionment made to the respective States by paragraph (a) of this Article is based upon, and shall be applied in conformity with, the following principles and each of them:

"(1) The apportionment is of any and all man-made depletions;

"(2) Beneficial use is the basis, the measure and the limit of the right to use;

"(3) No State shall exceed its apportioned use in any water year when the effect of such excess use, as determined by the Commission, is to deprive another signatory State of its apportioned use during that water year; provided, that this subparagraph (b) (3) shall not be construed as:

"(i) Altering the apportionment of use, or obligations to make deliveries as provided in Article XI, XII, XIII or XIV of this Compact;

"(ii) Purporting to apportion among the signatory States such uses of water as the Upper Basin may be entitled to under paragraphs (f) and (g) of Article III of the Colorado River Compact; or

"(iii) Countenancing average uses by any signatory State in excess of its apportionment.

"(4) The apportionment to each State includes all water necessary for the supply of any rights which now exist.

"(c) No apportionment is hereby made, or intended to be made, of such uses of water as the Upper Basin may be entitled to under paragraphs (f) and (g) of Article III of the Colorado River Compact.

"(d) The apportionment made by this Article shall not be taken as any basis for the allocation among the signatory States of any benefits resulting from the generation of power.

"ARTICLE IV

"In the event curtailment of use of water by the States of the Upper Division at any time shall become necessary in order that the flow at Lee Ferry shall not be depleted below that required by Article III of the Colorado River Compact, the extent of curtailment by each State of the consumptive use of water apportioned to it by Article III of this Compact shall be in such quantities and at such times as shall be determined by the Commission upon the application of the following principles:

"(a) The extent and times of curtailment shall be such as to assure full compliance with Article III of the Colorado River Compact;

"(b) If any State or States of the Upper Division, in the ten years immediately preceding the water year in which curtailment is necessary, shall have consumptively used more water than it was or they were, as the case may be, entitled to use under the apportionment made by Article III of this Compact, such State or States shall be required to supply at Lee Ferry a quantity of water equal to its, or the aggregate of their, overdraft or the proportionate part of such overdraft, as may be necessary to assure compliance with Article III of the Colorado River Compact, before demand is made on any other State of the Upper Division;

"(c) Except as provided in subparagraph (b) of this Article, the extent of curtailment by each State of the Upper Division of the consumptive use of water apportioned to it by Article III of this Compact shall be such as to result in the delivery at Lee Ferry of a quantity of water which bears the same relation to the total required curtailment of use by the States of the Upper Division as the consumptive use of Upper Colorado River System water which was made by each such State during the water year immediately preceding the year in which the curtailment becomes necessary bears to the total consumptive use of such water in the States of the Upper Division during the same water year; provided, that in determining such relation the uses of water under rights perfected prior to Novemebr 24, 1922, shall be excluded.

"ARTICLE V

"(a) All losses of water occurring from or as the result of the storage of water in reservoirs constructed prior to the signing of this Compact shall be charged to the State in which such reservoir or reservoirs are located. Water stored in reservoirs covered by this paragraph (a) shall be for the exclusive use of and shall be charged to the State in which the reservoir or reservoirs are located.

"(b) All losses of water occurring from or as the result of the storage of water in reservoirs constructed after the signing of this Compact shall be charged as follows:

"(1) If the Commission finds that the reservoir is used, in whole or in part, to assist the States of the Upper Division in meeting their obligations to deliver water at Lee Ferry imposed by Article III of the Colorado River Compact, the Commission shall make findings, which in no event shall be contrary to the laws of the United States of America under which any reservoir is constructed, as to

the reservoir capacity allocated for that purpose. The whole or that proportion, as the case may be, of reservoir losses as found by the Commission to be reasonably and properly chargeable to the reservoir or reservoir capacity utilized to assure deliveries at Lee Ferry shall be charged to the States of the Upper Division in the proportion which the consumptive use of water in each State of the Upper Division during the water year in which the charge is made bears to the total consumptive use of water in all States of the Upper Division during the same water year. Water stored in reservoirs or in reservoir capacity covered by this subparagraph (b) (1) shall be for the common benefit of all of the States of the Upper Division.

"(2) If the Commission finds that the reservoir is used, in whole or in part, to supply water for use in a State of the Upper Division, the Commission shall make findings, which in no event shall be contrary to the laws of the United States of America under which any reservoir is constructed, as to the reservoir or reservoir capacity utilized to supply water for use and the State in which such water will be used. The whole or that proportion, as the case may be, of reservoir losses as found by the Commission to be reasonably and properly chargeable to the State in which such water will be used shall be borne by that State. As determined by the Commission, water stored in reservoirs covered by this subparagraph (b) (2) shall be earmarked for and charged to the State in which the water will be used.

"(c) In the event the Commission finds that a reservoir site is available both to assure deliveries at Lee Ferry and to store water for consumptive use in a State of the Upper Division, the storage of water for consumptive use shall be given preference. Any reservoir or reservoir capacity hereafter used to assure deliveries at Lee Ferry shall by order of the Commission be used to store water for consumptive use in a State, provided the Commission finds that such storage is reasonably necessary to permit such State to make the use of the water apportioned to it by this Compact.

"ARTICLE VI

"The Commission shall determine the quantity of the consumptive use of water, which use is apportioned by Article III hereof, for the Upper Basin and for each State of the Upper Basin by the inflow-outflow method in terms of man-made depletions of the virgin flow at Lee Ferry, unless the Commission, by unanimous action, shall adopt a different method of determination.

"ARTICLE VII

"The consumptive use of water by the United States of America or any of its agencies, instrumentalities or wards shall be charged as a use by the State in which the use is made; provided, that such consumptive use incident to the diversion, impounding, or conveyance of water in one State for use in another shall be charged to such latter State.

"ARTICLE VIII

"(a) There is hereby created an interstate administrative agency to be known as the 'Upper Colorado River Commission.' The Commission shall be composed of one Commissioner representing each of the States of the Upper Division, namely, the States of Colorado, New Mexico, Utah, and Wyoming, designated or appointed in accordance with the laws of each such State and, if designated by the President, one Commissioner representing the United States of America. The President is hereby requested to designate a Commissioner. If so designated the Commissioner representing the United States of America shall be the presiding officer of the Commission and shall be entitled to the same powers and rights as the Commissioner of any State. Any four members of the Commission shall constitute a quorum.

"(b) The salaries and personal expenses of each Commissioner shall be paid by the Government which he represents. All other expenses which are incurred by the Commission incident to the administration of this Compact, and which are not paid by the United States of America, shall be borne by the four States according to the percentage of consumptive use apportioned to each. On or before December 1 of each year, the Commission shall adopt and transmit to the Governors of the four States and to the President a budget covering an estimate of its expenses for the following year, and of the amount payable by each State. Each State shall pay the amount due by it to the Commission on

or before April 1 of the year following. The payment of the expenses of the Commission and of its employees shall not be subject to the audit and accounting procedures of any of the four States; however, all receipts and disbursement of funds handled by the Commission shall be audited yearly by a qualified independent public accountant and the report of the audit shall be included in and become a part of the annual report of the Commission.

"(c) The Commission shall appoint a Secretary, who shall not be a member of the Commission, or an employee of any signatory State or of the United States of America while so acting. He shall serve for such term and receive such salary and perform their duties as the Commission may direct. The Commission may employ such engineering, legal, clerical and other personnel as, in its judgment, may be necessary for the performance of its functions under this Compact. In the hiring of employees, the Commission shall not be bound by the civil service laws of any State.

"(d) The Commission, so far as consistent with this Compact, shall have the power to:

"(1) Adopt rules and regulations;

"(2) Locate, establish, construct, abandon, operate and maintain water gauging stations;

"(3) Make estimates to forecast water run-off on the Colorado River and any of its tributaries;

"(4) Engage in cooperative studies of water supplies of the Colorado River and its tributaries;

"(5) Collect, analyze, correlate, preserve and report on data as to the stream flows, storage, diversions and use of the waters of the Colorado River, and any of its tributaries;

"(6) Make findings as to the quantity of water of the Upper Colorado River System used each year in the Upper Colorado River Basin and in each State thereof;

"(7) Make findings as to the quantity of water deliveries at Lee Ferry during each water year;

"(8) Make findings as to the necessity for and the extent of the curtailment of use, required, if any, pursuant to Article IV hereof;

"(9) Make findings as to the quantity of reservoir losses and as to the share thereof chargeable under Article V, hereof to each of the States;

"(10) Make findings of fact in the event of the occurrence of extraordinary drought or serious accident to the irrigation system in the Upper Basin, whereby deliveries by the Upper Basin of water which it may be required to deliver in order to aid in fulfilling obligations of the United States of America to the United Mexican States arising under the Treaty between the United States of America and the United Mexican States, dated February 3, 1944 (Treaty Series 994) become difficult, and report such findings to the Governors of the Upper Basin States, the President of the United States of America, the United States Section of the International Boundary and Water Commission, and such other Federal officials and agencies as it may deem appropriate to the end that the water allotted to Mexico under Division III of such treaty may be reduced in accordance with the terms of such Treaty;

"(11) Acquire and hold such personal and real property as may be necessary for the performance of its duties hereunder and to dispose of the same when no longer required;

"(12) Perform all functions required of it by this Compact and do all things necessary, proper or convenient in the performance of its duties hereunder, either independently or in cooperation with any state or federal agency;

"(13) Make and transmit annually to the Governors of the signatory States and the President of the United States of America, with the estimated budget, a report covering the activities of the Commission for the preceding water year.

"(e) Except as otherwise provided in this Compact the concurrence of four members of the Commission shall be required in any action taken by it.

"(f) The Commission and its Secretary shall make available to the Governor of each of the signatory States any information within its possession at any time, and shall always provide free access to its records by the Governors of each of the States, or their representatives, or authorized representatives of the United States of America.

"(g) Findings of fact made by the Commission shall not be conclusive in any court, or before any agency or tribunal, but shall constitute prima facie evidence of the facts found.

"(h) The organization meeting of the Commission shall be held within four months from the effective date of this Compact.

"ARTICLE IX

"(a) No State shall deny the right of the United States of America and, subject to the conditions hereinafter contained, no State shall deny the right of another signatory State, any person, or entity of any signatory State to acquire rights to the use of water, or to construct or participate in the construction and use of diversion works and storage reservoirs with appurtenant works, canals and conduits in one State for the purpose of diverting, conveying, storing, regulating and releasing water to satisfy the provisions of the Colorado River Compact relating to the obligation of the States of the Upper Division to make deliveries of water at Lee Ferry, or for the purpose of diverting, conveying, storing or regulating water in an upper signatory State for consumptive use in a lower signatory State, when such use is within the apportionment to such lower State made by this Compact. Such rights shall be subject to the rights of water users, in a State in which such reservoir or works are located, to receive and use water, the use of which is within the apportionment to such State by this Compact.

"(b) Any signatory State, any person or any entity of any signatory State shall have the right to acquire such property rights as are necessary to the use of water in conformity with this Compact in any other signatory State by donation, purchase or through the exercise of the power of eminent domain. Any signatory State, upon the written request of the Governor of any other signatory State, for the benefit of whose water users property is to be acquired in the State to which such written request is made, shall proceed expeditiously to acquire the desired property either by purchase at a price satisfactory to the requesting State, or, if such purchase cannot be made, then through the exercise of its power of eminent domain and shall convey such property to the requesting State or such entity as may be designated by the requesting State; provided, that all costs of acquisition and expenses of every kind and nature whatsoever incurred in obtaining the requested property shall be paid by the requesting State at the time and in the manner prescribed by the State requested to acquire the property.

"(c) Should any facility be constructed in a signatory State by and for the benefit of another signatory State or States or the water users thereof, as above provided, the construction, repair, replacement, maintenance and operation of such facility shall be subject to the laws of the State in which the facility is located, except that, in the case of a reservoir constructed in one State for the benefit of another State or States, the water administration officials of the State in which the facility is located shall permit the storage and release of any water which, as determined by findings of the Commission, falls within the apportionment of the State or States for whose benefit the facility is constructed. In the case of a regulating reservoir for the joint benefit of all States in making Lee Ferry deliveries, the water administration officials of the State in which the facility is located, in permitting the storage and release of water, shall comply with the findings and orders of the Commission.

"(d) In the event property is acquired by a signatory State in another signatory State for the use and benefit of the former, the users of water made available by such facilities, as a condition precedent to the use thereof, shall pay to the political subdivisions of the State in which such works are located, each and every year during which such rights are enjoyed for such purposes, a sum of money equivalent to the average annual amount of taxes levied and assessed against the land and improvements thereon during the ten years preceding the acquisition of such land. Said payments shall be in full reimbursement for the loss of taxes in such political subdivisions of the State, and in lieu of any and all taxes on said property, improvements and rights. The signatory States recommend to the President and the Congress that, in the event the United States of America shall acquire property in one of the signatory States for the benefit of another signatory State, or its water users, provision be made for like payment in reimbursement of loss of taxes.

"ARTICLE X

"(a) The signatory States recognize La Plata River Compact entered into between the States of Colorado and New Mexico, dated November 27, 1922, approved by the Congress on January 29, 1925 (43 Stat. 796), and this Compact shall not affect the apportionment therein made.

"(b) All consumptive use of water of La Plata River and its tributaries shall be charged under the apportionment of Article III hereof to the State in which the use is made; provided, that consumptive use incident to the diversion, impounding or conveyance of water in one State for use in the other shall be charged to the latter State.

"ARTICLE XI

"Subject to the provisions of this Compact, the consumptive use of the water of the Little Snake River and its tributaries is hereby apportioned between the States of Colorado and Wyoming in such quantities as shall result from the application of the following principles and procedures:

"(a) Water used under right existing prior to the signing of this Compact.

"(1) Water diverted from any tributary of the Little Snake River or from the main stem of the Little Snake River above a point one hundred feet below the confluence of Savery Creek and the Little Snake River shall be administered without regard to rights covering the diversion of water from any down-stream points.

"(2) Water diverted from the main stem of the Little Snake River below a point one hundred feet below the confluence of Savery Creek and the Little Snake River shall be administered on the basis of an interstate priority schedule prepared by the Commission in conformity with priority dates established by the laws of the respective States.

"(b) Water used under rights initiated subsequent to the signing of this Compact.

"(1) Direct flow diversions shall be so administered that, in time of shortage, the curtailment of use on each acre of land irrigated thereunder shall be as nearly equal as may be possible in both of the States.

"(2) The storage of water by projects located in either State, whether of supplemental supply or of water used to irrigate land not irrigated at the date of the signing of this Compact, shall be so administered that in times of water shortage the curtailment of storage of water available for each acre of land irrigated thereunder shall be as nearly equal as may be possible in both States.

"(c) Water uses under the apportionment made by this Article shall be in accordance with the principle that beneficial use shall be the basis, measure and limit of the right to use.

"(d) The States of Colorado and Wyoming each assent to diversions and storage of water in one State for use in the other State, subject to compliance with Article IX of this Compact.

"(e) In the event of the importation of water to the Little Snake River Basin from any other river basin, the State making the importation shall have the exclusive use of such imported water unless by written agreement, made by the representatives of the States of Colorado and Wyoming on the Commission, it is otherwise provided.

"(f) Water use projects initiated after the signing of this Compact, to the greatest extent possible, shall permit the full use within the Basin in the most feasible manner of the waters of the Little Snake River and its tributaries, without regard to the State line; and, so far as is practicable, shall result in an equal division between the States of the use of water not used under rights existing prior to the signing of this Compact.

"(g) All consumptive use of the waters of the Little Snake River and its tributaries shall be charged under the apportionment of Article III hereof to the State in which the use is made; provided, that consumptive use incident to the diversion, impounding or conveyance of water in one State for use in the other shall be charged to the latter State.

"ARTICLE XII

Subject to the provisions of this Compact, the consumptive use of the waters of Henry's Fork, a tributary of Green River originating in the State of Utah and flowing into the State of Wyoming and thence into the Green River in the State of Utah; Beaver Creek, originating in the State of Utah and flowing into Henry's Fork in the State of Wyoming; Burnt Fork, a tributary of Henry's Fork, originating in the State of Utah and flowing into Henry's Fork in the State of Wyoming; Birch Creek, a tributary of Henry's Fork, originating in the State of Utah and flowing into Henry's Fork in the State of Wyoming; and Sheep Creek, a tributary of Green River in the State of Utah, and their tributaries, are hereby apportioned between the States of Utah and Wyoming in such quantities as will result from the application of the following principles and procedures:

"(a) Waters used under rights existing prior to the signing of this Compact.

"Waters diverted from Henry's Fork, Beaver Creek, Burnt Fork, Birch Creek and their tributaries, shall be administered without regard to the state line on the basis of an interstate priority schedule to be prepared by the States affected and approved by the Commission in conformity with the actual priority of right

of use, the water requirements of the land irrigated and the acreage irrigated in connection therewith.

"(b) Waters used under rights from Henry's Fork, Beaver Creek, Burnt Fork, Birch Creek and their tributaries, initiated after the signing of this Compact shall be divided fifty percent to the State of Wyoming and fifty percent to the State of Utah and each State may use said waters as and where it deems advisable.

"(c) The State of Wyoming assents to the exclusive use by the State of Utah of the water of Sheep Creek, except that the lands, if any, presently irirgated in the State of Wyoming from the water of Sheep Creek shall be supplied with water from Sheep Creek in order of priority and in such quantities as are in conformity with the laws of the State of Utah.

"(d) In the event of the importation of water to Henry's Fork, or any of its tributaries, from any other river basin, the State making the importation shall have the exclusive use of such imported water unless by written agreement made by the representatives of the States of Utah and Wyoming on the Commission, it is otherwise provided.

"(e) All consumptive use of waters of Henry's Fork, Beaver Creek, Burnt Fork, Birch Creek, Sheep Creek, and their tributaries shall be charged under the apportionment of Article III hereof to the State in which the use is made; provided, that consumptive use incident to the diversion, impounding or conveyance of water in one State for use in the other shall be charged to the latter State.

"(f) The States of Utah and Wyoming each assent to the diversion and storage of water in one State for use in the other State, subject to compliance with Article IX of this Compact. It shall be the duty of the water administrative officials of the State where the water is stored to release said stored water to the other State upon demand. If either the State of Utah or the State of Wyoming shall construct a reservoir in the the other State for use in its own State, the water users of the State in which said facilities are constructed may purchase at cost a portion of the capacity of said reservoir sufficient for the irrigation of their lands thereunder.

"(g) In order to measure the flow of water diverted, each State shall cause suitable measuring devices to be constructed, maintained and operated at or near the point of diversion into each ditch.

"(h) The State Engineers of the two States jointly shall appoint a Special Water Commissioner who shall have authority to administer the water in both States in accordance with the terms of this Article. The salary and expenses of such Special Water Commissioner shall be paid, thirty percent by the State of Utah and seventy percent by the State of Wyoming.

"ARTICLE XIII

"Subject to the provisions of this Compact, the rights to the consumptive use of the water of the Yampa River, a tributary entering the Green River in the State of Colorado, are hereby apportioned between the States of Colorado and Utah in accordance with the following principles:

"(a) The State of Colorado will not cause the flow of the Yampa River at the Maybell Gaging Station to be depleted below an aggregate of 5,000,000 acre-feet for any period of ten consecutive years reckoned in continuing progressive series beginning with the first day of October next succeeding the ratification and approval of this Compact. In the event any diversion is made from the Yampa River or from tributaries entering the Yampa River above the Maybell Gaging Station for the benefit of any water use project in the State of Utah, then the gross amount of all such diversions for use in the State of Utah, less any returns from such diversions to the River above Maybell, shall be added to the actual flow at the Maybell Gaging Station to determine the total flow at the Maybell Gaging Station.

"(b) All consumptive use of the waters of the Yampa River and its tributaries shall be charged under the apportionment of Article III hereof to the State in which the use is made; provided, that consumptive use incident to the diversion, impounding or conveyance of water in one State for use in the other shall be charged to the latter State.

"ARTICLE XIV

"Subject to the provisions of this Compact, the consumptive use of the waters of the San Juan River and its tributaries is hereby apportioned between the States of Colorado and New Mexico as follows:

"The State of Colorado agrees to deliver to the State of New Mexico from the San Juan River and its tributaries which rise in the State of Colorado a quantity of water which shall be sufficient, together with water originating in the San Juan Basin in the State of New Mexico, to enable the State of New Mexico to make full use of the water apportioned to the State of New Mexico by Article III of this Compact, subject, however, to the following:

"(a) A first and prior right shall be recognized as to:

"(1) All uses of water made in either State at the time of the signing of this Compact; and

"(2) All uses of water contemplated by projects authorized, at the time of the signing of this Compact, under the laws of the United States of America whether or not such projects are eventually constructed by the United States of America or by some other entity.

"(b) The State of Colorado assents to diversions and storage of water in the State of Colorado for use in the State of New Mexico, subject to compliance with Article IX of this Compact.

"(c) The uses of the waters of the San Juan River and any of its tributaries within either State which are dependent upon a common source of water and which are not covered by (a) hereof, shall in times of water shortages be reduced in such quantity that the resulting consumptive use in each State will bear the same proportionate relation to the consumptive use made in each State during times of average water supply as determined by the Commission; provided, that any preferential uses of water to which Indians are entitled under Article XIX shall be excluded in determining the amount of curtailment to be made under this paragraph.

"(d) The curtailment of water use by either State in order to make deliveries at Lee Ferry as required by Article IV of this Compact shall be independent of any and all conditions imposed by this Article and shall be made by each State, as and when required, without regard to any provision of this Article.

"(e) All consumptive use of the waters of the San Juan River and its tributaries shall be charged under the apportionment of Article III hereof to the State in which the use is made; provided, that consumptive use incident to the diversion, impounding or conveyance of water in one State for use in the other shall be charged to the latter State.

"ARTICLE XV

"(a) Subject to the provisions of the Colorado River Compact and of this Compact, water of the Upper Colorado River System may be impounded and used for the generation of electrical power, but such impounding and use shall be subservient to the use and consumption of such water for agricultural and domestic purposes and shall not interfere with or prevent use for such dominant purposes.

"(b) The provisions of this Compact shall not apply to or interfere with the right or power of any signatory State to regulate within its boundaries the appropriation, use and control of water, the consumptive use of which is apportioned and available to such State by this Compact.

"ARTICLE XVI

"The failure of any State to use the water, or any part thereof, the use of which is apportioned to it under the terms of this Compact, shall not constitute a relinquishment of the right to such use to the Lower Basin or to any other State, nor shall it constitute a forfeiture or abandonment of the right to such use.

"ARTICLE XVII

"The use of any water now or hereafter imported into the natural drainage basin of the Upper Colorado River System shall not be charged to any State under the apportionment of consumptive use made by this Compact.

"ARTICLE XVIII

"(a) The State of Arizona reserves its rights and interests under the Colorado River Compact as a State of the Lower Division and as a State of the Lower Basin.

"(b) The State of New Mexico and the State of Utah reserve their respective rights and interests under the Colorado River Compact as States of the Lower Basin.

"ARTICLE XIX

"Nothing in this Compact shall be construed as:

"(a) Affecting the obligations of the United States of America to Indian tribes;

"(b) Affecting the obligations of the United States of America under the Treaty with the United Mexican States (Treaty Series 994);

"(c) Affecting any rights or powers of the United States of America, its agencies or instrumentalities, in or to the waters of the Upper Colorado River System, or its capacity to acquire rights in and to the use of said waters;

"(d) Subjecting any property of the United States of America, its agencies or instrumentalities, to taxation by any State or subdivision thereof, or creating any obligation on the part of the United States of America, its agencies or instrumentalities, by reason of the acquisition, construction or operation of any property or works of whatever kind, to make any payment to any State or political subdivision thereof, State agency, municipality or entity whatsoever, in reimbursement for the loss of taxes;

"(e) Subjecting any property of the United States of America, its agencies or instrumentalities, to the laws of any State to an extent other than the extent to which such laws would apply without regard to this Compact.

"ARTICLE XX

"This Compact may be terminated at any time by the unanimous agreement of the signatory States. In the event of such termination, all rights established under it shall continue unimpaired.

"ARTICLE XXI

"This Compact shall become binding and obligatory when it shall have been ratified by the legislatures of each of the signatory States and approved by the Congress of the United States of America. Notice of ratification by the legislatures of the signatory States shall be given by the Governor of each signatory State to the Governor of each of the other signatory States and to the President of the United Sates of America, and the President is hereby requested to give notice to the Governor of each of the signatory States of approval by the Congress of the United States of America.

"IN WITNESS WHEREOF, the Commissioners have executed six counterparts hereof each of which shall be and constitute an original, one of which shall be deposited in the archives of the Department of State of the United States of America, and one of which shall be forwarded to the Governor of each of the signatory States.

"Done at the City of Santa Fe, State of New Mexico, this 11th day of October, 1948.

[sgd] Charles A. Carson
CHARLES A. CARSON
Commissioner for the State of Arizona
[sgd] Clifford H. Stone
CLIFFORD H. STONE
Commissioner for the State of Colorado
[sgd] Fred E. Wilson
FRED E. WILSON
Commissioner for the State of New Mexico
[sgd] Edward H. Watson
EDWARD H. WATSON
Commissioner for the State of Utah
[sgd] L. C. Bishop
L. C. BISHOP
Commissioner for the State of Wyoming
[sgd] Grover A. Giles
GROVER A. GILES
Secretary

"Approved:
"[sgd] Harry W. Bashore
HARRY W. BASHORE
Representative of the United States of America."

Chairman MURDOCK. The committee will come to order, please.

This is a meeting of the Subcommittee on Irrigation and Reclamation of the Public Lands Committee.

We are running a little behind schedule today. We had hoped to open at 10 o'clock on a measure to get congressional approval of the upper basin compact. We will proceed with that, but if I may have the indulgence of the committee, I would like to make a little statement from the Chair, whether that would be appropriate or not, showing my great interest in the matter, and one that I would like to have the committee consider.

Hearing no objection, the Chair will proceed with this comment:

H. R. 2325, and 10 other identical bills, pertain to a very important subject. Unless you have lived west of the one hundredth meridian, you can scarcely realize how important this subject is. We are called on now to give congressional approval of a compact entered into by five of the States of the Colorado River Basin vitally interested in the upper waters of that great western river. Under the Constitution of the United States, our States may enter into treaties or compacts with each other only with the permission of the Federal Government expressed by Congress. Under previous legislation congressional authorization has been given to these five States, and they have done, in a very short time, what many thought impossible and have come to agreement over the division of their apportioned waters, and now they ask approval of Congress for this compact. It is a simple matter to grant or withhold approval.

As you first glance at the bill, it seems rather lengthy, consisting of 33 pages; however, all but the first page of the bill consists of the text of the compact which the five State legislatures have approved. In my opinion, no changes need be made in this bill, but if any are made, they will have to be on page I, as just stated. I think that all this committee and Congress need to do now is to approve or reject this compact as set forth in the following pages.

Naturally, I am anxious to see congressional approval given without any further delay. All five State legislatures, situated hundreds of miles from each other, acted promptly and unanimously in voting approval—all within a period of 8 days this last January. Already a period of 8 weeks has elapsed without congressional approval in this simple matter. These five great Western States have, in an unbelievable way, come to agreement and have written this compact under authority of previous congressional enactment and subject to the master compact governing the entire basin. I feel that we should, without delay, vote for congressional approval.

As chairman, I would have called this to the attention of the committee weeks ago, but a letter from our colleague, the gentleman from California, Mr. Poulson, led me to believe that there might be some controversy or at least that some of his constituents wanted to be heard on the matter, and I further got the impression that someone might want to offer an amendment to the bill. I heard a remark a few days ago about an innocent amendment that was being proposed and might be offered. I can think of no such innocent or harmless amendment which would be at all necessary for the benefit of anyone. On page 3, lines 5, 6, and 7, it is plainly stated that this new compact is subject to the provisions of the master compact of 1922.

Mr. POULSON. What page was that?

Chairman MURDOCK. On page 3 of the bill, lines 5, 6, and 7, it says in substance: This new compact is subject to the provisions of the master compact. The Colorado River compact is the master compact.

Mr. POULSON. Will you read that fourth part, Mr. Chairman, please?

Mr. D'EWART. It is the wrong page, I think.

Mr. ENGLE. Page 3, lines 5, 6, and 7, read as follows:

It is recognized that the Colorado River compact is in full force and effect and all of the provisions hereof are subject thereto.

Chairman MURDOCK. That was the one to which I had reference. Let us assume that Congress may grant or withhold approval on this compact. We might also assume, in keeping with that assumption, that Congress could approve the compact conditionally, but if that were done the condition imposed would change the compact, and any change in the compact would require its reconsideration by the five State legislatures. Since these State legislatures meet only biennially, a resubmission of this compact to the legislatures might have to wait 2 years or require the calling of special sessions of those legislatures. It is greatly to be hoped that no such delay need or will be occasioned. If an amendment, even though it is unnecessary, should be offered which would change the effect and meaning of the compact, it would certainly delay, if not thwart, this splendid effort.

My own State of Arizona, although situated mostly far down the Colorado River, has a portion of its area in the upper basin and is interested in this division of water in a very minor way so far as the amount of water is concerned, but is interested in this proper settlement far more than Arizona's obtaining less than 1 percent of the divided waters would seem to justify. We in Arizona know, as a matter of enlightened self-interest, if in no other way, that the maximum development of the whole Colorado River Basin cannot be achieved without this upper basin compact, or agreement, being established as a cornerstone.

Mr. WELCH. Mr. Chairman, how many States in the upper and lower Colorado River Basins approved this bill?

Chairman MURDOCK. There are five States involved, Congressman Welch. They are the five States of Wyoming, Colorado, Utah, New Mexico, which are usually called the four upper basin States, and Arizona, because of the fact that a portion of Arizona in the northern corner lies above the dividing line which passes through Arizona, and is entitled to about 1/150th of the water to be divided.

Mr. WELCH. What about the State of California and the State of Nevada?

Mr. ENGLE. Mr. Chairman, if it is appropriate, I would like to be recognized for a statement at this time which I think will indicate the interest and position of some of the people in California. I think it will have a tendency to expedite it.

Chairman MURDOCK. Before you do that, Mr. Engle, I would like to say further there are 11 Members of the House from those 5 States. When the bill was introduced on February 3, every Member sought to introduce the bill to show unanimity, and most of them did introduce bills. A bill was introduced by Governor Miles of New Mexico, a member of our committee. Congressman Aspinall, of Colorado, and his colleagues, Congressmen Carroll, Hill, and Marsalis, of Colorado; Congressman Barrett, of Wyoming; Judge Bosone, of Utah; Congressman Granger, of Utah; Congressman Patten, of Arizona, and myself.

I see most of these Members here with us today. We want to welcome them here. I must say that I do not use my ordinary modesty when I bring up this bill, with the number of 2325 as mine, but I want it distinctly understood that every Member of those five States in the House have identical bills, and many of these Members are far more interested in the matter than I myself.

Mr. Engle.

Mr. ENGLE. Mr. Chairman, I request your permission to make a statement at this time. I do so for the purpose not of implying any opposition to the confirmation of this compact but rather to indicate the position of California with a view to getting certain basic information which we want. We think we ought to have the information in connection with this compact in order to make it possible to put it through without any changes or amendments which would complicate its final acceptance by all the people involved. The compact is obviously the result of a vast amount of work. The ability, perserverance, and forebearance of the negotiators and the representative of the United States in the negotiations, are deserving of high praise. They and the States of the upper basin of the Colorado River are to be congratulated on their success in arriving at a division of the use of water apportioned to the upper basin by the Colorado River compact of 1922. It would be highly desirable if the States of the lower basin were able to arrive at a comparable compact and terminate the long-standing controversy which has existed in that basin.

Speaking for California, we recognize the right of the States of the upper basin to apportion the use of water available to them under the basic compact, in any way that seems right to them. So far as we are concerned, they might use head-gate diversions, acreage limitations, or any other device to divide the use of water among themselves. California's only concern is to protect the lower basin's right under the Colorado River compact of 1922.

We assume that those rights are not intended to be impaired, since we note that by article XVIII of the proposed compact, the State of Arizona has expressly reserved whatever rights it has as a State of the lower basin.

If the upper basin compact does not affect the determination of the quantity of surplus water, as those words appear in the basic Colorado River compact, available for service of the Mexican treaty and available for additional apportionment in 1963, and if the delivery of water at Lee Ferry guaranteed by article III (d) of the basic compact is not affected, California will have no objection to the apportionment of water under the upper basin States compact by any method satisfactory to those States.

It is California's position that nothing agreed upon by the States of the upper Colorado River basin can affect or bind States which are not parties to the agreement.

It is further California's position that the proposed compact cannot modify nor affect the meaning of the Colorado River compact nor the Boulder Canyon Project Act.

It is not my purpose to argue or even suggest the merits of one side or the other of the controversy as to the interpretations of the Colorado River compact or the Boulder Canyon Project Act. Those documents, taken together with the California Limitation Act, are contractual in

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character and mean what the parties meant at the time of their ratification. What the present Congress may do a quarter of a century later can have no bearing upon interpretation of those documents. They will be interpreted according to well recognized principles of contract interpretation, all of which are concerned with ascertaining the intent of the contracting parties at the time the contract involved was made.

To the extent that it is now possible to clarify the meaning of the document, it should be done. To illustrate, I call attention to one of the articles of the pending compact which requires clarification:

Subdivision (g) of the article VIII provides that findings of the administrative commission created by the compact shall constitute prima facie evidence of the facts found.

Subdivisions (6), (7), and (8) of subdivision (d) of the same article provide for findings by the commission as to the quantity of water used each year in the upper basin and in each State of that basin, quantities of water delivered at Lee Ferry during each water year, and the necessity for and extent of curtailments required to satisfy the guarantee to the lower basin. Obviously, the lower basin is much concerned with such facts and, in the event of any difference of opinion, should not be confronted with a prime facie case created by findings of a commission representing conflicting interests. Such findings should not constitute prima facie evidence against the United States nor against any stranger to the compact. Of course, looked at merely as a contract, an interstate compact binds no one but the parties thereto. However, it has been held that, under some circumstances, an interstate compact approved by the Congress, in addition to being a contract, becomes a public law (*Missouri* v. *Illinois*, 200 U. S. 496–519; *Pennsylvania* v. *Wheeling, etc.*, 54 U. S. 518–566).

As a public law it might be held controlling in any Federal court or before any Federal tribunal. I do not believe that the framers of the compact had any intent to arrogate to themselves power to set up findings of fact constituting prima facie evidence against anyone else. However, that might be the result of the language used. On this and other points, we must have more light before acting on the compact.

As has been said, our concern is the protection of existing rights in the lower basin, whatever those rights may be, and to avoid any prejudice one way or the other which might arise under the pending document.

Years ago, when the basic Colorado River compact was under consideration, Senator Carl Hayden of Arizona, who was at that time a member of this body, submitted to the Honorable Herbert Hoover, the Federal representative on the Colorado River Compact Commission of 1922, a series of questions relating to that compact. Mr. Hoover promptly answered the questions, and his answers have been of great value to those who have been called upon to apply the compact.

Following the wise example set by Senator Hayden, and in an effort to expedite early consideration of the pending bill, I have submitted a series of questions addressed to the Honorable Harry W. Bashore, representative of the United States on the Upper Basin Compact Commission, and ask that the answers be made available to me before hearings on the pending bill are closed. I believe that the replies can be made without appreciable loss of time, probably before

completion of testimony of witnesses scheduled to appear before this committee. Mr. Bashore's replies will be of great value to this committee and to all others concerned.

If, Mr. Chairman, we are able to ascertain as a result of Mr. Bashore's answers, that the interests of the lower basin are not impaired, and I anticipate that that will prove to be the case, you may be assured of California's cooperation in securing prompt action upon the pending bill.

Mr. Chairman, I at this point offer for the record the letter which was addressed to the Honorable Harry W. Bashore, representative of the United States, upper Colorado River Basin compact negotiations, sent to him at the Roger Smith Hotel in Washington, D. C.

The letter is somewhat long and I will not undertake to read it at this time, but will submit it for the record, and I have an acknowledgment, Mr. Chairman, from him, in which he indicates that he has received the communication, that the questions submitted will be promptly answered, and will be submitted also to all of the commissioners who entered into this agreement. So I assume that very shortly those answers will be available, and if there is no objection, Mr. Chairman, I would like to submit the letter without reading it.

Chairman MURDOCK. The correspondence will be admitted to the record.

(The letter referred to is as follows:)

MARCH 12, 1949.

Hon. HARRY W. BASHORE,
Representative of the United States, Upper Colorado River Basin Compact Negotiations, Washington, D. C.

DEAR MR. BASHORE: There is pending before the Eighty-first Congress H. R. 2325 which, if adopted, will give congressional approval to the upper Colorado River Basin compact signed at Santa Fe, N. Mex., on the 11th day of October, 1948, by Commissioners of the five States of the upper Colorado River Basin.

In studying the proposal, certain questions have arisen which I assume you can answer. It is my duty and purpose to protect the interests of the lower basin of the Colorado River, particularly in the matter of determination of quantities of surplus water available for service of the Mexican Treaty, and possibly available for additional apportionment in 1963, and to protect the deliveries of water guaranteed by article III (d) of the Colorado River compact. It is not my thought that there has been any deliberate attempt to affect the rights of the lower basin under the Colorado River compact. I feel it necessary, however, to receive assurances on certain points. For that reason, I submit to you the following questions:

Question No. 1. Article I of the proposed compact refers to the apportionment of the "use" of the water of the Colorado River system, the use of which was apportioned in perpetuity to the upper basin by the Colorado River compact.

(*a*) Is the word "use" to be taken as synonymous with the phrase "beneficial consumptive use" as it occurs in the Colorado River compact?

(*b*) In this connection, note that the phrase "consumptive use" occurs frequently in the pending compact. Is there any difference in meaning between the phrase "consumptive use" as used in the pending compact, and "beneficial consumptive use" as the phrase is used in the Colorado River compact?

Question No. 2. In Article II, the term "virgin flow" is defined to mean "the flow of any stream undepleted by the activities of man."

(*a*) Is it proposed to determine "virgin flow" with respect to each year, or to use averages?

(*b*) If on an annual basis, how will "virgin flow" for any particular future water year be determined?

Question No. 3.

(*a*) Will consumptive uses in each of the States, under Article III, be determined with reference to each water year?

(*b*) Or, are these quantities to be determined on long- or short-term averages?

Question No. 4. Article IV speaks of curtailment of use of water in order that flow at Lee Ferry shall not be depleted below that required by article III of the Colorado River compact.

Does the word "use" mean the same thing as the phrase "consumptive use" as determined pursuant to article VI of the compact?

Question No. 5. Article V, subsection (c), provides that: "In the event the Commission finds that a reservoir site is available both to assure deliveries at Lee Ferry and to store water for consumptive use in a State of the upper division, the storage of water for consumptive use shall be given preference."

Does this mean that the Commission may exonerate any reservoir or reservoir capacity from the obligation of article III (d) of the Colorado River compact? If not, what is meant by the "preference" for consumptive use?

Question No. 6. Article VI provides that the Commission shall determine the quantity of the consumptive use of water for the upper basin and for each State of the upper basin, by the inflow-outflow method in terms of man-made depletions of the virgin flow at Lee Ferry, unless the Commission, by unanimous action, shall adopt a different method of determination.

(*a*) Outflow from the upper basin apparently would be measured at Lee Ferry. Where and how would inflow to the upper basin be measured?

(*b*) It is my understanding that a large part of the use of water in the upper basin will be made possible by over-year and cyclic storage. The impounding of water in storage reservoirs would be reflected by depletion at Lee Ferry during the water year in which water is impounded. Does article VI mean that consumptive use will be measured by water stored, as distinguished from the withdrawals from storage and application to use on land?

(*c*) How is it proposed to account for water stored in one year and applied to use in another and later year? Specifically, would consumptive use be considered as occurring in the year in which water is impounded, or in some later year when it is withdrawn from storage and applied to use?

Question No. 7. Article VIII provides for an "Upper Colorado River Commission." Among other things, the Commission is authorized to (article VIII (d)):

"(6) Make findings as to the quantity of water of the upper Colorado River system used each year in the upper Colorado River Basin and each State thereof;

"(7) Make findings as to the quantity of water deliveries at Lee Ferry during each water year;

"(8) Make findings as to the necessity for and the extent of the curtailment of use, required, if any, pursuant to article IV hereof."

Subdivision (g) of the same article provides that: "Findings of fact made by the Commission shall not be conclusive in any court, or before any agency or tribunal but shall constitute prima facie evidence of the facts found."

It has been held that, in addition to its contractual character, under some circumstances a compact approved by the Congress is a public law (*Missouri* v. *Illinois*, 200 U. S. 496–519; *Pennsylvania* v. *Wheeling, etc.*, 54 U. S. 518–566). Is it intended that subdivision (g) above shall be binding on any State not a party to the upper Colorado River Basin compact, or on the United States?

Question No. 8. Will the ratification by the several States and the approval by the Congress, of the upper Colorado River Basin compact in any way amend or affect the meaning of the Colorado River compact, whatever that document may mean?

Question No. 9. I note that in article XVIII the States of Arizona, New Mexico, and Utah have reserved their respective rights and interests under the Colorado River compact, as States of the lower basin. Will the ratification and approval by the Congress of the upper Colorado River Basin compact impair or in any way affect the rights of States of the lower basin not signatory thereto?

Your early response to the questions submitted herein will be deeply appreciated.

Very truly yours,

CLAIR ENGLE, *Member of Congress.*

Chairman MURDOCK. The letter to Mr. Bashore contains the questions, I suppose?

Mr. ENGLE. That is correct, yes, sir.

Mr. MILLER. Mr. Chairman, the gentleman I believe is a lawyer, and there are other distinguished lawyers on this committee. I know there is a controversy over water. Maybe the question is not

appropriate at this time, but I want to state the question and leave it hanging in the air until we get through with the witnesses, and that is this:

Regardless of the legislative procedure that we, as a committee, or Congress might take, I am wondering if the type of final adjudication of the water rights in this bill as it relates to California would not eventually have to be decided by the Supreme Court, just as it was in the case of Colorado, Wyoming, and Nebraska. That doesn't need to be answered now. I want to leave that question before the committee as you hear the witnesses.

Mr. BARRETT. I can answer you, if the gentleman wants an answer. I will say that the State of Nebraska kept the State of Wyoming in court for nearly a quarter of a century, but in this particular case the upper basin States have very fortunately agreed on the division of the water.

Mr. MILLER. Yes, Mr. Chairman, but the State of California, I believe, has some interest here and some controversy that I say, eventually, will it not have to be adjudicated by the Supreme Court?

Mr. BARRETT. The Supreme Court will not interfere in any way, shape, or form in my humble opinion with the compact arrived at by the upper basin States. Now, the way I see the situation here today, it is a great deal like the colored preacher that was taking over a new church and found they had a very violent dispute in the church, and in his first sermon he did not refer to it. One of the brothers got up and said, "Parson, we all note you said nothing about this here controversy we have been having." He said, "That is true. I just left that in status quo." So the brother got up and said, "I don't understand what that status quo means." He says, "That is a Latin word that means we just left it in the mess it's in," so we are just leaving California and Arizona in the mess that they are in.

Mr. ENGLE. That is all we want to be sure of, Mr. Barrett, that that is precisely what happens.

Mr. MILLER. Mr. Chairman, as we proceed with the witnesses, let's keep the thought in mind, regardless of what this committee or the Congress does "will it not eventually have to be adjudicated by the court, just as California, Wyoming, and Nebraska did adjudicate a long period of controversy in the courts?" It has been settled, and I think satisfactorily.

Mr. ENGLE. Let me comment on what the gentleman from Nebraska says. We think that is true. We think your statement is correct, and the only thing we want to be sure of, as the gentleman from Wyoming indicates, is the status quo, if and when we get into court. In other words, we do not want language in this compact and agreements drawn between States not including California to affect a decision that comes up later. We want the status quo, Mr. Barrett.

Mr. BARRETT. The status quo applies only to the lower basin States. Now, the reason that the Supreme Court took jurisdiction and decided the case between Colorado and Nebraska was that they could not arrive at the compact. Here the compact has been arrived at, and under the Constitution of the United States the sovereign States have a right to agree between themselves, and they have certainly done that here.

Mr. LEMKE. I think the only way they could get in court would be if there would be a misunderstanding between States as to what their language means.

Mr. BARRETT. I don't think there will be any misunderstanding.

Chairman MURDOCK. Before calling the first witness, let us hold in mind, as Congressman Miller said, his question was thrown out for consideration by witnesses as well as members of the committee. I just want to say to Congressman Miller that I was in a hearing before another House committee a few days ago in which one of his colleagues from Nebraska was on the witness stand, and he was asking for appropriations for the development of the Republican River which involved three States. I heard that gentleman from Nebraska say in effect, "We do not want this in litigation. We have had our fill of litigation, and hope that the matter can be settled."

I just say that by way of following up what Congressman Barrett has said. We have this morning Judge Clifford Stone of Colorado, who is one of the leading water authorities in the West, and one well qualified to present this matter to us. He is well qualified to present this matter to us officially in this case as well as otherwise.

Judge Stone, may we have your statement?

STATEMENT OF JUDGE CLIFFORD H. STONE

Mr. STONE. Mr. Chairman, and members of the committee, it might be well at the outset to indicate to the committee the manner in which we propose to submit the upper Colorado River Basin compact under H. R. 2325 for the consideration of this committee.

Chairman MURDOCK. Judge Stone, do you prefer to be seated?

Mr. STONE. Well, I think perhaps I had better stand.

We recognize that if we can present this matter in an orderly fashion, and without repetition, it will save the time of this committee. Accordingly, we plan that I shall make a brief general statement. I shall then be followed by Mr. Royce Tipton, who will explain those provisions of the compact which deal primarily with engineering phases.

Mr. Tipton is an engineer who has participated as one of the engineering advisers in the negotiations of this compact.

Mr. Tipton then will be followed by Mr. Brietenstein who will explain the other provisions of the compact, since they are principally of a legal nature. Mr. Breitenstein served as a legal adviser during the negotiations.

I am director of the Colorado Water Conservation Board, and served as Colorado's commissioner on the commission.

All of the commissioners representing the States who participated in the negotiations are present with the exception of Mr. Watson of Utah. Utah will be represented here by the attorney general, and by Judge Howell of Ogden.

The presentation by the three men whom I have mentioned will then be followed by briefer statements by commissioners and others representing the other signatory States.

Congressman Engle has placed in the record questions which have been submitted to Harry W. Bashore, the Federal representative who served as the chairman of the upper Colorado River Basin compact commission. That letter contains questions which in our judgment California has a right and should present in these hearings in order that the provisions and their intent and purposes may be clearly understood in the consideration of giving congressional consent to this

compact. After reviewing the letter it appeared to us that it would be more appropriate if those answers were given not only by the Federal representative, but by commissioners representing all of the States. After all, a compact negotiated among States represents an agreement among those States and the intent and purpose in the minds of the negotiators, those who represent the States, as distinguished from the Federal Government are very important, and in order to better handle this matter, and before the hearings close, Congressman Engle, we propose to submit for the record and, for further questions, if it is deemed advisable, a letter signed by these commissioners approved by the Federal representative, and those questions will be answered as concisely and accurately as it is possible to do so.

Mr. ENGLE. Thank you very much, Mr. Stone.

Mr. STONE. It is well briefly to review the negotiation of this compact.

On July 22, 1946, the Governors of Arizona, Colorado, New Mexico, Utah, and Wyoming, or their representatives, met at Cheyenne, Wyo., and agreed to initiate negotiations of an upper Colorado River Basin compact. The organization meeting of the commission was held at Salt Lake City, Utah, on July 31, 1946. Harry W. Bashore, who had been previously designated by the President of the United States as the Federal representative, was elected chairman. Grover A. Giles, attorney general of Utah, was made secretary of the commission. The compact was finally signed by the commissioners at Santa Fe, N. Mex., on October 11, 1948.

Before the compact was signed on October 11, 1948, 8 meetings and 50 sessions of the commission were held. At the organization meeting an engineering advisory committee was created, because it was recognized that available information on water supplies, water uses, and other data were not sufficient to serve as a guide to the commission in making the compact. The commission assigned to the engineering committee specific tasks. The committee met on an average of every 2 months over a period of more than 2 years. Its work was not confined to meetings of the committee, but included the time and efforts of the staff of engineers of the Bureau of Reclamation, and of the individual States.

The report of the Bureau of Reclamation, submitted to the President of the United States by the Secretary of the Interior on July 24, 1946, entitled the "Colorado River House Document 149, Eightieth Congress, First Session," was of great value to the Commission in considering the potential development of the basin and important factors in connection therewith.

I should like to suggest to this committee that that report of the engineering advisory committee was of great value to the Commission, and in my judgment will be of great value to anyone interested in the Colorado River in the future. It does not represent the findings of a Federal agency nor of any one State, but it represents the findings of competent engineers from five States collaborating with engineers representing the Bureau of Reclamation.

At this point I wish to pay particular tribute to J. R. Riter, of the Bureau of Reclamation, who served as chairman of that engineering advisory committee.

Following the negotiation of the compact it was considered by the legislatures of the five signatory States. It is interesting to note that in those five legislatures there were only two votes of the total membership of those legislatures against ratification of the compact. In Colorado every member of the house of representatives joined as sponsors in the bill which provided for ratification.

At this time I offer for the record a certified copy of the act passed by the Colorado Legislature ratifying on behalf of the State of Colorado the upper Colorado River Basin compact. This act became effective on the second day of February 1949, when it was signed by Gov. Lee Knous, of Colorado.

In offering this for the record I suggest that in the interest of saving printing that the portion of the report which reproduces the compact be eliminated.

Chairman MURDOCK. Without objection, it will be entered into the record at this point.

(House bill No. 1, State of Colorado, is as follows:)

STATE OF COLORADO

OFFICE OF THE SECRETARY OF STATE

CERTIFICATE

UNITED STATES OF AMERICA,
State of Colorado, ss:

I, George J. Baker, Secretary, of the State of Colorado, do hereby certify that the annexed is a full, true, and complete copy of House Bill No. 1, filed in this office on the 2d day of February A. D. 1949, at 10:30 a. m.

In testimony whereof, I have hereunto set my hand and affixed the great seal of the State of Colorado, at the city of Denver this 2d day of February A. D. 1949.

[SEAL]

GEO. J. BAKER,
Secretary of State.
By JAMES R. MOSIER,
Deputy.

AN ACT

HOUSE BILL NO. 1

By Representatives Bezoff, Steele, Abe, Abernethy, Archambault, Armstrong, Barker, Beede, Beery, Bennett, Bentley, Blackman, Bledsoe, Brown, Clay, Cobb, Crowley, Dameron, Eaton, Foster, Hamburg, Hanson, Herring, Higel, Hill, Hobbs, Holt, Horsman, Houtchens, Johnson (Chey-Lcln), Johnson (Las Animas), Kelley, Kendrick, Kennedy, Kramer, Lamb, Lupton, MacDonald, Nelson, Ogilvie, O'Neill, Owens, Paddock, Parsons, Pellet, Phillips, Pile, Quiat, Radetsky, Roth, Schooley, Smartt, Smith, Stalker, Sullivan, Tinsley, Tyler, Wade, Ward (Crowley & Otero), Ward (Min'l-Rio Grande), Weissenfluh, Wells, Welsh, Yersin, Mr. Speaker.

AN ACT Approving the upper Colorado River compact among the States of Colorado, New Mexico, Utah, Wyoming, and Arizona; affecting the Colorado River, its tributaries, and the waters of said river and its tributaries; and providing for the operation and implementation of said compact

Be It Enacted by the General Assembly of the State of Colorado:

SECTION 1. The General Assembly hereby ratifies the compact among the States of Colorado, New Mexico, Utah, Wyoming, and Arizona, designated as the "Upper Colorado River Basin Compact" and signed in the City of Santa Fe, State of New Mexico, on the 11th day of October, A. D. 1948, by Clifford H. Stone, Commissioner for the State of Colorado, Fred E. Wilson, Commissioner for the State of New Mexico, Edward H. Watson, Commissioner for the State of Utah,

L. C. Bishop, Commissioner for the State of Wyoming, Charles A. Carson, Commissioner for the State of Arizona, and approved by Harry W. Bashore, Representative of the United States of America. Said compact is as follows:

* * * * * * *

EDWARD H. WATSON,
Commissioner for the State of Utah.
L. C. BISHOP,
Commissioner for the State of Wyoming.
GROVER A. GILES,
Secretary.

Approved:

HARRY W. BASHORE,
Representative of the United States of America.

SEC. 2. Said compact shall not become operative unless and until the same shall have been ratified by the legislatures of each of the signatory states and consented to by the Congress of the United States of America. The Governor of the State of Colorado shall give notice of the ratification of said compact by this Act to the Governors of the States of New Mexico, Utah, Wyoming, and Arizona, and to the President of the United States of America.

SEC. 3. It is hereby recognized, found, determined and declared that the compact creates an interstate agency which is known as the Upper Colorado River Commission and which is an independent entity whose members and employees are not officers and employees of any of the states signatory to the compact.

SEC. 4. After the said compact becomes effective, the Colorado member of the Upper Colorado River Commission shall be appointed by the Governor, and shall serve until revocation of his appointment by the Governor, and, on behalf of the Upper Colorado River Commission, the State of Colorado shall pay his necessary expenses and also compensation in an amount which shall be fixed by the Governor, and when so fixed shall be changed only by the Governor.

SEC. 5. The Colorado share of the expenses of the Upper Colorado River Commission and the expenses and the compensation of the Colorado member of that Commission shall be paid out of funds now or hereafter appropriated by the General Assembly to the Colorado Water Conservation Board and warrants shall be drawn against such appropriations upon vouchers signed by the Governor and the Director of the Colorado Water Conservation Board.

SEC. 6. The provisions of the Administrative Code of 1941 (Chapter 2, Colorado Session Laws, 1941) and all acts amendatory or supplementary thereto shall be inapplicable to any acts or proceedings taken to carry out the purposes of said compact.

SEC. 7. If any provision of this act or the application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions or applications of the act which can be given effect without the invalid provision or application, and to this end the provisions of this act are declared to be severable.

SEC. 8. The General Assembly hereby finds, determines, and declares that this act is necessary for the immediate preservation of the public peace, health, and safety.

SEC. 9. In the opinion of the General Assembly an emergency exists; therefore, this Act shall take effect and be in force from and after its passage.

PAT MAGILL, Jr.,
Speaker of the House of Representatives.
WALTER W. JOHNSON,
President of the Senate.
HENRY CHRISTENSEN,
Chief Clerk of the House of Representatives.
FRED C. FERGUSON,
Secretary of the Senate.

Approved at 10:21 a. m. February 2, 1949:

LEE KNOUS,
Governor of the State of Colorado.

Chairman MURDOCK. May I ask, Judge Stone, will other representatives of the other four States furnish similar evidence of ratification?

Mr. STONE. Yes. It is planned that as each representative from the other States appear here, he will submit for the record evidence of ratification.

At this point, at the suggestion of the Federal representative, Harry W. Bashore, I submit and read into the record a statement of the cost of negotiating this compact. I do that because of the general interest, and in order to indicate to the committee that amicable adjustment of interstate water problems cost much less money than the litigation which has been referred to this morning.

The statement includes direct expenditures and the portion of salaries of regular employees of the States when they devoted their time to the compact negotiations. The statement indicates that Colorado expended $39,850; Arizona, $19,087.86; Wyoming, $18,242.12; New Mexico, $25,443.18; Utah, $28,431; the Federal Government, $90,000. or a total of $221,055.08.

In connection with the submission of that statement, and considering the purpose back of it, when our chairman, Mr. Bashore, made the suggestion, and because of the question asked by Congressman Miller, of Nebraska, may I most sincerely suggest that interstate litigation over water can and should be avoided. It is not necessary to go to the Supreme Court of the United States for the purpose of adjusting controversies over the use of the waters of an interstate stream. There are two methods possible to accomplish this purpose. One of them, of course, is through an original action in the Supreme Court of the United States. The other is the compact method. In recent years, I believe in every case recently before the Supreme Court, it has been suggested by the Court that it is more desirable for the States, and a better result would be obtained, if the involved matters incident to interstate streams were settled through compacts; and may I suggest this, that in the case of the Arkansas River, my own State spent nearly 50 years litigating over the waters of that river, and within the last 2 years, and after we got a Supreme Court decree, we found it necessary to make a compact.

Mr. MILLER. Will the gentleman yield at that point?

Chairman MURDOCK. Will you yield?

Mr. STONE. Yes.

Mr. MILLER. Judge Stone, you are an expert, and I agree with you 100 percent that if you can settle these problems without litigation it is a much better procedure and I hope it can be done, but as an expert on irrigation matters, would you care to look into your crystal ball and suggest an opinion as to whether you think there will be litigation if the Congress passes H. R. 2325?

Mr. STONE. I should like to answer that in a different way. I should like to say that there is much less chance of litigation if this compact is approved. I should like also to suggest that if this compact were not made, so far as the upper Colorado River Basin is concerned, it would be necessary for us to go into court. We do not wish to involve the time and expense to apportion this water by litigation if we can accomplish it through a compact.

Mr. MILLER. I agree with you.

Mr. STONE. Whether in the future there should be some litigation over the interpretation of the compact, none of us can say. We hope we have made a compact that is so plain, so clear and so understandable that such a litigation will not take place.

Mr. MILLER. You think there is a possibility, for instance, that the State of California might challenge some provisions in the compact? You think that is a possibility, don't you?

Mr. STONE. Yes.

Mr. MILLER. And it could be thrown into the Supreme Court?

Mr. STONE. Yes, that is a possibility.

Mr. MILLER. Yes.

Mr. STONE. I think though that we have probably avoided that.

Mr. MILLER. I hope so.

Mr. STONE. In Colorado we have a number of interstate streams. We are the roof tree of the Nation and rivers arising in the State run in all directions. We have had more litigation over interstate waters than any other State in the Union. The Board of which I am director has definitely decided that we are not going to have litigation if we can avoid it by getting along with our neighbors. The basin of the Colorado River, as I shall explain, is made up of the upper and lower basins. It is conceivable there may be questions in the lower basin which may not affect the upper basin; likewise, questions in the upper basin which may not affect the lower basin.

The Supreme Court in the last case over the Arkansas river made this admonition: That the welfare of the water users of Kansas and Colorado would be better served through amicable adjustments of disputes over Arkansas river water than by further litigation. I believe that is true of any interstate streams.

Mr. BARRETT. Judge, in further response to the question from the gentleman from Nebraska, of course, if by any chance the State of California or any other State in the lower basin were to find it possible to get into the Supreme Court on matters agreed upon in this compact, certainly the compact would be conclusive against the signatory States, and any dispute the Court would take jurisdiction of would be between one of the lower States and the entire upper basin group; is that not right?

Mr. STONE. Yes. That may be speculation, but it is probable that, so far as the compact you are now considering is concerned, such a question would involve a matter of whether or not the provisions of the upper basin compact are strictly in accord with the basic document, namely, the Colorado River compact.

As I shall point out later, the upper basin compact was made subject to all of the provisions of the original Colorado River compact which was negotiated in 1922 and finally approved by the Congress in 1928. The five States which negotiated the more recent compact are signatories to the Colorado River compact, and are bound thereby; and the provisions of this recent compact must be carried out in conformity with the provisions of the original compact.

I wish now to go to the matter of the necessity for an upper Colorado River Basin compact. The Colorado River compact of 1922 made no apportionment of water or of the use of water among the States of the Colorado River basin.

The 1922 apportionment was between the upper and lower basin of the river. Besides these five States, the State of California and the State of Nevada negotiated and signed the original Colorado River compact.

Since 1922 water development in the upper Colorado River Basin, and projected plans for ultimate integrated development have precipitated questions of available water supplies in the various States for proposed projects. This is particularly true of the major projects which will utilize large quantities of water.

As authorized by section 15 of the Boulder Canyon Project Act (45 Stat. 1057, 1065), passed in 1928, and section 2 of the Boulder Canyon Project Adjustment Act (54 Stat. 774), passed in 1940, the Bureau of Reclamation has been carrying on studies and investigations on the Colorado River for a number of years. These investigations and the formulation of a report were intensified in the years 1944 and 1945, and the forepart of 1946. On July 7, 1946, a departmental report of the Department of the Interior on the Colorado River was issued. This followed and was based upon a report and recommendation, dated March 22, 1946, by the directors of regions 3 and 4, Bureau of Reclamation.

The 1946 report stated:

> There is not enough water available in the Colorado River system for full expansion of existing and authorized projects and for all potential projects outlined in the report, including the new possibilities for exporting water to adjacent watersheds. The need for a determination of the rights of the respective States to deplete the flow of the Colorado River consistent with the Colorado River compact and its associated documents, therefore, is most pressing.

The same report recommended:

> That the States of the Colorado River Basin determine their respective rights to deplete the flow of the Colorado River consistent with the Colorado River compact.

After reviewing the comments of the States and of various Federal agencies on the 1946 report, the Secretary of the Interior on July 19, 1947, submitted his interim report on the status of investigations of potential water-resource development in the Colorado River Basin in Arizona, California, Colorado, New Mexico, Nevada, Utah, and Wyoming. The Secretary in his letter transmitted to the Congress, dated July 24, 1947, explained:

> As stated in the interim report, existing circumstances tend to preclude the formulation of a comprehensive plan of development of the water resources of the Colorado River Basin at this time. Accordingly, although I cannot now recommend authorization of any project, I am transmitting the report to you in order that the Congress may be apprised of this comprehensive inventory of potential water-resource development in the Colorado River Basin and of the present situation regarding water rights in that basin.

The conclusions of the 1947 report on the Colorado River contained this language:

> That a comprehensive plan of development for the Colorado River cannot be formulated at this time.
>
> That further development of the resources of the Colorado River Basin, particularly large-scale development, is seriously handicapped, if not barred, by lack of determination of the rights of individual States to utilize the waters of the Colorado River system. The water supplies for projects to accomplish such development might be assured as a result of compact among the States of the separate basins, appropriated court or congressional action, or otherwise.
>
> That the States of the upper Colorado River Basin and States of the lower Colorado River Basin should be encouraged to proceed expeditiously to determine their respective rights to the waters of the Colorado River consistent with the Colorado River compact.

You will observe, according to that report, that, although plans for comprehensive development are proceeding in other basins in the West, the States of the Colorado River Basin—as I shall now refer particularly to the upper basin—are unable to proceed with any large-scale development in the absence of a compact; and that the Secretary recommended to these States to attempt to consumate a compact.

These five upper basin States accepted that suggestion and, as I have indicated, proceeded almost immediately to negotiate a compact. I wish one could be negotiated in the lower basin, but we shall not touch on that.

So we are here today submitting to you a basic document which is necessary if these five upper basin States are to proceed to develop their water resources.

At this point I wish to suggest to you, contrary to a general view which has been expressed in Congress concerning this compact, that we did not proceed with these negotiations in accordance with any previous statute or authorization by Congress to make a compact. We proceeded under the right of quasi-sovereign States as provided by the Constitution to make a compact, it being understood, of course, that such compact is not binding and effective on the signatories thereto until it had been ratified by their State legislatures, and until Congress had granted its consent to such a compact. It has long been the holding that previous act by Congress is not necessary for States to proceed with the negotiation of a compact. If a compact is made, and later it is consented to by the Congress, such consent implies previous authority to proceed with negotiations. It is under that principle that we proceeded. We did not proceed under any section of the Boulder Canyon Project Act, nor under any provision of the Colorado River compact.

Chairman MURDOCK. I want to thank you for correcting my statement a while ago on that, Judge Stone. I was not quite clear in regard to this first step.

Mr. STONE. That same statement was made over on the Senate side, and I have here a document which I shall not go into, but it is a brief on that subject, and I believe Mr. Breitenstein found 24 compacts where the same procedure was followed as was followed in this case.

Mr. MILLER. And do I understand, Judge Stone, that the upper valley compact involves the area above Lee Ferry, not below?

Mr. STONE. Yes; and I am going to explain that now.

Mr. D'EWART. Could I ask a question on the point Judge Stone just brought out?

Chairman MURDOCK. Yes, sir.

Mr. D'EWART. As you know, I served 4 years on the commission in my State, and I remember the very point you are bringing out was discussed, but as I remember, in order to have a representative of the Federal Government sign the compact, it was necessary for previous authorization, was it not?

Mr. STONE. I do not believe that follows, Congressman D'Ewart, in this particular case, because the Federal Government had designated, through the appointment by the President, a Federal representative. He participated in these negotiations, and upon the signing of the compact approved it, and it was our judgment at that time, and is now our belief, that such previous action by Confress is not necessary to obtain the appointment of a Federal representative, if one is actually appointed.

Now, I should like to refer briefly to the Colorado River compact of 1922 in order to clarify the general relationship, not specific, of this compact now before you, and the original Colorado River compact which was signed at Santa Fe, N. Mex., in November 1922.

The upper Colorado River Basin compact must be in conformity with, and may not violate, the Colorado River compact of 1922. That compact was negotiated and signed by the commissioners representing all seven States of the Colorado River Basin.

It was later ratified by the signatory States and approved by the Congress. The Colorado River compact was signed on November 24, 1922, and more than 6 years passed before it was finally approved by the Congress on December 21, 1928.

The Colorado River compact of 1922 accomplishes these things. I do not mean that this listing is all-inclusive, but it includes these matters which I now mention. They are important to consider in connection with the compact which is now before you.

The compact divides the Colorado River Basin into an upper and lower basin. The dividing point is at Lee Ferry, which is on the river approximately 30 miles (river distance) below the Utah-Arizona boundary line, and 1 mile below the mouth of the Paria River. Colorado and Wyoming are entirely within the upper basin. California and Nevada are entirely within the lower basin. Arizona, Utah, and New Mexico include territories within each of the two basins.

The Colorado River compact of 1922 makes no apportionment of water among the seven States of the Colorado River Basin, but it divides the beneficial consumptive use of water between the upper and lower basins. The beneficial consumptive use of 7,500,000 acre-feet annually is apportioned to the upper basin.

The compact creates two classes of Colorado River Basin States, namely, States of the lower division and States of the upper division. The States of the lower division are Arizona, California, Nevada, and the States of the upper division are Colorado, New Mexico, Utah, and Wyoming.

You will note that there is little distinction between States of the upper basin and States of the upper division. Arizona is a State of the upper basin, but is not a State of the upper division. Apparently the principal purpose of providing for States of the upper division was to include appropriate provisions in the compact for making deliveries of water out of the upper States, the four States of the upper division, for use in the lower division.

The compact provides that the States of the upper division, and I quote:

> * * * will not cause the flow of the river at Lee Ferry to be depleted below an aggregate of 75,000,000 acre-feet for any period of 10 consecutive years reckoned in continuing progressive series beginning with the first day of October next succeeding the ratification of this compact.

You will observe from what I have said that under the Colorado River compact the upper five States, that is, States of the upper basin, are apportioned in perpetuity the beneficial consumptive use of 7,500,000 acre-feet of water annually. The four States, not counting Arizona, are also obligated under the compact to make deliveries of water at Lee Ferry in accordance with the quoted provision which I have just read to you, and that that delivery of water shall aggregate 75,000,000 acre-feet for any period of 10 consecutive years, reckoned in continuing progressive series, or you could put it this way, deliver on the average 7,500,000 acre-feet a year.

It will be noted that this obligation to deliver water, on the part of the States of the upper division, constitute a joint and several obligation of the States of the upper division.

Now, having explained those particular provisions of the original Colorado River compact, it immediately indicates the principal job that these five States had in negotiating an upper Colorado River basin compact. I may summarize by saying that it meant:

(1) The apportionment among these five States of the use of the water which was allotted or apportioned to the upper basin by the original Colorado River compact.

(2) That the upper Colorado River basin compact should make appropriate provisions to meet the obligation for the delivery of water, in accordance with the Colorado river compact, at Lee Ferry for use in the lower basin.

(3) It was obvious that it is well enough to divide water, but some appropriate method had to be devised for the measurement of such division or apportionment of the use of water among the States.

(4) It was quite necessary, as in most compacts, to create an administrative commission and define its functions.

Mr. BARRETT. Judge Stone, may I ask you a question, please?

Mr. STONE. Yes.

Mr. BARRETT. I want to get it clear in my own mind the provision made between the four upper division States. As I understand it, article III, the State of Arizona gets 50,000 acre-feet of water per year. And how about the balance?

Mr. STONE. Seven million five hundred thousand.

Mr. BARRETT. How is that, 75,000,000 over a 10-year period?

Mr. STONE. Seven million five hundred thousand each year.

Mr. BARRETT. Seven million five hundred thousand, that is right, and the balance would be 7,450,000 which is divided then according to the percentages set forth?

Mr. STONE. That is correct. May I suggest, Mr. Barrett, Mr. Breitenstein when he appears here will explain those provisions.

Mr. BARRETT. I see.

Mr. STONE. I shall not go into those at this time.

As I stated in the interest of time I am covering it only generally, but that will be explained by Mr. Breitenstein when he appears here as a witness.

Before I conclude my statement there is just one other matter which I wish to cover.

Having explained to you the Colorado River compact, and the fact that these five States which negotiated the Upper Colorado River Basin compact are signatory to that compact, I wish briefly to point out the provisions of the upper basin compact relative to making this compact, the one now before you, subject to the provisions of the original document.

The upper Colorado River Basin compact clearly and expressly recognizes the paramountcy of the Colorado River compact. Attention is directed to the following provisions of the upper basin compact. I shall not specifically refer to all of them, but to some of the most prominent ones. In doing so I suggest to you that this recent compact is made subject to the original compact in twelve different places in the document now before you.

The preamble of the upper Colorado River Basin compact recites that the signatory States:

have agreed, subject to the provisions of the Colorado River compact, to determine the rights and obligations of each signatory State respecting the uses and deliveries of the water of the upper basin of the Colorado River, * * *

Article I expresses in section (a) the major purposes of the upper basin compact, among which are the equitable division of the use of the waters of the Colorado River system, "the use of which was apportioned in perpetuity to the upper basin by the Colorado River compact," and the establishment of the obligations of each State of the upper division "with respect to the deliveries of water required to be made at Lee Ferry by the Colorado River compact."

Article I, section (b) reads thus—

It is recognized that the Colorado River compact is in full force and effect and all of the provisions hereof are subject thereto.

Article III, section (a), the one just referred to by Congressman Barrett, which is the apportionment article, states that "subject to the provisions and limitations contained in the Colorado River compact and this compact", there is made an apportionment to the signatory States.

Clause (2) of this same Article III (a) makes the apportionment to the signatory States of the consumptive use per annum—

apportioned in perpetuity to and available for use each year by the upper basin under the Colorado River compart * * *.

Article IV, section (a), provides:

The extent and times of curtailment shall be such as to assure full compliance under the Colorado River compact * * *.

That article which deals with curtailment of use of water in upper basin, assures strict compliance with the obligations of the upper States to make deliveries at Lee Ferry in accordance with the provisions of the Colorado River compact.

Gentlemen, that concludes my statement, unless there are questions.

The next witness on behalf of the upper basin compact sponsors will be Mr. Tipton, who will deal primarily with technical phases of certain provisions of the upper Colorado River basin compact.

Chairman MURDOCK. We thank you, Judge Stone.

The House is in session and I think we ought not to continue very long.

Had you a question, Mr. White?

Mr. WHITE. Mr. Chairman, may I address the Chair?

Chairman MURDOCK. Yes.

Mr. WHITE. It has now reached the hour of 5 minutes after 12. The witness just concluded his main statement. Will members of the committee have an opportunity to interrogate the witness?

Chairman MURDOCK. That was the intention.

Will you be here tomorrow, Judge Stone?

Mr. STONE. I will be present, and I will attempt to answer any questions you have, Congressman White.

Mr. WHITE. I have some pertinent questions I am interested in, and I make my apologies to the committee. I had to attend other committee meetings and could not be present all the time.

Mr. STONE. I might suggest this, Mr. Chairman, I anticipate that some questions which may be directed to me may be answered quite specifically by later witnesses, because I have made only a general statement.

Mr. WHITE. As a matter of fact, you have been long connected with the allocation and use of the waters of the Colorado River; is that a matter of fact?

Mr. STONE. I have represented the Colorado for about 12 years.

Mr. WHITE. You have been before this committee on other legislation dealing with the use and utilization of water of the Colorado River. You are very familiar with the subject, is that not a fact?

Mr. STONE. It is a complicated subject, and I would not pretend to know all about it.

Mr. WHITE. Is it the request of the Chair to continue the meeting or to adjourn?

Chairman MURDOCK. I think we had better adjourn, because there are certain matters that Members will want to attend to on the floor. We had better adjourn and call Judge Stone before us the first thing tomorrow morning at 10 o'clock. We will resume the questioning then.

We will adjourn until 10 tomorrow.

(Whereupon, at 12:05 p. m., the subcommittee recessed.)

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THE UPPER COLORADO RIVER BASIN COMPACT

TUESDAY, MARCH 15, 1949

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON IRRIGATION AND RECLAMATION,
COMMITTEE ON PUBLIC LANDS,
Washington, D. C.

The subcommittee met at 10 a. m., Hon. John R. Murdock presiding.

Present: Messrs, Murdock, Engle, Morris, Bentsen, White, Baring, Mrs. Bosone, Messrs. Marshall, Aspinall, Miles, Welch, Crawford, Lemke, Barrett, D'Ewart.

Mr. MURDOCK. The committee will come to order, please.

We will take up for further consideration, H. R. 2325.

In view of the fact the House is meeting at 11 today, our hearing will be cut a little short. However, I have just been informed that the Private Calendar is the first order of business. I think under the circumstances we might continue our hearing a little after 11.

Those members who have bills on the Private Calendar, of course, will want to slip away about 11 or soon thereafter.

Judge Stone was our witness at the time of adjournment. I think it well to suggest to the committee, if it meets with your approval, that while you have questions to ask, I have some in my own system, I think it would be well to defer questioning until we have heard the witnesses. There will be a number of witnesses, and no doubt, since they are covering the ground pretty thoroughly, they will have anticipated many of these questions and will conserve time by answering them before we ask them.

Mr. LEMKE. Mr. Chairman, I might also suggest that if you ask them, you ask them all at one time. The one who is familiar with the question can answer it. That will save time.

Mr. MURDOCK. That will save time, too. Besides Judge Stone, we have others that I would like to hear from this morning if time permits. We have Mr. Tipton from the State of Colorado, consulting engineer; Mr. Breitenstein, also of the State of Colorado; we have Judge Fred Wilson from New Mexico, and we have others. I see former Reclamation Commissioner Bashore, and several others whom we hope to hear.

Judge Stone, will you proceed with your statement?

Mr. STONE. Mr. Chairman, I concluded my statement. The next witness appearing in behalf of the compact is Royce J. Tipton, consulting engineer of the Colorado Water Conservation Board, and who is a member of the engineering advisory committee during the compact negotiations.

We would suggest that he be called as the next witness.

Mr. MURDOCK. Thank you, Judge.

STATEMENT OF ROYCE J. TIPTON, CONSULTING ENGINEER, COLORADO WATER CONSERVATION BOARD

Mr. TIPTON. Mr. Chairman, members of the committee, my name is R. J. Tipton, consulting engineer from Denver, Colo. I am appearing in behalf of the State of Colorado in support of the consent by Congress of the Upper Colorado Basin Compact. I am appearing in the capacity of consulting engineer for the Colorado Water Conservation Board.

I was engineering adviser to the Colorado commissioner during the negotiations of the compact, and was a member of the engineering advisory committee to the compact commission.

In my presentation I shall discuss certain articles of the compact which are technical in nature from an engineering standpoint. Those articles are III, IV, V, and VI.

In discussing the articles, I believe it well to have the article appear in the record preceding my discussion of each article, but to conserve the time of the committee, if it is agreeable with the chairman and the committee, I will merely offer for the record each article as I begin to discuss it.

Mr. MURDOCK. It will be included in the record preceding your statement.

Mr. TIPTON. I believe there is before each member of the committee the compact so the committee members can follow my discussion.

I shall first discuss article III and offer for the record article III, which appears on page 28 of the pamphlet which has been distributed.

(Article III referred to is as follows:)

ARTICLE III

(a) Subject to the provisions and limitations contained in the Colorado River compact and in this compact, there is hereby apportioned from the upper Colorado River system in perpetuity to the States of Arizona, Colorado, New Mexico, Utah, and Wyoming, respectively, the consumptive use of water as follows:

(1) To the State of Arizona the consumptive use of 50,000 acre-feet of water per annum.

(2) To the States of Colorado, New Mexico, Utah, and Wyoming, respectively, the consumptive use per annum of the quantities resulting from the application of the following percentages to the total quantity of consumptive use per annum apportioned in perpetuity to and available for use each year by the upper basin under the Colorado River compact and remaining after the deduction of the use, not to exceed 50,000 acre-feet per annum, made in the State of Arizona.

State of Colorado, 51.75 percent; State of New Mexico, 11.25 percent; State of Utah, 23.00 percent; State of Wyoming, 14.00 percent.

(b) The apportionment made to the respective States by paragraph (a) of this article is based upon, and shall be applied in conformity with, the following principles and each of them:

(1) The apportionment is of any and all man-made depletions;

(2) Beneficial use is the basis, the measure and the limit of the right to use;

(3) No State shall exceed its apportioned use in any water year when the effect of such excess use, as determined by the commission, is to deprive another signatory State of its apportioned use during that water year; provided, that this subparagraph (b) (3) shall not be construed as:

(i) Altering the apportionment of use, or obligations to make deliveries as provided in article XI, XII, or XIV of this compact:

(ii) Purporting to apportion among the signatory States such uses of water as the upper basin may be entitled to under paragraphs (f) and (g) of article III of the Colorado River compact; or

(iii) Purporting to apportion among the signatory State in excess of its apportionment.

(4) The apportionment to each State includes all water necessary for the supply of any rights which now exist.

(c) No apportionment is hereby made, or intended to be made, of such uses of water as the upper basin may be entitled to under paragraphs (f) and (g) of article III of the Colorado River compact.

(d) The apportionment made by this article shall not be taken as any basis for the allocation among the signatory States of any benefits resulting from the generation of power.

Mr. TIPTON. Article III is the apportionment article. Article III (a) of the Colorado River compact apportions to the upper basin, 75,000,000 acre-feet of beneficial consumptive use annually in perpetuity. There are, however, some restrictions.

Article III (d) of the Colorado River compact imposes an obligation on the upper basin to the effect that it will not deplete the flow of the river at Lee Ferry below a 10-year progressive average of 75 million acre-feet. There has been negotiated and made effective a treaty with Mexico, and under article III (c) of the Colorado River compact. The first call on water to take care of the Mexican burden is on surplus water and that is water over and above the 16,000,000 acre-feet which was apportioned by articles III and III (b) of the Colorado River compact. The upper basin has an obligation to make up one-half of any deficiency in the water for delivery to Mexico.

Since the 7,500,000 acre-feet may be reduced at times, the negotiators of the upper Colorado River compact saw fit to make the apportionment among the States of the upper basin in terms of percentages rather than in terms of specific acre-feet, the only exception being the apportionment to Arizona, which is a very small apportionment.

Article III of the upper Colorado River compact, therefore, apportions up to 50,000 acre-feet to Arizona; then of the remainder which was apportioned in perpetuity to the upper basin by the Colorado River compact, there is apportioned to the State of Colorado 51.75 percent, to the State of New Mexico, 11.25 percent, to the State of Utah, 23, to the State of Wyoming, 14 percent.

The commissioners negotiating the compact concluded that the original Colorado River compact apportioned water to the upper basin in terms of virgin flow at Lee Ferry. So the apportionment that was made by the commissioners of the upper basin is in terms of man-made depletion at Lee Ferry; man-made depletion of the virgin flow at Lee Ferry, Lee Ferry being the division point between the upper and the lower basins.

Article III of the upper Colorado River compact makes it plain that no State may use or utilize more than its apportioned share of the water to the detriment of any other State, and provides further that this is not to be construed as altering the obligations to make deliveries at Lee Ferry provided for in articles XI, XII, XIII and XIV of the upper basin compact.

It also makes it very plain that article III does not apportion any of the surplus water that is defined in the original Colorado River compact under article III (f) of that compact, and does not affect in any way the procedure set up by the original compact for apportioning that surplus water after 1963. Article III of the upper Colorado River compact, under subparagraph 3 and subparagraph (iii), indicates also that the subparagraph 3 is not supposed to be construed as countenancing the average use by any signatory State in excess of the opportionment to that State.

Mr. BARRETT. What do you mean by that?

Mr. TIPTON. Subparagraph (3) says:

No State shall exceed its apportioned use in any water year when the effect of such excess use, as determined by the commission, is to deprive another signatory State of its apportioned use during that water year; provided, that this subparagraph (b) (3) shall not be construed as—

and then this subparagraph that I just read is a part of that.

In other words, it is not to be taken that there is implied in the subparagraph (3) any suggestion that any of the upper basin States may use more than its apportioned share on an average. Some years it may exceed its apportioned share, but over a period of years on an average, excess use is not necessarily to be countenanced.

Mr. BARRETT. The upper States may not use more than their apportioned allotment in any given year if it interferes with any of the other States.

Mr. TIPTON. That is right. It is conceivable in some years that States may use more than their apportioned share if it does not affect another State in the upper basin, but over a long period of years the average use should not exceed the apportioned share.

Article III also makes it plain that there is included in the apportionment the water required to take care of the present rights which are extant in each of the States of the upper basin. Article III also makes it plain that there is no apportionment made of any hydroelectric energy which may be generated by works in the upper basin.

Mr. BARRETT. How is that going to be settled?

Mr. TIPTON. I do not know, sir. I am testifying only with respect to the upper Colorado River compact.

Mr. BARRETT. Is it a matter that can be settled by another compact, or will the Bureau of Reclamation have the power to do that?

Mr. TIPTON. I do not know, sir. I think it is entirely in the hands of the States and I do not think it will require a compact to do it. I think it will be a matter of evolution. It will come about step by step. I think that one phase of the problem may at some time be thrown in the hands of the Congress here. This committee may have something to do with it. It may have a direct bearing upon how the situation may be taken care of, not division of the power, but the manner in which revenues derived from the power might be used.

Mr. MURDOCK. While we had agreed at the beginning that we would not ask questions, I would like to ask just one myself. No division was made concerning power in the original compact?

Mr. TIPTON. No; that is correct, sir.

Mr. MURDOCK. So, Congressman Barrett, this goes no further than the original compact. It deals only with water.

Mr. TIPTON. I want to make it plain again that I am testifying only with respect to the compact of the upper Colorado River Basin States and it specifically states the apportionment made by this article III shall not be taken as any basis for the allocation among the signatory States of any benefits resulting from the generation of power.

Mr. BARRETT. Mr. Chairman, I came in after the understanding was arrived at that there would be no questions. I do not care to ask any more questions unless the witness consents to it.

Mr. MURDOCK. These witnesses will be here, with the possible exception of Mr. Tipton. Will you be here for the next few days for questioning?

Mr. TIPTON. I will be here for at least 2 days; yes, sir.

Mr. WHITE. Mr. Chairman——

Mr. MURDOCK. Mr. White.

Mr. WHITE. I think the explanation could be better if we could ask some pertinent questions concerning the existing situation. I can follow the witness and also the outline of the compact in the material before me, but there are some things that are not clear and I do not think are being clarified by the witness in his presentation.

Mr. MURDOCK. It was only a tentative suggestion that we, in the interest of conserving time, do that.

Mr. WHITE. There is one thing I would like to know. We went through this with the other compact. I would like to know what percentage of the water is involved in this transaction of the Colorado River. There are certain agreements and compacts entered into that disposed of about half the water that is permitted to go down and fill the Boulder Dam Reservoir. There was no use to construct a reservoir unless the upper basin States would let enough water come through to fill it. We are talking now about surplus water.

I would like to know if that big storage at Boulder Dam does not take care of all the surplus water and hold it back so it is distributed from that point on and let it down to Parker Dam so the water there is diverted. Then we have transmountain diversion at Colorado-Big Thompson.

I would like to know something about the water that crosses the mountain and comes over this side. I will refrain until the witness completes his statement. It is not very clear.

Mr. TIPTON. I will be glad to answer any question, including that of Congressman White, and any question which is propounded to me which properly should be answered by another witness, I will frankly state should be answered accordingly. If Congressman White's statement is in the form of a question, I will be glad to answer it.

Mr. WHITE. I have to leave here in about 5 minutes to go to a very important meeting.

Mr. TIPTON. I shall construe your statement as a question and proceed to answer it.

That which the upper Colorado River compact deals with is only that which was apportioned to the upper Colorado River Basin by the original compact. It deals with no other water whatsoever. Now, in 1922——

Mr. WHITE. What percentage of the water does this deal with?

Mr. TIPTON. In 1922, there was apportioned 7,500,000 acre-feet for beneficial consumptive use by the upper basin. That is per annum. That is what we are dealing with, except——

Mr. WHITE. How many feet?

Mr. TIPTON. 7,500,000. That is what we are dealing with, except to the extent that that might be modified by some of the restrictive provisions of the compact. Article III (d) which imposes an obligation on the upper basin to deliver——

Mr. WHITE. The measuring point for that water is at Lee Ferry. What portion of 7,500,000 feet is the flow of the Colorado River through those States at Lee Ferry?

Mr. TIPTON. It depends on what periods of years are chosen.

Mr. WHITE. I thought we took an average over 10 years.

Mr. TIPTON. Nature causes the river to fluctuate between rather wide limits. For the period 1914–45, the virgin flow at Lee Ferry is estimated slightly under 16,000,000 acre-feet, so this is less than half of the total flow at Lee Ferry. I am only speaking of the flow at Lee Ferry, not of the total water supply in the basin.

Mr. WHITE. In the case of the diversion upstream and there was a return flow, where does that come in?

Mr. TIPTON. The right of the upper basin is to burn up 7,500,000 acre-feet of the water at Lee Ferry, whether it is burned up on the land or whether it is taken out of the basin—the effect on Lee Ferry flow is the same. The upper basin was given the right in perpetuity to burn up 7,500,000 acre-feet of the virgin flow at Lee Ferry. The manner in which the upper basin burns that water up is only of concern to the upper basin.

Mr. WHITE. In speaking of burning up, which, I assume, is to evaporate and other means of absorbing the water, it is impossible to burn up a full flow of diverted water.

Is there going to be a very large percentage of returned load?

Mr. TIPTON. Yes, Congressman White, in order to permit the upper basin to consume, or using my term to burn up, the 7,500,000 acre-feet, the actual diversion to the land will be several times that amount.

Mr. WHITE. In other words, they get 7,500,000 acre-feet, but in figuring on return flow, they can divert twice as much of that water if the water comes back?

Mr. TIPTON. That is correct.

Mr. WHITE. What happens to this arrangement made to take part of the Colorado waters to the other side of the Continental Divide and divert it to Colorado-Big Thompson? Does that come in on this compact?

Mr. TIPTON. Yes, sir; that is accounted for as the extent to which that reduces the flow at Lee Ferry. To that extent is that charged against the upper basin; to the extent that that depletes the flow at Lee Ferry, to that extent is that charged against Colorado's apportionment of 51.75 percent of the water apportioned to the upper basin by the Colorado River compact.

Mr. WHITE. There can be no return flow from that?

Mr. TIPTON. No, sir. That is a complete removal of the water in the same fashion as there is a complete removal of water from the basin by the transpiration of water by plants in the basin and by reservoir evaporation.

Mr. WHITE. We are dealing here with about 50 percent of the water that flows through the upper basin States. Half of it is pledged to go downstream to fill the Boulder Dam Reservoir. The other half can be diverted and disposed of by the upper-basin States.

Mr. TIPTON. It is slightly less than half, Congressman, and I would like to change your designation that it is pledged to go down and fill Boulder Dam. It is pledged to pass Lee Ferry. What the lower basin does with it is no concern of the upper basin.

Mr. WHITE. We had a $140,000,000 investment in Boulder Dam to create a reservoir. It would be futile to build that dam if the upper-basin States were not pledged in some way to let the water come through to fill the dam. Is that not true?

Mr. TIPTON. That is correct, sir. The upper basin has an obligation under a compact not to deplete the flow of the river at Lee Ferry

below 75,000,000 acre-feet in progressive 10-year series, and this upper-basin compact, as I will point out later, recognizes that obligation and the upper basin intends to comply with that obligation. It is not only bound by the original compact, but it binds itself in this compact to comply with that obligation.

Mr. WHITE. I thank the witness, Mr. Chairman.

Mr. MURDOCK. Proceed, Mr. Tipton.

Mr. TIPTON. I shall next discuss article IV, and I offer at this point article IV of the upper Colorado River compact. It appears on page 29 of the pamphlet that is before you, which I shall now identify: It is a report and submission of the upper Colorado River compact to the Governor and General Assembly of the State of Colorado, by the commissioner for Colorado, dated December 1948.

(Article IV referred to is as follows:)

ARTICLE IV

In the event curtailment of use of water by the States of the upper division at any time shall become necessary in order that the flow at Lee Ferry shall not be depleted below that required by article III of the Colorado River compact, the extent of curtailment by each State of the consumptive use of water apportioned to it by article III of this compact shall be in such quantities and at such times as shall be determined by the commission upon the application of the following principles:

(*a*) The extent and times of curtailment shall be such as to assure full compliance with article III of the Colorado River compact;

(*b*) If any State or States of the upper division, in the 10 years immediately preceding the water year in which curtailment is necessary, shall have consumptively used more water than it was or they were, as the case may be, entitled to use under the apportionment made by article III of this compact, such State or States shall be required to supply at Lee Ferry a quantity of water equal to its, or the aggregate of their, overdraft or the proportionate part of such overdraft, as may be necessary to assure compliance with article III of the Colorado River compact, before demand is made on any other State of the upper division;

(*c*) Except as provided in subparagraph (*b*) of this article, the extent of curtailment by each State of the upper division of the consumptive use of water apportioned to it by article III of this compact shall be such as to result in the delivery at Lee Ferry of a quantity of water which bears the same relation to the total required curtailment of use by the States of the upper division as the consumptive use of upper Colorado River system water which was made by each such State during the water year immediately preceding the year in which the curtailment becomes necessary bears to the total consumptive use of such water in the States of the upper division during the same water year; provided, that in determining such relation, the uses of water under rights perfected prior to November 24, 1922, shall be excluded.

Mr. TIPTON. This goes to one of the matters which Congressman White was discussing. It is anticipated that there, of necessity, will have to be constructed along the main stream of the Colorado River and some of its main tributaries below the major development in the upper basin, a series of reservoirs of substantial capacity, in order to enable the upper basin to make use of its apportioned water. Those reservoirs will be constructed long before they are needed for that purpose for the generation of hydroelectric energy.

It is anticipated the operation of those reservoirs for the generation of hydroelectric energy will so equate the flow of the stream that the upper basin obligation to deliver at Lee Ferry will be taken care of. In other words, the use of those reservoirs to enable the upper basin to take care of its obligation and the use of those reservoirs for the generation of hydroelectric energy is completely compatible.

The maximum amount of firm energy is obtained from a stream when that stream is equated. The upper basin obligation is well taken care of if the stream is equated, so that we hope that there will be no occasion to resort to article IV, which provides the manner in which the States of the upper basin shall curtail uses in the event that that becomes necessary in any year in order that the upper basin be enabled to take care of its obligation at Lee Ferry.

This is a full recognition of the obligation, Congressman White. In the event there shall be curtailment of use, that is, use on the land—the actual ceasing of the use of the water or the closing down of transmountain diversions—it will be up to the individual States as to the particular uses that will be curtailed to take care of the obligation, but if that should come about, article IV provides the manner in which it shall be done and defines the obligation of the respective States.

It provides, first, that if there has been an overuse by any States of water—in other words, the use of water in excess of the apportionment to any State or States for the preceding 10-year period—then that State or those States shall curtail uses in an amount sufficient to deliver at Lee Ferry the amount of the overuse. If that delivery at Lee Ferry is not sufficient to make up the deficiency, then the balance of the deficiency shall be taken care of by curtailment of use in the States in proportion to the amount of water being consumptively used in those States.

For example, if one State is consumptively using 10 percent of the total water being consumptively used at the time that curtailment is necessary, the portion of the remaining deficiency in flow at Lee Ferry to be taken care of by that State will be 10 percent.

Mr. WHITE. Would that be in the nature of a readjustment and not in the nature of paying back water already used? It will just readjust the amount?

Mr. TIPTON. First, if there is an overuse by any State, that State must deliver at Lee Ferry the amount of the overuse first. Then if there is any deficiency remaining, that deficiency is made up by the States in proportion to their consumptive uses being made at the time.

Mr. WHITE. In other words, if one takes a cut, all have to take a proportional cut?

Mr. TIPTON. That is correct, sir, in proportion to the amount they are using, not in proportion to their apportionment, but in proportion to the amount they are actually using.

There is a modification of that. Before determining the relation between the amount of water being used by each State and the total being used in the upper basin, there is deducted the amount of water which was being used by the States and by the upper basin as of the date November 24, 1922. That is the time the Colorado River Compact was signed, and we conceive the obligation to make up any deficiency rests upon rights and uses that came into existence after the Colorado River Compact was negotiated.

That completes my explanation of article IV, Congressman. If there are any questions, I will be glad to answer them.

Mr. WHITE. As to consumptive use, you do not make any provision for return flow. It is water turned out and does not come back.

Mr. TIPTON. I am glad you asked that, Congressman, because there is an important point there. Let us assume a given State must curtail

its uses in a certain amount to make up its part of the deficiency at Lee Ferry. That curtailment, whatever it might be, must be in an amount sufficient to deliver that water at Lee Ferry. In other words, let us assume a hypothetical transmountain diversion.

Let us assume that a State, by its own laws and regulations, has determined the transmountain diversion to be junior to all other uses of Colorado River water in that State and that, in event of curtailment, that transmountain diversion must be the first to curtail its uses. Assume that its share of the deficiency at Lee Ferry is 100,000 acre-feet. The curtailment of diversion by the transmountain diversion must be in excess of 100,000 acre-feet. It must be 100,000 acre-feet plus the amount of water required to carry that 100,000 acre-feet to Lee Ferry.

In other words, if only the 100,000 acre-feet way up at the Continental Divide, were left in the river, all of that water would not get to Lee Ferry. Some of it would be lost in transit.

Mr. WHITE. You call that line loss in electricity?

Mr. TIPTON. That is exactly the same as line loss. So the curtailment at the point of use must be in excess of the deficiency at Lee Ferry in the amount of the channel loss.

Mr. WHITE. When you make your measurement at Lee Ferry, that is, where you want the water delivered, you do not pay attention to what is done upstream.

Mr. TIPTON. That is correct, sir. The measurement is at Lee Ferry.

Mr. MURDOCK. We will now proceed with the questioning. I would like to make just this comment, though, before asking members to propound their questions. We have before us an eminent engineer, and this is largely an engineering question, as well as legal, so that we are mighty anxious to get a full and complete record here. If it seems to some that we are taking more time than we ought to take, I hope you will think again on it.

This record will be carefully thumbed and studied for the next 50 or 100 years. It was true in regard to the other compact and all the laws pertaining thereto, so that Congressman White is exactly right. We do need to get down here in black and white for future study the minute details, both engineering and legal, of this matter.

Mr. Morris, have you a question?

Mr. MORRIS. I believe I do not have a question. I do have this observation to make: While I agree with you, Mr. Chairman, and I assume that is the opinion of most, if not all of the committee, that we should go into all matters thoroughly, yet I feel that on this particular subject matter that if these States which have entered into this compact want it, certainly we ought to let them have it, unless, of course, their agreement by compact should have an adverse effect, or bring about an adverse result on some other State or States.

In other words, the purpose of this provision in the Constitution of the United States was to permit States to contract, and unless their contracting adversely affects somebody else, why should we in any way try to interfere with the matter? We should not go into it and try to minutely determine whether or not some mistakes were made by these States. They have a right to make their own mistakes if they want to. We have no right to again say what they shall do among themselves, in my judgment, unless their doing it does, in fact, adversely affect others.

So I think we should examine it almost entirely, maybe not entirely, but almost entirely from the standpoint of whether or not the compact is going to adversely affect others, and not from the standpoint of whether or not it was good for these States to enter into it. And the record does show that the legislators almost unanimously agreed—I believe there were two of the whole group who failed to agree—so it must be almost the unanimous wish of the States and their people to enter into this compact.

I think that we should not take a large portion of our time and of Congress in going into the proposition and trying to determine whether or not some mistakes were made in this compact. Our main thought should be to determine whether or not another State or States are adversely affected by the compact.

Mr. WHITE. Will the gentleman from Oklahoma yield?

Mr. MORRIS. Yes, sir.

Mr. WHITE. I would like to remind the gentleman from Oklahoma that we are dealing here with an issue that affects not only the upper basin States, but the lower basin States, and goes into an international issue with the great Republic of Mexico south. I would like to further remind the gentleman from Oklahoma that this committee did take on and consider and authorize a compact between Colorado and other States and approved that compact, and the Congress approved it, dealing with the disposition of the waters of the Strawberry River, I believe it was.

The States agreed that that river was not navigable, which took it out from under the jurisdiction of the Federal Government, and while we passed and the States agreed to it, it met with a veto at the White House. We have to be a little careful with what we are doing here because we are dealing with the lower and upper basin States, Mexico; we are dealing with one of the most controversial streams in America, the Colorado River, and we are dealing with probably the only stream in America where the water is taken through a mountain and diverted to a transmountain diversion. We are dealing with a big issue.

I will state to you gentlemen in this committee: use 6, more than 6, weeks to settle this issue in rewriting the contract under which the Boulder Dam and development waters were constructed. It took that much. There was a little impatience in the committee at that time. They wanted to shut off explanation, and Mr. Roberts from the city of Los Angeles had the details at his fingertips and we did not shut him off. We got the whole story of the reasons and we had a complete record.

Mr. MORRIS. Just this one thought—I do not care to carry on with any long argument——

Mr. WHITE. It is not an argument.

Mr. MORRIS. It is not an argument. I think if Mr. White will listen to me—I think your observations are well taken and I agree. I do not have any objection at all. I do not mean to suggest we should rush through this thing. I think you are absolutely right, but on this one particular point I think it would be wise for us, because we are so busy here and these people are all busy, I think it would be wise for us to confine our investigation, at least the major portion of our investigation, to the question of how this compact will affect

others and not so much how it will affect these States that contracted because they have a right to contract if they want to, in my judgment.

Mr. MURDOCK. Mr. Crawford, do you have any questions?

Mr. CRAWFORD. I will let some of the others question the witness.

Mr. MURDOCK. Mr. Engle?

Mr. ENGLE. I have no questions at this time, but in further indication of the position of California, as stated by me yesterday in an opening statement, I would like at an appropriate point in the record (and not in interruption of the gentleman's testimony, because I think it should come after it), to insert in the record the resolution adopted by the California Legislature on March 14, 1949. I am presenting a copy to the clerk for inclusion at the proper place in the record.

The statement of the California Legislature is in line with and conforms to the statement of general principles which I made yesterday at the beginning of the hearings.

Mr. MURDOCK. Without objection, it will be admitted to the record at an appropriate place.

Mr. Lemke?

Mr. LEMKE. I have no questions. I am satisfied this is satisfying California.

Mr. TIPTON. Mr. Chairman, I have two more articles to discuss. I thought maybe you thought I was through.

Mr. MURDOCK. I thought you were through. Go right ahead.

Mr. D'EWART. I have a question, Mr. Chairman.

Mr. MURDOCK. Mr. D'Ewart.

Mr. D'EWART. I wish you would define "consumptive use." You may have done that before I came in.

Mr. TIPTON. The negotiators of the upper Colorado River compact conceived consumptive use when the term is applied to the apportionment made to the upper basin by the Colorado River compact as a certain amount of the virgin flow at Lee Ferry. In other words, the upper basin negotiators consider that the upper basin under the Colorado River compact has the right by man's activities to deplete the virgin flow at Lee Ferry by 7,500,000 acre-feet per year, subject always to the limitations which I have already described.

There are other places in the upper basin compact where the words "use" and "consumptive use" are used, which are not necessarily synonymous with the term "beneficial consumptive use" as used in the original Colorado River compact. They merely apply to relationships among States of the upper basin.

Mr. D'EWART. As I remember, ordinarily consumptive use is used as the amount of water consumed by the practical growth and does not include return flow.

Mr. TIPTON. I wish to repeat, there is used in the Colorado River compact the words "beneficial consumptive use." The negotiators of the upper Colorado River compact interpreted that to mean that the upper basin had the right to withdraw from the river, or withhold from the river at Lee Ferry, 7,500,000 acre-feet, minus any curtailment that might have to be made to make up Lee Ferry's deliveries, and minus any treaty obligations that might be imposed on the upper basin States from time to time.

Mr. ENGLE. Will the gentleman yield to me?

Mr. D'EWART. Yes.

Mr. ENGLE. You say you made an interpretation of the Colorado River compact.

Mr. TIPTON. Yes.

Mr. ENGLE. You have written this interpretation into your own compact?

Mr. TIPTON. It is not written in.

Mr. ENGLE. We are getting right to the point that I think is the meat of this case: and that is to what extent the upper Colorado River compact is an interpretation or presupposes an interpretation or implies an interpretation, by the signators of that compact of the Colorado River compact. Those States which are not signators of the upper Colorado River compact insist they are not bound by such interpretations. That is the meat of this case. That is why I submitted these questions to Mr. Bashore, to make it perfectly clear that five States in the upper basin did not get together, write a compact based upon an interpretation of the Colorado compact, and agree among themselves that everybody in the Colorado Basin would be bound.

Mr. TIPTON. Mr. Chairman——

Mr. ENGLE. I am stating that as the issue. I have submitted these questions to Mr. Bashore and I assume they will be answered in due time, and when they are answered, I assume that they will answer that very specific question; and I am assuming also that it will be answered in accord with our views on the matter.

The question is whether or not you and I can get together and agree what we decided will bind Mr. Baring, for instance. I am stating that as the real issue in this hearing. It is the matter to which Mr. Morris, of Oklahoma, addressed himself, and I am heartily in concurrence with what he says, because I agree as far as the upper basin States are concerned they have a full and proper right to make any contract they want to with regard to the disposition of the water. They can write an agreement that they will throw dice for the water if they want to, and it would not be any of our business.

The only point is, when we get to the proposition of whether or not the upper Colorado River Basin compact embodies interpretations of the main contract, or implies an interpretation of the main contract binding upon those five States, whether or not by implication such interpretation is to be carried into the main compact itself, binding upon those States which are not signators to the upper Colorado River Basin compact.

That is the issue and that is the one we want to get settled before this bill is voted out.

Mr. TIPTON. Mr. Chairman, Congressman Engle's remarks were largely addressed to me. Some of his questions, of course, are legal.

Mr. MURDOCK. Yes.

Mr. TIPTON. I want, however, to compliment the Congressman on his statement of yesterday and the statement he made just now. I thought they were excellent. I can assure the Congressman that the issue, and what he considers to be the only issue, will be satisfactorily resolved, I think, we think, in the letter which already has been prepared in draft form in answer to the Congressman's questions. That letter will be considered by the upper Colorado River group and I am quite sure that it will resolve the issue to his satisfaction and allay all fears of California that they might be bound by some interpretation of

the Colorado River compact which ultimately might be found to be wrong.

We can assure the Congressman there was no intent on the part of the upper basin to bind any State of the lower basin, and I think when the lawyers come on they will indicate that from a legal standpoint that could not be done, and we will state in a position form that we had no intent of doing it and we are not going to do it.

Mr. MURDOCK. I think the main purpose of your testimony thus far is that this compact is entered into by the five States involved and for their own interest and for no other purpose.

Mr. TIPTON. That is correct, sir. We have no intent of binding in any way whatsoever the lower basin. We do not conceive we could. We do not conceive we could impose our interpretations in any manner whatsoever on the lower basin or any State of the lower basin, but I am making that as a general statement. It will be answered more specifically by attorneys and also more specifically by the answers to Congressman Engle's question, sir.

Mr. MURDOCK. Mr. Welch?

Mr. WELCH. In other words, the upper basin States cannot enter into an agreement which would transcend the main contract?

Mr. TIPTON. That is correct, sir. We could not and we did not want to.

Mr. BARING. Mr. Chairman——

Mr. MURDOCK. Mr. Baring.

Mr. BARING. I have a prepared amendment or suggested section which I think if the witness would say whether or not they were favorable, I think would allay the fear of the lower basin States.

Mr. TIPTON. Mr. Chairman, I think that should come with the next witness.

Mr. MURDOCK. Yes; the next witness, please.

Mr. TIPTON. If the Congressman needs the information, Mr. Breitenstein will go into some of these matters and I think it would probably be more appropriate at that time, because I am discussing only engineering and technical matters.

Mr. MURDOCK. Go right ahead, Mr. Tipton.

Mr. TIPTON. I shall now pass to article V of the upper Colorado River Basin compact, which appears on page 29 of the pamphlet which I identified. I offer that article for the record.

(Article V referred to is as follows:)

ARTICLE V

(*a*) All losses of water occurring from or as the result of the storage of water in reservoirs constructed prior to the signing of this compact shall be charged to the State in which such reservoir or reservoirs are located. Water stored in reservoirs covered by such paragraph (*a*) shall be for the exclusive use of and shall be charged to the State in which the reservoir or reservoirs are located.

(*b*) All losses of water occurring from or as the result of the storage of water in reservoirs constructed after the signing of this compact shall be charged as follows:

(1) If the commission finds that the reservoir is used, in whole or in part, to assist the States of the upper division in meeting their obligations to deliver water at Lee Ferry imposed by article III of the Colorado River compact, the commission shall make findings which in no event shall be contrary to the laws of the United States of America under which any reservoir is constructed, as to the reservoir capacity allocated for that purpose. The whole or that proportion, as the case may be, of reservoir losses as found by the commission to be

reasonably and properly chargeable to the reservoir or reservoir capacity utilized to assure deliveries at Lee Ferry shall be charged to the States of the upper division in the proportion which the consumptive use of water in each State of the upper division during the water year in which the charge is made bears to the total consumptive use of water in all States of the upper division during the same water year. Water stored in reservoirs or in reservoir capacity covered by this subparagraph (b) (1) shall be for the common benefit of all of the States of the upper division.

(2) If the commission finds that the reservoir is used, in whole or in part, to supply water for use in a State of the upper division, the commission shall make findings, which in no event shall be contrary to the laws of the United States of America under which any reservoir is constructed, as to the reservoir or reservoir capacity utilized to supply water for use and the State in which such water will be used. The whole or that proportion, as the case may be, of reservoir losses as found by the commission to be reasonably and properly chargeable to the State in which such water will be used shall be borne by that State. As determined by the commission, water stored in reservoirs covered by this subparagraph (b) (2) shall be earmarked for and charged to the State in which the water will be used.

(c) In the event the commission finds that a reservoir site is available to both assure deliveries at Lee Ferry and to store water for consumptive use in a State of the upper division, the storage of water for consumptive use shall be given preference. Any reservoir or reservoir capacity hereafter used to assure deliveries at Lee Ferry shall by order of the commission be used to store water for consumptive use in a State provided the commission finds that such storage is reasonably necessary to permit such State to make the use of the water apportioned to it by this compact.

Mr. TIPTON. This article has to do with the charging of reservoir losses. There are three types of reservoirs that may be constructed in the upper basin, three general types; and when I say "types," it is not really type of reservoirs, it is reservoirs for three types of use.

There will be reservoirs and there are reservoirs now that are constructed for use by a single State to make water available for irrigation of lands. Some may be constructed for that purpose and some for the generation of energy for the use of a specific State. There is another type of use that will be made by reservoirs constructed in the upper basin, and that will be to enable the upper basin to fulfill its obligation to deliver water at Lee Ferry, spelled out under article III (d) of the Colorado River compact.

The third type of use may be joint. It is conceivable that a reservoir may be used for the supplying of water to a State for consumptive purposes. A part of the capacity may also be used to generate energy and to assist in taking care of the Lee Ferry burden on the upper basin.

Article V, as I have said, provides for the manner in which the reservoir evaporation shall be charged. I want to make it very plain to this committee that the upper basin recognizes reservoir losses as a part of the apportionment made to the upper basin by the Colorado River compact. In other words, the 7,500,000 acre-feet, or whatever it might be that was apportioned the upper basin includes reservoir losses. We charge to the upper basin those losses as against the apportionment made to the upper basin by the main compact.

With respect to the reservoirs that provide for the first kind of use which I described, that is, the use of water by a single State, there are some of those reservoirs in existence at the present time. The compact provides that the water made available by those reservoirs shall be used by the State that is now using that water. The reservoirs' losses shall be charged to the State making use of those reservoirs.

If a reservoir is used in whole or in part to enable the upper basin to comply with its obligation under article III (d) of the Colorado

River compact, the reservoir losses will be charged to the States in proportion to the consumptive use being made by each State, the relation between the consumptive use being made by each State and the total consumptive use being made in the upper basin.

In other words, that is a prorata charging of the losses in proportion to the magnitude of the consumptive uses being made by the States.

This article of the compact provides that in the future, if reservoirs are constructed for the benefit of a single State or a group of States, the reservoir losses, shall be charged to that State or apportioned to two or more States in proportion to the use being made by the States.

Article V of the compact provides also that in the event a reservoir is available for aiding the upper basin in fulfilling its obligation at Lee Ferry, and also available to a State for making water usable for consumptive purposes, the use of that reservoir for consumptive use purposes shall have preference over the use for making delivery at Lee Ferry.

I am going to read a part of an answer to one of Congressman Engle's questions which as yet has not been cleared by the upper Colorado River commissioners. It can be taken at this time as my testimony with respect to this particular item and not as a specific answer to Congressman Engle's question:

> By "preference" is meant that each upper-basin State has a superior right to use a storage site for consumptive purposes within that State, and it may not be deprived of that right by the desire of other upper-division States to utilize the same site for the impoundment of water which will be released to meet the Lee Ferry obligations of the upper-division States.
>
> The exercise of such a preference right must not violate or have the effect of violating the delivery obligations imposed by article III (d) of the Colorado River compact.

In other words, assume in the distant future that the upper basin has reached the limit of its development. Assume the replacement reservoirs are in operation. Assume that one State decides that it can utilize a part of the capacity of one of those reservoirs to make water available for consumptive purposes. The commission can withdraw that capacity which, at that time, is being used to take care of the Lee Ferry operation, but if it does so, and that capacity is actually needed for that purpose, one of two things must happen, or a combination of them: Additional capacity must be provided to take care of the Lee Ferry obligation, or curtailment must be made, if necessary, as provided for under article IV of the upper Colorado River compact.

That completes my explanation, Mr. Chairman, of article V. I will be glad to answer any questions.

Mr. MURDOCK. Mr. Barrett, have you a question? This, I think, bears right on the matter you had in mind.

Mr. BARRETT. I thought we were going to let the witness conclude his whole statement and then go back. When I first started to interrogate the witness, he told me he wanted to complete his statement. I have some questions I would like to clear up in regard to article III. If you prefer to complete your statement, that is satisfactory to me.

Mr. MURDOCK. Would you prefer to do that?

Mr. TIPTON. I have no preference in the matter except if you are going back to article III, I think it would be better if I completed. I have no objection, so far as I am concerned, to answering any questions on article V at this time, or later.

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Mr. MURDOCK. The House is now in session. I understand the Private Calendar is being called. I think we may encroach a little bit on the time of the House. Those members having bills on the Private Calendar may want to go, of course. With the understanding, then, that the witness will proceed, we will reserve our questioning.

Mr. TIPTON. I shall now pass to an explanation of article VI. I shall read the article. [Reading:]

ARTICLE VI. The commission shall determine the quantity of the consumptive use of water, which use is apportioned by article III hereof, for the upper basin and for each State of the upper basin by the inflow-outflow method in terms of man-made depletions of the virgin flow at Lee Ferry, unless the commission, by unanimous action, shall adopt a different method of determination.

The inflow-outflow involves the determination of the correlation between an index of the inflow to a basin as measured at certain gaging stations, and the outflow from the basin. It is obviously impossible to measure all of the inflow. The gaging stations, which are utilized to measure a part of the inflow, are termed "inflow index stations" because the amount of water measured at those stations is an acceptable index of the inflow to the basin.

In the Colorado River Basin at the present time there are in existence, and have been in existence for a considerable period of years, 26 stations which can be considered as inflow index stations. The administrative body provided for by this compact, if this compact is consented to by Congress and becomes effective, undoubtedly will cause to be established more of such stations. Those stations that are now established and those that will be established in the future are above the major developments that have been made in the basin, or that will be made in the future, with the possible exception of transmountain diversions. Some of the index inflow stations of necessity will be below transmountain diversions.

From the plotting by years of the sum of the index inflows against the outflow, there is developed a correlation curve showing the relationship between inflow and outflow. Any changes thereafter in the basin which occur between the points of inflow and the points of outflow, and which affect the water supply of the basin, can be measured by the change in correlation between the inflow and outflow from that indicated by the correlation curve previously developed.

For example, if over a period of years additional depletions occur between the inflow points and the outflow point, the correlation between the inflow and the outflow will change. With a given inflow to the basin, there will be less outflow. The difference between the new correlation curve and the original correlation curve is the measure of the depletion that has occurred between the inflow points and the outflow points.

Mr. MURDOCK. That sounds rather mathematical to me.

Mr. TIPTON. Yes; it is. I tried to keep the mathematics out.

With respect to the upper Colorado River Basin, as we conceive the procedure, the administrative body will determine the relation between the index inflow, which is the sum of the discharge past a selected station around the rim of the basin, and the historic outflow at Lee Ferry. Even with the 26 stations that now exist, there is a good relationship between the sum of the inflow past those stations and the outflow at Lee Ferry.

Then taking the present man-made depletion of the virgin flow at Lee Ferry, there will be developed the relation between the index inflow and the virgin flow at Lee Ferry. That will be the base curve; that is, base relation. It can be in the form of a table or of a curve. As time goes on and when additional depletions are made in the upper basin, with a given inflow past the selected stations, there will be less outflow than the historic outflow has been and, of course, less than the virgin outflow would have been.

That is then a depletion that is being caused or will have been caused by man in the upper basin of the flow past Lee Ferry.

In addition to the rim stations which I have described above all major development—and incidentally, the recorded discharge past those rim stations before that recorded discharge is utilized—it will be corrected for any man-made depletion above the stations in order that that shall be a true representation of the index of the virgin inflow to the basin.

In addition to those rim stations, there will be another important series of stations, some of which now exist, others of which will be established. Such stations will be located below the major irrigation development in the upper basin, but above the major reservoirs that will be constructed on the main stream for the generation of hydroelectric energy, and to enable the upper basin to fulfill its obligation at Lee Ferry.

As I have said, some of those stations now exist: one at Bluff, Utah, on the San Juan; one at Cisco, Utah, on the Colorado River; one on the Green River at Green River, Utah; and there is one up at what we call the Linwood Station on the Green River. Others will be established near the mouths of Utah tributaries. There will be plenty of time to develop the relationship between the flow past those stations and the outflow at Lee Ferry before the major reservoirs are constructed.

A change in the relationship between the flow past those stations and the flow past Lee Ferry will indicate the amount of depletion that is being caused by those large reservoirs. In other words, there will be measured in that fashion the reservoir evaporation, any loss that might be occasioned by deterioration of channel such as that which now is resulting in some parts of the lower basin, and in that fashion there will be integrated everything that happens on the river to change the relation between the inflow coming into the basin and the outflow from the basin.

That second series of stations which I have described, and the relation between the run-off past those stations, and the run-off at Lee Ferry, will be used by the Commission to determine the reservoir losses which are occasioned by reservoirs constructed for the common good of the upper basin. It will be the losses which are to be charged to the upper basin in proportion to their uses as provided for in article V of the compact.

One point should be made clear: the relationships that are derived to indicate the correlation between inflow and outflow for a particular basin cover the full range of historic inflow and outflow.

Ordinarily, during a period of years, there occur years when the inflow is very low with a correspondingly low outflow. There also are years when the inflow of the basin is very high with accordingly

high outflow. Therefore, it is possible to develop a relationship which will fairly accurately cover the entire range of expected water supply so far as such supply is affected by meteorological factors.

Before the upper basin reaches its full development, and before it possibly can, these large main stream reservoirs must be constructed and placed in operation unless there are cheaper means of providing energy devised, those reservoirs will be constructed for the generation of hydroelectric energy long before they will be needed to aid the upper basin in fulfilling its obligation at Lee Ferry. There is considerable pressure at the present time for the authorization of some of those reservoirs for that purpose.

When that time is reached, the water supply of the river, so far as flow past Lee Ferry is concerned, will be largely equated so that this relationship that I have been discussing will have radically changed from present conditions, where under present conditions with a given inflow to the basin, if small, there is a small outflow; if large, there is a large outflow. But under ultimate conditions, the flow past Lee Ferry will be fairly constant from year to year because of the operation of the large reservoirs for the generation of energy. That also will serve the upper basin in meeting its obligation.

Under such equated conditions, the outflow will be about the same under any circumstances. With low inflow, the outflow will be the same as with high inflow, unless in a series of years the inflow is sufficient to cause spills from the reservoir. At that time, then, the matter will become fairly simple so far as determination of the consumption being made by the upper basin in terms of the withdrawal from Lee Ferry, which will be just the difference between the equated flow at Lee Ferry and the long-time average of the virgin flow at Lee Ferry.

That completes my explanation of article VI. That completes my presentation, Congressmen.

Mr. MURDOCK. I shall be able to follow you better when I read this than when I hear you. It is mathematical.

In a spirit of levity, I recall a wise remark made by another gentleman—I think probably he is in this room—meeting with a great group of westerners, engineers and lawyers, on similar problems he said: "When I hear these engineers speak, I cannot understand them, but I can believe them; but when I hear these lawyers speak, I can understand what they say, but I do not believe them."

Mr. TIPTON. Congressman, there is enough conflict between engineers and lawyers without your high lighting it here before this committee.

Mrs. BOSONE. Mr. Chairman, you surely only mean that in the spirit of levity, I hope.

Mr. MURDOCK. Yes, it is in that spirit.

Mr. TIPTON. May I say for the Congressman's information, there is one compact in force, it has been in force for about 10 years, 10 or 11 years, in which the inflow-outflow method is used. There is another one that will be before the Congress here—before your committee—we hope very shortly. That is the Pecos River Compact, in which the same method is used. It is not too complicated, but I can well understand taking it cold, it appears so.

The big advantage of it is, as I say, everything that happens between points is integrated. A lot of theorizing is eliminated as to what reser-

voir losses are, or how much a specific piece of land is burning up by transpiration.

Mr. MURDOCK. In other words, you can figure out these matters as accurately with pertinent statistics as they can in regard to life insurance or other business functions.

Mr. TIPTON. Yes, sir. This is not so uncertain as life, I do not believe. I think it is a little more precise.

Mr. MURDOCK. We are going to have to adjourn in a few minutes. The House is now dealing with private bills, but will soon go to the matter of finishing the rent-control bill under the 5-minute rule, and as assistant whip for the fourteenth zone I would not want to be guilty of keeping the members from the floor at that moment.

Mr. ENGLE. As assistant whip for the fifteenth zone, I concur with the assistant whip for the fourteenth zone.

Mr. MURDOCK. Mr. Tipton, I understand, will be here later. Thanks to the generosity of Mr. Engle, who had the committee room for tomorrow, and has stepped aside for the continuation of this work, we can use this room, and we will adjourn in a moment to meet at 10 o'clock tomorrow morning in this room.

Mr. Tipton, can you return for questioning?

Mr. TIPTON. Yes, sir; I will be here at 10 o'clock tomorrow morning.

Mr. MURDOCK. May I throw out a question or two, not expecting an answer today, but just to put you on notice?

Mr. TIPTON. Yes, sir.

Mr. MURDOCK. I should think these out a little more carefully, but they are pertinent questions to me: As an engineer, are you convinced that by proper engineering the upper basin will ultimately be able to use its apportionment of 7,500,000 acre-feet of water annually, and, at the same time, be able to deliver according to their contract an average of 7,500,000 acre-feet for the lower basin?

Mr. TIPTON. I can answer that question right now. The first part of your question, I can say I am not sure that the upper basin can utilize 7½ million acre-feet. That depends entirely upon the availability of hold-over reservoirs in the upper basin above the points of use. I hate to make that admission, but we are not sure yet.

In order to enable it to do that, there must be substantial hold-over reservoir capacity above the points of use. Now, if those reservoirs are available, and the upper basin can utilize the 7½ million acre-feet, it in turn also can make its required delivery at Lee Ferry. In any event, it will always make its required delivery at Lee Ferry.

Mr. MURDOCK. But it is going to require storage in order to do that.

Mr. TIPTON. Oh, yes. The very development of the basin itself by the construction of the substantial hold-over reservoirs for the direct use of the upper basin above the points of use, the effect of that will be to equate to some extent the flow of the river at Lee Ferry. That always happens, but in addition to those reservoirs, and the effect they will have upon the flow at Lee Ferry there will be required additional reservoirs with an aggregate substantial capacity below our points of use to complete the balance of the equation that is necessary to take care of our obligations.

Mr. MURDOCK. I had two other questions, but I will just hint at them now and word them better overnight: One is with reference to evaporation losses. Evaporation losses, when you have storage, are inevitable, are they not?

Mr. TIPTON. That is correct.

Mr. MURDOCK. Another: You spoke of hydroelectric power being needed and the possibility of its production before the land can be irrigated.

Mr. TIPTON. That is correct.

Mr. MURDOCK. Is it not necessary, since we regard the use of water for irrigation more important than for the use of power, that we safeguard the future uses against the earlier present uses of water for power production?

Mr. TIPTON. That is our conception in the upper basin, sir.

Mr. MURDOCK. We will stand adjourned until 10 o'clock tomorrow morning.

(The resolution previously referred to is as follows:)

RESOLUTION OF THE CALIFORNIA LEGISLATURE, ADOPTED MARCH 14, 1949

Assembly joint resolution No. 24 relative to the upper Colorado River Basin compact.

Whereas by the Colorado River compact of November 24, 1922, the seven States of the Colorado River Basin agreed to an apportionment of water of the Colorado River system as between the upper basin and the lower basin of the river, as therein defined; and

Whereas, the five States of the upper basin of said river on October 11, 1948, signed an "Upper Colorado River Basin compact" apportioning among themselves the water apportioned to the upper basin by the Colorado River compact, and said upper Colorado River Basin compact has been ratified by the legislatures

Whereas there has been introduced in the Congress of the United States S. 790 by which said upper Colorado River Basin compact would be approved; and

Whereas said Colorado River compact makes provision for the apportionment of water as between the upper basin and the lower basin on the basis of beneficial consumptive use; and

Whereas said upper basin compact contains certain provisions for the determination of quantities of water apportioned among the upper basin States "by the inflow-outflow method in terms of man-made depletions of the virgin flow at Lee Ferry": Now, therefore, be it

Resolved by the Assembly and Senate of the State of California jointly, That the State of California

(1) Approves the action of the upper basin States in reaching and ratifying a compact for apportionment of Colorado River system water among them and heartily congratulates said States for so doing;

(2) Considers that the formula for determination of consumptive use of water set out in said upper basin compact, as above quoted, is indeterminate and is not in consonance with the relevant terms of the Colorado River compact;

(3) Declares that it has no objection to the adoption by the upper basin States, as among themselves, of any formula they may choose for distribution of water among them;

(4) Declares further that the adoption by the upper basin States and said upper basin compact or its approval by the Congress does not and cannot amend nor affect the meaning of the Colorado River compact, nor affect, nor impair the interests of States of the Colorado River Basin which are not a party to said upper Colorado River Basin compact, and for that reason,

(5) Urges the Congress of the United States to provide in any act whereby the Congress consents to said upper basin compact that nothing in said act nor said compact shall be deemed to amend or affect the meaning of the Colorado River compact nor to affect, nor impair the interests of any State which is not a party to said upper Colorado River Basin compact; and be it further,

Resolved, That the chief clerk of the assembly is hereby directed to transmit copies of this resolution to the President and Vice President of the United States, the Speaker of the House of Representatives, and to the Senators and Representatives from the State of California in the Congress of the United States.

(Whereupon, at 11:30 a. m., the committee adjourned, to reconvene at 10 a. m., Wednesday, March 16, 1949.)

UPPER COLORADO RIVER BASIN COMPACT

WEDNESDAY, MARCH 16, 1949

HOUSE OF REPRESENTATIVES,
COMMITTEE ON PUBLIC LANDS,
SUBCOMMITTEE ON IRRIGATION AND RECLAMATION,
Washington, D. C.

The subcommittee met at 10 a. m., Hon. John R. Murdock presiding.

Present: Messrs. Murdock, Engle, White, Baring, Mrs. Bosone, Messrs. Marshall, O'Neill, Aspinall, Miles, Welch, Lemke, Barrett, D'Ewart, Poulson, and Sanborn.

Mr. MURDOCK. We will come to order, please, gentlemen.

We will take up for further consideration at this time, H. R. 2325. We are, as usual, a little short of time today. The House convenes at 11. Possibly we can infringe on the House time a little bit. We will need to hurry along in order to complete our hearings.

We had yesterday at adjournment, Mr. Tipton, consulting engineer, who was giving us the engineering background of the compact. That is a very essential thing, and while I could not follow him too carefully yesterday orally, I promised myself that I would read the transcript very carefully so that I could understand him. We did not have a chance to ask Mr. Tipton yesterday.

Are you ready now, Mr. Tipton, to proceed with your statement?

Mr. TIPTON. Yes, sir; Mr. Chairman.

FURTHER STATEMENT OF ROYCE J. TIPTON, CONSULTING ENGINEER, COLORADO WATER CONSERVATION BOARD

Mr. TIPTON. I completed my statement and I am prepared to answer any questions, or attempt to.

Mr. MURDOCK. There were numerous questions asked. They were submitted for the record. Are you also prepared to answer those questions?

Mr. TIPTON. Yes, sir. I am prepared to answer those I can, and refer those I cannot answer to someone else.

Mr. MURDOCK. Now, gentlemen of the committee, have you questions to ask? Suppose we begin with Mr. Marshall.

Mr. D'EWART. Mr. Chairman, could I ask a question of you? The question is confined to the first six articles of the compact. Is that the schedule?

Mr. MURDOCK. The first six are the ones Mr. Tipton discussed from the engineering standpoint and I think we ought to limit our questions to him on those.

Mr. Marshall?

Mr. MARSHALL. I think I will yield my time to other members of the committee, Mr. Murdock.

Mr. MURDOCK. For the time being, anyhow?

Mr. MARSHALL. Yes.

Mr. MURDOCK. Mr. D'Ewart, had you some questions?

Mr. D'EWART. Mine had to do with article VII and that is not before us at the present time. Perhaps mine should not be directed to Mr. Tipton. I believe I will hold the questions.

Mr. MURDOCK. Mr. Barrett?

Mr. BARRETT. Mr. Tipton, I would like to have you put in rather simple language the effect of article III on the division of water. I will state the way I understand some of the provisions of it.

The purport of that section is first to recognize the rights of Arizona to the maximum of 50,000 acre-feet of water, to recognize the obligations of the upper basin States to the commitment to Mexico on the treaty with that country, and then to divide the water in the percentages outlined on page 6 between the four upper basin States.

Is that right?

Mr. TIPTON. That is correct, sir. When you mention the obligation of the upper basin, if any, to pass water to take care of Mexican obligations, it is not restricted only to that. There is, of course, another restrictive provision in the Colorado River compact and that is an obligation to make certain deliveries.

Mr. BARRETT. I understand that. We have attempted here to protect the lower basin States by several provisions, showing the intent to carry out all of the provisions of the Colorado River compact. You conclude, therefore, the provisions on page 7 have adequately protected the rights of the lower basin States so that any division made will be in conformity with the original compact?

Mr. TIPTON. That is correct, sir. So far as article III is concerned, it apportions only that which was apportioned to the upper basin by the Colorado River compact and does not apportion one drop of water beyond that amount.

Mr. BARRETT. There is one provision in there that is not entirely clear to me, and that is subdivision (d) on page 7. What I would like to know is, you are taking no action on power, and as I remember your testimony, you stated probably the States will have to agree on that.

What I should like to know now is this: Supposing either a comprehensive plan is submitted to the Congress for the development of the upper basin States, or if an omnibus bill were to be presented to the Congress for one or more projects in each of the upper basin States—would the projects in Wyoming be entitled to a contribution from power developed, we will say, in the State of Colorado?

Mr. TIPTON. I cannot answer that question, Congressman. I am not competent to answer it because there has been no agreement made among the States. If an agreement had been made, it might be subject to some sort of statutory action by Congress. I know what is in the Congressman's mind and it is in the minds of a great many of us who are interested in Colorado River development.

I might indicate some of the thinking that exists. It is not conclusive. It will not answer your question, but it goes as far as I can answer it. It is in the minds of some that there might be what is

called, I believe, a power account set-up. That would have to be done by an act of Congress. Any excess revenues from power generated principally for those reservoirs which are for the common good of the States would go into the power account and could be drawn upon to finance projects within the States. That certainly would take some kind of action of Congress, because there is a major matter of policy involved. There is another school of thought.

Mr. BARRETT. Assuming that Congress did take such action, what I would like to know is would that become conclusive on the Upper Basin States without objection from them, or would they have to take some affirmative action in the nature of an additional compact?

Mr. TIPTON. No. In my opinion, Congressman, it would not require by any means a compact. If that were done, projects would be presented from time to time as the investigations progressed to determine the feasibility, and those projects would be presented to Congress.

Mr. BARRETT. Let me ask you this question, Mr. Tipton. Supposing we should bring in a bill authorizing the Seedskadee project in Wyoming and one in Colorado and one in Utah and one in New Mexico, and we would want to assure that the Seedskadee project in Wyoming should get a contribution from a power project in Colorado. There has been nothing said in this compact with reference to that matter. What would be the procedure?

Mr. TIPTON. I cannot answer you. I presume it would be the same sort of procedure that has been carried on in the past among the States of the upper basin, and for a time among the States of the entire basin. That procedure was a working out of common problems through the means of a committee. We have such a committee in existence at the present time.

The committee would agree upon procedure and then would come to Congress, bringing their recommended procedures as the combined thoughts of the interested States.

Mr. BARRETT. At any rate, your conclusion is that that will not be prohibited by reason of subsection (d)?

Mr. TIPTON. Not by any means. May I complete my statement, Congressman?

I mentioned the one school of thought. There is another school of thought that possibly the development should be by smaller units where projects are more or less interdependent economically. There is another school of thought, which does not exist in the upper basin, that revenues from energy should not be used to assist irrigation projects. I am merely making that statement to indicate the complexity of the problem and to indicate the difficulties that the States would have been in had they attempted in any fashion whatsoever in this compact to make any apportionment of power. It would have been absolutely impossible and it would have been unwise and they could not have done so with propriety.

Mr. BARRETT. I assume you are correct in that statement. The only apprehension I had in the matter was to be certain it was not prohibited in any way from future action.

Mr. TIPTON. No, sir. Making a gratuitous statement on behalf of Colorado, even though Colorado produces 70 percent of the water, and even though Colorado has been apportioned over 50 percent of

the apportionment of the upper basin, Colorado is not going to take the position of the hog as far as the power is concerned.

Mr. BARRETT. It seems to me the purpose of this compact is certainly to expedite the development of the upper Colorado River Basin States. I was very hopeful that we could get the comprehensive plan and get the whole upper basin States developed in an orderly way with a pool of the power to assist in the reclamation of the various States.

Secondly, I certainly hoped we could get some assistance from the power that may be developed, inasmuch as the water is contributed in proportions by the various States as outlined.

I am pleased there is certainly nothing in here that would impede in any way such a program after this compact is ratified.

Mr. TIPTON. That is my opinion, Congressman. The prerequisite at the moment at least of the development you suggest is the making effective of this compact. That has to come first at the moment. Then there will be no doubt considerable pressure to have authorized some of the large reservoir development along the main stream for the generation of energy. There is a need for that energy, a growing need for it.

There will be a market for all of the energy that can be generated by the operation of the reservoirs that will be required by the upper basin to insure it in taking care of its obligation at Lee Ferry.

Mr. BARRETT. That brings me up to the other question that I did want to ask you and that is under article V, in which the various types of reservoirs are enumerated. Take the reservoir that you have just mentioned that is to be constructed for the purpose of fulfilling the obligation of the upper basin States at Lee Ferry. It will also generate power. I assume that the cost of construction of that reservoir would be charged to the entire upper basin area, would it not?

Mr. TIPTON. I think that is a matter that will be before the Congress at the time that is up for authorization and for the appropriation of funds.

Mr. BARRETT. At any rate, any power that would be generated there would be in a pool under some division for the upper basin States.

Mr. TIPTON. That also would require action by Congress to fix policy.

Mr. BARRETT. In other words, the effect of your testimony is that whatever policy the Congress might desire to promulgate under this compact would be entirely right and proper, and all of the States could raise their objections here in the Congress and it would be conclusive on the States whatever action is taken?

Mr. TIPTON. That is correct, sir. In other words, there is not one single provision in this compact which would inhibit the Congress in promulgating any policy Congress in its wisdom desired to promulgate with respect to the generation of hydroelectric energy and the disposition of the revenues from the sale of that energy.

Mr. BARRETT. What I was trying to get at, you certainly must have had something in mind when you designated these three types of reservoirs, one for single use in the State, and you meant that that type of reservoir would be certainly chargeable to the projects in that State. Is that correct?

Mr. TIPTON. Yes. This article which you are discussing, article V, has to do only with the charging of reservoir losses.

Mr. BARRETT. I understand that.

Mr. TIPTON. That is evaporation losses in the reservoirs.

Mr. BARRETT. Did you mean that same theory would go any further than for the evaporation losses?

Mr. TIPTON. No. There is nothing in the article that says it goes to division of power or that it could be implied that the power would be divided up in the same fashion that losses are charged. It does not say that. It does not mean that.

Mr. BARRETT. Thank you very much.

Mr. MURDOCK. I believe it would facilitate matters if we ask Mr. Breitenstein to come to the stand with Mr. Tipton and then direct our questions to both. However, I would like to say to the members of the committee who are from the upper basin States, the former Governor of New Mexico, here on my left, undoubtedly has some questions just as the gentleman from Wyoming had, and I wish we would give preference to those from the upper basin States first. I think we should. The gentleman from Colorado and the gentlewoman from Utah are both present. They are more vitally interested in this than any other members of the comittee.

Mr. WHITE. Might I suggest to the chairman: In previous committees it has been the custom, after the witness completed his testimony, to recognize the gentleman on the Democratic side and alternate on the Republican side and go down through the committee to give them all a chance to participate.

Mr. MURDOCK. We do that as a regular thing. However, we may want to vary a little bit from that on this occasion.

Now, Mr. Breitenstein, you were to answer the questions that Mr. Engle put. Is that it?

STATEMENT OF JEAN S. BREITENSTEIN, ATTORNEY FOR COLORADO WATER CONSERVATION BOARD

Mr. BREITENSTEIN. These are not just my answers.

I might state for the record, my name is Jean S. Breitenstein. I live in Denver, Colo. I am the attorney for the Colorado Water Conservation Board.

During the negotiation of the upper Colorado River Basin compact, I acted as the legal adviser for Clifford H. Stone, the Colorado commissioner, and I was a member of the legal advisory committee.

On Monday of the opening of this hearing, Congressman Engle presented for the record a letter to Harry W. Bashore, the Federal representative in these compact negotiations. That letter has been given consideration by Mr. Bashore and by the representatives of the upper basin States, who are here in Washington. The answer has been approved by Mr. Bashore and the representatives of the upper basin States here in Washington.

However, the original, which I have in my possession, has not yet been signed by Fred E. Wilson, commissioner for the State of New Mexico. It has been approved by him. The original which I have here has been signed by Charles A. Carson, commissioner for the State of Arizona; Clifford H. Stone, commissioner for the State of Colorado; L. C. Bishop, commissioner for the State of Wyoming; Clinton D. Vernon, attorney general of Utah; J. A. Howell, special assistant

attorney general of Utah; and Harry W. Bashore, representative of the United States.

With your permission, Mr. Chairman, I will read the letter.

Mr. MURDOCK. You may proceed.

Mr. BREITENSTEIN. It bears date of March 16, 1949, addressed to Mr. Engle, House of Representatives. [Reading:]

MY DEAR MR. ENGLE: Your letter of March 12, 1949, addressed to Hon. Harry W. Bashore, representative of the United States, upper Colorado River basin compact negotiations, has been given consideration by Mr. Bashore and by the representatives of the upper basin States now assembled in Washington. The answers herein given to your specific questions are the answers of the representatives of the compacting States and of Mr. Bashore.

In this letter the statements made by you in connection with each question and the questions themselves will be italicized. The answers will follow each question.

Question No. 1

Article I of the proposed compact refers to the apportionment of the "use" of the water of the Colorado River system, the use of which was apportioned in perpetuity to the upper basin by the Colorado River compact.

(a) Is the word "use" to be taken as synonymous with the phrase "beneficial consumptive use" as it occurs in the Colorado River compact?

Answer. The word "use" as it occurs in article I of the upper Colorado River Basin compact is synonymous with the phrase "beneficial consumptive use" as it appears in article III (a) and article III (b) of the Colorado River compact.

(b) In this connection, note that the phrase "consumptive use" occurs frequently in the pending compact. Is there any difference in meaning between the phrase "consumptive use" as used in the pending compact, and "beneficial consumptive use" as the phrase is used in the Colorado River compact?

Answer. In all instances where the phrase "consumptive use" occurs with reference to the apportionment made to the upper basin by the Colorado River compact, such phrase is synonymous with the phrase "beneficial consumptive use" as it occurs in article III (a) and article III (b) of the Colorado River compact. This is because of the paramountcy of the Colorado River compact. When such phrase is employed in connection with internal matters relating to the rights of the upper basin States as among themselves to the water available to them under the Colorado River compact, the phrase "consumptive use" is not necessarily synonymous with the phrase "beneficial consumptive use" as used in the Colorado River compact. In this connection it should be pointed out that in each of the compacting States a "beneficial use" is essential to the acquisition of a firm water right. Also attention is directed to article III (b) (2) of the upper basin compact, which provides that "beneficial use is the basis, the measure, and the limit of the right to use."

Question No. 2

In article II, the term "virgin flow" is defined to mean "the flow of any stream undepleted by the activities of man."

(a) Is it proposed to determine "virgin flow" with respect to each year, or to use averages?

Answer: "Virgin flow" will be determined with respect to each water year. In the actual administration of the Upper Colorado River Basin compact, the upper Colorado River commission may make use of averages and necessarily will do so when hold-over reservoirs are constructed and placed in operation.

(b) If on an annual basis, how will "virgin flow" for any particular future water year be determined?

Answer: An index of the virgin inflow will be determined by the summation of the discharge measured at a series of key gaging stations located around the rim of the basin above the major development, the recorded discharge past each station to be corrected for man-made depletions, if any, above that station. The virgin outflow at Lee Ferry will be determined by a correlation curve developed by the historic relationship between recorded inflow at such key gaging stations, corrected for upstream man-made depletions, if any, and recorded Lee Ferry flows, together with the historic man-made depletions above Lee Ferry.

Question No. 3

(a) Will consumptive uses in each of the States, under Article III, be determined with reference to each water year?

Answer: Consumptive uses in each of the upper basin States will be determined with reference to each water year. In making an administrative determination of such consumptive uses the Upper Colorado River Commission will necessarily make use of averages when hold-over reservoirs are constructed and placed in operation. While the compact leaves such determination to the commission, it is considered that the commission may make use of 10-year progressive averages.

(b) Or, are these quantities to be determined on long or short term averages?
Answer: See answer to question No. 3 (a) above.

QUESTION No. 4

Article IV speaks of curtailment of use of water in order that flow at Lee Ferry shall not be depleted below that required by article III of the Colorado River compact.
Does the word "use" mean the same thing as the phrase "consumptive use" as determined pursuant to article VI of the compact?

Answer: The word "use" as it so occurs includes "consumptive use" as such use is determined pursuant to article VI. "Use" is a broader term than "consumptive use." It is employed in article IV in order that there may be no argument as to the power and obligation of an upper division State to curtail any "use" which it determines should be curtailed in order to assure full compliance with article III (d) of the Colorado River compact.

Question No. 5

Article V, subsection (c), provides that: "In the event the commission finds that a reservoir site is available both to assure deliveries at Lee Ferry and to store water for consumptive use in a State of the upper division, the storage of water for consumptive use shall be given preference."
Does this mean that the commission may exonerate any reservoir or reservoir capacity from the obligation of article III (d) of the Colorado River compact: If not, what is meant by the "preference" for consumptive use?
Answer: The answer to the first part of this double question is: No. The States and not the commission determine what uses must be curtailed in order to comply with the obligation of article III (d) of the Colorado River compact. By "preference" is meant that each upper division State has a superior right to use a storage site for consumptive uses within that State and it may not be deprived of that right by the desire of other upper division States to utilize the same site for the impoundment of water which will be released to meet the Lee Ferry delivery obligations of the upper division States. The exercise of such a preference right must not violate or have the effect of violating the delivery obligation imposed by article III (d) of the Colorado River compact.

Question No. 6

Article VI provides that the commission shall determine the quantity of the consumptive use of water for the upper basin and for each State of the upper basin, by the inflow-outflow method in terms of man-made depletions of the virgin flow at Lee Ferry, unless the commission, by unanimous action, shall adopt a different method of determination.
(a) Outflow from the upper basin apparently would be measured at Lee Ferry. Where and how would inflow to the upper basin be measured?
Answer: Inflow to the upper basin will be determined by a series of key gaging stations located at strategic points and designed to be an index of the inflow to the upper basin. The recorded discharge past these key gaging stations will be corrected for all man-made depletions, if any, occurring above each station.
(b) It is my understanding that a large part of the use of water in the upper basin will be made possible by overyear and cyclic storage. The impounding of water in storage reservoirs would be reflected by depletion at Lee Ferry during the water year in which water is impounded. Does article VI mean that consumptive use will be measured by water stored, as distinguished from the withdrawals from storage and application to use on land?

Answer: The measurement of use by the inflow-outflow method prescribed by article VI automatically takes into account the storage and release of water from reservoirs. Hence the measurement, in terms of stream depletion at Lee Ferry is by water stored as distinguished from withdrawals from storage and applications to use on land.

(c) *How is it proposed to account for water stored in one year and applied to use in another and later year? Specifically, would consumptive use be considered as occurring in the year in which water is impounded, or in some later year when it is withdrawn and applied to use?*

Answer: The necessity for hold-over storage to enable the upper basin to utilize the apportionment made to it by the Colorado River compact and at the same time to comply with the obligation for Lee Ferry deliveries imposed by article III (d) of the Colorado River compact requires that consumptive use resulting from the storage of water in reservoirs be determined on the basis of progressive averages. While the compact leaves such determination to the commission, it is considered that the commission may make use of progressive averages.

Question No. 7

Article VII provides for an "Upper Colorado River Commission." Among other things, the commission is authorized to (art. VIII (d)):

"(6) Make findings as to the quantity of water of the upper Colorado River system and each year in the upper Colorado River Basin and each State thereof;

"(7) Make findings as to the quantity of water deliveries at Lee Ferry during each water year;

"(8) Make findings as to the necessity for and the extent of the curtailment of use required, if any, pursuant to article IV hereof."

Subdivision (g) of the same article provides that:

"Findings of fact made by the commission shall not be conclusive in any court, or before any agency or tribunal but shall constitute prima facie evidence of the facts found."

It has been held that, in addition to its contractual character, under some circumstances a compact approved by the Congress is a public law (Missouri v. Illinois, 200 U. S. 496–519): Pennsylvania v. Wheeling, etc., 54 U. S. 518–566). Is it intended that subdivision (b) above shall be binding on any State not a party to the upper Colorado River Basin compact, or on the United States?

Answer: Article VIII (g) of the upper Colorado River Basin compact does not bind any State which is not signatory to that compact and does not bind the United States.

Question No. 8

Will the ratification by the several States and the approval by the Congress of the upper Colorado River Basin compact in any way amend or affect the meaning of the Colorado River compact, whatever that document may mean?

Answer: The upper Colorado River Basin compact is an interstate compact between the States of Arizona, Colorado, New Mexico, Utah, and Wyoming. Article I, section 10, of the Constitution of the United States requires that before a compact of agreement between States is effective, the Congress of the United States must consent thereto. The purpose of H. R. 2325 is to give such congressional consent to the upper Colorado River Basin compact. H. R. 2325 does not, nor does the upper Colorado River Basin compact, alter, amend, modify, or repeal the Boulder Canyon Project Act (45 Stat. 1057) or the Colorado River compact signed at Santa Fe, N. Mex., on November 24, 1922. It is recognized that the upper Colorado River Basin compact is binding only upon the States which are signatory thereto, and that the upper Colorado River Basin compact is subject, in all respects, to the provisions and limitations contained in the Colorado River compact.

Question No. 9

I note that in article XVIII the States of Arizona New Mexico, and Utah have reserved their respective rights and interests under the Colorado River compact, as States of the lower basin. Will the ratification and approval by the Congress of the upper Colorado River Basin compact impair or in any way affect the rights of States of the lower basin not signatory thereto?

Answer: All that is sought by H. R. 2325 is the consent of the Congress to the Upper Colorado River Basin compact so that the limitation imposed by

article I, section 10 of the United States Constitution upon the power of any State to "enter into any agreement or compact with another State" may be removed. The lower basin righs of Arizona, New Mexico, and Utah were reserved in order to avoid any questions that might arise if they were not specifically reserved. No implication can be drawn from this reservation with respect to the rights of States not parties to the compact. They are not bound and their legal rights are not and cannot be impaired by a document to which they are not parties.

Mr. BREITENSTEIN. I might suggest that it would seem to me that the answer to question No. 8 clearly states what the situation here is and that it might be well for the committee to give consideration to the inclusion of that in whatever report is made by the committee.

Of course, the committee might wish to make further and greater use of the document, but the answer to No. 8, I submit, is a clear and concise statement of the situation which is before your committee and before the Congress in this bill, to give consent to the upper Colorado River Basin compact.

Mr. MURDOCK. Mr. Engle, these are answers to your questions. Would you like to elaborate in any way, or would you like to make any comment on the last statement that Mr. Breitenstein has made?

Mr. ENGLE. Mr. Chairman, I am of the view that including in the report of the answers set forth in answer to question No. 8, and also the answer to the question set forth as question No. 7, would both be proper subject matter in the report. I am interested, if we may pursue this a little further, in the position of the United States with respect to this compact.

What is your view of the binding effect, if any, of this compact upon the United States Government by Congress giving its consent to the compact?

Mr. BREITENSTEIN. Do you wish me to answer that?

Mr. ENGLE. Yes, if you will.

Mr. BREITENSTEIN. Article I, section 10 of the United States Constitution forbids any State to enter into a treaty, alliance, or confederation. It also forbids any State to enter into a compact or agreement without the consent of the United States.

On the first three—treaty, alliance, or confederation—there is an absolute prohibition. On compact or agreement, you can have such an arrangement between the States, but only if the consent of the United States is secured.

Accordingly, we have to present this matter to the Congress for the consent of the United States. If it were not for that provision of the Constitution, the States could, as they had the right to do before the Constitution, enter into these compacts or agreements.

The Constitution imposes an infirmity, impediment, limitation, whatever you want to call it, which has to be removed. The act of Congress in consenting to the compact does no more than remove that impediment, infirmity, restriction, or whatever you want to call it, and it is binding on Congress only to the extent that that is removed. It is not binding any further upon the Congress. It does not constitute a statute of the United States.

There are decisions which are referred to in your letter. You mention there the two Wheeling and Belmont Bridge cases. As I read those cases, they do not say that an interstate compact is a public law. They do say that it is a law of the Union. The distinction may be unimportant, but, Congressman, as one of the attorneys in the case,

I urged those cases and others to the United States Supreme Court, in the case of Hinderlider against LaPlata, in support of the proposition that a compact was a statute of the United States, and the court disagreed with me and said it was not for the purposes of an appeal under section 237–A of the Judicial Code.

Indeed, Congressman, I say that an act of Congress approving a compact cannot be taken as a statute of the United States because a statute of the United States can be amended, can be modified, can be repealed, and I say that when Congress consents to an interstate compact, it does something which is irrevocable. It cannot later take that back, and when the compact is consented to, it is binding upon the signatory States, but those signatory States cannot change United States law.

I assume that the Congressman is familiar with article XIX of the compact, and in presenting this I would also like to read article XIX in the record, if I may. I would like to read it so everyone will understand it. This is from the upper basin compact. [Reading:]

ARTICLE XIX. Nothing in this compact shall be construed as—

(a) Affecting the obligations of the United States of America to Indian tribes;

(b) Affecting the obligations of the United States of America under the treaty with the United Mexican States (Treaty Series 994);

(c) Affecting any rights or powers of the United States of America, its agencies or instrumentalities, in or to the waters of the upper Colorado River system, or its capacity to acquire rights in and to the use of said waters;

(d) Subjecting any property of the United States of America, its agencies or instrumentalities, to taxation by any State or subdivision thereof, or creating any obligation on the part of the United States of America, its agencies or instrumentalities, by reason of the acquisition, construction, or operation of any property or works of whatever kind, to make any payment to any State or political subdivision thereof, State agency, municipality, or entity whatsoever, in reimbursement for the loss of taxes;

(e) Subjecting any property of the United States of America, its agencies or instrumentalities, to the laws of any State to an extent other than the extent to which such laws would apply without regard to this compact.

Article XIX, may I say, was submitted to the compact commissioners by legal advisers to the agencies of the United States which were interested in this compact. The commissioners accepted the provisions here which were urged by the United States.

Mr. ENGLE. Is it your view, then, that the participation of the United States by officially appointing a commission is solely and only and limited to the purpose and object of satisfying the constitutional requirement of consent and nothing else?

Mr. BREITENSTEIN. Yes, sir.

Mr. ENGLE. And that the participation of the United States in this compact does not abridge or limit, by implication or otherwise, any rights of the United States in the Colorado River?

Mr. BREITENSTEIN. Yes, sir.

Mr. ENGLE. I understand the Supreme Court has held that it is necessary for the United States to be joined as a party in interest in any litigation affecting the Colorado River.

Mr. BREITENSTEIN. I do not agree with you on that statement. I would not give you that premise.

Mr. ENGLE. You do not agree with that?

Mr. BREITENSTEIN. No, sir.

Mr. ENGLE. I understand that is the basis for the bills now pending in this Congress to authorize the litigation of rights in the lower basin. But you do not agree that that legislation is necessary?

Mr. BREITENSTEIN. I would answer that "No." Do not get me wrong. You stated that the United States Supreme Court held that the United States should be a party to any litigation over Colorado River. I do not agree with that statement, Congressman, but by disagreeing with that statement, I am not at the present time taking any position one way or the other on any resolution or bill or what not which may be before the Congress.

Mr. ENGLE. What is your understanding with respect to the requirement of bringing the United States into litigation involving a navigable stream?

Mr. BREITENSTEIN. Well, Congressman, I represented the State of Colorado for a good many years in the North Platte case, which is a navigable stream in Nebraska—at least it is so held by the United States Supreme Court to be navigable in certain stretches. Nebraska sued Wyoming and Wyoming sought to get the case dismissed, among other things holding that the Secretary of the Interior was an indispensable party. The Court refused to dismiss the case. Wyoming then impleaded Colorado and the United States intervened and the litigation went on for many years.

In that case you had a situation where Nebraska claimed, among other things, that Nebraska was being injured by the authorization and construction of a Federal irrigation project in Wyoming. The Court in its decision held that the threat of that project justified the suit by Nebraska. That is one factor in the case.

Now, here, the case to which you are referring is the case of Arizona against California in 298 U. S. In that case, Arizona sought a decree allocating or apportioning to it a share of the unappropriated water of the stream. Among other things, it was alleged in the Arizona bill that the dependable supply of the stream was already overappropriated and for Arizona to get anything it had to get it out of reservoirs, Lake Mead, which has been constructed as a Federal project.

Under those circumstances, the United States Supreme Court held that the United States was a necessary party to that litigation. Any suit which would come up on the same pattern would undoubtedly be controlled by that precedent, but whatever controversy there may exist in the lower basin, so far as I am concerned, I see no necessity of them following that pattern, and if any State thinks it is necessary to conduct litigation because of an injury of serious magnitude which now exists, or which is threatened, they can follow the pattern of the North Platte suit and do not need a consenting act, but by saying that I do not want you to infer that by testifying here I am testifying for or against any resolution which has to do with anything like that, because I am taking no position here.

Mr. ENGLE. Let me ask this question: If it is firmly established in law that the consent given by Congress to a compact serves no purpose other than a bare legal compliance with the necessary constitutional consent, and can by implication or otherwise carry no limitation upon Federal rights in those navigable streams, why was it necessary to put section XIX in the compact?

Mr. BREITENSTEIN. So far as I am concerned, I will say because of the attitude of the legal representatives of certain Federal departments. The use of a clause such as article XIX grew out of the experience in connection with the Republican River compact. That has

been mentioned earlier in these hearings. That is the compact between Colorado, Nebraska, and Kansas. After the first compact was negotiated, the attorneys for a certain Federal bureau raised objections to the compact, saying that the rights of the Federal Government were not adequately saved and protected. They were able to secure a Presidential veto of the compact on that ground.

Later, the compact was renegotiated and the clause upon which article XIX is based was worked out through a series of conferences between representatives of the States and representatives of the Federal Government.

Mr. ENGLE. In other words, there was some doubt, I take it, in some legal minds that a compact of this sort might, in the absence of such a provision, affect the substantial rights of the United States on the stream system involved in the compact. Is that right?

Mr. BREITENSTEIN. There apparently was. The difficulty in the Republican River compact arose from a clause which said the Republican River was not navigable. If there is anyone here from Kansas or Nebraska, I am sure they can appreciate the point, but the compact did say the Republican River was not navigable.

It was thought this might constitute something which would be used to defeat the rights and powers of the United States. I say it could not have been, but that was the argument which was urged.

Mr. ENGLE. In other words, this is a provision giving additional safety or assurances rather than one which you deem to be really necessary,

Mr. BREITENSTEIN. I think it is not necessary, but it does give assurances.

Mr. ENGLE. In view of the fact that in your opinion the consent by Congress is limited to and for the purpose solely of complying with the constitutional requirement of consent, and abridges no rights, by implication or otherwise of the United States, is it a fair statement to say that any interpretation of the Colorado River compact, expressed or implied in the upper Colorado River Basin compact, is binding only and solely upon and affects only the States which are signatory thereto?

Mr. BREITENSTEIN. If you will eliminate two words, I will give you that, Congressman.

Mr. ENGLE. What are they?

Mr. BREITENSTEIN. They are "and affects."

Mr. ENGLE. Why would you want to eliminate those?

Mr. BREITENSTEIN. Because, Congressman, this compact may have an effect which is perfectly proper and perfectly legal. Under this compact, the upper basin States have a most sincere hope to develop the uses of the water of the upper Colorado River basin which are apportioned to them by the old compact and available for use by them, and I say that they have full right to do that under the 1922 compact.

It cannot be denied to them, but that use does affect lower basin States in a perfectly proper, legitimate way under a contract which the lower basin States themselves signed.

Mr. ENGLE. Do you agree that any interpretation of the Colorado compact, express or implied in the upper basin compact is not binding upon the United States Government?

Mr. BREITENSTEIN. Yes, sir.

Mr. ENGLE. You do?

Mr. BREITENSTEIN. Yes, sir.

Mr. ENGLE. Then the Congress of the United States, by giving its consent to this compact, does not bind itself to any interpretations of the Colorado compact express or implied in the upper basin Colorado compact, is that correct?

Mr. BREITENSTEIN. I got a little lost there. I am sorry, Congressman. I will answer it this way——

Mr. ENGLE. I will repeat the question. Is it then true that the consent given by Congress to this compact does not bind the United States Government as to any interpretation, express or implied, of the Colorado compact in the upper basin Colorado compact?

What I am saying is this: In this upper basin Colorado compact is interpretations of the meaning of words, provision and effects of the Colorado River compact, and I am asking whether or not the consent of Congress to this compact will have the effect of congressional approval of those interpretations in a way to be binding upon the United States?

Mr. BREITENSTEIN. I would like to qualify my answer to that in one way, if I may, because I do not think I understood it all clearly, but let me say my position on that: By giving its consent to the upper Colorado River Basin compact, the Congress of the United States, or the United States, let us say, does not place an interpretation or construction upon the Colorado River compact which is binding upon the United States or upon any nonsignatory States.

Now, here is my qualification, and I think you will understand the propriety of it: By this compact, the upper States, the upper basin States, have apportioned their share of the water among themselves and they have apportioned among themselves the obligations imposed upon them by the Colorado River compact.

Now, I say the United States cannot go into the upper basin and develop water uses which are contrary, which would be contrary to such apportionment or such division of obligations. This is a division of water between the States, and I say that it is binding upon those States and that by being binding on those States, it does not bind any other State which is not signatory to it, nor the United States, but the development of your water has to conform to the pattern set by this compact.

I just wanted no misunderstanding on that because I do not believe that the United States, for example, could go into the State of Colorado and put in some projects which would use up 75 percent of the water, which is in excess of the Colorado share. The development by the United States in the upper basin has to conform to the pattern set by the compact.

Mr. ENGLE. I am not interested in the effect of this compact on the States which are signatory to it.

Mr. BREITENSTEIN. Yes.

Mr. ENGLE. What I am interested in is the effect of the compact and the consent of Congress to the compact on the United States Government and on the States which are not signatory to it. I am not concerned over the question of whether or not this compact is fully and by its terms subject to the Colorado River compact, which is the basic compact. What I am concerned about is the fact that this compact,

by interpretation of language, intent, and effect of the Colorado River compact, which are express or implied in it, may bind either the United States or States which are not signatory to it.

Mr. BREITENSTEIN. I will answer your question this way: They bind only the signatory States. I will say it the other way if you want me to, do not bind the nonsignatory States or the United States.

Mr. ENGEL. No; I would prefer to have the proposition stated this way, that any interpretation of the Colorado River compact, express or implied, in the upper Colorado River Basin compact is binding upon and affects only the States which are signatory thereto.

Mr. BREITENSTEIN. If you will eliminate the words "and affects," I will give you that, but I will not with the words "and affects."

Mr. MURDOCK. Will the gentleman yield?

Mr. ENGLE. Yes, sir.

Mr. MURDOCK. I noticed that the two words which you wanted exempted are "and affects." Supposing an amendment should be offered to this bill which would include those two words. Would you not regard that language to mean that the nature of the compact as set forth in the bill would be materially changed?

Mr. BREITENSTEIN. Not only materially changed, Congressman, utterly destroyed.

Mr. MURDOCK. Now, let me see if I get you just right on this: When this compact is approved by Congress, and it is carried out, will not one of the effects be that there will be less water inflowing into the lower basin? Will that not be one of the effects?

Mr. BREITENSTEIN. Yes, certainly that is the effect and it is going to be there and it is perfectly proper under the Colorado River compact.

Mr. MURDOCK. Perfectly proper?

Mr. BREITENSTEIN. Yes.

Mr. MURDOCK. You cannot get away from that?

Mr. BREITENSTEIN. No.

Mr. MURDOCK. The very purpose of this compact is to make it possible for the upper basin to get as much of their 7,500,000 acre-feet annually as they were apportioned by the master compact, or the compact of 1922, so that we would be unreasonable, as I see it—and I am from the lower basin—we would be unreasonable if we demanded any language which would say "the upper basin compact shall have no effect upon the lower basin."

As I understand, that is exactly why you have avoided those two words.

Mr. BREITENSTEIN. That is right.

Mr. POULSON. Would you yield at that point, Mr. Murdock?

Mr. MURDOCK. Yes.

Mr. POULSON. Do you want to imply that this upper basin compact shall have an effect upon the lower basin as to the interpretation of the compact of the over-all compact?

Mr. MURDOCK. Well, now, let us confine ourselves——

Mr. POULSON. Please answer that question.

Mr. MURDOCK. Let us confine ourselves to this one effect. We in the lower basin do not have as much water as we would like in the Colorado River. No State has as much water as it would like to have. If we could only double the precipitation on the basin, we would be glad to do that, or triple it for that matter. But we know

very well that when the proper development occurs in the upper basin there will be less water passing Lee Ferry, and that will be one of the effects of this compact.

It is a legal and proper effect, and I cannot complain about it. I simply do not want to see any amendment adopted to this measure which would nullify the compact or destroy it, as Mr. Breitenstein has stated.

Mr. POULSON. You never answered my question. I will put it to you a little straighter. Do you want to use this upper basin compact and the provision in it and the interpretations, the effect of it as a basis of going down and saying "that is the interpretation that should apply as far as the lower basin is concerned" to the interpretation of the contract? Do you want to use the effect of it that way?

Mr. MURDOCK. I want to see the——

Mr. POULSON. Do you want to use it that way?

Mr. ENGLE. I yielded for a question and I have the floor.

Mr. MURDOCK. Very well. You have the floor.

Mr. ENGLE. I might say in answer to my colleague from California that I think I understand what the witness and Mr. Murdock are talking about. They are saying that the upper basin compact has an effect which is the effect contemplated and implicit in the original basic compact when it was entered into. The basic compact left the matter of distribution of water in each basin to the people in those basins and the States, and that distribution will have an effect.

I do not want to quibble over words, but is it proper to say that any interpretation of the basic compact, the Colorado River compact, which is expressed or implied in the upper basin Colorado River compact, shall be binding only on the States which are signatory thereto?

Mr. BREITENSTEIN. Yes, sir.

Mr. LEMKE. Mr. Chairman, may I ask a question?

Mr. MURDOCK. Yes. We have two witnesses before us. We broke in on the testimony of Mr. Tipton, thinking we could conserve time by uniting them.

Mr. LEMKE. As I understand it, this compact deals only with that which is already yours by the lower basin compact?

Mr. BREITENSTEIN. By the Colorado River compact; yes, sir; that is correct. We claim nothing more than that.

Mr. LEMKE. If the word "effect" may be put in, that may be a surrender of what rights you have under the original compact?

Mr. BREITENSTEIN. That is what I have been trying to say.

Mr. LEMKE. You are objecting, therefore?

Mr. BREITENSTEIN. That is right.

Mr. LEMKE. You do not intend to interfere with the rights of the Colorado River compact, except you are going to claim what is yours already and that is the only thing you are dealing with in this bill.

Mr. BREITENSTEIN. That is exactly right, Congressman.

Mr. WHITE. I wonder if the gentleman from California will yield to me.

Mr. ENGLE. I would like to ask one further question: Do you agree that the Congress, in consenting to the upper Colorado basin compact, is not committing itself to any interpretation, express or implied, in that compact of the language intent or effect of the Colorado River compact?

Mr. BREITENSTEIN. You have the words "or effect" in there again, Congressman. I am not going to agree to those. It does have an effect and it is a proper effect as I think was clearly pointed out by Congressman Lemke's questions. It is bound to, and I am sure that you in California do not disagree with that. You signed the Colorado River compact and said that there was apportioned in perpetuity to the upper basin the beneficial consumptive use of 7,500,000 acre-feet annually.

In turn, we said that the States of the upper division will not deplete the Lee Ferry flows below 75,000,000 acre-feet every 10-year period.

Now, Congressman, as long as we comply with that obligation, I am sure that you and the State of California would say that we in the upper basin have the right to make the use of the apportionment to us by the document which your State signed.

Mr. WHITE. I wonder if I could ask a question.

Mr. MURDOCK. Are you through, Mr. Engle?

Mr. ENGLE. Yes.

Mr. MURDOCK. Mr. White.

Mr. WHITE. I wonder if I can understand the issue. As I understand it, if I might have the attention of the witness, if I understand this issue that is being discussed with the committee at the moment, the water in the original compact was divided between the upper and lower basin States.

Is that a correct statement?

Mr. BREITENSTEIN. That is correct.

Mr. WHITE. The point of measurement would be Lee Ferry?

Mr. BREITENSTEIN. That is correct.

Mr. WHITE. In the water allocated to the upper States, reserved to the upper States, it was not all being utilized, which provided, up until now, surplus water at Lee Ferry, is that right?

Mr. BREITENSTEIN. The flows at Lee Ferry have been in excess of the amount required by article III (d).

Mr. WHITE. Due to the fact the upper basin States, under the original compact, had not as yet utilized water to which they were entitled, is that correct?

Mr. BREITENSTEIN. Yes.

Mr. WHITE. Now, then, the water that was not utilized yet had a surplus at Lee Ferry? It flowed to the Colorado River due to the fact the water of the upper States was not utilized and it created a surplus flow at Lee Ferry?

Mr. BREITENSTEIN. It did not create a surplus flow as that term is used and defined in the Colorado River compact. It creates an excess flow.

Mr. WHITE. Well, excess. You are splitting the hairs between surplus and excess.

Mr. BREITENSTEIN. Because of the definition of the old compact.

Mr. WHITE. Due to that condition, the lower States were getting more water than they were entitled to under the compact because it was being utilized, it was retarded in its flow above Lee Ferry, is that correct?

Mr. BREITENSTEIN. That is correct.

Mr. WHITE. Well then now, what we seek to do here, or are authorizing the States to do, is to divide between themselves the water to which they are entitled in the upper basin.

Mr. BREITENSTEIN. Yes.

Mr. WHITE. Is there any issue that has been raised as to the division between those States and between the lower basin States?

Mr. BREITENSTEIN. None that I know of, and I say that it is the concern of the upper basin States themselves. As I understood the position which Congressman Engle took the other day, we could toss dice or draw straws.

Mr. WHITE. Under existing law, the Congress seeks here to authorize the upper basin States to enter into a compact and then after that compact has been so entered into, to ratify and make it binding on the States.

Mr. BREITENSTEIN. That is correct. That is what we are here for.

Mr. WHITE. Thank you, Mr. Chairman. I thank the witness.

Mr. MURDOCK. Governor Miles, have you a question to ask of either of these witnesses or both of them?

Mr. MILES. Mr. Chairman, I do not believe I have at this time, and in view of the fact that I am not a lawyer or an engineer, sometimes there are technical points that are a little difficult for me to understand, and in view of the fact that it is a little difficult for me to hear where I sit at my official seat at the end of the line, I do appreciate the kindness and courtesy of the chairman in extending to me an invitation to sit where I could better understand and better hear the witnesses, because the problems that are brought out here make the bill more understandable and sometimes more clear to me.

I was particularly interested in the point brought out by Mr. Barrett regarding the power relative to the bill, as I had never heard that discussed before. At this time, I have no questions to ask.

Mr. MURDOCK. Thank you, Governor. There are two or three reasons why I am glad to have you right here beside me. In keeping with my original suggestion that we should hear from those from the States vitally affected, I will now ask Judge Bosone whether she has any questions.

Mrs. BOSONE. I shall reserve my questions.

Mr. MURDOCK. Mr. Aspinall?

Mr. ASPINALL. Mr. Chairman, I will avail myself of one question and reserve the right to talk later.

Mr. Breitenstein, is it not true the purpose of the upper basin Colorado River compact is for the orderly over-all ultimate development of that basin?

Mr. BREITENSTEIN. Exactly right.

Mr. ASPINALL. Then I would simply make this statement in answer to what the gentleman from California has stated, especially Mr. Poulson: Coming from the district where 65 percent of the water of the Colorado River arises, I would suggest that it would be of less adverse effect to the lower basin States if the upper Colorado River Basin States were allowed to develop their water in an over-all orderly program than it would to permit each State to go ahead and fight for as much as it can, because in the ultimate of each State developing its water resources, it means the possibility of a less supply of water being delivered at Lee Ferry in accordance with the terms of the Colorado River compact itself.

Mr. MURDOCK. I think the question is exactly right, if he will permit my asking him to yield at this point. Did we not have it the other day

on another bill? Did we not have the testimony of an expert engineer who said it is possible to add 2 and 2 and get more than 4?

Mr. ASPINALL. That is correct.

Mr. MURDOCK. He was talking about an integrated electric system, where stand-by plants and equipment can be made to produce effectively a greater amount of electric power. Does that same thing not apply to the use of water among so many water users?

Mr. ASPINALL. That is the practical thing.

Mr. ENGLE. Will the gentleman yield to me?

Mr. MURDOCK. Yes, sir.

Mr. ENGLE. Let me say as far as I know California, and as far as I am concerned personally, as I said in the opening of these hearings, I am very glad to see the upper basin States enter into a compact. I think it is an absolute prerequisite to any development of their water. They cannot proceed in an orderly fashion to develop the use of their water without some agreement. I am sorry that we have not been able to work out an agreement in the lower basin. I hope that we will be able to do so. So I have no disagreement at all with the statement made by the gentleman from Colorado.

Mr. POULSON. Mr. Chairman——

Mr. MURDOCK. Mr. Aspinall has the floor.

Mr. ASPINALL. I yield to Mr. Poulson.

Mr. POULSON. I would like to say that you have not served with me in previous Congresses when I have stated here that they thought the upper basin should certainly be getting busy and settling their difficulties so they could begin to develop these projects. Because of the fact they are developing them they are finding there is a lot of water going to waste in the lower basin, which our sister State is using as an argument that there is plenty of water available to put in over a certain fantastic scheme known as the central Arizona project, and that as soon as they use up this water from the upper basin, to which they are legally and justly entitled to and which we would be glad to see them develop then they will find out this so-called surplus of water in the lower basin is not there, and for that reason I am heartily in accord with this idea of getting together and developing the untold possibilities that they have in the upper basin.

Mr. MURDOCK. I would like to say to my friends from California that I appreciate that they take the same stand I do, that the upper basin ought to be developed, and have so indicated by what has just been said. I hope that the interest will prevent any move that would delay or thwart this effort to establish this compact.

Just one word in answer to Mr. Poulson's last comments about the great quantity of water being wasted into the Gulf of California. More than 8,000,000 acre-feet of water is spiling into the Gulf of California. Of course, the gentleman did not mean when he used the word "fantastic" that it is fantastic to take a million or so out of 8 million. I think that is a mathematical proposition, so the word fantastic of course——

Mr. POULSON. Seven and a half million, which they are entitled to in the upper basin, deducted from 8,000,000 leaves 500,000.

Mr. MURDOCK. You need to do a little more careful figuring on that, because the upper basin is already utilizing a third of the amount apportioned to them.

Mr. ASPINALL. May I simply state this: In yielding, I did not desire to have the lower basin States take advantage or get into a discussion of this problem. I appreciate the fact I have not been in Congress very long, but I know some of the problems below, too. We would be very appreciative if you would let us have this compact first; then we will go ahead and listen to the other.

Mr. MURDOCK. Mr. D'Ewart, have you a question?

Mr. D'EWART. I have questions on section VII. Section VII reads:

consumptive use of water of the United States of America or any agencies, instrumentalities, or wards shall be charged.

In other words, you take the position in this compact that you have a right to allocate water that is used by instrumentalities and wards. Now, in the compact commission, on which I served, the Federal Government took the position that the commission had no right to allocate water used by instrumentalities—in that case it meant national parks—or wards, which meant Indians.

Yet in this compact I do take the position you have the right to allocate that water.

Mr. BREITENSTEIN. So far as Indians are concerned, Congressman, I refer you to article XIX, which reads:

Nothing in this compact shall be construed as affecting the obligations of the United States of America to Indians.

So far as uses by such services as the National Park Service, the point is that that use is counted against the share of the State in which the use is made, just like an Indian use is counted against the State in which the use is made. We do not make any allocation of water, except to States. There is no allocation to subdivisions of States to river basins or to particular uses.

Mr. D'EWART. That is correct, but on the commission on which I served, we had to first subtract the water that was owned by the instrumentalities of the National Park—Yellowstone National Park I have in mind—and by the Crow Indian Reservation, as their right to it was prior to the rights of the States.

Mr. BREITENSTEIN. I think you had a vastly different situation up there than exists in the Colorado River.

Mr. D'EWART. That may be true.

Mr. BREITENSTEIN. We are not affecting any Indian rights here, buthe Indian uses are charged against the State in which the use is made.

Mr. D'EWART. There, because of treaty rights, we had to take the water that was due the Indians out of the compact; because the Yellowstone Park was organized before the State was organized, we were not allowed to touch the Yellowstone Park water or have anything to do in the compact with the allocation of that to Wyoming, Montana, or any other State concerned.

In this compact, you allocate the water to the State that is concerned, even though it is in the national park.

Mr. BREITENSTEIN. That is correct. It is charged to that State. I might say, Congressman, that Mr. Bashore, who is here as the Federal representative, took this matter up with all the manifold and multitudinous agencies which are interested, and the language which

was finally agreed upon was acceptable to them, but I am encroaching on his province when I talk about that.

Mr. D'EWART. I wanted the explanation.

Mr. WHITE. Will the gentleman yield to me?

Mr. D'EWART. Yes.

Mr. WHITE. I raised a question here that I did not know about and did not understand. Do you mean to say that entering into a compact on the waters of Montana that you were not permitted to take into consideration the waters that flowed out of the Yellowstone Park?

Mr. D'EWART. That is right. The Yellowstone Park was expressly taken out of the compact.

Mr. WHITE. There is a big outflow from Yellowstone Park?

Mr. D'EWART. That is correct. After it left the Park, then we could deal with it, but we were not allowed to touch anything inside the Yellowstone Park.

Mr. WHITE. At the boundary between the State of Montana and the Yellowstone Park, the authority of the State took, over and the allocation of waters at that point were effected.

Mr. D'EWART. After it left the Yellowstone Park.

Mr. MURDOCK. Mr. Baring?

Mr. BARING. I will reserve my questions.

Mr. MURDOCK. Mr. Sanborn?

Mr. SANBORN. I have no questions.

Mr. MURDOCK. Have I missed anyone?

Mr. ENGLE. I would like to ask one further question. I have been rolling over in my head the effect of the word "effect" in this language which I stated a few minutes ago. I wonder if you would agree that this is right; that the Congress in consenting to the upper basin compact is not committing itself to any interpretation, express of implied, of the Colorado River compact.

Mr. BREITENSTEIN. Is that all?

Mr. ENGLE. Yes.

Mr. BREITENSTEIN. Yes.

Mr. ENGLE. Thank you.

Mr. MURDOCK. The House is in session and there will probably be a roll call in a few moments. When we adjourn, we will adjourn until 10 o'clock tomorrow morning.

Mr. BREITENSTEIN. I had not completed my statement. I had one or two other matters which I would like to include. I can do it very briefly in the morning.

Mr. MURDOCK. Then you will be our first witness in the morning. We have with us some representatives from other States participating, and we have Mr. Bashore, the Federal representative. We want to hear from all of these witnesses.

Mr. ENGLE. Mr. Chairman, I would like to ask whether or not the representatives of the compacting States here have reports of their negotiators to their State legislatures, or governors, and if they have them I wonder whether or not they could be made available to the committee, not for the purpose of the record at this time, but for the file.

Mr. STONE. I may say, Congressman Engle, that Mr. Breitenstein, before he concludes, will place in the record my report as Colorado commissioner to the Governor and general assembly of the State. I

cannot say as to the other commissioners whether they are prepared to do that or not, but they are to appear here and that matter can be brought out at that time. But so far as Colorado is concerned, we are ready and desirous of placing it in the record.

Mr. ENGLE. Mr. Chairman, I very much want to see the reports made by the negotiators for each of the respective States to their State legislatures, and I propose to ask each representative from each State for that report.

Mr. MURDOCK. The commitee stands adjourned until 10 o'clock tomorrow morning.

(Whereupon, at 11:45 a. m., the committee adjourned, to reconvene at 10 a. m., Thursday, March 17, 1949.)

UPPER COLORADO RIVER BASIN COMPACT

THURSDAY, MARCH 17, 1949

HOUSE OF REPRESENTATIVES,
COMMITTEE ON PUBLIC LANDS,
SUBCOMMITTEE ON IRRIGATION AND RECLAMATION,
Washington, D. C.

The subcommittee met at 10 a. m., the Honorable John R. Murdock presiding.

Present: Messrs. Murdock, Peterson, Engle, Regan, Bentsen, White, Baring, Marshall, Mrs. Bosone, Messrs. Aspinall, Miles, Welch, Lemke, Barrett, Miller, Poulson, and Sanborn.

Also present: Hon. Harold A. Patten and Walter K. Granger.

Mr. MURDOCK. The committee will come to order, please.

We are continuing with hearings on the bill to give congressional approval to the upper basin compact.

We have had, during the various sessions, several Members of Congress who have introduced identical bills. I am afraid the Chair has been negligent in noting their presence and calling upon those Members of Congress who are not members of the committee, but who have introduced bills and are sponsoring this legislation.

I note we have with us this morning Congressman Granger, of Utah. We are mighty happy to have him with us. We hope he can remain throughout the hearings. He has been with us before, but we have not had a statement from him. Would you like to say something?

Mr. GRANGER. I will say I am glad to be here this morning and I will, at the proper time, make a statement. I think perhaps this is one of the foremost steps that has ever been taken in the western country. It is very important. I hope the committee will be able to act in due time so this thing will come before the House at the earliest possible moment.

Thank you. I will prepare a statement for the record.

Mr. MURDOCK. Thank you, Mr. Granger.

Mr. ENGLE. I might say, Mr. Chairman, if the record has not previously indicated, your very fine colleague and our new colleague from Arizona, Mr. Patten, has been here. I think the record should show his presence and his interest. If he is not here today, he probably will be shortly. He has been very diligent.

Mr. MURDOCK. Thank you, sir. We shall hear from all in due time.

We had for questioning Mr. Tipton, the engineer, and Mr. Breitenstein, the attorney. Both were on the stand yesterday, trying to save time. We asked one or the other such questions as occurred.

Would you gentlemen take the stand again, please?

Mr. ASPINALL. Mr. Breitenstein has not finished his formal statement yet.

Mr. MURDOCK. I thank you for reminding me. Mr. Breitenstein, would you continue then?

FURTHER STATEMENT OF JEAN S. BREITENSTEIN

Mr. BREITENSTEIN. The only matter I wish to add, Mr. Chairman, is that I wish to offer for the record of this proceeding the report and submission of the upper Colorado River Basin compact by Clifford H. Stone, the compact commissioner for the State of Colorado. This is Commissioner Stone's report to the Governor and General Assembly of the State of Colorado.

In offering this, I suggest that there be omitted from the printed record that portion of the report beginning on page 26, continuing from there to the end, which sets forth the text of the upper Colorado River Basin compact.

Mr. MURDOCK. Without objection, it will be admitted to the record as indicated.

(The information is as follows:)

REPORT AND SUBMISSION OF THE UPPER COLORADO RIVER BASIN COMPACT

NEGOTIATED AND SIGNED BY COMMISSIONERS REPRESENTING THE STATES OF ARIZONA, COLORADO, NEW MEXICO, UTAH, AND WYOMING, AT SANTA FE, N. MEX., OCTOBER 11, 1948, TO THE GOVERNOR AND GENERAL ASSEMBLY, STATE OF COLORADO, BY THE COMMISSIONER FOR COLORADO

THE COMMISSION

Harry W. Bashore, Federal representative and chairman

Charles A. Carson, for Arizona
Clifford H. Stone, for Colorado
Fred E. Wilson, for New Mexico
Edward H. Watson, for Utah
L. C. Bishop, for Wyoming

ENGINEERING ADVISORY COMMITTEE

J. R. Riter, Bureau of Reclamation, chairman

R. Gail Baker and R. I. Meeker, for Arizona.
R. J. Tipton, F. C. Merriell and R. M. Gildersleeve, for Colorado.
J. H. Bliss and J. R. Erickson, for New Mexico.
C. O. Roskelley, for Utah.
R. D. Goodrich and H. T. Person, of Wyoming.
H. P. Dugan, Federal representative.

LEGAL ADVISERS

J. G. Will of Bureau of Reclamation, Federal representative.
Jesse A. Udall, for Arizona.
Jean S. Breitenstein, for Colorado.
Martin A. Threet, for New Mexico.
J. A. Howell and Edward W. Clyde, for Utah.
W. J. Wehrli, for Wyoming.

STATEMENT OF FEDERAL REPRESENTATIVE AT TIME OF SIGNING UPPER COLORADO RIVER BASIN COMPACT

We are gathered here today in the Palace of Governors at Santa Fe, N. Mex., on an occasion which marks a turning point in the history of the Colorado River Basin. There is about to be signed here a document which will forever be an example of fairness, a demonstration of statesmanship of the highest order, and finally, a proof of the ability of States to deal with their mutual problems, no

matter how complex, through the traditional and constitutional compact method.

The upper Colorado River Basin compact which we are now about to execute will be a tower of strength to the States of Arizona, Colorado, New Mexico, Wyoming, and Utah, perhaps for centuries to come. It is a structure for the completion of which we have labored long. It is sound in design. Each part of it has been wrought with great care by men who are notably skilled in their professions and experts in the compact process. It is has been builded by men of good will; and because it has been so builded it will endure.

I have already announced my intention as representative of the United States of America to approve the upper Colorado River Basin compact. I shall approve it because it fully recognizes the interests of the Federal Government; because it creates conditions that will positively foster the conservation and development of the water resources of this vast area for agricultural and domestic purposes; and because it is equitable and sound from every point of view.

It has been an honor to preside over the meetings of the Upper Colorado River Basin Compact Commission. It has been a privilege to participate in the negotiations that have finally culminated in these ceremonies today.

There is honor and glory for each commissioner and his staff. No delegation need leave here with a feeling other than one of high achievement for its State and for the basin as a whole. I congratulate each one of you. I wish you God speed on your trip home; and I trust that you will work just as hard for ratification by your State legislatures and by the Congress of the United States of America as you have during these many months of meeting and negotiation. Your work is not done. You have taken but the first and I believe the most difficult step on the long road toward full development of this upper basin.

DECEMBER 1948.

THE GOVERNOR AND GENERAL ASSEMBLY OF THE STATE OF COLORADO:

There is herewith submitted the upper Colorado River compact which was negotiated and signed by commissioners representing the States of Arizona, Colorado, New Mexico, Utah, and Wyoming, and approved by the Federal representative, on the 11th day of October A. D. 1948. This compact accomplishes two principal purposes: (a) It apportions the use of the water of the upper Colorado River system among the five signatory States; and (b) it determines the respective obligations of the States of Colorado, New Mexico, Utah, and Wyoming to deliver water, as required by the Colorado River compact of 1922, for use in the lower basin.

The commissioner submits:

1. That this compact is fair and provides an equitable apportionment among the signatory States of the use of the waters of the upper Colorado River Basin.

2. That it provides an equitable and workable determination of the respective obligations of the signatory States to make the deliveries of the water at Lee Ferry required by the Colorado River compact.

3. That the incidental provisions of the compact, including the creation of an administrative agency, are necessary to carry out its principal purposes.

4. That the amount of water made available for consumptive use in Colorado by the compact is all that could reasonably be expected in view of the application of the principles of equitable apportionment to a limited water supply.

5. That the compact will protect existing water rights and present utilization of Colorado River water in the State.

6. That the apportionment made by the compact to Colorado will meet the requirements for reasonable potential water development in the State.

7. That the compact is in conformity with the provisions of the Colorado River compact which apportions water between the upper and lower basins of the Colorado River.

8. That the compact is in the best interests of the State of Colorado and its citizens and is necessary to accomplish development of a major water resource of the State.

Accordingly, the commissioner respectfully recommends and urges that it be ratified by the General Assembly of Colorado.

The compact was executed in six counterparts, each of which constitutes an original. One original has been delivered to the Governor of Colorado. A copy of the compact, together with explanatory material, is attached hereto.

Respectfully submitted.

CLIFFORD H. STONE,
Commissioner for Colorado.

RESOLUTION UNANIMOUSLY ADOPTED BY COLORADO WATER CONSERVATION BOARD ON DECEMBER 10, 1948

Whereas the Colorado Water Conservation Board on September 27, 1948, after a presentation and full discussion of the vernal draft of the proposed upper Colorado River Basin compact, approved that draft of compact and authorized the Colorado Compact Commissioner to execute such compact on behalf of the State of Colorado with such technical and language changes, not affecting the apportionment to or obligations of Colorado, as were acceptable to him and to his engineering and legal advisers; and

Whereas pursuant to such resolution the Colorado Compact Commissioner did, in the city of Santa Fé, N. Mex., on October 11, 1948, execute the upper Colorado River compact on behalf of the State of Colorado; and

Whereas the board has now reviewed and considered the compact so executed at Santa Fe and finds that the compact complies with the resolution of September 27, 1948, and

Whereas the board further finds that the compact is fair and equitable and furnishes an essential basis for the development of the water resource of the upper Colorado River: Now therefore, be it

Resolved, That the Colorado Water Conservation Board approves the upper Colorado River Basin compact signed at Santa Fe, N. Mex., on October 11, 1948, and urges the General Assembly of the State of Colorado to ratify that compact at as early a date as is consistent with orderly legislative procedure.

Further resolved, That upon the ratification of the compact by the signatory States the Congress of the United States should be urged to give its consent and approval to the compact.

Further resolved, That the board commends the Colorado commissioner and his advisers for the work which they have done in negotiating the compact.

Further resolved, That copies of this resolution shall be forwarded by the secretary of the board to each member of the General Assembly of the State of Colorado and to the Senators and Congressmen representing the State of Colorado in the Congress of the United States.

Adopted and approved by unanimous vote this 10th day of December A. D., 1948.

GEORGE J. BAILEY,
Vice Chairman of the Board.

Attest:
CLIFFORD H. STONE,
Director and Secretary of the Board

NECESSITY FOR AN UPPER COLORADO RIVER BASIN COMPACT

The Colorado River compact of 1922 made no apportionment of water, or of the use of water, among the States of the Colorado River Basin. As hereinafter explained, the 1922 apportionment was between the upper and lower basins of the river.

Since 1922 water development in the upper Colorado River Basin and projected plans for ultimate, integrated development have precipitated questions of available water supplies in the various States for proposed projects. This is particularly true of the major projects which will utilize large volumes of water. The Bureau of Reclamation, in making a finding of economic justification and recommending or approving a Federal project, must make a determination of an assured water supply for it. When the Congress acts upon such a project and appropriates money for its construction, it must be shown that the project, together with other water uses, will demand no more water than is available to the State which seeks the project. Then, too, the interested States of the basin cannot assume the risk of promoting any project which, if constructed, will later involve a controversy over its water supply. It is fully realized that a stage of development on the river has been reached when all projects for the maximum and most efficient utilization of a limited water supply must fit into an integrated, basin-wide plan.

As authorized by section 15 of the Boulder Canyon Project Act (45 Stat. 1057, 1065), passed in 1928, and section 2 of the Boulder Canyon Project Adjustment Act (54 Stat. 774), passed in 1940, the Bureau of Reclamation has been carrying

on studies and investigations on the Colorado River for a number of years. These investigations and the formulation of a report were intensified in the years 1944, 1945, and the forepart of 1946. On June 7, 1946, a departmental report of the Department of Interior on the Colorado River was issued. This followed and was based upon a report and recommendations, dated March 22, 1946, by the directors of regions III and IV, Bureau of Reclamation.

This 1946 report stated:

"There is not enough water available in the Colorado River system for full expansion of existing and authorized projects and for all potential projects outlined in the report, including the new possibilities for exporting water to adjacent watersheds. The need for a determination of the rights of the respective States to deplete the flow of the Colorado River consistent with the Colorado River compact and its associated documents, therefore, is most pressing."

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And the same report recommended:

"That the States of the Colorado River Basin determine their respective rights to deplete the flow of the Colorado River consistent with the Colorado River compact."

This report of 1946 was submitted to the affected States, pursuant to section 1 of the Flood Control Act of 1944, for their respective views. Colorado submitted its comments and criticisms of the report to the Secretary of the Interior, and concurred in the conclusion that there should be an apportionment of water among the States of the upper basin.

After reviewing the comments of the States and of various Federal agencies on the 1946 report, the Secretary of the Interior on July 19, 1947, submitted his interim report on the status of investigations of potential water resource development in the Colorado River Basin in Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming. The Secretary in his letter of transmittal to the Congress, dated July 24, 1947, explained:

"As stated in the interim report, existing circumstances tend to preclude the formulation of a comprehensive plan of development of the water resources of the Colorado River Basin at this time. Accordingly, although I cannot now recommend authorization of any project, I am transmitting the report to you in order that the Congress may be apprised of this comprehensive inventory of potential water resource developments in the Colorado River Basin and of the present situation regarding water rights in that basin."

The conclusions of the 1947 report on the Colorado River contained this language:

"That a comprehensive plan of development for the Colorado River Basin cannot be formulated at this time;

"That further development of the resources of the Colorado River Basin, particularly large-scale development, is seriously handicapped, if not barred, by lack of determination of the rights of individual States to utilize the waters of the Colorado River system. The water supplies for projects to accomplish such development might be assured as a result of compact among the States of the separate basins, appropriate court or congressional action, or otherwise;

"That the States of the upper Colorado River Basin and States of the lower Colorado River Basin should be encouraged to proceed expeditiously to determine their respective rights to the waters of the Colorado River consistent with the Colorado River compact."

It is clear from the foregoing that development of Colorado's share of Colorado River water is at a standstill until a compact apportioning the use of such water among the interested States is consummated. Because of the division of the use of water between the upper and lower basins by the 1922 Colorado River compact, the upper basin States may proceed with such apportionment independent of what may be done by the States of the lower basin. In recognition of this situation, the upper Colorado River basin compact was negotiated and signed. It does not become a completed compact binding on the signatory States until ratified by their respective legislatures and approved by the Congress.

NEGOTIATION OF THE COMPACT

On July 22, 1946, the governors of Arizona, Colorado, New Mexico, Utah, and Wyoming, or their representatives, met at Cheyenne, Wyo., and agreed to initiate the negotiation of an upper Colorado River Basin compact. Compact commissioners at that time had been, or later were, appointed in accordance with the laws of the respective participating States. Also the President of the United States had appointed Harry W. Bashore, former Commissioner of the Bureau of Reclamation, as Federal representative on the commission.

The organization meeting of the commission was held at Salt Lake City, Utah, on July 31, 1946. Harry W. Bashore was elected chairman and Grover A. Giles, attorney general of Utah, secretary. Plans of procedure, including the manner of making the official record, were agreed upon, and the commission provided for the creation of an engineering advisory committee.

Before the compact was signed on October 11, 1948, 8 meetings and 50 sessions of the commission were held as follows:

Meeting	Session	Date	Time	Place
No. 1		July 31, 1946		Salt Lake City, Utah.
	No. 1	do	10 a. m.	Do.
	No. 2	do	1:30 p. m.	Do.
No. 2		Sept. 17-18, 1946		Santa Fe, N. Mex.
	No. 3	Sept. 17, 1946	10 a. m.	Do.
	No. 4	do	1:30 p. m.	Do.
	No. 5	Sept. 18, 1946	10 a. m.	Do.
No. 3		Oct. 28-30-31 and Nov. 2, 1946.		Field meetings.
	No. 6	Oct. 28, 1946	1:45 p. m.	Rock Springs, Wyo.
	No. 7	Oct. 30, 1946	10 a. m.	Grand Junction, Colo.
	No. 8	Oct. 31, 1946	2 p. m.	Price, Utah.
	No. 9	Nov. 2, 1946	8 a. m.	Farmington, N. Mex.
	No. 10	do	10 a. m.	Do.
No. 4		Sept. 8, 1947		Cheyenne, Wyo.
	No. 11	do	3 p. m.	Do.
No. 5		Dec. 1-2-3-4, 1947		Denver, Colo.
	No. 12	Dec. 1, 1947	10 a. m.	Do.
	No. 13	do	2 p. m.	Do.
	No. 14	Dec. 2, 1947	9 a. m.	Do.
	No. 15	do	2 p. m.	Do.
	No. 16	Dec. 3, 1947	1:30 p. m.	Do.
	No. 17	Dec. 4, 1947	9 a. m.	Do.
	No. 18	do	1:30 p. m.	Do.
No. 6		Feb. 17-18-19-20-21, 1948.		Do.
	No. 19	Feb. 17, 1948	10 a. m.	Do.
	No. 20	Feb. 18, 1948	4 p. m.	Do.
	No. 21	Feb. 19, 1948	9:30 a. m.	Do.
	No. 22	do	2 p. m.	Do.
	No. 23	do	7:30 p. m.	Do.
	No. 24	Feb. 20, 1948	10 a. m.	Do.
	No. 25	do	1:30 p. m.	Do.
	No. 26	Feb. 21, 1948	9:30 a. m.	Do.
No. 7		July 7 to 21, 1948		Vernal, Utah.
	No. 27	July 7, 1948	10 a. m.	Do.
	No. 28	do	2 p. m.	Do.
	No. 29	July 8, 1948	9:30 a. m.	Do.
	No. 30	July 9, 1948	9:30 a. m.	Do.
	No. 31	July 10, 1948	9:30 a. m.	Do.
	No. 32	July 12, 1948	9:30 a. m.	Do.
	No. 33	July 13, 1948	9:30 a. m.	Do.
	No. 34	July 14, 1948	9:30 a. m.	Do.
	No. 35	July 15, 1948	9:30 a. m.	Do.
	No. 36	July 16, 1948	9:30 a. m.	Do.
	No. 37	July 19, 1948	9:30 a. m.	Do.
	No. 38	do	8 p. m.	Do.
	No. 39	July 20, 1948	10 a. m.	Do.
	No. 40	do	8 p. m.	Do.
	No. 41	July 21, 1948	9 a. m.	Do.
No. 8		Oct. 4 to 11, 1948		Santa Fe, N. Mex.
	No. 42	Oct. 4, 1948	10 a. m.	Do.
	No. 43	do	2:20 p. m.	Do.
	No. 44	Oct. 5, 1948	10 a. m.	Do.
	No. 45	do	2 p. m.	Do.
	No. 46	Oct. 6, 1948	2 p. m.	Do.
	No. 47	Oct. 7, 1948	10 a. m.	Do.
	No. 48	Oct. 8, 1948	2 p. m.	Do.
	No. 49	Oct. 9, 1948	3:30 p. m.	Do.
	No. 50	Oct. 11, 1948	2 p. m.	Do.

Meeting No. 3, with sessions held in four different States, as shown above, was designed to obtain the views and comments of the people of these States relative to the compact and to enable the commission to explain its proposed procedure and objectives and the need for a compact. These sessions were all well attended and showed the great interest of the water users of the basin in the undertaking.

All sessions during the period of negotiation were open to the people of the participating States. On only one occasion was an executive session held. Representatives of interested water users' organizations and irrigation and conservancy districts of the States were in attendance at all of the sessions. Most of the members of the Colorado Water Conservation Board at one time or another were in attendance and were of assistance to the commissioner. During the negotiations, progress was reported at regular meetings of the water board and various proposed provisions of the compact considered. After the Vernal meeting when an apportionment was made and the major portion of the compact

agreed upon by the commission, the board entered its formal approval of the compact; and after the compact was signed on October 11, 1948, it was approved by the board as shown by the resolution which is made a part of this submission.

The engineering advisory committee was created because it was recognized that available information on water supplies, water uses, and other data were not sufficient to serve as a guide to the commisison in making the compact. The commission assigned to the committee specific tasks. The personnel of the committee is shown at the beginning of this report. The committee met on the average of every 2 months over a period of more than 2 years. Its work was not confined to meetings of members of the committee but included the time and efforts of staff engineers of the Bureau of Reclamation and of the individual States. The committee's final report is available in the office of the Colorado Water Conservation Board to anyone who wishes to study it, and is made a part of the official record of the commission. It is not a fact-finding report of any Federal agency or of any one State but represents united work and agreed conclusions by an agency of the Federal Government and a group of interested States. It not only served well the commission but will be of inestimable worth to the water users of the basin in the future.

The report of the Bureau of Reclamation submitted to the President of the United States by the Secretary of Interior on July 24, 1947, entitled "The Colorado River" (H. Doc. 419, 80th Cong., 1st sess.; 285 pp.), was of great value to the commission in considering potential development of the basin and important factors in connection therewith. It had taken years for the Bureau to make the investigation and prepare this report.

Colorado's commissioner wishes to acknowledge the outstanding services of Jean S. Breitenstein, his legal adviser, and Royce J. Tipton, his principal engineering adviser. Without their help, the results evidenced by the compact could not have been attained. The assistance and engineering studies made by Frank C. Merriell, engineer-secretary of the Colorado River Water Conservation District, made up of seven counties in western Colorado, was of great value not only to the engineering advisory committee, of which he was a member, but also to the commissioner. C. L. Patterson, before his resignation as chief engineer of the Colorado Water Conservation Board, was a capable member of the engineering committee. He was replaced by R. M. Gildersleeve of the engineering staff of the board, who served well in the preparation of the engineering studies.

All of the signatory States owe a debt of gratitude and appreciation to the Bureau of Reclamation in the making of this compact. Services of inestimable value were rendered by the Bureau. Besides the Federal members of the engineering advisory committee, above mentioned, C. B. Jacobson, regional hydrologist of region 4, Bureau of Reclamation, Salt Lake City, Utah, rendered valuable help to the engineering committee. J. G. Will, assistant chief counsel of the Bureau, Washington, D. C., served as chairman of the drafting committee and as a member of the legal committee. His fairness, objective approach to compact problems, and ability won for him the confidence and respect of all members of the commission. J. R. Riter, as chairman of the engineering Advisory committee, displayed a devotion to the task, conscientious endeavor, fairness, and ability which elicited the high commendation of the commission. Harry W. Bashore, Federal representative and chairman of the commission, presided in an impartial manner and guided well the commission over many "rough spots." All of these services by the Bureau were rendered without cost to the States.

The Department of Agriculture, by making available to the commission, without cost to the States except for traveling expenses, the services of Harry F. Blaney, the country's most outstanding expert on the subject of beneficial consumptive use of water, served the commission in an important respect.

The official record of the commission contains approximately 1,900 typewritten pages. It is being put in permanent form so that it will be preserved and made available for future use by the signatory States and the Government. Thus there will be avoided the situation which now exists with respect to the Colorado River compact. An important part of the minutes of the Colorado River Compact Commission of 1922, after careful search, cannot be found in Washington or in the official records of any of the seven signatory States. These lost minutes have a vital bearing on controversies which have arisen on the Colorado River.

The commission has not as yet adjourned sine die. Its members resolved to continue its organization for the purpose of aiding in the consideration of ratification by the States and approval by the Congress of the compact.

EXCERPTS FROM REPORT OF ENGINEERING ADVISORY COMMITTEE

The report of the engineering advisory committee is 202 pages long, including the appendices. No appreciable amount of the information contained in it can be included here, but it seems well to quote certain pertinent data as follows:

"Average annual historic flows at State line (1914–45, inclusive)

"Colorado:	*1,000 acre-feet*
Little Snake River (at mouth)	226.9
Yampa River (exclusive of Little Snake River)	1,172.5
White River	576.2
Ungaged area tributary to Green River	27.4
Colorado River including Gunnison River	5,469.9
Dolores River	762.3
San Juan River above Rosa	929.9
Pine River	294.7
Animas River	807.2
La Plata River	30.9
Mancos River	48.2
McElmo Creek	51.1
Ungaged area tributary to San Juan River	13.5
Colorado share of main stem channel losses within State	—2.3
Net flow at State line	[1] 10,408.4

[1] These figures when the 1,000 acre-feet guide at the top of the column is applied mean 10,408,400 acre-feet.

"Historic contributions at Lee Ferry (1914–45, inclusive)

State	Historic flow at State lines, acre-feet	Out of State losses, acre-feet	Historic contribution to flow at Lee Ferry	
			Acre-feet	Percent of total
Arizona	133,200	1,000	132,200	0.96
Colorado	10,408,400	455,600	9,952,800	72.18
New Mexico	186,100	7,700	178,400	1.29
Utah	2,022,800	6,000	2,016,800	14.63
Wyoming	1,610,600	102,200	1,508,400	10.94
Total	14,361,100	572,500	13,788,600	100.00

"Irrigated areas

"The following tabulation shows the average irrigated areas for the study period, 1914–45, inclusive, and the present irrigated areas adopted by the Engineering Committee.

"Irrigated areas

State	Average for 1914–45, inclusive	Present
Arizona	3,770	9,840
Colorado	790,606	[1] 790,600
New Mexico	39,000	43,620
Utah	288,520	303,977
Wyoming	228,700	236,675
Total	1,350,596	1,384,712

[1] Assumed to be same as average for period, 1914–45.

"Incidental areas

"The areas of noncropped land adjacent to and consuming irrigation water incidental to the irrigation of the croplands were estimated by inspection of the Bureau of Reclamation land classification sheets, field inspection, available aerial surveys and other detail and general maps of the irrigated areas. The incidental areas adopted by the committee are as follows:

Average for study period, 1914–45, inclusive

	Acres
Arizona	(1)
Colorado	106, 812
New Mexico	6, 482
Utah	48, 625
Wyoming	28, 600
Total	190, 519

[1] Negligible.

Man-made depletions at State lines and at Lee Ferry—Averages for 1914 to 1945, inclusive

[Acre-feet]

State	At sites of use	At State lines	At Lee Ferry
Arizona	4, 000	4, 000	4, 000
Colorado	1, 062, 800	1, 042, 800	1, 016, 100
New Mexico	72, 200	71, 300	69, 500
Utah	556, 500	544, 800	544, 300
Wyoming	227, 700	226, 400	216, 000
Total	1, 923, 200	1, 889, 300	1, 849, 900

"Virgin flow at Lee Ferry

"Virgin stream-flow contributions at State lines and at Lee Ferry were obtained by adding to the historic contributions the man-made stream depletions estimated at these sites. The following tabulation shows the virgin contributions at State lines and Lee Ferry and also the out-of-State channel losses which were estimated for average undepleted flow conditions.

Virgin flow at Lee Ferry

State	Virgin flow of State lines (acre-feet)	Out of State losses (acre-feet)	Contribution to virgin flow at Lee Ferry	
			Acre-feet	Percent of total
Arizona	137, 200	1, 000	136, 200	0. 87
Colorado	11, 451, 200	482, 300	10, 968, 900	70. 14
New Mexico	257, 400	9, 500	247, 900	1. 58
Utah	2, 567, 600	6, 500	2, 561, 100	16. 38
Wyoming	1, 837, 000	112, 600	1, 724, 400	11. 03
Total	16, 250, 400	611, 900	15, 638, 500	100. 00

"Main stem reservoir operations

"The flow of the Colorado River is not uniform but varies from year to year. At Lee Ferry the historic flow has ranged between a minimum of about 4,400,000 acre-feet in 1934 to a maximum of about 21,900,000 acre-feet in 1917. The average historic flow for 1914–45, inclusive, was 13,788,600 acre-feet. In the 10-year period of lowest historic flow, 1931–40, inclusive, the average annual flow at Lee Ferry was 10,151,000 acre-feet.

"Reservoir operation studies were made to determine the extent to which the upper basin can make its apportioned water uses during drought cycles and still meet its compact obligations at Lee Ferry, as it is quite evident that hold-over

reservoirs must be constructed in the upper Colorado River Basin to impound water in years of high run-off, and to release such stored water in critical periods of low run-off, such as 1931–40, to help meet the upper-division obligation at Lee Ferry.

"Such reservoirs will deplete the flow at Lee Ferry by reason of evaporation losses in excess of present stream channel losses. However, such losses, and the hold-over storage capacity required to regulate the stream flow at Lee Ferry can only be approximated at this time until all storage sites have been studied in detail. It is recognized also, that upstream development of future irrigation projects and storage reservoirs will furnish some equation of stream flows, and will to some extent reduce the capacity needed in hold-over reservoirs as herein reported.

"Operation studies were made for the 32-year period, 1914 through 1945. * * * These studies indicate a required live hold-over storage capacity of not to exceed 30,000,000 acre-feet and stream depletions due to reservoir losses of approximately 500,000 acre-feet annually.

"The actual amount of such hold-over storage capacity will be influenced by the extent to which the stream flow will be equated by the operation of upstream hold-over storage capacity needed to regulate stream flows at the sites of diversions and the equating effect of upstream irrigation developments."

COLORADO RIVER COMPACT OF 1922

The upper Colorado River Basin compact must be in conformity with, and may not violate, the Colorado River Basin compact of 1922. That compact was negotiated and signed by commissioners representing all seven States of the Colorado River Basin. It was later ratified by the signatory States and approved by the Congress. For this reason any consideration of the upper Colorado River Basin compact should be approached with the understanding of the salient terms of the first compact.

The Colorado River compact was signed at Santa Fe, N. Mex., on November 24, 1922. More than 6 years passed before it was finally approved by the Congress on December 21, 1928, through provisions contained in the Boulder Canyon Project Act (45 Stat. 1057–1068). During the intervening period much controversy arose over its ratification and congressional approval, resulting to a considerable degree from opposition in Arizona.

Section 4 (a) of the Boulder Canyon Project Act gave consent to the compact if ratified by only six of the signatory States, including the State of California, provided California, by act of its legislature:

"* * * shall agree irrevocably and unconditionally with the United States and for the benefit of the States of Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming, as an express covenant and in consideration of the passage of this act, that the aggregate annual consumptive use (diversions less returns to the river) of water to and from the Colorado River for use in the State of California, including all uses under contracts made under the provisions of this act and all water necessary for the supply of any rights which may now exist, shall not exceed 4,400,000 acre-feet of the waters apportioned to the lower-basin States by paragraph (1) of article III of the Colorado River compact, plus not more than one-half of any excess or surplus waters unapportioned by said compact, such uses always to be subject to the terms of said compact."

The California Legislature passed this self-limitation statute and the respective Legislatures of California, Colorado, Nevada, New Mexico, Utah, and Wyoming completed State ratification by March 4, 1929. The President of the United States proclaimed the compact effective on June 25, 1929. Arizona did not ratify until 1944.

The Colorado River compact of 1922 accomplishes these things:

1. It divides the Colorado River Basin into an upper and lower basin. The dividing point is at Lee Ferry which is on the river approximately 30 miles (river distance) below the Utah-Arizona boundary line and 1 mile below the mouth of the Paria River. Colorado and Wyoming are entirely within the upper basin. California and Nevada are entirely within the lower basin. Arizona, Utah, and New Mexico include territory within each of the two basins.

2. It makes no apportionment of water among the seven States of the Colorado River Basin but it divides the beneficial consumptive use of water between the upper and lower basins. The beneficial consumptive use of 8,500,000 acre-feet annually is apportioned to the lower basin and the beneficial consumptive use of 7,500,000 acre-feet annually, to the upper basin.

3. It also creates two classes of Colorado River Basin States, namely, "States of the lower division" and "States of the upper division. The States of the lower division are Arizona, California, and Nevada, and the States of the upper division are Colorado, New Mexico, Utah, and Wyoming. The compact provided that the States of the upper division: "* * * will not cause the flow of the river at Lee Ferry to be depleted below an aggregate of 75,000,000 acre-feet for any period of 10 consecutive years reckoned in continuing progressive series beginning with the 1st day of October next succeeding the ratification of this compact."

It should be noted that this provision constitutes a joint and several obligation of the States of the upper division to deliver at Lee Ferry the 75,000,000 acre-feet of water during each consecutive 10-year period for use of the States of the lower division.

4. It treats any water over and above the total 16,000,000 acre-feet apportionment for beneficial consumptive use in the two basins as "surplus"; and it specifies that if the United States "shall recognize in Mexico any right to the use of any waters of the Colorado River system, such waters shall be supplied first from" such surplus. If such surplus proves insufficient to meet recognized rights to the use of water in Mexico, then "* * * the burden of such deficiency shall be equally borne by the upper basin and the lower basin, and whenever necessary the States of the upper division shall deliver at Lee Ferry water to supply one-half of the deficiency so recognized * * *."

In 1945 a treaty between the United States and Mexico was consummated. This treaty guarantees to Mexico the right to use annually 1,500,000 acre-feet of water.

5. It provides that the surplus over and above the 16,000,000 acre-feet total beneficial consumptive use apportionment to the two basins and the water required to meet Mexico treaty demands, shall be subject to "further equitable apportionment at any time after October 1, 1963, if and when either basin shall have reached its total beneficial consumptive use" as set out in the compact.

EXPLANATION OF ARTICLES CONTAINED IN THE UPPER COLORADO RIVER BASIN COMPACT

The upper Colorado River Basin compact contains 21 separate articles, each of which must be considered in order to have an understanding of the principles and objects of the proposed compact.

The introductory paragraph of the compact states the official personnel of the compact commission. Colorado's commissioner, Clifford H. Stone, was appointed by the Governor of Colorado under the provisions of the 1937 act creating the Colorado Water Conservation Board. Prior to the appointment, the Governor consulted interested individuals from all sections of the State. As required by law, the appointment was confirmed by the Colorado Water Conservation Board. The action on the part of the board was unanimous.

Since an upper-basin compact must conform to the 1922 compact, the opening paragraph expressly states that the upper-basin compact is subject to the provisions of the Colorado River compact.

No reference is made in the compact as to any congressional authorization for the making of the compact. Under the United States Constitution and the decisions of the United States Supreme Court construing that Constitution, States of the Union have the right to enter into compacts provided only the consent of Congress is obtained. There is no law requiring States to secure antecedent authorization before negotiating a compact. Under their powers as quasi sovereigns, the States may compact and their compacts will be effective if, after the compact is negotiated, the Congress of the United States consents thereto.

Article I

This article is a declaration of intent. Three of the principles of the compact should be specifically mentioned. The compact provides for the equitable apportionment of such use of the water of the Colorado River system as was apportioned in perpetuity to the upper basin by the Colorado River compact. Also the compact establishes the obligations of each State of the upper division with respect to the deliveries of water at Lee Ferry which are required by the Colorado River compact, and it is recognized specifically that all provisions of the upper-basin compact are subject to the Colorado River compact which is and remains in full force and effect.

Article II

This article is made up entirely of definitions of terms appearing in the compact. Among the definitions are included all of the definitions appearing in the 1922 compact. In addition, certain terms not there defined but appearing in the upper basin compact are expressly defined.

Attention is particularly directed to subparagraph (m) which defines the term "domestic use" as including the use of water for household, stock, municipal, mining, milling, industrial, and other like purposes but excluding the generation of electrical power.

Article III

This is the apportionment article. In considering it one must bear in mind two important facts, namely: (1) The 1922 compact does not apportion water but instead the use of water. This resulted from the decision by the makers of the original compact that they should avoid any argument on the question as to whether the United States or the individual States own the unappropriated waters of the river. For this purpose a means of apportioning use rather than apportioning water was devised; (2) while the 1922 compact, by its paragraph III (a), apportions to the upper basin the beneficial consumptive use of 7,500,000 acre-feet of water annually, such use is subject to the availability of water. The States of the upper division are required by the 1922 compact to maintain certain flows at Lee Ferry. The water available for use in the upper basin is that remaining after the Lee Ferry delivery requirements are satisfied. In view of the uncertainty as to the total amount of water which might be available for the upper basin the compact commission determined that so far as the States of the upper division are concerned the apportionment must be in terms of percents of the total amount of water apportioned to, and available for use in, the upper basin.

Accordingly, an apportionment was made upon the following basis: Arizona, which is not a State of the upper division, was granted the right to use a maximum of 50,000 acre-feet annually. The use of the water apportioned to, and available for use in, the upper basin and remaining after the deduction of the use by Arizona of not to exceed 50,000 acre-feet annually, was apportioned on the following basis: to Colorado, 51.75 percent; to New Mexico, 11.25 percent; to Utah, 23 percent; to Wyoming, 14 percent.

It is of interest to consider the analysis made by the Colorado commissioner and his advisers before agreeing to the percentage stated for Colorado. A very careful study was made of existing and potential uses in Colorado both within and without the natural basin of the stream. On the assumption that 7,500,000 acre-feet of water will be available for use in the upper basin, the Colorado percentage is sufficient for a water supply to take care of all existing uses on both the eastern and western slopes, for an expansion of uses on the western slope to an extent that would result in the consumption of double the amount of water now being consumed on the western slope, for taking care of all transmountain diversions constructed or under construction and all planned extensions thereof or additions thereto and for an estimated 1,000,000 acre-feet annually which may be made available for potential transmountain diversion projects. This appraisal was used in considering the apportionment question. It does not constitute a commitment on the manner in which Colorado shall eventually utilize its share of the water.

It is true that Colorado endeavored to secure a larger apportionment. However, it must be realized that each of the States advanced requests for a greater apportionment than that eventually received. In the meeting at Vernal, Utah, when the commissioners for the various States first came forward with their requests, the total amounted to 117 percent of the available water in the upper basin. It was necessary for each State to reduce its request. The final result, while not satisfying the ultimate potentialities of any State, constitutes as fair and equitable an apportionment as is humanly possible. No State can say with any justification that the compart does not treat it fairly.

Particular attention is directed to the apportionment made to the State of New Mexico. It is well known that in northwestern New Mexico there is a large Indian population which in late years has attracted much popular attention. The commissioners wisely determined the water allocation should be such as to satisfy fully the needs of the Indians. Accordingly, New Mexico was allotted a share of water sufficiently large to take care of every water use currently planned for the Indians by the Office of Indian Affairs and in addition to afford New

Mexico an equitable share of water available for use by the whites. Indian uses of water are charged against the share of the State in which the use is made.

It was necessary to specify certain principles upon which the apportionment was made. This is done in subparagraph (b) of article III. It is recognized that the apportionment includes all man-made depletions, that beneficial use is the basis of the right to use, and that the allotment to each State includes all water necessary for the supplying of existing rights. Subparagraph (b) (3) recognizes certain limitations designed to protect each State in securing the use of the water allotted to it.

The compact does not apportion any water which under the terms of the 1922 compact falls within the category of surplus. It is specifically stated that the apportionment made by the compact shall not be taken as any basis for the allocation of benefits resulting from the generation of power.

Article IV

This article relates to curtailment of use if necessary in order to maintain Lee Ferry flows. Under the 1922 compact the States of the upper division may not deplete the Lee Ferry flow below specified quantities. To prevent a violation of that compact it was necessary in the upper basin compact to make provision for the curtailment of uses so as to prevent a depletion of the flow to an extent which would violate the 1922 compact. Article IV gives to the administrative agency created by the compact the authority to determine the extent of curtailment both as to quantity and time. In doing so, however, the commission must follow certain stated principles. The curtailment must be such as to assure full campliance with the Colorado River compact. If any State or States in the 10 years preceding the year in which curtailment is necessary, has used more water than they were entitled to use under the apportionment made in article III, then such State or States must deliver at Lee Ferry a quantity of water equal to the overdraft before demand is made on any other State for curtailment. Except for this requirement the extent of curtailment by each upper division State must be such as to deliver at Lee Ferry the quantity of water which bears the same relation to a total curtailment as the consumptive use of water by that State in the preceding year bears to the total consumptive use in all of the States of the upper division during the same year. It is most important to note that in determining the last-mentioned relationship uses of water under rights perfected prior to November 24, 1922, are excluded. The value of this provision to western slope users should be recognized. A very high proportion of their uses was made under rights antedating 1922.

Article V

This article pertains to the charging of reservoir evaporation losses. One of the weaknesses in the 1922 compact is its failure to provide any method of charging such reservoir evaporation losses. This omission has resulted in a serious dispute among the lower basin States as to their liability for water lost by evaporation from the surfaces of Lake Mead and Lake Havasu.

The negotiators of the upper basin compact deemed it essential to avoid, if possible, such disputes in the upper basin and to that end they have incorporated in article V principles to be followed in charging reservoir evaporation losses. Such losses from reservoirs constructed prior to the signing of the compact are charged to the State in which the reservoirs are located and water stored in such reservoirs is for the use of the State in which the reservoirs are located. Reservoirs constructed after the signing of the compact are divided into two classes. If, as found by the administrative agency, a reservoir is used in whole or in part to assist the upper division States in meeting at Lee Ferry delivery obligations, then the losses, as found by the commission to be chargeable to the reservoir or reservoir capacity so utilized, shall be charged to each State of the upper division in the proportion that the consumptive use of water in that State during the year in which the charge is made bears to the total consumptive use in all of the upper division States during the same year. Water stored in such reservoir or reservoir capacity is to be for the common benefit of all the States of the upper division and is not to be earmarked for any particular State.

As to reservoir or reservoir capacity found by the commission to be used to supply water for use in an upper division State, the commission shall make a finding in regard thereto and all the reservoir losses properly allocable to such reservoir or reservoir capacity shall be charged to the State which has the use of the water and the water shall be earmarked for and charged to that State.

The commissioners thought that there might be some controversy as to whether a reservoir site should preferably be used for the benefit of a particular State or for the benefit of all the States of the upper division in making Lee Ferry deliveries. Accordingly, paragraph (c) provides that the storage of water for consumptive use in a State of the upper division shall have preference.

Article VI

The purpose of this article is to establish the method of measuring consumptive use of water. There is no purpose in making an apportionment of consumptive use unless the procedure for measurement is defined. There have been in the Colorado River Basin two conflicting theories as to the measurement of consumptive use. Without entering upon a technical discussion of the details, it is sufficient to say that under one of these theories the use is measured by totaling the diversions from the river and subtracting therefrom the return flows. Under the second theory the quantity of consumptive use is determined by computing the extent to which the man-made uses have depleted the stream flows at designated points. The first theory is utterly unworkable in Colorado. On the western slope there are thousands of ditch diversions. To apply the principle of diversions less returns it would theoretically be necessary to install automatic measuring devices at the headgate of each ditch. By such procedure the diversions could be measured. The measuring of returns to the river from this multitude of individual diversions would present a complex problem for which no easy solution has ever been indicated. The situation in Colorado is comparable to that existing in other upper basin States.

The negotiators of the upper basin compact also gave consideration to the intent of the makers of the 1922 compact. It was concluded that such intent was to measure uses in terms of stream depletions at Lee Ferry so far as the upper basin is concerned.

After full consideration, it was determined that consumptive use should be measured "by the inflow-outflow method in terms of man-made depletions of the virgin flow at Lee Ferry." The "inflow-outflow" method is an engineering procedure whereby the amount of water occurring in the upper basin is measured by series of rim stations. The outflow is, of course, determined by the flow at Lee Ferry. The amount of consumptive use represents the change in the relationship between the index stations from that existing under virgin conditions and that existing at any particular time after the stream has been depleted by man's activities.

"Man-made depletions" means the reduction in river flow caused by the activities of man. "Virgin flow," sometimes called "reconstructed flow," means the amount of water flowing in the river before any of it is put to use by man's activities.

The actual determination of the consumptive use by the procedure indicated is made a responsibility of the administrative agency. The commissioners recognized that in the future some other or different method of measurement might become necessary; hence the commission is given the right to adopt a different method of determination, but in taking such action the commission must act unanimously.

Article VII

Article VII is designed to make clear that uses of water by agencies, instrumentalities, or wards of the United States shall be charged against the State in which the use occurs. Among other things, this means that Indian uses are a charge against the share of the State in which the use is made.

Another point made clear by this article is that where water is diverted, stored, or conveyed in one State for use in another State, the charge is against the State which receives the beneficial use of the water.

Article VIII

This very important article creates an interstate agency to administer the compact. It was obvious to all the commissioners that the multitude of problems which may develop in connection with the use of upper basin water could neither be foreseen nor solved at this time. A desirable feature of any compact is flexibility. Under the circumstances, it was deemed essential to set up an agency authorized to administer the compact.

Article VIII creates the Upper Colorado River Commission. Arizona, because of its slight interest in the upper basin, was not given a place on the commission. The other four States each have a commissioner designated or appointed in accordance with the laws of the particular State. The President of the United States is requested to designate a commissioner for the United States who shall be the presiding officer and shall have the same powers and rights as the commissioner of any State. A quorum consists of any four members of the commission. Expenses of the commission, except the salaries and expenses of each commissioner and the expenses paid by the United States, are borne by the four States according to the percentage of consumptive use apportioned to each. This means that Colorado, which has an apportionment of 51.75 percent must bear 51.75 percent of the expense of the commission.

The commission is required to appoint a secretary who shall not be a member of the commission or an employee of any signatory State or of the United States. Engineering, legal, clerical or other personnel may be employed without regard to the civil-service laws of any State.

The commission is given numerous specific powers. Among the more important are the following: To adopt rules and regulations, to establish gaging stations, to forecast water run-off, to report on water supplies and uses, to make findings on matters covered by the compact, to acquire and hold personal and real property, and to make annual reports. All of these powers must be exercised in a manner consistent with the compact. Concurrence of four members of the commission is necessary on any matter except where the compact requires unanimous action. The records of the commission shall be readily available to the official representatives of the States and of the United States. The organization meeting of the commission must be held within 4 months from the effective date of the compact.

Consideration was given to the question as to whether or not the commission should have judicial powers. It was finally agreed that it would be improper to delegate any judicial authority to the commission. However, it seemed very desirable to give some standing to findings of facts made by the commission. Accordingly, paragraph (g) provides that findings of fact made by the commission while not conclusive in any court shall constitute prima facie evidence of the facts found.

Article IX

In order to utilize fully the waters of the upper basin it will be necessary to have facilities in one State to divert, store, convey, and regulate water both for use in another State and for use in satisfying the Lee Ferry delivery obligations. Article IX has as its purpose the provision of machinery necessary for the establishment of facilities in one State for the benefit of another State or States.

It should be recognized that Colorado more than any other State is affected by this article. Plans for future development encompass facilities located in Colorado for the use of Wyoming, Utah, and New Mexico. It will be recalled that Colorado has a statute forbidding diversions in this State for use in another State. In the negotiation of the Republican River compact, Colorado was confronted with the same situation as is presented on the upper Colorado. In fairness to our neighbors we must permit the construction and use of facilities in Colorado for the benefit of States lower on the stream. To do this it is necessary to supersede the statute above-mentioned.

Another problem relates to the use of the power of eminent domain. There are decisions to the effect that one State may not come within the boundaries of another State and there exercise the power of eminent domain. To get around this difficulty it was necessary to provide that an upper State would in its own sovereign capacity exercise the power of eminent domain upon the proper request from another State.

The principles set forth in article IX follow very closely those contained in the Republican River compact, which was made by Colorado, Nebraska, and Kansas. Because of particular conditions existing on the upper Colorado it was necessary to go into more detail than is found in the Republican River compact.

In connection with the facilities in an upper State for use in a lower State, the lower State must bear the expense and, in acquiring the property and constructing the facilities, must comply with the laws of the upper State. The storage and release of water is made by the upper State upon the order of the State for whose benefit the facility is constructed or, if the facility is constructed for the benefit of all States, upon the order of the commission. The rights of the lower State are subject to the rights of the water users in the State where the

facilities are located to receive and use the water apportioned to the State in which the facility is constructed.

As a condition precedent to the use of facilities, it is required that, except in the case of the United States, those for whose benefit the facilities are constructed must pay to the State in which the facilities are located, in lieu of taxes lost, a sum equivalent to the average amount of taxes levied and assessed against the land and improvements thereon during the 10 years preceding the acquisition of the land for use and benefit of the lower State.

Article X

This article recognizes the continued validity of the La Plata River compact which was entered into in 1922 between Colorado and New Mexico for the apportionment of the waters of that stream which is a tributary of the San Juan arising in southwestern Colorado and flowing into New Mexico. Comsumptive uses of La Plata River water are charged under the apportionment made in article III to Colorado and New Mexico.

This article is the first of several dealing with specific interstate tributaries. The commission deemed it wise to settle the rights of the States on interstate tributaries of the upper Colorado rather than to have those tributaries the subject matter of individual compacts.

Article XI

This article determines the rights of Colorado and Wyoming to the use of the waters of the Little Snake River which arises in Colorado and flows back and forth across the Colorado-Wyoming line 19 times before finally joining the Yampa River in Colorado. The existing rights on the main stream below the confluence of Savery Creek and Little Snake are required to be administered on the basis of an interstate priority schedule. Rights initiated subsequent to the signing of the compact, both direct flow and storage, are required to be so administered that in times of water shortage the curtailment of use in each State shall be as nearly equal as is possible. Future water use projects shall to the greatest extent possible result in an equal division between the two States of water not used under rights existing prior to the signing of this compact.

Water uses along the Little Snake and along all other tributaries which are individually treated by the compact, are chargeable against the apportionment made in article III to the State in which the consumptive use occurs.

Article XII

This relates to Henry's Fork, Beaver Creek, Burnt Fork, Birch Creek, and Sheep Creek, all of which originate in Utah and join the Green River in Wyoming. Water uses under rights existing prior to the signing of the compact are required to be administered on the basis of a priority schedule. On certain of these creeks water uses under rights initiated in the future are divided equally between the two States. Measuring devices are required to be maintained at ditch diversion points. Provision is made for the appointment by the two State engineers of a special water commissioner with authority to administer the water in both States in accordance with this article. The salary and expenses of this commissioner are paid 30 percent by Utah and 70 percent by Wyoming.

Article XIII

This article pertains to the Yampa River, a tributary of the Green River. A compelling reason for the apportionment between Utah and Colorado of the use of the Yampa River water was the fact that Utah desired assurance of a water supply for its central Utah project.

By this article Colorado agrees not to deplete the flow of the Yampa at the Maybell station below 5,000,000 acre-feet in any period of 10 consecutive years. The Colorado engineers are of the opinion that the water supply of the Yampa River is adequate to take care of all existing and potential uses made from that stream in Colorado and still meet the required delivery at Maybell.

Article XIV

By this article the use of the waters of the San Juan River are apportioned between Colorado and New Mexico. The San Juan River and its principal tributaries arise in Colorado and then flow into New Mexico. Reference has heretofore been made to the fact that the apportionment made by article III to New Mexico is adequate to care for all projects planned by the Office of Indian Affairs.

Colorado agrees to deliver to New Mexico a quantity of water which shall be sufficient, together with water originating in the basin in New Mexico, to enable New Mexico to make full use of water apportioned to it, subject to certain conditions. A prior right is recognized in all uses of water existing at the time of the signing of the compact and in all uses contemplated by projects authorized for construction at such time. It is provided that uses of water dependent upon a common water supply and not existing or authorized at the time of the signing of the compact shall in times of water shortage be so reduced that the resulting consumptive use in each State is proportionate to the use made during times of average supply, with the exception that if any preferential uses are recognized in the Indians such uses shall be excluded at the time of determining the amount of curtailment. The overriding obligation of each State to contribute to Lee Ferry deliveries is recognized.

Article XV

Paragraph (a) of this article provides that the use of water for the generation of electrical power shall be subservient to the dominant use of such water for agricultural and domestic purposes.

Paragraph (b) assures each State the right to regulate within its boundaries the appropriations, use, and control of water apportioned and available to it under the compact.

Article XVI

This is a savings clause protecting the States against any abandonment or forfeiture of water because of failure to use.

Article XVII

This is a usual compact provision concerning water imported to the natural basin of the stream from some other basin. The use of such water is not charged to the State making the importation as water apportioned by article III of this compact.

Article XVIII

By this article Arizona reserves its rights under the 1922 compact as a lower division State, and Arizona, New Mexico, and Utah reserve their rights under that compact as lower basin States.

Article XIX

The intent of this article is to recognize the rights of the United States.

It is stated that nothing in the compact affects the obligations of the United States to Indian tribes or under the treaty with the United Mexican States. Likewise, the compact does not disturb the rights or powers of the United States in the waters of the upper Colorado River system or its capacity to acquire rights in and to the use of such waters.

It is expressly stated that the compact does not subject any property of the United States to taxation or to any payments whatsoever in reimbursement for loss of taxes.

Paragraph (e) expressly provides that the compact does not subject any property of the United States to the laws of any State "to an extent other than the extent to which such laws would apply without regard to this compact."

In connection with this article XIX it must be recognized that without the provisions contained therein it would be impossible to secure the necessary congressional consent to this compact.

Article XX

This provides for the termination of the compact by unanimous agreement of the signatory States. In this connection it should be pointed out that such termination cannot result from Executive action. The compact to be effective must be ratified by the legislature of each State. Termination can only result from similar action.

As a necessary protective measure it is provided that in the event of termination all rights established under the compact shall continue unimpaired.

Article XXI

This relates to the procedure for ratification and approval of the compact. The legislature of each signatory State must ratify the compact and the Congress must consent thereto. The machinery for giving the necessary notices is provided for in this article.

The concluding paragraph provides for execution of the compact in six original counterparts, one of which shall be deposited with the Department of State of the United States and one of which shall be forwarded to the Governor of each signatory State.

Mr. BREITENSTEIN. That is the only matter which I had not covered in my statement of yesterday.

Mr. MURDOCK. The witnesses are ready to answer questions from the committee.

Mr. Engle, do you have questions?

Mr. ENGLE. Yes, Mr. Chairman. As I said at the close of the hearing yesterday, I have been turning over in my head the effect of the word "effect" and refer to the colloquy which occurred between Mr. Breitenstein and myself in the record of yesterday, in which be agreed, I believe, that Congress in consenting to this compact is not consenting to any interpretation, expressed or implied, of the basic Colorado compact in the upper Colorado compact, but I asked the gentleman whether he would agree that it was not binding the Congress as to the language, intent or effect of the basic compact, and if I am correct, he would go along with that statement save and except the use of the word "effect." Is that correct, Mr. Breitenstein?

Mr. BREITENSTEIN. I believe that is correct. The wording of the question is a little hazy in my mind, but I do remember I questioned those words.

Mr. ENGLE. I am sorry Mr. Lemke is not here because I am referring to the questions asked by Mr. Lemke and the answers given by the witness to his questions. Mr. Lemke said:

As I understand it, this compact deals only with that which is already yours by the lower basin compact.

Mr. BREITENSTEIN. Yes, sir, that is correct. We claim nothing more than that.

Mr. LEMKE. If the word "effect" may be put in, that may be a surrender of what rights you have under the original compact?

Mr. BREITENSTEIN. That is what I have been trying to say.

Mr. LEMKE. You are objecting, therefore?

Mr. BREITENSTEIN. That is right.

Mr. LEMKE. You do not intend to interfere with the rights of the Colorado River compact, except you are going to claim what is yours already, and that is the only thing you are dealing with in this bill?

Mr. BREITENSTEIN. That is exactly right, Congressman.

Now, I can understand how it was implicit in the original Colorado compact, the basic compact, that a compact should be arrived at in the upper basin and one should be arrived at in the lower basin, and

within the framework of those compacts and the legal and proper framework of those compacts, one would have an effect upon the other, and that is the legitimate effect which I assume the witness is referring to. Is that correct, Mr. Breitenstein?

Mr. BREITENSTEIN. That is correct, yes sir.

Mr. ENGLE. I want to go a little further, because I think there are some other effects which may be had, and I would like a clear definition of what is intended with reference to those, so I would like to ask the witness whether or not the basic Colorado River compact specifically defines the phrase "beneficial consumptive use."

Mr. BREITENSTEIN. In my opinion, it does not.

Mr. ENGLE. Is it true that there is a difference of opinion as to the definition of and how beneficial consumptive use would be measured under article III (a) of the Colorado River compact?

Mr. BREITENSTEIN. There are differences of opinion, yes, sir.

Mr. ENGLE. Is it true that some States interpret this phrase to mean "the amount of water consumed at the site of use," a definition sometimes referred to as "diversions less return to the river?"

Mr. BREITENSTEIN. Yes, sir.

Mr. ENGLE. Is it also true that in the other interpretation commonly called the "depletion theory," and the one relied upon by the framers of the upper Colorado River compact, that this phrase, "beneficial consumptive use," means the amount of man-made depletions of virgin flow at specific points on the main river, so far as the upper basin is concerned, the point being Lee Ferry.

Mr. BREITENSTEIN. That is my opinion, yes, sir.

Mr. ENGLE. Is it also true that under the depletion theory if man-made works have the effect of salvaging certain natural losses of war, such as evaporation and transpiration, the use of water so salvaged would not be charged as a beneficial consumptive use under article III (a) of the basic Colorado River compact?

Mr. BREITENSTEIN. I would like to have you repeat that one, if you do not mind.

Mr. ENGLE. Is it true that under the depletion theory, if man-made works have the effect of salvaging certain natural losses of water, such as evaporation and transpiration, the use of water so salvaged would not be charged as a beneficial consumptive use under article III (a) of the basic Colorado River compact?

Mr. MURDOCK. Is the witness ready to answer?

Mr. BREITENSTEIN. I will answer that "yes."

Mr. ENGLE. Now, to continue——

Mr. BREITENSTEIN. Congressman, we are still a little confused about that last question to which I answered "Yes." I do not mean to be insistent, but if you would read it again, I think perhaps we would all be sure as to whether or not I have answered that in accordance with our position.

Mr. ENGLE. I will repeat it very slowly: Is it also true that under the depletion theory, if man-made works have the effect of salvaging certain natural losses of water, such as evaporation and transpiration, the use of water so salvaged would not be charged as a beneficial consumptive use under article III (a) of the basic Colorado River compact?

Mr. BREITENSTEIN. My answer to that is still "Yes," Congressman, but I think that I should amplify my answer to this extent: by that answer I do not mean to imply that it is the intent of the upper basin States to violate the Colorado River compact. It is our intent to live up to the Colorado River compact, and in our opinion, the depletion theory is a correct interpretation of the Colorado River compact.

So far as the upper basin States are concerned, we have adopted that theory as the method of measurement of the allotments to each of the upper basin States. I have conceded that there are differences of opinion in regard to the definition and measurement of beneficial consumptive use. You have raised the question of salvage water.

I would like to just throw out for consideration by the committee here that evaporation losses from reservoirs are a large factor in consumption of water, depletion of stream, and I suggest that consideration be given as to whether or not under the diversions-less-returns theory, some accounting, some charge should not be imposed for reservoir evaporation losses.

Mr. ENGLE. That is a proper consideration, but I want to pursue this particlar line of thought for just a little longer. In the upper basin, the additional salvaged water available for use under the depletion theory, without being charged as a beneficial consumptive use under article III (a) of the basin compact would be quite substantial, would it not?

Mr. BREITENSTEIN. I would prefer you ask that question of Mr. Tipton. I am just a lawyer. Mr. Tipton is here.

Mr. ENGLE. Mr. Tipton?

Mr. TIPTON. I cannot answer that, Congressman. There would be some salvage of water. There is a difference of opinion among engineers as to what the magnitude might be. No one knows; no one ever will know until the full development takes place.

Mr. ENGLE. If the upper basin consumptively uses 7,500,000 acre-feet of water per annum measured out on the depletion theory, the amount of water passing Lee Ferry would be less, would it not, than would be the case if the upper basin consumptively uses 7,500,000 acre-feet per annum, measured at the site of the use on the diversions less returns to the river theory?

Mr. BREITENSTEIN. So far as I am concerned, I do not know. Maybe Mr. Tipton does.

Mr. TIPTON. Congressman, I should like to have an amplification of the theory "diversions minus return to the stream." Does that theory also carry with it the proposition that there shall be charged as beneficial consumptive use under article III (a) of the Colorado. River compact, reservoir losses?

Do you consider reservoir losses a diversion minus return to the stream?

Mr. ENGLE. I am referring to the diversions less returns to the river.

Mr. TIPTON. Congressman, I cannot answer the question unless I know whether the proponents of the theory that beneficial consumptive use under article III (a) shall be measured as diversions minus returns to the stream include, as a part of the beneficial consumptive use, reservoir losses.

Mr. ENGLE. It is my opinion that reservoir losses are charged against the basin in which they occur.

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Mr. TIPTON. In other words, reservoir losses also would be considered in the category of diversion minus return to the stream.

Mr. ENGLE. You are getting in a very technical field. What I have in mind is the diversions less return to the river theory, which is embodied in the California Limitation Act, and which was written into the Mexican Treaty.

Mr. TIPTON. Now we are getting right down squarely, I think, to the difference in theory. I have heard the California theory discussed many times before committees of Congress. I have never heard in any of those discussions any of the California proponents of that theory suggest that reservoir losses from Lake Mead, any reservoir losses from Lake Mead, should be charged to California. The only place, Congressman, that there is mention of diversion minus return to the stream is in the Boulder Canyon Project Act, which provides that before the compact be consented to by the Congress, California shall irrevocably, for the benefit of Arizona and the other States of the basin, reciting them, limit her beneficial consumptive use—diversion minus return to the stream—to 4,400,000 acre-feet of water apportioned by article III (a) of the compact.

California's position from that time on has been that that has been an interpretation of beneficial consumptive use under article III (a) of the compact. It has been further California's position, as I understand it, that that is net use by California and that there shall not be charged to California any reservoir losses. Now, I will answer your question.

Assuming that that is the interpretation of beneficial consumptive use as set forth in article III (a) of the compact by those who are proponents of that theory, diversion minus return to the stream, if that same theory that was proposed by California had been adopted by the upper basin States when it wrote its compact, there would be less water passing Lee Ferry than there will be under the theory that is set forth in the upper basin compact.

The reservoir losses in the upper basin will amount to much more than any salvage of water that ever can be made, so that if we said that our uses shall be measured as diversions minus return at the site of use, and we take the same position as California, that there shall be charged no reservoir losses against us, there would be less water at Lee Ferry than there would be under the other theory.

Mr. ENGLE. Mr. Tipton, I did not intend to get into a discussion of the lower-basin concept, except as the upper Colorado compact may bear upon it.

Mr. TIPTON. You understand I could not answer the question unless I knew the complete theory.

Mr. ENGLE. The question so far developed this: That the words "beneficial consumptive use" as used in the basic compact have not been defined and are not defined in that compact; that there is a disagreement as to the definition of beneficial consumptive use; that the upper basin, in its compact which is now before this committee, has accepted the depletion theory of beneficial consumptive use.

It is my impression, and I am proceeding on the assumption, that the upper States would not accept a definition of beneficial consumptive use which would give them less water, but would adopt the theory giving them more, which brings me to this question: If it is true,

and assuming that it is true for the purpose of this question, that the definition given to beneficial consumptive use in the basic compact will affect the total amount of water delivered at Lee Ferry, or the measurement of water delivered at Lee Ferry, then is it not a fact that the lower basin States are interested in the manner in which that measurement is made?

Mr. BREITENSTEIN. May I at least start the answer to that, Congressman?

Mr. ENGLE. Yes.

Mr. BREITENSTEIN. So far as the measurement of water between the two basins is concerned, if at times of ultimate development when we are up to near the maximum of our use, or when the question is whether or not we are meeting our delivery obligations, there is disagreement between the two basins as to how beneficial consumptive use is to be measured and it cannot be settled amicably, I assume that at that time, some uncertain date in the future, there may have to be a decision of the United States Supreme Court determining as between these two basins, which method is discussed here, or perhaps some other method that one of us have thought of yet, is the correct method of measuring beneficial consumptive use.

Mr. ENGLE. That is precisely the point I am getting to.

Mr. BREITENSTEIN. May I continue for just a moment?

Mr. ENGLE. Yes, proceed.

Mr. BREITENSTEIN. I would like, if I may, Congressman, to just give a brief statement on these two theories, because perhaps some of the members of the committee here do not understand them and I would like to give at least one very logical reason as to why the upper basin States in this compact, I say, were forced to adopt the depletion theory.

Diversions minus returns, the theory advocated by California, as I understand it, would measure consumptive use by adding up the total of all the diversions. I assume that that contemplates the recording by automatic devices of all head gate diversions. As to how the return flows will be measured, I do not know.

I have sat through many hours of hearings with the California lawyers and California engineers, and none of them have yet said how you were going to measure the return flows; but be that as it may, consider for a moment the difference between California and Colorado. In California, you have very few diversions, most of which are extremely large, and they take the water almost immediately out of the basin of the Colorado River, so there is probably a minimum of return flows. In Colorado, Congressman, we have between four and five thousand diversions on the west slope of Colorado. For us to require the installation of automatic measuring devices on each of those ditches would be to impose a burden which would never be accepted by the people of Colorado; and secondly, if any engineer can devise a method of measuring the return flow from these four or five thousand individual ditches, I have never heard it and I do not know how it can be done.

Mr. MILLER. Will the gentleman yield at that point?

Mr. ENGLE. Let me pursue this just a little further, Mr. Breitenstein. I am not trying to get into a discussion of the relative merits of the depletion theory or definition of beneficial consumptive use

and the theory of diversions less returns to the river. What I am trying to establish is that the upper basin Colorado compact does, in effect, accept one theory and does, in effect, write that theory into its compact, and I am trying to determine the effect, and I use the word "effect" purposely of writing that interpretation into the other upper Colorado River compact on the basic Colorado compact.

Mr. BREITENSTEIN. I will continue with what I had to say, because I believe it goes to that point.

(Discussion off the record.)

Mr. ENGLE. May I get back on the record and ask one or two further questions?

If it is true that the method of measurement of the 7,500,000 acre-feet of beneficial consumptive use, which the upper basin States are entitled to, is affected by the method in which that measurement is made, and the definition of that measurement is set up in this upper Colorado Basin compact, are the upper basin States now requesting that the United States, in consenting to the pending compact, accept or concur in any interpretations of the Colorado River compact, expressed or implied, in the upper basin compact?

Mr. BREITENSTEIN. The method of measurement set up in the upper Colorado River Basin compact is binding upon the States signatory thereto. That method of measurement is not binding upon the non-signatory States nor upon the United States.

Mr. ENGLE. In your opinion, does the Congress have the authority or the power to interpret an interstate compact?

Mr. BREITENSTEIN. No, sir.

Mr. ENGLE. And as a consequence, any consent given by Congress to this compact is not an acceptance or a concurrence in any interpretation of the basic compact which might be expressed or implied in the upper basin compact, is that correct?

Mr. BREITENSTEIN. Yes, sir, and also Congress, in the Boulder Canyon Project Act, did not interpret the beneficial consumptive use phrase as meaning diversions less returns to the river. It works both ways.

Mr. ENGLE. Let me go one step further: Inasmuch as it is conceded that the consent of Congress to this compact does not mean an acceptance or a concurrence by Congress in any interpretation, express or implied, of the basic compact by the upper basin compact, do you have any objection to writing a proviso in the first section of this bill which explicitly says that the consent of Congress to this compact is not a consent to any interpretation, expressed or implied, of the basic compact in the upper Colorado River compact?

Mr. BREITENSTEIN. Yes, sir; I do.

Mr. ENGLE. And why?

Mr. BREITENSTEIN. Because if you do that, you recognize by implication that Congress might so interpret and construe it and would be saying that in the Boulder Canyon Project Act they had interpreted the old compact to mean diversions less returns to the river, and I say that Congress cannot do it now and it could not have done it then.

Mr. ENGLE. Mr. Breitenstein, if I say that I do not intend to kick your dog, does that mean that I do so intend and in the absence of such a declaration I will kick your dog?

Mr. BREITENSTEIN. No; but also if you adopt that analogy, in the 1928 Boulder Canyon Project Act, you did kick my dog.

Mr. ENGLE. How can you say that consistently with section XIX, which you have written in the upper basin Colorado compact? Whose dog are you kicking there, when you set up a special section of the upper Colorado compact to indicate that you are not abridging or curtailing any of the rights of the United States Government as set forth in section XIX?

Mr. BREITENSTEIN. Congressman, we went into that yesterday, and I told you the best knowledge that I had of the background of article XIX.

Mr. ENGLE. Let us just put the shoe on the other foot now. Does the express waiving and denial of any intent to abridge the rights of the United States Government in section XIX or article XIX of this compact imply that in the absence of such a declaration those rights would be abridged?

Mr. BREITENSTEIN. All I can say on that is that the representatives of the United States Government, going back through these compacts since the Republican River compact was up, have thought it necessary to put in those provisions, or provisions similar to that.

As to the reasons for them, I would prefer that you ask the Federal representative or his legal adviser. I think they were not necessary.

Mr. ENGLE. But were they positively and affirmatively damaging in that they implied the existence of something which in the absence of those provisions would exist, to wit, an operation of this compact to affirmatively affect the rights of the United States Government?

Mr. BREITENSTEIN. I do not think it was necessary to have that. But I have given you my objection to that language, and my objection, I will say it again, is that if you put that in, you have an implication that Congress could interpret and could construe; and then I rather fear, and I think it is a well-founded fear, that your State would urge in any possible litigation that by the Boulder Canyon Project Act, Congress did interpret and construe the phrase "beneficial consumptive use" and I say that Congress could not do it and it is not doing it now. You want the advantage and you want us to have all the disadvantage.

Mr. ENGLE. No; do not attribute that to me. I am just trying to find out, Mr. Breitenstein, where we stand.

Mr. BREITENSTEIN. That is the effect of it, Congressman.

Mr. ENGLE. And inasmuch as there has been written into article XIX of this compact an express disclaimer as far as the United States Government is concerned, all I am asking is that so far as the lower basin States are concerned, not signators to this compact, that we write in a statement plainly putting into the law the proposition which you have admitted to be the fact, and that is that the consent of Congress is the bare legal requirement, satisfying the Constitution of the United State, and that it is not a consent to any interpretation, express or implied, of the basic compact, either by the United States or the States. What is unfair and wrong about that?

Mr. BREITENSTEIN. It is all right if you will also do one other thing: Put in a provision here to the effect that the Boulder Canyon Project Act did not interpret or construe the Colorado River compact.

Mr. ENGLE. May we pursue that a little bit? What makes you think the Boulder Canyon Act interpreted the basic compact?

Mr. BREITENSTEIN. I say it did not.

Mr. ENGLE. What are you worrying about?

Mr. BREITENSTEIN. Because you want us to say here that Congress, by consenting to this legislation, does not interpret or construe our compact, and I say it does not, but when you put that in here, it carries with it the implication that Congress could interpret and construe a compact. Hence, the argument will be made that in the Boulder Canyon Project Act, Congress interpreted and construed the Colorado River compact, and said that "beneficial consumptive use" means "diversions less returns." I say you could not do it then and you cannot do it now.

Mr. ENGLE. You mean because California is bound by the diversions minus returns to the river under its Limitations Act? Is that what you are saying?

Mr. BREITENSTEIN. I am talking about the Boulder Canyon Project Act.

Mr. ENGLE. What language in it might be used in this unconscionable way to imply an interpretation by Congress?

Mr. BREITSTEIN. That language in parentheses. I have a copy of the act. It says: "(diversions less returns to the rivers)," in section IV of the Boulder Canyon Project Act.

Mr. ENGLE. I would want to think about that. It is not my intention to prejudice the position of the parties in this matter or the respective basins in any way. I am for what the gentleman from Wyoming referred to the other day as the status quo, and all I am trying to be sure of is this: That when and if this question ever has to be settled, that we have not by a consent of Congress to this act given leverage either to one side or the other. I want to reserve those points. That is the objective I have in mind and it is just a question of how we arrive at it.

I do not believe that the witness has any desire to have this compact, by implication or otherwise, bind anyone else as to interpretation of the basic compact. Am I correct in that?

Mr. BREITENSTEIN. It only binds the five compacting States so far as the upper basin is concerned. We have said in our statement and I have said many times here, we are not binding the nonsignatory States nor the United States. All the United States is doing is removing a constitutional limitation upon the rights of these States to compact. That is all it is doing.

Now, so far as these States are concerned, in dividing up this water we are bound by the theory we have adopted, but it does not bind your State and it does not bind the United States. If we can get along in the future, Congressman, and may I say I most sincerely hope we can, then in the days of ultimate development there will be no argument on this thing. It would be ridiculous, in my opinion, to go through a lawsuit like the North Platte case.

Now, I had, among my other jobs, the representation of the State of Colorado in the North Platte case, and I know just what it is, and in my opinion, Mr. Congressman, the lawsuit was absolutely unnecessary.

Mr. ENGLE. I think that completes my questioning, Mr. Chairman. Thank you.

Mr. MURDOCK. Contrary to my usual practice, I think I would like to ask a few questions right at this point.

Did I understand you, Mr. Breitenstein, to say the theory or method of measurement adopted in the writing of the upper basin compact is the so-called depletion theory or method?

Mr. BREITENSTEIN. Yes; that is the method of measurement used.

Mr. MURDOCK. The method of measurement?

Mr. BREITENSTEIN. Yes.

Mr. MURDOCK. I think it is not quite clear to all the committee—it certainly is not quite clear to me—the fundamental difference between these two theories or methods of measurement. Do we not need to know that fundamental difference and consider their application so far as the upper basin problem solely is concerned, as well as in any dispute that might be occurring in the lower basin?

Mr. BREITENSTEIN. Congressman, that is a technical engineering matter. I would prefer to have a qualified engineer, Mr. Tipton, answer that rather than give you a lawyer's version of it.

Mr. MURDOCK. I think you are right on that. One more question, though: Did I understand you to say that under the theory that was adopted and incorporated in the upper basin compact that after full development, there will be more water passing Lee River than there would under the other theory?

Mr. BREITENSTEIN. That is Mr. Tipton's problem.

Mr. MURDOCK. Please, Mr. Tipton.

Mr. TIPTON. I am speaking, Congressman, only with respect to the upper basin. You mentioned the controversy in the lower basin which we have heard about from time to time. I am not speaking at all with respect to that controversy. I am speaking only with respect to the upper basin. I also want to state for the record to Congressman Engle that the negotiators of the upper basin compact did not use the method which would give the upper basin the most water, because that method would do that. It chose the method which it conceived to be the proper one as evidenced by the intent of the negotiators of the original compact.

Now, going specifically to your question, the negotiators of the upper basin interpret article III (a) of the Colorado River compact as apportioning the virgin flow at Lee Ferry and apportioning to the upper basin the use of 7,500,000 acre-feet of that virgin flow. Said in another way, the upper basin conceives that article III (a) gives it the right to deplete the virgin flow at Lee Ferry, the division point between the two basins, 7,500,000 acre-feet per annum. That is the depletion theory, that whatever the virgin flow might be, whatever it might be over a series of years, the upper basin has the right to remove from that virgin flow and consume, burn up, if you will, 7,500,000 acre-feet. That is the interpretation.

The negotiators of the Colorado River compact did raise their eyes above Lee Ferry. Lee Ferry was a point of measurement.

Mr. STONE. You mean below.

Mr. TIPTON. They did not raise their eyes above Lee Ferry.

That was the point of measurement so far as the upper basin is concerned. The only water that was being considered when the apportionment was made to the upper basin was the virgin flow at Lee Ferry, at that time called the reconstructed flow. The negotiators were not considering the original source of the water.

There are 75,000,000 acre-feet of water on an average that falls on the watershed of the upper Colorado River Basin. There are some-

thing over 15,000,000 acre-feet in the virgin state that reaches Lee Ferry. In other words, only about 20 percent of the total water that falls on the watershed of the upper basin ever did reach Lee Ferry in the state of nature.

The compact commission was not apportioning 75,000,000 acre-feet, it was apportioning the virgin flow at Lee Ferry or the so-called "reconstructed flow" at that time. That is our position.

Mr. MURDOCK. May I ask you this question, Mr. Tipton? Supposing we had used the other measuring stick. Supposing in your council you had decided that you ought to consider every possible diversion and take the sum total of those diversions. How much would that probably have amounted to after full development?

Mr. TIPTON. You mean the diversion, sir, or diversions minus return?

Mr. MURDOCK. Of course, I mean diversion minus return; but how much would you have applied in the irrigation or in consumptive use—beneficial consumptive use?

Incidentally, I regard that phrase "beneficial consumptive use" a mighty important concept in western water law, but I regard it as a measure of right of use more than a measure of quantity.

This is what I am trying to get at: Under the so-called California doctrine, or beneficial consumptive use measurement system, how much would you probably apply to the land in irrigation?

Mr. TIPTON. I think there are two prongs to the question, Congressman. As far as the application of water to the land, that means diversion.

Mr. MURDOCK. That is right.

Mr. TIPTON. Upper basin will apply to the land by use and reuse in order to burn up 7½ million acre-feet. That is the application of the land. There is some of that that returns.

Mr. MURDOCK. You must not apply so much to the land, however, that there is not a return flow which will cause no greater depletion than 7,500,000 acre-feet at Lee Ferry.

Mr. TIPTON. That is right. The return flow happens anyway. There must be a certain amount of return flow. I think, going further, the question probably is what would be the difference on the effect of the flow at Lee Ferry by the application of one theory as opposed to the application of the other theory. That is the same question Congressman Engle asked. I will have to qualify the question because I am not completely clear on the theory of the proponents of the diversion minus return proposition.

If that carries with it also the charging of reservoir evaporation as a part of beneficial consumptive use, then under the depletion theory there, of course, would not be charged to the upper basin any water that was salvaged in the process of the use of water, the salvaged water being the water that never did reach Lee Ferry.

Now I will have to give the indefinite answer that I gave to Congressman Engle: Engineers cannot estimate that and it will never be known until we reach ultimate development. It would be a significant quantity; 200,000 acre-feet, 400,000 acre-feet. We do not know. On the other hand, if the proponents of the diversion minus return theory maintain that the storage of water in a reservoir does not constitute a diversion, and that there shall not be charged against

the beneficial consumptive use apportioned to that proponent, any reservoir losses as a part of the beneficial consumptive use, then under the depletion theory, as far as the upper basin is concerned, there would be delivered to Lee Ferry several hundred thousand acre-feet more water than there would be delivered under the diversion minus return theory. Reservoir evaporation from the main stream reservoirs about which I testified the other day, which will be used for enabling the upper basin to fulfill its obligation at Lee Ferry probably will be in the order of four or five hundred thousand acre-feet per year.

In addition to those reservoirs, there will be many that must be constructed above the points of use to make water available and for use.

The loss from those reservoirs will be substantial. If under the theory of diversion minus returns, those losses are not charged against the upper basin, those losses would exceed any estimate that has ever been made of the salvage water in the upper basin.

Let me point out clearly, as I did the other day, that by the means of measurement which has been adopted by the upper basin compact, unless by unanimous action of the commission another means is adopted, all of the reservoir losses will be accounted for in terms of their effect on below Lee Ferry.

Mr. MURDOCK. I have one more very serious question, but before propounding it, I am reminded now of the lectures which the great philosopher Plato held out under the trees near Athens, and to that lecture came his disciples, of course, but also a cynic by the name of Diogenes, and Diogenes said to the great philosopher, "Plato, I can understand table, but I cannot understand tableness; I can understand chair, but I cannot understand chairness," and Plato said, "Diogenes, that is because you have eyes with which you can see a table or a chair, but you lack a mind with which to contemplate tableness and chairness."

Sometimes I feel that I am in the class with Diogenes in some of these basic concepts and puzzling matters, but it does seem to me, contrasting these two theories of measurements, these systems of accounting, that the depletion method is the sensible method. This is a serious question I wanted to ask you, if you will pardon my levity.

If we use the other method and penalize every State that uses salvage water by totaling the sum total of their applications, is that not contrary to public policy where we must use every drop of water in the West?

Mr. TIPTON. Congressman, I did not know we were going to get into the merits of the two methods. If it is the desire of the committee to go to the merits——

Mr. MURDOCK. I would be glad to have them.

Mr. ENGLE. I will say, if the gentleman will permit, I had no intention of raising the issue of the merits. The question I am raising is what effect does the upper Colorado compact adopting one method have upon the basic compact?

Mr. TIPTON. May I complete? That is what I understood exactly. Should the committee consider that it is necessary to have before it a discussion of the merits, I would be only too happy to discuss the merits insofar as I am capable of doing so. That would be up to the

committee, but as I understood Congressman Engle's position, he was not desirous of going into the merits.

Mr. ENGLE. Not in view of the answers which have been given. The only thing I am interested in now is nailing the thing down so that it is perfectly plain, so that as Mr. Barrett said, at some future time, if the issue arises, we have the status quo.

Mr. TIPTON. I can go this far, Congressman Murdock: Under either theory we can assume that all of the water of the Colorado River Basin will be utilized for the good of mankind so we will not be violating any of our ideas that there should not be a wasteful use of the water or the water shall not be unnecessarily wasted into the ocean.

Under either theory, ultimately there will be full use of the water of the Colorado River Basin.

Mr. MURDOCK. That river is our "water bank." It is highly important that we know what system of accounting should be used, and that is why I think the discussion here is quite pertinent, even if we are thinking only of the upper basin, because I want to know what system of accounting is being used so that each State, when it takes water from this water bank, will be properly charged and not overcharged.

Mr. BREITENSTEIN. May I add one thing in response to what Congressman Engle said a few minutes ago?

Mr. MURDOCK. Yes, sir.

Mr. BREITENSTEIN. We tried to make it as clear as we could in the statement which is signed by the representatives of the upper basin States and by the Federal representative, that this upper basin compact binds the signatory States, not the nonsignatory States nor the United States, and I suggested yesterday and I again suggest today that the pertinent parts of that statement might well be included in the committee report to show the intent. We have tried to make it as clear as our presentation here could, that the intent is in conformity with the expressions contained in the answers to those questions.

Mr. ENGLE. Let me say to you that I am not impressed at all with the answers to the questions. I can visualize these answers being written into the report and meaning nothing whatever, because it is entirely possible to approach this matter from a legal standpoint and to say that the upper basin compact does not modify, amend, or change the terms of the basic Colorado River compact. From the standpoint of some people that is perfectly correct, because they interpreted the words "beneficial consumptive use" in the basic Colorado compact by the same definition which is now embodied in the upper basin Colorado compact.

Therefore, no language in the upper basin Colorado compact would amend, modify, or alter, according to their view, the provisions of the basic Colorado compact.

What I am concerned with is the fact that the upper Colorado compact interprets language which is used but not defined in the basic Colorado compact, and I am concerned lest congressional consent to this compact will operate in some way as giving congressional blessing, acceptance, or concurrence in an interpretation, express or implied, in the upper basin Colorado compact, of those terms in the basic Colorado compact.

Let me ask this question, then: Would you be willing for the record to state that Congress does not, by its consent to this compact, concur

in or accept any interpretations, express or implied, in the upper basin Colorado compact of the language of the basic Colorado compact?

Mr. BREITENSTEIN. Certainly, so far as Colorado is concerned, we would have no objection to such a statement in the record, and if the committee desires to make it, we would have no objection, because that is our position.

Mr. ENGLE. But you object to writing it in the bill?

Mr. BREITENSTEIN. I do, and I have expressed my reason for it and I think it is a very sound reason.

Mr. ENGLE. Because you think if I hand you a statement to the effect I do not intend to kick your dog, that in the absence of such a statement I do so intend or that that statement implies I have such an intent and am disclaiming it.

Mr. BREITENSTEIN. Well, as I say, under those circumstances we get back to who kicked the dog first, and if it had not been for that provision in the Boulder Canyon Project Act, I would feel differently about it, but it is there. I do not want us to get an advantage or disadvantage, and I do not want you to.

So far as the upper basin is concerned, Congressman, we perceive that there were two, at least two sources of controversy existing under the old compact: One, the method of measuring, and, second, the matter of charging reservoir losses, reservoir evaporation losses. That is not covered in the old compact at all. We most sincerely, in the upper basin, desired to settle those matters as between ourselves so that differences of opinion which now exist in the lower basin would not exist in the upper basin, but Congressman, while we took care of those two matters in our own little family, we did not bind anybody who is not in our family to the solution which we accepted, and we do not intend to bind them.

Mr. ENGLE. I think, Mr. Breitenstein, we are in agreement on objective, and that is to write a bill here which will not prejudice the position of either the United States or any States not signatory to this compact. The question is whether or not we have done it.

Mr. MURDOCK. Governor Miles, have you some questions? We have kept these witnesses quite a little while, but we have not gotten around to some of the members.

Mr. MILES. Mr. Chairman, I thought for a moment they were getting this discussion down on a basis which I could understand. When they began to talk about measuring a haystack or kicking a dog, I could understand it. Then they brought out another thought that I thought cleared the matter in my mind as to whether of the two theories of engineering, in arriving at the amount of water we delivered at Lee Ferry, they were arguing about whether one theory delivered more water or less water than the other. Then I thought I understood when it was answered, that that was the point. But evidently that is not the point.

It is getting back on a basis which I am afraid I do not understand. There was a question asked by Congressman Miller off the record, I believe, as to whether or not it would not in the end be necessary to take the case to the Supreme Court for a decision as to the division of water, and I think that the witness started to answer that question, but was stopped for some reason.

Either off the record or on the record at some time I would like to hear his opinion regarding the matter, and I also believe Congress-

man Barrett said he did not think it would be necessary to take it to the courts.

Mr. BREITENSTEIN. You never have to have a lawsuit, Congressman, unless you cannot agree on something. We in Colorado have had more interstate lawsuits in the United States Supreme Court over water than any State in the Union. We have also had more interstate compacts apportioning the waters of the interstate streams than any State in the Union, and it is our considered judgment that of those two constitutional methods of settlement, the one greatly to be preferred is that of interstate compact.

I do not want to get into any discussion of the legal points which are involved in any interstate litigation of the United States Supreme Court, but we have a compact here which represents the best efforts of these States to solve these matters. We hope that it is clear, we hope that it settles controversial matters as between them, so I say as between these upper basin States, the possibilities of Supreme Court litigation are minimized insofar as is humanly possible to do at this time.

Now, so far as possible differences between the upper basin and the lower basin are concerned, that is a matter for the future. Some 10, 20, 50 years from now we will probably have different methods of measuring and determining beneficial consumptive use than had been suggested here. I do not know, but when you get to a state of ultimate development on this river, the Colorado River Basin States, all seven of them, should make—and I assume they will because it is their duty, in my opinion, to do so—should make an honest and sincere effort to amicably settle those differences, and only if that effort fails, will it be necessary to have Supreme Court litigation.

There is no need for it now, Congressman; right now there are some seven, eight, or nine million acre-feet of water going down to the Gulf of Mexico unused. There is plenty of water for everybody. Until you get down to the place where the water is being in very large measure all used up, you do not have the basis of a dispute between the two basins.

Mr. MILLER. Of course, I understand there are some interests in California who feel they are not getting sufficient water for their needs now.

Mr. BREITENSTEIN. Let me say one thing there, Mr. Congressman. I have attended quite a few controversial hearings on these matters. I have never heard it denied that California is entitled to 4,400,000 acre-feet of Colorado River water as a firm right. The California uses up to the present time are, according to my information, around 3,200,000 acre-feet.

In other words, she has 1,200,000 acre-feet yet to go before she is up to the amount that everyone concedes she is entitled to; and, in conclusion, Congressman, let me say this: I most sincerely ask that you and the committee and the Congress do not, by withholding consent, condemn these States to litigation.

Mr. MILLER. I am thoroughly agreed and want to go along with your statements here, but I am looking at the possibility of the lower States not being satisfied. The gentleman from California, who has been asking you questions this morning, indicates he is not clear the compact would protect the water at Lees Ferry and some of those

provisions of the bill would be subject to interpretations that might get into a lawsuit.

I was interested in the litigation between Colorado, Wyoming, and Nebraska. I think it was unfortunate and dragged out too long. I thought it settled things. You said in the next 10 years we will have another matter, which I presume can always be started by interests in either State. I do not know what there would be at this time, whether that was a threat or whether that was a suggestion.

Mr. BREITENSTEIN. It was a prophecy and not a threat at all.

Mr. MILLER. Is it in the making? I wondered.

Mr. BREITENSTEIN. Along that line, we have had a little litigation in Colorado, on the Laramie River. We were in litigation from 1911 to 1940. There were three different proceedings in the United States Supreme Court. The Court first entered a decree in 1922 and within 6 months it changed it, and then there were three later decisions on that decree.

Mr. MILLER. Would you say at the present time there was some difference of opinion between Colorado, Wyoming, and Nebraska relative to division of waters, that there might be litigation in the next 10 years?

Mr. BREITENSTEIN. I do not care to express an opinion on that, but I call attention to the fact that the United States Supreme Court in its decree affirmatively recognized that there might be changes of situation which would require the parties to go back.

In that connection, Congressman, that case was reported on by the master upon the basis that Pathfinder Reservoir would never again fill. The Supreme Court in large part affirmed his report. Within the month that that decision came down, the storage of water in the Pathfinder area was more than enough to fill the Pathfinder Reservoir. The Court could not foresee natural conditions.

Mr. MILLER. As a member of this committee, let me say I will be happy if we can get this upper State compact through and no litigation occurs. I think it is a great step forward and should be done. I think it must be done before too long in the lower States, Arizona, New Mexico, and California. I think it must be done if we are going to make progress in the use of our beneficial use of water.

I have simply asked the question. Are we not getting the basis or groundwork laid here for some difficulties in the future? I hope not. I hope it can be settled as we are trying to do here.

Mr. MURDOCK. Mr. Regan, do you have any questions?

Mr. REGAN. No question.

Mr. MURDOCK. Mr. Barrett, do you have questions?

Mr. BARRETT. I am very hopeful that the gentleman from California is satisfied with the abundant testimony here, that certainly the people from the upper basin States are united in the objective with them and they do not want to disturb any rights the lower basin States may have under the original compact.

I would like to get this clear in my mind. Assuming that these different theories would bring about a different result. On the one hand, there is the theory that you take the diversion less the return flow, which, as I understand, does not necessarily take into account the evaporation in the dams; and the other, the depletion theory, and at the future date when the maximum development has taken place in the

upper basin States, all of the States of the basin by a new compact or agreement between themselves, or the Court by a decision says that the upper basin States had a perfect right to enter into any agreement they so desired, which was binding on themselves alone, not on the lower basin States nor on the United States.

Consequently, you got to use this other theory insofar as the lower basin States are concerned. Would it not then be just a matter of the obligation of the upper basin States at Lee Ferry?

Mr. BREITENSTEIN. No; it would be a little broader than that, Congressman. There are two things: There are two limitations upon the upper division States. First, it is limited to the beneficial consumptive use of 7,500,000 acre-feet annually, and second, there is the obligation upon the upper division States to deliver 75,000,000 acre-feet every 10-year period. Those two matters define and limit the rights in the upper basin.

Mr. BARRETT. But the result of all that is that the upper basin States are required to deliver a certain amount of water at Lee Ferry, and if the gentleman from California is correct in his contention, then the Court might say you deliver more water down there at Lee Ferry rather than consume it up above. Is that not right?

Mr. BREITENSTEIN. No, Congressman. Omitting from the discussion here any reference to the Mexican water treaty, a difference in measurement would go only to the extent of the firm right of the upper basin States. That is the right to 7,500,000 acre-feet. It would not increase their delivery obligation, but might limit their firm right to the use of water.

Mr. BARRETT. It seems to me that it could be stated the other way. Before the lower basin States could object, they would have to show that they had been injured in some way by the methods above under the original compact.

Mr. BREITENSTEIN. You understand, Congressman, that under articles III (a) and III (b) of the 1922 compact, certain amounts of water are apportioned to each basin. Then there is another provision of the compact that surplus water—that is, water over and above that—may be the subject of future allocation in 1963 when and if either basin is using total amount apportioned to it.

Mr. BARRETT. I understand that. That is why it seemed to me if under any interpretation as to the surplus water there in 1963, if the lower basin States got any and all waters they were entitled to under 3 (a) and also their fair division of the surplus waters, that certainly they have not harmed anyone in any way.

Mr. BREITENSTEIN. That is possible, Congressman, but I think the division of the surplus will have to wait until 1963.

Mr. BARRETT. That is quite true, but we certainly are not going to have this basin developed by 1963, and if the method whereby the diversion less return flows is binding, we will say, for the purpose of arriving at the waters that should be delivered at Lee Ferry, the excess waters at Lee Ferry, then it seems to me that the only requirement would be for the upper basin States to deliver more water there.

Mr. BREITENSTEIN. As I tried to point out, Congressman, it really goes to the question of the surplus. Our Lee Ferry delivery obligation is fixed. Our right to use is fixed. The adoption of one method of measurement or the other might mean the difference whether we are below or above the quantity apportioned to us.

Mr. BARRETT. If the court would say you are above, then they are getting more water than they would get under the other method, is that not right?

Mr. BREITENSTEIN. If we exceed 7,500,000 acre-feet of use as measured by method fixed by the Supreme Court, we do not thereby get a firm right to the use of that water.

Mr. BARRETT. That is what I had in mind. That is all. Thank you.

Mr. MURDOCK. Mr. Bentsen, had you questions?

Mr. BENTSEN. No questions.

Mr. MURDOCK. Mr. Poulson?

Mr. POULSON. Is this the last speaker? I think our able Representative, Mr. Engle, brought out the main thing we are concerned with, and that is the fact we do not want this to be taken in any way as an interpretation of the over-all compact. Our main concern is definitely to see that by the Congress ratifying such a compact, that the Congress has not implied they are accepting that interpretation placed on the various means of division, that interpretation as being the correct interpretation.

You have stated that in your opinion this interpretation, the fact that Congress is ratifying the compact, is not evidence of the fact that Congress is ratifying that type of division or interpretation as it would apply to the over-all contract or to the lower-basin contract.

Mr. BREITENSTEIN. In the first place, Congressman, Congress does not ratify the compact. We are not asking Congress to ratify the compact. We are asking Congress to give its consent to this compact, and that is all, and Congress, by giving its consent, removes a constitutional limitation imposed upon these States, and the compact which thereby becomes effective is binding upon those States and only upon those States.

Mr. POULSON. Would you be willing that such an interpretation be placed in a report?

Mr. BREITENSTEIN. I have indicated that and I have suggested that answers to these questions and the statement contained therein be made a part of the report.

Mr. POULSON. That is all.

Mr. MURDOCK. Mr. Baring, have you questions?

Mr. BARING. Not at this time.

Mr. MURDOCK. Mr. Sanborn, do you have any questions?

Mr. SANBORN. I believe not at this time.

Mr. MURDOCK. Judge Bosone?

Mrs. BOSONE. I tried to hang on to every word I heard in the discussion of this bill and from what I can gather, I would certainly hate to see any more spelled out than is spelled out, or any further limitations put on it. What elasticity there probably is in the bill at this time, or in the act before the Congress at this time, I think it will lend itself to a healthy situation later on.

I think that is one of the troubles with one of the important bills that was passed by the Eightieth Congress. Everything was spelled out in it, and as a result, the people who were affected, trampled on each other's toes. There was no room for people to get together on something that might come up in the future. I could be wrong, of course, because this is new to me, but it seems to me the very fact there still are some points upon which we can differ but later get together

on, would lend itself to making pretty good law. After all, we cannot write a perfect law because we are not perfect people.

Mr. MURDOCK. Thank you. Mr. Marshall?

Mr. MARSHALL. I would like to compliment the witnesses on the manner in which they have answered the questions. I think they have not only made it interesting but have made every attempt to make the problem clear.

There was just one question that came to my mind that I was wondering about, in these methods which you talked about for measuring water. Are there other States besides California that measure water in the method which Mr. Engle was discussing?

Mr. TIPTON. Congressman, because of the fact that there is a large quantity of water going to the Gulf of Lower California unused, there has not come up as a direct issue the method of measurements of water. It merely applies to the future, what shall be the method in the future.

Now, in more direct answer to your question, I will repeat what Mr. Breitenstein has said. The large uses by California are essentially transbasin diversions. The water is taken out of the basin. The All-American Canal, which uses two and a half million acre-feet or a little more, most of that water is diverted completely out of the basin, and the return flow gets to Salton Sea.

In other words, the consumptive use under the diversion minus return theory is essentially the diversion itself. The other large use by California is by the Los Angeles aqueduct, which is taking about 175,000 acre-feet per year since San Diego came into the picture, and it will have an ultimate capacity of 1,100,000 acre-feet. The water diverted by the aqueduct is taken out of the basin into the coastal area, so there is no return to the river from that.

I may state further also that so far as California is concerned itself, the adoption of either theory, and applied direct to California, not the relation of California to other States, but directly at California, the adoption of either theory would have little effect on the amount of water that California would get. This is—assuming the difference between California and other States are resolved—because the diversion points are relatively near the international boundary.

Salvage of water by uses of California would be small. Actually, by man-made activity, instead of salvage in that reach of river, there is an increased use of it because of deterioration of channel.

Under either theory, taking the magnitude of the use, there would be little difference. That is a rather long answer to your question. The short answer is that at the present time it really has not been necessary to measure the use of the water by any State under any theory, because there is a large surplus of water going to the Gulf.

Mr. ENGLE. Will the gentleman yield to me?

Mr. MARSHALL. Yes.

Mr. ENGLE. I call the gentleman's attention in regard to the question as to whether or not the theory of outflow-inflow has been accepted in other instances, to article I of the Mexican Treaty, which provides as follows, in subdivision J:

> Consumptive use means use of water by evaporation, plant transpiration or other manner whereby the water is consumed and does not return to its source of supply. In general, it is measured by the amount of water diverted less the part thereof which returns to the stream.

That is the theory of diversions less returns to the river which I have been referring to, which was adopted in the Mexican treaty.

Mr. Tipton testified as follows, and I am reading from the hearings at pages 1224, 1225, and 1226:

> Water is measured at the head of the irrigation area for administrative purposes in Colorado. The water commissioner of the given water district every single day during the irrigation season phones the proper official of each canal system and tells him how much water he can take from the stream in the order of priority of the water rights of his system, so we have good stream-gaging stations to measure the inflow to the area. We know how much water goes out. It is simply a matter of deducting one from the other to determine the consumptive use.

Mr. MARSHALL. May I ask my colleague a question in order to help clear my mind, as these things are all so vague to me?

Mr. MURDOCK. Yes.

Mr. MARSHALL. Is the gentleman satisfied under the terms of the Colorado River compact, as written at the present time, that it is returning a certain flow of water that must be delivered at Lee Ferry?

Mr. ENGLE. I am satisfied with the compact, provided that I am assured by these hearings and by action taken in these hearings, that the consent of Congress to this compact is not an acceptance or concurrence in any interpretation of the basic compact made in the upper Colorado River compact.

To put it another way, I have no objection at all to these five States making any division of the water they want to make, but when they undertake in their compact to interpret language in the basic compact, then I think it should be made perfectly clear that the action of this Congress in consenting to that compact does not give the blessing of Congress, its approbation or its agreement to those interpretations.

In other words, if those interpretations do not hurt us, then we are very, very happy indeed to go along. That is the proposition I have been trying to determine in my questions to Mr. Breitenstein. That is why I asked if he would be willing to have put in the report the disclaimer to which I referred or in the language of the bill in section I.

He agreed to one, as far as Colorado is concerned, as I understand, and disagreed to the other on the ground it carried an implication or might be construed as carrying an implication which would be adverse to their interests. I hope we can work out something on language for the bill.

Mr. MARSHALL. Mr. Breitenstein, as I followed the report back here some time ago, you said it would be rather impossible to use that measure of water in Colorado because of requiring four or five thousand stations.

Mr. BREITENSTEIN. Yes. You see, the only way you can measure your total diversions is by adding up all the head gate diversions. In western Colorado, Congressman Aspinall's district, we have a great multitude of small ditches that irrigate small areas, and the only way you can get the diversions is to put an automatic measuring device which, may I say, is costly, upon each one of those ditches, and if we were trying to do that on the four or five thousand ditches in western Colorado, the people of Colorado would not stand for it. It is utterly impractical. They have a few big diversions down in California, so it is practical.

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Mr. MARSHALL. As far as I am concerned, you appreciate that being from Minnesota, it is not a problem of getting water, it is a problem sometimes of getting rid of water.

Mr. BREITENSTEIN. Yes.

Mr. MARSHALL. The reason I asked the question, we might be asking you to do something relatively impossible if we were to ask you to use the method of measuring water as proposed by my colleague from California.

Mr. BREITENSTEIN. It would not be impossible, it would be impractical.

Mr. ENGLE. If the gentleman will yield, I want to say I am not suggesting they accept that method. What I am suggesting is their acceptance of a different method, not be binding on us.

Mr. BREITENSTEIN. I say it is not binding on you, Congressman, as I have said before. I am still of that position. We are binding ourselves, but we are not binding you.

Mr. MARSHALL. I think that is all.

Mr. MURDOCK. Mr. Aspinall?

Mr. ASPINALL. I have no questions.

Mr. MURDOCK. I note that my colleague from Arizona, Mr. Patten, has been with us right along during the session. We have not given him an opportunity to express himself. I would be glad to do so now, Congressman Patten.

Mr. PATTEN. I have no questions, but I do ask the chairman and the committee for consent to file a statement at the conclusion of the hearings, if I might.

Mr. MURDOCK. We would be very happy to give that permission to all Congressmen who are sponsors of this legislation and interested in it.

If there are no further questions, Judge Stone——

Mr. STONE. No. These two witnesses came back this morning for questions, and the next witnesses will appear for other States.

Mr. MURDOCK. Yes. We thank you, gentlemen, for being so patient with us and attempting to answer our questions, and doing so quite well.

Mr. BREITENSTEIN. Thank you.

Mr. STONE. I may suggest, if you are proceeding with other witnesses, Mr. Chairman, that the next State which appears here is New Mexico, to be followed by Wyoming; then Arizona and presentations by the States, concluded by Utah. Then presentation to be followed by the appearance of the Federal representative and his engineering and legal advisers, possibly his legal adviser.

Mr. MURDOCK. Thank, you, Judge Stone.

Is Judge Fred Wilson here, representing the State of New Mexico?

STATEMENT OF JUDGE FRED WILSON, REPRESENTING THE STATE OF NEW MEXICO

Mr. WILSON. Mr. Chairman and gentlemen of the committee, the chairman has suggested he would like to finish these hearings today, and I will be very glad to cooperate with you and make my statement just as brief as possible. The fact that my statement will be brief should not be taken as any indication that New Mexico or myself

are not vitally interested and concerned with the measure now before the Congress.

I was one of the commissioners who negotiated this compact, representing New Mexico, and we are here now simply asking the congressional consent to the compact which we have made.

I desire to introduce in the record a certified copy of the Senate bill No. 30, which was the act of the New Mexico Legislature ratifying the compact, and I will state that the ratification by the Legislature of New Mexico was unanimous in both houses.

I should also like to offer for the record, if the chairman will permit, my letter of transmittal of the compact to the Governor of New Mexico and to the State legislature, accompanied by a resolution adopted by the Interstate Stream Commission of New Mexico, authorizing the signing of the compact by the commissioner and urging its ratification and urging Congress to consent to the ratification; also accompanied by a memorandum which I submitted to the Governor and to the New Mexico Legislature, which in general terms explains my conception of the compact.

Mr. MURDOCK. The Chair regards both of these documents as pertinent and vitally important. Without objection, they will be admitted to the record.

(The documents referred to are as follows:)

JANUARY 11, 1949.

To the Governor, and Members of the Legislature of the State of New Mexico:

There is herewith submitted the upper Colorado River basin compact, which was negotiated and signed at Santa Fe, N. Mex., on the 11th day of October 1948, by commissioners representing the States of Arizona, Colorado, New Mexico, Utah, and Wyoming, and the representative of the United States of America. This compact has been approved by the New Mexico Interstate Stream Commission by resolution adopted January 10, 1949, copy of which resolution is attached hereto.

I feel that this compact is fair and equitable, and is in the best interests of the State of New Mexico and its citizens, and is necessary to accomplish the development of the water resources of the State. I have prepared a memorandum explaining in greater detail the various provisions of the compact, and will make it available to the members of the legislature and other interested parties.

The compact was executed in six counterparts, each of which constitutes an original. One original has been delivered to the governor of the State of New Mexico. A copy of the compact, together with memorandum explaining its various provisions is attached hereto.

As commissioner, I respectfully recommend and urge that the compact be ratified by the Legislature of the State of New Mexico.

Respectfully submitted.

FRED E. WILSON,
Commissioner for New Mexico.

RESOLUTION UNANIMOUSLY ADOPTED BY THE INTERSTATE STREAM COMMISSION ON JANUARY 10, 1949

Whereas the Interstate Stream Commission on August 18, 1948, after presentation and full discussion of a draft of the proposed upper Colorado River basin compact, agreed to at Vernal, Utah, July 21, 1948, tentatively approved that draft of the compact, and authorized the compact commissioner for New Mexico to execute the compact, subject to certain changes in article –IV thereof relating to the use of the waters of the San Juan River and its tributaries; and

Whereas at a meeting of the Interstate Stream Commission held at Santa Fe, N. Mex., at Bishop's Lodge, on October 10, 1948, the complete draft of the compact as tentatively agreed to at Vernal, and as finally agreed to at Bishop's Lodge, Santa Fe, N. Mex., prior to October 10, 1948, by the commissioners of the respective States, was submitted to the New Mexico Interstate Stream Commission, and after full discussion and consideration the commission approved said compact and authorized the commissioner for New Mexico to sign the same; and

Whereas pursuant to said authorization, the commissioner for New Mexico did in the city of Santa Fe, N. Mex., on October 11, 1948, execute the upper Colorado River Basin compact on behalf of the State of New Mexico; and

Whereas the commission has now reviewed and considered the compact so executed at Santa Fe, and finds that it is fair and equitable, and fully protects New Mexico's rights in the use of the water of the Colorado River system: Now, therefore, be it

Resolved, That the New Mexico Interstate Stream Commission approves the upper Colorado River Basin compact signed at Santa Fee, N. Mex., on October 11, 1948, and urges the Legislature of the State of New Mexico to ratify the compact as soon as can be done in conformity with orderly legislative procedure; be it further

Resolved, That upon ratification of the compact by the legislatures of the signatory States, the Congress of the United States be urged to give its consent and approval to the compact; be it further

Resolved, That the commission commends the New Mexico commissioner and his legal and engineering advisers, for the work they have done in the negotiation of the compact; be it further

Resolved, That copies of this resolution be forwarded by the secretary of the commission to the Governor and the members of the Legislature of the State of New Mexico, and to the Senators and Congressmen representing the State of New Mexico in the Congress of the United States.

Adopted and approved by unanimous vote this 10th day of January 1949.

(Signed) J. D. ATWOOD,
Chairman of the Commission.

Attest:

JOHN H. BLISS, *Secretary.*

MEMORANDUM RE UPPER COLORADO RIVER BASIN COMPACT

The upper Colorado River Basin compact, entered into by the States of Arizona, Colorado, New Mexico, Utah, and Wyoming, at Santa Fee, N. Mex., October 11, 1948, contains 21 articles, each of which should be considered in order to have an understanding of the principles and objects of the compact.

The introductory paragraph states the names of the official representatives of the signatory States, and the representative of the United States of America. On the 9th day of August 1946, the Interstate Stream Commission duly appointed Hon. Thomas M. McClure to act as commissioner for New Mexico, and to enter into negotiations for a compact with representatives of the States of Arizona, Colorado, Utah, and Wyoming. Mr. McClure acted as commissioner until his death, which occurred on the 5th day of November 1946. Thereafter, on the 19th day of November 1946, the Interstate Stream Commission, by resolution, duly appointed Fred E. Wilson to represent the State of New Mexico to succeed Thomas M. McClure, deceased. These appointments were made by the Interstate Stream Commission pursuant to an act of the Legislature of the State of New Mexico, approved February 14, 1935, which authorized the commission created by the act to negotiate compacts with other States, to settle interstate controversies, and for other purposes.

In the introductory paragraph it is stated that the negotiations of the official representatives of the States, participated in by a representative of the United States of America, were all subject to the provisions of the Colorado River compact. This has reference to the Colorado River compact of 1922, also signed at Santa Fe, N. Mex., which is still in full force and effect, and it was intended that the upper Colorado River Basin compact should conform in all respects to the provisions of the compact of 1922.

Article I sets forth the major purposes of the compact, and article II is made up entirely of definitions of terms appearing in the compact.

ARTICLE III

This is the article making the apportionment among the five States involved, on a percentage basis. It is the most vital part of the compact, and presented a question upon which it was most difficult to reach an agreement. In order to determine whether the apportionment is an equitable one, many details of an engineering nature must be considered, as well as the history and background of the original Colorado River compact. In order to understand article III, it is necessary to understand that which was apportioned to each of the States.

The language indicates that it was the use of water "available for use by the States of the upper basin under the Colorado River compact." In order to reduce the percentages apportioned to each State in article III to quantities of usable water it is necessary to consider article III of the original Colorado River compact dated November 24, 1922, signed at Santa Fe. Article III (a) reads as follows:

"There is hereby apportioned from the Colorado River system in perpetuity to the upper basin * * * the exclusive beneficial consumptive use of 7,500,000 acre-feet of water per annum, which shall include all water necessary for the supply of any rights which may now exist."

In this connection, it is also important to keep in mind the provisions of article III (d), which reads as follows:

"The States of the upper basin will not cause the flow of the river at Lee Ferry to be depleted below an aggregate of 75,000,000 acre-feet for any period of 10 consecutive years reckoned in continuing progressive series, beginning with the 1st day of October next succeeding the ratification of the compact."

Thus, there was an apportionment made by article III of the upper Colorado River Basin compact of the use of a quantity of water "available for use by the States of the upper basin under the Colorado River compact." The actual quantity of water, the beneficial use of which was apportioned by the original Colorado River compact, is variable and is difficult to determine accurately in terms of acre-feet. It may be more or less than the specified 7,500,000 acre-feet. Accordingly, an apportionment was made upon the following basis:

Arizona, which is not a State of the upper basin but does have a comparatively small drainage area therein, was granted the right to use a maximum of 50,000 acre-feet annually. The use of water apportioned to, and available for use in the upper basin remaining after deduction of the use by Arizona of not to exceed 50,000 acre-feet annually was apportioned on the following basis:

	Percent		*Percent*
Colorado	51.75	Utah	23.00
New Mexico	11.25	Wyoming	14.00

The method of measuring consumptive use adopted by the Upper Colorado River Basin Compact Commission is set out in article VI, and is described as "the inflow-outflow method in terms of man-made depletions of the virgin flow at Lee Ferry." According to the engineers, this method of determining the quantity of consumptive use of the water will enable the upper basin States to have the benefit of what might be called salvage water, and they estimate that the quanity available under this method of measurement will probably be closer to 8,000,000 acre-feet than 7,500,000 acre-feet.

However, for the purpose of applying the precentages in article III, in order to arrive at a quantity of water the consumptive use of which was apportioned to each State, either the figure 7,500,000 or 8,000,000 may be used. After deducting 50,000 acre-feet, the use of which was apportioned to Arizona, the percentage allocated to New Mexico would be approximately 800,000 acre-feet. It would be more if the amount available for use in the upper basin should be 8,000,000 acre-feet. This means that under the apportionment New Mexico has the right to consume that quantity of water annually, or in other words, to deplete the virgin flow at Lee Ferry to that extent.

It should be stated here that the use of this quantity of water was not apportioned to any particular project. It may be used any place in the State of New Mexico, as New Mexico may determine. It is believed, however, that New Mexico's percentage is sufficient for a water supply to take care of all present and future needs of both Indians and whites in the San Juan Basin in New Mexico, and the possible exportation of not to exceed 300,000 acre-feet for use outside of the Basin.

In an analysis of the compact made by the commissioner for Colorado, it is said:

"Particular attention is directed to the apportionment made to the State of New Mexico. It is well known that in northwestern New Mexico there is a large Indian population which in late years has attracted much popular attention. The commissioners wisely determined the water allocation should be such as to satisfy fully the needs of the Indians. Accordingly, New Mexico was allotted a share of water sufficiently large to take care of every water use currently planned for the Indians by the Office of Indian Affairs, and in addition to afford New Mexico an equitable share of water available for use by the whites. Indian uses of water are charged against the share of the State in which the use is made."

It is true that New Mexico endeavored to secure a larger proportion than that fixed by the compact. However, it must be realized that each of the States advanced requests for a greater apportionment than they eventually received. When consideration is given to the topography and physical conditions existing in the San Juan Basin, the fact that New Mexico's entire apportionment must be made available through the San Juan River and its tributaries, and that Coloradio's equitable uses in the basin must be recognized, it would seem apparent that the apportionment to New Mexico is fair and equitable.

ARTICLE IV

This article relates to curtailment of use, if necessary, in order to maintain Lee Ferry flows. Under the terms of article III (d) of the Colorado River compact, the States of the upper basin agreed that they would not cause the flow of the river at Lee Ferry to be depleted below an aggregate of 75,000,000 acre-feet, for any period of 10 consecutive years reckoned in continuing progressive series beginning with the 1st day of October next succeeding the ratification of the compact. To prevent a violation of that provision, article IV of the upper Colorado River Basin compact provided a method of reducing or curtailing use of water in the upper basin to make up possible deficiencies. The language of the article shows that the commission created by the compact to administer it is authorized to determine how such deficiencies, if any, at Lee Ferry shall be made good. However, the commission is required by paragraph (b) of article IV

"(1) If reduction is necessary on the part of any State in the upper basin, that State, or those States, which have exceeded their allotment shall first be required to reduce their consumptive use of the water;

"(2) Otherwise, the deficiency, if any, shall be made up by each State in proportion to the consumptive use being made by each State, compared to the consumptive use being made by all the States in the upper basin."

In passing, it might be stated that this situation, which would require curtailment of use by any State, will not likely occur. If it does occur, it will be when full consumptive use is being made by all the States of the upper basin, which is not likely to happen for many years. It is to be noted also that in determining such necessity for curtailment, no reduction can be made as to water rights in existence November 24, 1922. This has the effect of preserving intact present water rights or uses. Also by subparagraph (c) of article XIV, any curtailment of use which might be necessary in the future "shall not affect uses being made on Indian lands, if it is determined that the Indians have any preferential rights to the use of water of the San Juan River."

ARTICLE V

Under powers of the commission created by article VIII of the compact, the commission is authorized to make findings as to quantity of reservoir losses, and as to the share thereof chargeable under article V to each of the States. Article V sets up the method by which the commission will ascertain the manner in which reservoir losses shall be charged, dependent upon whether the reservoir is (1) for the benefit of all the States, or (2) for the benefit of any individual State. These provisions look to the future when it is contemplated reservoirs will be constructed in order to enable each State to make beneficial use of its allotment. This matter of reservoir losses will be determined by the commission some time in the future when and as it becomes important.

ARTICLE VI

By subparagraph (6) of article VIII, the upper Colorado River Commission is empowered to make findings as to the qauntity of water of the upper Colorado River system used each year in the upper Colorado River Basin, and in each State thereof.

Article VI directs the commission in making this determination to use the so-called inflow-outflow method in terms of man-made depletions of the virgin flow at Lee Ferry. By this article, the commission, by unanimous action, may adopt a different method of determination. Without entering into a technical discussion, it is sufficient to say here that under the theory of measurement of consumptive use adopted in the compact, the quantity of consumptive use is determined by computing the extent in which the man-made uses have depleted the flows at designated points, and so far as the upper basin is concerned, how

much the stream flow has been depleted at Lee Ferry. Another theory which might be contended for by some would require that the consumptive use be measured at the points of use. This would require a procedure whereby it would be necessary to measure all the diversions from the river at the points of use and subtract therefrom the return flows. The method adopted in the compact seems the most practical and plausible, and can, we believe, be defended by the best engineering experience and technical knowledge.

ARTICLE VII

The language of article VII is clear. It provides that the consumptive use of water by the Indians, as wards of the United States, is chargeable to the State in which the use is made.

ARTICLE VIII

Article VIII is important, as it creates the upper Colorado River Commission, which will be the agency to administer the compact in the future. New Mexico will have a member on this commission, as well as Colorado, Utah, and Wyoming. Arizona will not be represented on the commission, as its slight interest in the upper basin, compared to its larger interest in the lower basin, did not seem to justify equal representation on the commission which will administer the compact. If the President of the United States designates a commissioner to represent the United States, such representative will also be a member of the commission, and the presiding officer thereof. The powers of the commission and other matters connected with its administration of the provision of the compact are fully set forth in article VIII. It is not believed necessary to attempt to explain them in detail in this memorandum.

ARTICLE IX

Article IX provides the machinery necessary for the establishment of facilities in one State for the benefit of another State, or States, in order that the allocations of the use of water made by the compact to each State may be realized. New Mexico, being one of the lower States in the upper basin, is not likely to have any reservoirs constructed within its boundaries for the benefit of one of the other States.

However, it is possible that a reservoir might be desirable in New Mexico for the benefit of all the States of the upper basin, in order to make deliveries at Lee Ferry. It is very likely that New Mexico will need, and necessary that it have the power, to go into the State of Colorado and construct reservoirs and impound water in that State in order to obtain its alloted share of the water. This article sets up the machinery by which that may be accomplished.

ARTICLE X

This article is of special interest to New Mexico. It recognizes the La Plata River compact entered into between Colorado and New Mexico on November 27, 1922, and provides that it shall not be affected by the apportionment made in article III. In other words, the La Plata compact will remain in full force and effect in accordance with the unanimous desire of users of water on the La Plata in both Colorado and New Mexico. All consumptive uses of La Plata River water made in Colorado will, of course, be chargeable to Colorado's allotment, and uses made in New Mexico of La Plata River water will be chargeable to New Mexico's allotment.

ARTICLES XI, XII, AND XIII

Articles XI, XII, and XIII deal with tributaries in which Colorado, Wyoming and Utah are concerned.

ARTICLE XIV

Article XIV is of special interest to New Mexico. As heretofore stated, New Mexico can obtain its apportioned share of the use of the water of the entire Colorado River system only from the San Juan River and its tributaries. The San Juan and most of its tributaries rise in Colorado and flow through New Mexico on into Utah and the Colorado River above Lee Ferry. The allotment to New Mexico of 11.25 percent of all the water available for consumptive use in the upper basin (excluding the slight interest of Arizona) cannot be consumed unless the State of Colorado permits that quantity of water to flow

into New Mexico, or else permits New Mexico to go into Colorado and construct reservoirs to impound water in that State for use in New Mexico, and that is what article XIV is intended to accomplish. The language seems clear, as it states:

"The State of Colorado agrees to deliver to the State of New Mexico from the San Juan River and its tributaries which rise in the State of Colorado a quantity of water which shall be sufficient, together with water originating in the San Juan Basin in the State of New Mexico, to enable the State of New Mexico to make full use of the water apportioned to the State of New Mexico by article III of this compact."

This broad agreement by Colorado was made subject to the following:

(*a*) (1) Rights existing in both States at the time of the signing of the compact are recognized as prior and will not be interfered with but protected;

(2) Priority is recognized to all uses of water contemplated by projects authorized at the time of the signing of this compact. The only project authorized at the time of the signing of the compact, affecting in any way uses of San Juan River water, is a small transmountain diversion in Colorado, which contemplates the use of not to exceed 21,000 acre-feet of water.

Thus, New Mexico recognizes the priority of this project, should it ever be constructed, and also recognizes all present uses being made in Colorado and New Mexico at the time of the compact.

However, there is a provision, subparagraph (c) of article XIV, that in times of water shortages on the San Juan and its tributaries in either State, where the uses being made are dependent upon a common source of water supply, and which do not affect present uses or projects authorized at the time of the signing of the compact, each State shall reduce its consumptive use proportionately.

It is to be noted that paragraph (b) provides that the State of Colorado assents to diversions and storage of water in the State of Colorado for use in the State of New Mexico, subject to compliance with article IX of the compact. This makes it possible for New Mexico to construct reservoirs and facilities in Colorado for the storage and transportation of water for use in New Mexico, within the apportionment made to New Mexico by article III of the compact.

ARTICLE XV ET SEQ.

Articles XV, XVI, XVII, XVIII, XIX, XX, and XXI are important, but seem to require no detailed explanation. It might be noted that by the terms of article XVIII the State of New Mexico and the State of Utah reserve their respective rights and interests under the Colorado River compact as States of the lower basin. This has reference to the provisions of the Colorado River compact of 1922, article II, subparagraph (g), whereby the term "lower basin" is defined as "those parts of the States of Arizona, California, Nevada, New Mexico, and Utah within and from which waters naturally drain into the Colorado River system below Lee Ferry, and also all parts of said States located without the drainage area of the Colorado River system which are now, or shall hereafter be beneficially served by waters diverted from the Colorado River system below Lee Ferry." This recognizes the interest of New Mexico in the Gila and Little Colorado Rivers and their tributaries which rise in New Mexico. These rights are not affected by the terms of the upper Colorado River Basin compact. They are governed entirely by the terms of the original Colorado River compact of 1922. The portion of the waters of these rivers which New Mexico may be entitled to use consumptively has not been determined. This will have to be done by compact with the other States of the lower division, or in the case of the Gila River by the authorization by Congress of the construction of the Central Arizona project, and congressional provisions binding on Arizona, California, and Nevada, apportioning certain quantity of consumptive use to New Mexico, or by agreement with Arizona alone after Arizona and California settle their controversies over the waters of the lower Colorado and its tributaries.

John H. Bliss, State engineer, and John R. Erickson, engineer for the Interstate Stream Commission, both of whom were members of the Engineer Advisory Committee, and who advised the commissioner in all engineering phases of the compact, are ready and willing as is the commissioner to appear before the legislature, or any committee thereof, and explain in more detail any of the provisions of the compact.

FRED E. WILSON,
Commissioner for New Mexico.

SENATE BILL No. 30

Introduced by Committee of the Whole Senate, Approved February 2, 1949

AN ACT To ratify the upper Colorado River Basin compact entered into at Santa Fe, N. Mex., October 11, 1948, by the State of Arizona, Colorado, New Mexico, Utah, and Wyoming; and declaring an emergency

Whereas the Legislature of the State of New Mexico, by an act approved February 14, 1935, entitled "An Act Creating the Interstate Stream Commission, Defining its Rights, Duties, and Powers, Providing for its Appointment and Compensation, and Making an Appropriation Therefor," appearing as chapter 25 of the Session Laws of 1935, and as sections 77-3301, 77-3303, New Mexico Statutes Annotated, 1941 compilation, created the Interstate Stream Commission, which was authorized to negotiate compacts with other States, to settle interstate controversies and for other purposes; and

Whereas on the 9th day of August 1946, the Interstate Stream Commission authorized and empowered the Honorable Thomas M. McClure to act as commissioner for New Mexico, and to enter into negotiations with the representatives of the States of Arizona, Colorado, Utah, and Wyoming, for the purpose of negotiating and entering into a compact or agreement respecting the uses and the deliveries of the water of the upper basin of the Colorado River; and

Whereas on the 19th day of November 1946, the Honorable Fred E. Wilson was duly appointed as commissioner by said Interstate Stream Commission to represent the State of New Mexico, to succeed Thomas M. McClure, deceased; and

Whereas on the 11th day of October 1948, at the city of Santa Fe, N. Mex., the commissioners representing the States of Arizona, Colorado, New Mexico, Utah, and Wyoming, and the representatives of the United States of America signed a compact comformable to the provisions of the act of the New Mexico Legislature approved February 14, 1935, an original of which compact as so signed and entered into by the commissioners aforesaid, is now on file with the Secretary of this State; and

Whereas on the 10th day of January 1949, the Interstate Stream Commission approved said compact and authorized its submission to the State legislature for ratification thereof: therefore,

Be it enacted, by the Legislature of the State of New Mexico, Section 1:

That the State of New Mexico does hereby ratify, approve, and adopt the compact aforesaid, which is as follows:

UPPER COLORADO RIVER BASIN COMPACT

The State of Arizona, the State of New Mexico, the State of Utah, and the State of Wyoming, acting through their commissioners:

Charles A. Carson for the State of Arizona,
Clifford H. Stone for the State of Colorado,
Fred E. Wilson for the State of New Mexico,
Edward H. Watson for the State of Utah and
L. C. Bishop for the State of Wyoming,

after negotiations participated in by Harry W. Bashore, appointed by the President as the representative of the United States of America, have agreed, subject to the provisions of the Colorado River compact, to determine the rights and obligations of each signatory state respecting the uses and deliveries of the water of the Upper Basin of the Colorado River, as follows: * * *

(Text of the compact is set forth in full in H. R. 2325.)

SEC. 2. Notice of approval of said Compact shall be given by the Governor of New Mexico to the Governors of Arizona, Colorado, Utah, and Wyoming, and to the President of the United States of America, as provided in Article XXI of said Compact.

SEC. 3. The ratification and approval of said Compact by this state shall not be binding or obligatory until it shall have been likewise approved by the Legislatures of the States of Arizona, Colorado, Utah, and Wyoming, and approved by the Congress of the United States of America.

SEC. 4. It is necessary for the preservation of the public health, peace, and safety of the inhabitants of the State of New Mexico, that the provisions of this Act shall become effective at the earliest possible time and therefore an emergency is hereby declared to exist, and this Act shall be in full force and effect from and after its passage and approval.

Mr. ENGLE. May I request, but not for the record, but only for the use of the committee, whether or not there is available a copy of the report?

Mr. WILSON. You mean a copy of my memorandum?

Mr. ENGLE. The report of the negotiator to the Governor or to the State legislature.

Mr. WILSON. I have only two or three copies. Outside of that, I do not desire to go into any of these various questions that have been discussed, unless you desire to ask some questions, but I do want to volunteer just one thing. That is along the line that you have been discussing all morning. That is whether or not the method that we used in measuring consumptive use of water is binding on some other State.

I just want to call your attention to one thing I have not heard brought out yet, and direct your attention to article VI of the compact itself, which we negotiated, and if you will permit me, I would like to read that.

It is just five or six lines:

> The Commission shall determine the quantity of the consumptive use of water, which use is apportioned by Article III hereof for the Upper Basin and for each state of the Upper Basin by the inflow-outflow method in terms of man-made depletions of the virgin flow at Lee Ferry, unless the Commission by unanimous action shall adopt a different method of determination.

In other words, this method is not even binding upon the States that made it, and certainly could not be binding on some other State. The administrative body that will be set up to administer the compact is told to use this method of measurement, but by unanimous consent they can use some other method.

I wanted to bring that out because I do not think it was emphasized this morning. Outside of that, I have nothing further unless you have some questions.

Mr. MURDOCK. Have you any questions, Governor Miles?

Mr. MILES. No.

Mr. MURDOCK. Has anyone on the committee any questions to ask?

Mr. ENGLE. May I ask the judge a question?

Mr. MURDOCK. Yes, sir.

Mr. ENGEL. Judge, would you have any objection to including in the report of this committee a statement to the effect that the consent of Congress to this compact does not carry an agreement to or concurrence in any definition or interpretation, by implication or otherwise, of the terms of the basic Colorado River compact in the upper basin Colorado compact?

Mr. WILSON. That is rather a long question, Mr. Congressman. I will say this, that all of the States have agreed on the language that we would be willing to see go into the report of this committee. I do not know where that report is, but in substance, I have no objection to any report the committee makes, if the committee deems it necessary to clarify the matter in any manner by language in your report.

I agree with the questions that were asked. All of the States agreed on those, and I agree with them. I think it has language to that effect in the answers.

Mr. ENGLE. I have seen some language discussed which embodies more or less the statements in the letter which was sent to me by Mr.

Bashore in answer to specific questions. I do not regard that language as covering the situation at all, because as I pointed out to Mr. Breitenstein, it is perfectly possible on the concept of the basic Colorado compact, which is held by some people in the upper basin, to say in all sincerity that the upper basin does not amend, alter, or modify the basic compact, and yet if the consent given by Congress to that compact is to be regarded at some future time as an agreement to or a concurrence in the interpretations of the language of the basic compact as set forth in the upper Colorado River Basin compact, then such interpretations might be prejudicial to either the United States Government or States not signatory to the compact.

I would want to see included in that language a plain and unequivocal statement to the effect that such consent does not carry any concurrence or agreement in those interpretations.

Mr. WILSON. I would answer that this way, Mr. Congressman, that as far as I am concerned, I have no objection to the committee expressing any opinion it may have as to the effect of the consent which I hope you will grant to this bill. Personally, I feel that you are overemphasizing the importance of any interpretation that may have been put on the old Colorado River compact. If we have interpreted it one way, if that is wrong, it is not going to bind anybody. If we interpret it in a way that is the right interpretation, it might be binding on everybody when that question becomes important.

Mr. ENGLE. In such event, it would not be binding because it was in the compact. It would be binding because that was the original intent of the parties at the time they executed the basic compact in 1922.

Mr. WILSON. That is right.

Mr. ENGLE. In other words, it is your view that a compact is a contract and is to be construed by the usual rules of construction applied to contracts.

Mr. WILSON. Yes, and it might have some weight if it ever gets before a court as to the interpretation of other language to which it refers, if that other language is ambiguous and needs interpretation. I do not think the fact we interpret the language of the old compact in one particular manner would be taken by a court as having some weight, but even a court would not be bound to give it any consideration at all.

Mr. ENGLE. We do not care how much weight the court gives the views of the Upper Basin. We think their views in the matter should be given weight. Our concern is whether or not Congress adds any weight by giving consent to this compact, and we want to insist that Congress does not.

Mr. MURDOCK. Are there other questions to Judge Wilson?

If not, we thank you, Judge.

Mr. WILSON. Thank you, Mr. Chairman.

Mr. MURDOCK. The House is convening today for a short session. I am sure I am bringing none of you news when I say this is the 17th day of March. It is evidenced by several present, but this matter is so important that it ought to be disposed of, it seems to me, with the greatest possible dispatch. We have yet to hear from the representatives of three States and the representatives of the Federal Government.

What is the pleasure of the committee? The committee will stand adjourned until 2 o'clock this afternoon.

(Whereupon, at 12:05 p. m., the committee recessed, to reconvene at 2 p. m., the same day.)

AFTERNOON SESSION

Mr. MURDOCK. The committee will come to order, please.

We would like now to present and have a statement from the commissioners of the compacting States. We have already heard, of course, from two.

We have with us Mr. Bishop, the commissioner for the State of Wyoming who is negotiating the compact. Mr. Bishop, we would be pleased to have you come forward.

STATEMENT OF L. C. BISHOP, STATE ENGINEER AND INTERSTATE STREAMS COMMISSIONER FOR THE STATE OF WYOMING

Mr. BISHOP. Mr. Chairman and gentlemen of the committee, I have prepared a short statement on behalf of the State of Wyoming.

My name is L. C. Bishop, and I hold the position as State engineer and interstate streams commissioner for the State of Wyoming. I was the commissioner for the State of Wyoming on the recently negotiated Upper Colorado River compact.

Of the 97,913 square miles of the area of the State of Wyoming, about 17.50 percent is located in the Colorado River Basin.

The Wyoming portion of the Colorado River watershed is located on the headwaters of two major tributaries, the Green and Little Snake Rivers. Much of our irrigated area is located at elevations in excess of 7,000 feet above sea level where development is necessarily slow and where a compact is desirable for protection of our right to the use of a reasonable amount of the water of this interstate and international stream.

The presently irrigated area of the Colorado River watershed in Wyoming is 236,675 acres. There are more than 800,000 additional acres of irrigable land in the basin in Wyoming, of which we will have water from our allocation to irrigate about one-half.

The Colorado River compact of 1922 signed by Frank C. Emerson as commissioner for Wyoming at Santa Fe, N. Mex., allocated to the upper basin States in perpetuity the beneficial consumptive use of 7,500,000 acre-feet of water per annum with the proviso that they not deplete the flow of the stream at Lee Ferry below 85,000,000 acre-feet in continuing 10-year periods. It did not divide this allocation among the individual States.

In 1946 commissioners were appointed by all the upper basin States for the purpose of negotiating a compact for division of the 7,500,000 acre-feet of water allocated to them by the Colorado River compact. The upper basin States are Arizona, Colorado, New Mexico, Utah, and Wyoming.

The preliminary organization meeting was held at Cheyenne, Wyo., July 22, 1946, at the urgent request of Gov. L. C. Hunt, of Wyoming. Official meeting No. 1 was held at Salt Lake City, Utah, July 31, 1946. At this meeting an engineering committee consisting of one or more engineers from each State, and one from the United States Bureau of

Reclamation was appointed. This committee assisted materially in the negotiations by compiling and correlating engineering information, including water-supply studies on the main stream and of the principal tributaries of the Colorado River. A legal committee was appointed later.

Nine meetings were held in all before the final compact was agreed upon and signed at Santa Fe, N. Mex., on the 11th of October 1948: Two at Cheyenne, Wyo.; two at Santa Fe, N. Mex.; two at Denver, Colo.; one at Vernal, Utah; and a series of hearings were held respectively at Rock Springs, Wyo.; Grand Junction, Colo.; Price, Utah; and Farmington, N. Mex., where the public was invited and did attend. These hearings were held for the purpose of informing the people with reference to the compact negotiations, and to hear what the water users of the basin had to say concerning the proposed compact. The compact passed both houses of the Wyoming Legislature promptly and without dissenting vote and was signed by Gov. A. G. Crane, January 25, 1949.

Under the terms of this compact, Arizona will receive 50,000 acre-feet of water, and of the remaining 7,450,000 acre-feet Colorado will receive 51.75 percent; New Mexico 11.25 percent; Utah, 23 percent, and Wyoming, 14 percent.

The virgin contribution of the flow of water at Lee Ferry, by States, according to the latest information furnished by the engineering committee is: For Arizona, 0.87 percent; Colorado, 70.14 percent; New Mexico, 1.58 percent; Utah, 16.38 percent; and Wyoming, 11.03 percent.

Wyoming has three projects that have been investigated by the United States Bureau of Reclamation which we hope to see authorized for construction in the immediate future. They are Seedskadee, Eden and Lyman. Also, we hope to see Kendall and Savery Reservoirs constructed at an early date as they are the key projects of the entire development in Wyoming. We hope to see the entire development program as proposed by the United States Bureau of Reclamation carried to completion in an orderly manner.

As we see it, the upper Colorado River compact has removed all obstacles that have held up this program for so many years, and we believe that in all fairness, the reasonable needs of our State should receive immediate and favorable consideration by the Congress at this time.

With five States and the United States involved in the negotiations, it was indeed a complex problem, which has been solved in a most democratic manner to the satisfaction of all the States concerned.

In my judgment, the compact will accomplish what it purports to do, and I consider that its terms are fair and that the division of the water between the upper basin States is equitable to the end that the waters of the upper Colorado River Basin will be applied to the most beneficial and economical use.

That is all I have, gentlemen.

Mr. MURDOCK. We appreciate that statement, Mr. Bishop. I want to say to you of all the delegations in the House, the delegation from Wyoming shows the greatest unanimity. It is also very effective.

Mr. BISHOP. Thank you.

Mr. MURDOCK. I think due to that attitude we ought to recognize Congressman Barrett for the first questions, if there be any.

Mr. LEMKE. Before you do that I would like to make an observation. I wonder if the reason why they stick together is because they all sing, "Why, oh, why, did I leave Wyoming?"

Mr. BISHOP. Mr. Chairman, I would like to add to my prepared statement a further statement to the effect that I have here a copy of the enrolled act, certified to by the secretary of state. I do not know whether you would like to put that in the record or not. It is a matter for you to decide. I have it here for any use you care to make of it.

Mr. MURDOCK. Thank you, sir. It will be admitted in the record.

(The material referred to is as follows:)

THE STATE OF WYOMING

OFFICE OF THE SECRETARY OF STATE

UNITED STATES OF AMERICA,
State of Wyoming, ss:

I, A. G. Crane, Secretary of the State of Wyoming, do hereby certify that the annexed is a full, true, and correct copy of Enrolled Act No. 6, Senate, being Original Senate File No. 3, as passed by the Thirtieth Legislature of the State of Wyoming, and approved by the Governor on 25th day of January, A. D., 1949, at 3:35 o'clock P. M.

In testimony whereof, I have hereunto set my hand and affixed the Great Seal of the State of Wyoming.

Done at Cheyenne, the Capital, this 14th day of March, A. D., 1949.

[SEAL]

A. G. CRANE,
Secretary of State.
T. C. THOMPSON,
Deputy.

ENROLLED ACT NO. 6, SENATE

THIRTIETH STATE LEGISLATURE OF THE STATE OF WYOMING

Chapter 6

AN ACT To provide for the ratification and approval of the Upper Colorado River Basin Compact

Whereas the Twenty-sixth Wyoming Legislature passed an act entitled "An act relating to the appointment of Interstate Streams Commissioner and assistant Commissioners to negotiate agreements relative to interstate streams and providing for the Governor of Wyoming to notify the Governors of other States as to the appointment of said Commissioner, detailing the authority of said Commissioner," which said act was approved on the 24th day of February 1941, by the Governor (now section 71-2601, Wyoming Compiled Statutes, 1945), and

Whereas under the authority of said act, the State Engineer, L. C. Bishop, acted as Commissioner, who, together with the duly appointed Commissioners of the States of Arizona, Colorado, New Mexico, and Utah and the representative of the United States of America, negotiated a compact or agreement now called the "Upper Colorado River Basin Compact" and which was signed on the 11th day of October, A. D. 1948, at the city of Santa Fe, State of New Mexico; and

Whereas the said Act of the Twenty-sixth Wyoming Legislature further contained the following provision: "that any such compact or compacts, agreement or agreements so entered into by such States and the United States shall not be binding or obligatory upon any of the contracting parties thereto unless or until the same shall have been ratified and approved by the legislature of each of such States and the Congress of the United States." Therefore

Be it enacted by the legislature of the State of Wyoming:

SECTION 1. That ratification and approval is hereby given to the Upper Colorado River Basin Compact as signed at the City of Santa Fe, in the State of New Mexico, on the 11th day of October, A. D. 1948, by L. C. Bishop, the State Engineer of the State of Wyoming, under and in accordance with the authority of the Act of the Twenty-sixth Wyoming Legislature approved the 24th day of February, 1941, entitled "An Act relating to the appointment of Interstate Streams Commissioner and assistant Commissioners to negotiate agreements relative to interstate

streams and providing for the Governor of Wyoming to notify the Governors of other States as to the appointment of said Commissioner, detailing the authority of said Commissioner" (now Section 71-2601, Wyoming Compiled Statutes, 1945), which Compact was also signed by the duly authorized Commissioners of the States of Arizona, Colorado, New Mexico, and Utah and approved by the representative of the United States, which Upper Colorado River Basin Compact is in full as follows:

* * * * * * *

States of America. Notice of ratification by the legislatures of the signatory States shall be given by the Governor of each signatory State to the Governor of each of the other signatory States and to the President of the United States of America, and the President is hereby requested to give notice to the Governor of each of the signatory States of approval by the Congress of the United States of America.

In witness whereof, the Commissioners have executed six counterparts hereof each of which shall be and constitute an original, one of which shall be deposited in the archives of the Department of State of the United States of America, and one of which shall be forwarded to the Governor of each of the signatory States.

Done at the City of Santa Fe, State of New Mexico, this 11th day of October, 1948.

(S) Charles A. Carson,
CHARLES A. CARSON,
Commissioner for the State of Arizona.
(S) Clifford H. Stone,
CLIFFORD H. STONE,
Commissioner for the State of Colorado.
(S) Fred E. Wilson,
FRED E. WILSON,
Commissioner for the State of New Mexico.
(S) Edward H. Watson,
EDWARD H. WATSON,
Commissioner for the State of Utah.
(S) L. C. Bishop,
L. C. BISHOP,
Commissioner for the State of Wyoming.
(S) Grover A. Giles,
GROVER A. GILES,
Secretary.

Approved:

(S) Harry W. Bashore,
HARRY W. BASHORE,
Representative of the United States of America.

SECTION 2. That said Compact shall not be binding or obligatory upon any of the high contracting parties thereto unless and until the same shall have been ratified by the Legislature of each of the said States and approved by the Congress of the United States. The Governor of Wyoming shall give notice of the ratification and approval of said Compact by the Thirtieth Wyoming Legislature to the governors of the States of Arizona, Colorado, New Mexico, and Utah, and to the President of the United States.

SECTION 3. This Act shall take effect and be in force from and after its passage.

HERMAN D. MAYLAND,
Speaker of the House.
GEORGE BURKE,
President of the Senate.

Approved, January 25, 1949.

A. G. CRANE, *Governor.*

I hereby certify that this Act originated in the Senate.

WILLIAM A. RIVER, Jr.,
Chief Clerk.

Mr. BARRETT. Mr. Chairman, I want to commend our distinguished State engineer for his statement. He has worked diligently on the matters involved in this compact and on the development of our Green River Basin in Wyoming for more than a quarter of a century. I know he is happy that we can look forward to the time in the not too far dis-

tant future when we will be able to get some actual development work going on that section of our State as well as in the other States in the upper basin.

I want to ask Mr. Bishop one question.

Of course, you have heard the discussion here between my colleagues from California and the witnesses this morning. I should like to ask you if some language in the report that is generally along the line suggested this morning would meet with your approval.

Mr. BISHOP. Yes, sir.

Mrs. BOSONE. Mr. Chairman, may I make this suggestion, that Congressman Engle write out the question he has been asking the gentlemen who have appeared at the hearing. What is the language? Let us have it actually before us.

Mr. ENGLE. I will read it. Here is the language.

Mrs. BOSONE. Is it very long?

Mr. ENGLE. No, I will give the gentlewoman from Utah a copy.

This is the language I propose for the report, which is in addition to the language on which there has been discussion over on the Senate side. If there is no objection I will read the whole statement and indicate what I have added. It is very short.

Mr. MURDOCK. I think that would be better, Mr. Engle.

Mr. ENGLE. The whole statement is as follows:

The upper Colorado River Basin compact is an interstate compact between the States of Arizona, Colorado, New Mexico, Utah, and Wyoming. Article 1, section 10, of the Constitution of the United States requires that before a compact or agreement between States is effective, the Congress of the United States must consent thereto. The purpose of S. 790 (H. R. 2325) is to give such congressional consent to the upper Colorado River Basin compact. S. 790 (H. R. 2325) does not, nor does the upper Colorado River Basin compact alter, amend, modify, or repeal the Boulder Canyon Project Act (45 Stat. 1057) or the Colorado River compact signed at Santa Fe, N. Mex., on November 24, 1922. It is recognized that the upper Colorado River Basin compact is binding only upon the States which are signatory thereto and does not impair any rights of any State not signatory thereto, and that the upper Colorado River Basin compact is subject, in all respects, to the provisions and limitations contained in the Colorado River compact.

That is the language that was discussed over on the Senate side. I propose adding this:

It is further recognized that Congress, by giving its consent to the upper Colorado River Basin compact, does not accept, adopt, concur in, nor commit the United States to any interpretation of the Colorado River compact expressed in or implied from the upper Colorado River Basin compact.

That sentence that I have just read is substantially the question which I asked Mr. Breitenstein yesterday. It appears in the record. It is at page 39 of the reporter's transcript. It is as follows:

Mr. ENGLE. I would like to ask one further question. I have been rolling over in my head the effect of the word "effect" in this language which I stated a few minutes ago. I wonder if you agree that this is right: That the Congress in consenting to the upper-basin compact is not committing itself to any interpretation, expressed or implied, of the Colorado River compact.

Mr. BREITENSTEIN. Is that all?

Mr. ENGLE. Yes.

Mr. BREITENSTEIN. Yes.

Mr. BARRETT. Will the gentlemen yield?

Mr. ENGLE. Yes.

Mr. BARRETT. I wonder if that language should not be changed a trifle to conform with the other statements that will follow. I wonder

if we could change it by inserting this language, so that your sentence would read as follows:

It is further recognized that Congress by giving its consent to the upper Colorado River Basin compact does not either accept or reject, adopt, concur in or, on the other hand, disapprove or commit the United States to any interpretation of the Colorado River compact expressed in or implied from the upper Colorado River Basin compact.

Mr. STONE. May I interpose for a moment?

Mr. MURDOCK. Yes.

Mr. STONE. Those of us representing the upper basin States have given this language suggested by Congressman Engle some consideration. We understand that this is to be appended to the language which is incorporated in the answer to question No. 8 of his letter submitted to Harry W. Bashore, the Federal representative.

We have the same thought expressed by Congressman Barrett, that this added language should be so drafted as to be reciprocal in its nature, that is, that it neither approves nor disapproves or agrees or disagrees with the interpretation. We do not wish that any implication be left here that this language could be implied to mean disapproval.

Congressman ENGLE. We were trying our hand at the same thing that Congressman Barrett was. We wondered if this would accomplish the purpose and leave the matter in status quo.

It is further recognized that Congress, by giving its consent to the upper Colorado River Basin compact does not commit the United States to any interpretation of the Colorado River compact expressed in or implied from the upper Colorado River Basin compact, and expresses neither agreement nor disagreement with any such interpretation.

Mr. ENGLE. Offhand, I can see no objection to that. In other words, as I understand your objective, which is similar to that of the gentleman from Wyoming, you want to state the proposition in such a manner as not to imply a disapproval of the interpretation placed, for instance, on the words, "beneficial consumptive use" in the upper Colorado River compact as applied in the basic Colorado River compact?

Mr. STONE. That is correct, sir, to express neither approval nor disapproval.

Mr. ENGLE. That is precisely what I am trying to do.

In making it clear that the upper basin compact does not give a consent or concurrence, I do not want to write language which implies a disapproval. If your language meets that purpose—and so far as I can determine at this point it does—it would be agreeable.

Mr. STONE. May I show you this so that you can read it?

Mr. ENGLE. I will be glad to have a copy of it.

Mr. MURDOCK. Will the gentleman yield?

Mr. ENGLE. Yes.

Mr. MURDOCK. It will be pretty difficult to write the language in on the floor of the House or with witnesses before the committee. It is understood, I believe, that some language will need to be written into the report to be satisfactory all around.

Who, Judge Stone, would constitute the judgment of the proponents of the legislation? Would it be those of you who are here representing the States?

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Mr. STONE. That is correct. As a matter of fact, except for Mr. Watson from Utah, the commissioners who negotiated this compact are all here. Judge J. A. Howell and the attorney general, Mr. Vernon, are both here from Utah. That group is in a position to express judgment on these matters.

Mr. MURDOCK. May I ask then, Mr. Engle, who, representing the opposite view, would be competent to decide on the language for the report to be submitted to the committee?

Mr. ENGLE. I will take the responsibility, Mr. Chairman.

Mr. MURDOCK. That brings us together then.

Would it not be a good idea to come as near together as we can here in open discussion, and then leave this matter for the final determination outside the committee?

Mr. ENGLE. I am only speaking with reference to California, Mr. Chairman. Nevada is represented here by Mr. Baring.

Mr. MURDOCK. That is a suggestion to the Chair. Perhaps we can work it out that way.

Mr. ENGLE. I think if we can agree on our objectives the writing of the language will be only a matter of draftsmanship and if the witnesses here agree that there is no objection to the language to accomplish what we have stated to be our objective, then I am confident that I can sit down with the people here who are the proponents of this legislation and get the language which will be entirely agreeable.

Mr. STONE. Mr. Chairman, I have canvassed the States' representatives and the language I have suggested here would meet with the approval of the sponsors of the compact.

Mr. MURDOCK. Thank you for that, Judge Stone.

Mr. STONE. If there is anyone here that I have not canvassed and he has a contrary view, I trust he will speak up.

Mr. BARRETT. Perhaps we have come to an agreement already.

Mr. MURDOCK. It appears that that might be the agreement. Are there any further questions of Mr. Bishop?

Mr. ENGLE. There is one further question.

Mr. Bishop, do you have with you the report which you submitted as the negotiator of this agreement which is binding to your State government, binding either to the State government or the legislature, or both?

Mr. BISHOP. I did not make a report to the Governor and the legislature at the time the compact was introduced.

We had three Senators that were members of our compact commission. Senator Barlow here, is the one who presented the compact to the Senate and explained it to the Governor. He is here to speak for himself, and I would like to have him make a statement on behalf of the people of the Green River Basin in the matter.

Mr. ENGLE. I did not intend to burden the record with further testimony. If such a report is in existence, I wanted to see it; but if it is not in existence, that disposes of the matter.

Mr. MURDOCK. You mentioned Senator Barlow.

Mr. BISHOP. Norman W. Barlow, of Cora, Wyo.

Mr. MURDOCK. Will you introduce him, please?

Mr. BISHOP. Mr. Barlow?

Mr. MURDOCK. Mr. Barlow, we would be glad to have a statement from you for the record.

STATEMENT OF NORMAN W. BARLOW, MEMBER, COMPACT COMMISSION, STATE OF WYOMING

Mr. BARLOW. Mr. Chairman, and members of the committee, my statement to this committee is merely to bring you up to date as a committee in the capacity that I am representing Wyoming.

I am president of the Green River Development Co., which is a basin company taking in the Green River Basin of the Colorado River in Wyoming. This nonprofit organization is represented by directors of each of the counties contained within the basin and is an organization that has been instrumental in bringing about this compact for Wyoming.

I am also a compact commissioner for Wyoming and a State senator in the Wyoming State Senate. In that capacity I introduced Senate file 3 in the Wyoming Senate.

We did not have any opposition in the Wyoming Legislature. There was not one dissenting vote, Mr. Chairman, and Wyoming as far as the legislature and the people who are contained within the basin are concerned, are 100 percent behind this consent legislation and the upper Colorado River Basin compact.

We are particularly anxious to see this consent given at this time because we have numerous projects that will be effectuated when this compact becomes operative.

We are particularly anxious to have these projects started under the terms of the upper Colorado River Basin compact and we, in the Green River Basin, consider this a fair and just and an equitable division of the water of the upper division.

We are also recognizing the fact that without some sort of an agreement, a compact or a contract, the development in the upper division of the Colorado River would have been impeded.

I hope this committee will recognize that by giving consent legislation the various facilities and various agencies that will be operating under this compact will know what each State's rights are and we will cooperatively develop our water resources in the upper division of the Colorado River Basin.

That is the extent of my statement concerning my area as represented in this compact.

Mr. MURDOCK. We thank you for your statement, Senator. I want to congratulate you as well as Mr. Bishop and the others for bringing us thus far along.

Mr. ENGLE. May I ask the Senator one question?

Mr. MURDOCK. Yes.

Mr. ENGLE. Did you submit a formal report to the State legislature?

Mr. BARLOW. I did not, Congressman, I was on the lands and irrigation committee in the senate. In explaining the compact to the senate I did not in any way preface the introduction by any statement that was introduced other than an oral statement.

Mr. MURDOCK. We have next Mr. Charles Carson, of Arizona, commissioner for the State of Arizona and the compact.

STATEMENT OF CHARLES A. CARSON, COMMISSIONER, STATE OF ARIZONA

Mr. CARSON. Mr. Chairman, and members of the committee I was the compact commissioner on this compact for the State of Arizona. I have brought here and will hand to the clerk a certified copy of the act of Arizona Legislature ratifying the upper basin compact. We did not make a formal report to the legislature in Arizona.

I did make a report to the Arizona Interstate Stream Commission and they sent a copy of my report to them with a copy of the compact by mail to each member of the legislature before the legislature convened. I would like to leave with the committee two copies of this report of mine to the stream commission.

Mr. MURDOCK. The two documents will be admitted to the record, along with the others.

Mr. CARSON. I would like to explain Arizona's position with relation to the upper Colorado River Basin compact.

Part of Arizona is in the upper basin and part is in the lower basin. In the upper basin Arizona has approximately 6,900 square miles of land. There is not much possibility of using water on that land except as it may be developed by the Indian service on the Navajo Reservation. All of their engineers and our engineers reported that they could not ultimately use more than 30,000 acre-feet. But for safety the compact allows a maximum of 50,000 acre-feet of water to Arizona.

Arizona's greatest interest, however, is in the lower basin.

Now, on that lower basin interest, I have shown it, on the bottom of page 3 and the top of page 4 of my report. The rest of the report is more or less just a recitation of the various meetings and I do not think you would be concerned with that and with the people who attended them from Arizona as advisers and as engineers.

During the course of the negotiations every member of the Arizona Interstate Streams Commission was participating to some degree, and we had other engineers and lawyers.

Mr. MILLER. Could you give us, from the maetrial at the bottom of page 3, the reaction to the Colorado River Basin project?

Mr. CARSON. I will read that to you, if I may.

> Arizona's interest, of course, was to see that that portion of Arizona which is in the upper basin secured an apportionment to it of sufficient water to meet its ultimate possible uses.
>
> The Arizona engineering advisers and the engineers of the United States Indian service reported that the ultimate probable use of water in that portion of Arizona which is in the upper basin would not exceed 30,000 acre-feet per annum.
>
> The compact allocates Arizona 50,000 acre-feet as a measure of safety. The reason for that small possible use in Arizona is that by that time the San Juan River and the Colorado River are in very deep canyons and it is not possible to get water out of those streams back up onto the high plateaus and mesas which are along its banks.

Proceeding with this report, then—

> Arizona's interests further require that the upper-basin compact be consistent with Arizona's contention that the beneficial consumptive use of water of the Gila River should be measured by the resulting depletion of the Gila at its confluence with the Colorado River and further that reservoir losses be shared by the States benefiting from the storage of water in reservoirs in proportion to the benefits received from such storage.

While Arizona's interests further required that machinery be set up whereby the States of the upper division would make deliveries of water at Lee Ferry for use in the lower basin such interest is because Arizona is a lower-basin State. That portion of Arizona which is in the upper basin does not share in the obligation to make deliveries at Lee Ferry.

Accordingly, it was felt that Arizona should not be represented on the administrative commission which is set up by the upper-basin compact to administer water rights as between Colorado, New Mexico, Utah, and Wyoming, so that those States will make the deliveries at Lee Ferry which they agreed to make under the provisions of the Colorado River compact.

Our interests in that are identical with the interest expressed by the Congressman from California.

Then there follows just a brief analysis of each article of this compact that I made as a report to the Arizona Interstate Streams Commission.

I think none of those would be of interest to the gentleman from California, except under article VI on page 6, after quoting the article, I had this to say:

This, of course, is in complete accord with Arizona's construction of the Colorado River compact and it is believed to be helpful to Arizona in opposing California's arguments on the Gila River.

Then it just proceeds with the analysis of the articles. I think there is nothing in there which the gentleman would be particularly interested in.

He might be, however, in the conclusion, which I would like to read. It is on the last page:

I deem it a great honor and privilege to have been called upon to represent Arizona in the negotiation of this upper Colorado River Basin compact. I believe it to be fair, just, and equitable to all of the States, and particularly valuable to Arizona in that it supports Arizona's position in opposition to the arguments made by certain California interests.

Of course, I recognize that this compact, as stated in the letter that I signed to this committee, is binding only upon the signatory States who are parties thereto and is not binding on the United States or the States of California and Nevada. However, I do believe it has evidentiary value in that, wherever the question of the construction of the original Colorado River compact may arise, here is evidence that five States construe that compact to mean that beneficial consumptive use should be measured by depletion. They also agree reservoir losses should be shared.

That is not binding on California or Nevada. They can contend otherwise if they see fit. It does have evidentiary value as to the construction placed upon the main Colorado River compact by five States who are parties to it in dealing among themselves. And, of course, no upper Colorado River compact could have been negotiated without an understanding among the negotiators of what the original Colorado River compact meant. Our compact states in 12 places that it is subject to the Colorado River compact and states:

It is recognized that the Colorado River compact is in full force and effect and all the provisions hereof are subject thereto.

So we have contracted among ourselves, five States, that our compact is subject to and controlled by the provisions of the Colorado River compact.

There is no attempt to prejudice or harm California or Nevada or that part of Arizona which is in the lower basin, or that part of New Mexico which is in the lower basin, or that part of Utah which is in the lower basin.

To make that definitely clear we put in article 18 which provides:

The State of Arizona reserves its rights and interests under the Colorado River compact as a State of the lower division and as a State of the lower basin.

It further provides that—

The State of New Mexico and the State of Utah reserve their respective rights and interests under the Colorado River compact as States of the lower basin.

These three States are partially in both basins. None of California and none of Nevada is in the upper basin. They are wholly within the lower basin.

So that, so far as the lower basin rights are concerned, I consider that this compact would be valuable to Arizona only as evidence of the construction placed upon the original compact by the five States who negotiated this compact who are also bound by the original compact.

I think in that connection it does have some evidentiary value.

That is all I have to say, unless there are some questions.

Mr. MURDOCK. Without objection the report as read in part will be placed in full in the record.

(The material referred to is as follows:)

To: The Arizona Interstate Stream Commission.
Report from Charles A. Carson on the upper Colorado River Basin compact.

At a conference of the Governors of the States of Arizona, Colorado, New Mexico, Utah, and Wyoming, on July 22, 1946, at which I had the honor of representing Governor Osborn and at which the Governors of the other States were present in person, it was agreed that the negotiation of an upper Colorado River basin compact to allocate among the named States the use of the water apportioned to the upper basin by the Colorado River compact, signed November 4, 1922, should be immediately undertaken.

On July 31, 1946, the compact commissioners appointed by the governors of the various States at a meeting held in Salt Lake City, Utah, organized as a commission, with the Honorable Harry W. Bashore, Federal representative, and formerly Commissioner of the Bureau of Reclamation, elected chairman, and Grover E. Giles, attorney general of Utah, elected secretary.

Thereafter meetings were held in Santa Fe, N. Mex. September 18, 1946, and on October 28, 30, 31, and November 2, 1946, meetings were held at Rock Springs, Wyo.; Grand Junction, Colo.; Price, Utah; and Farmington, N. Mex. On September 8, 1947, a meeting was held at Cheyenne, Wyo., and on December 1, 2, 3, and 4, 1947, meetings were held at Denver, Colo. On February 17, 18, 19, 20, and 21, 1948, meetings were held at Denver, Colo. On July 7 to 23, inclusive, 1948, meetings were held at Vernal, Utah, and on October 4 to 11, inclusive, 1948, meetings were held at Santa Fe, N. Mex., where the upper Colorado River basin compact was signed by the commissioner of each of the five States, on October 11, 1948.

I was requested by Governor Osborn in July of 1946 to serve as the commissioner for Arizona in the negotiation of this compact. I was assisted throughout by R. Gail Baker and Ralph I. Meeker as engineering advisers, who, in addition to the compact commission meetings, attended many meetings and did a great deal of research work as engineering advisers to the Arizona commissioner, and as members of the engineering advisory committee of the upper Colorado River Basin compact commission.

In addition to Mr. Baker and Mr. Meeker, many people from Arizona attended one or more meetings and were very helpful to the Arizona commissioner in the negotiations of this compact.

Those attending one or more meetings were:

Donald C. Scott, former member of the Colorado River commission of the State of Arizona and an engineer, has studied the Colorado River for many years.

Nellie T. Bush and J. E. Bush, of Parker, Ariz. Mrs. Bush was formerly a member and secretary of the Colorado River Commission and has been a student of Colorado River matters for many years.

Jesse A. Udall, member of the Arizona Interstate Stream Commission, who at the request of the commissioner for Arizona, served as a member of the drafting committee for the upper Colorado River Compact Commission.

Wayne M. Akin, chairman of the Arizona Interstate Stream Commission;

R. H. McElhaney, vice chairman of the Arizona Interstate Stream Commission;

Dr. Alfred Atkinson, member of the Arizona Interstate Stream Commission;

Jay M. Gates, member of the Arizona Interstate Stream Commission;

Barry M. Goldwater, member of the Arizona Interstate Stream Commission;

John A. Roberts, member of the Arizona Interstate Stream Commission;

Ray Killian, executive secretary of the Arizona Interstate Stream Commission; and

O. C. Williams, land and water commissioner of the State of Arizona.

The commission appointed an engineering advisory committee at an early meeting, of which committee John R. Riter, Chief of the Hydrology Division of the Bureau of Reclamation, was chairman, and upon which engineers of the various States selected by the various commissioners served as members.

The Bureau of Reclamation and its engineers and attorneys were of very great aid to the commission, particularly Mr. Riter and Mr. J. G. Will, assistant chief counsel of the Bureau. Mr. Will served from the beginning upon the legal advisory committee, of which the Arizona commissioner was chairman, and later served as chairman of the final drafting committee which prepared the final draft of the upper Colorado River Basin compact.

UPPER COLORADO RIVER BASIN COMPACT SUBJECT TO COLORADO RIVER COMPACT

The Colorado River compact apportioned to the upper basin the exclusive beneficial consumptive use in perpetuity of 7,500,000 acre-feet of water per annum. This basin is definied as those parts of the States of Arizona, Colorado, New Mexico, Utah, and Wyoming within and from which water naturally drains into the Colorado River system above Lee Ferry, and also all parts of said States located without the drainage area of the Colorado River system which are now, or shall hereafter be, beneficially served by water diverted from the system above Lee Ferry. Approximately 6,900 square miles of Arizona is in the upper basin, of which approximately 450 square miles is north of the main stream of the Colorado River and the remainder of which is on the Navajo Indian Reservation.

The "States of the upper division" is defined as meaning the States of Colorado, New Mexico, Utah, and Wyoming, so that while Arizona is a State of the upper basin, it is not a State of the upper division.

The Colorado River compact provides that the States of the upper division, meaning the States of Colorado, New Mexico, Utah, and Wyoming, will not cause the flow of the river at Lee Ferry to be depleted below an aggregate of 75,000,000 acre-feet for any period of 10 consecutive years reckoned in continuing progressive series, beginning with the 1st day of October of each year.

The purpose and authority of the Upper Colorado River Basin Compact Commission were, therefore, to apportion among the five States the use of the water which was apportioned to them jointly by the Colorado River compact, and at the same time to provide the machinery by which the States of the upper division, Colorado, New Mexico, Utah, and Wyoming, would meet the obligation of making deliveries at Lee Ferry under the Colorado River compact.

ARIZONA'S INTEREST

Arizona's interest, of course, was to see that that portion of Arizona which is in the upper basin secured an apportionment to it of sufficient water to meet its ultimate possible uses.

The Arizona engineering advisors and the engineers of the United States Indian Service reported that the ultimate probable use of water in that portion of Arizona which is in the upper basin would not exceed 30,000 acre-feet per annum.

Arizona's interests further required that the upper basin compact be consistent with Arizona's contention that the beneficial consumptive use of water of the Gila River should be measured by the resulting depletion of the Gila at its confluence with the Colorado River, and further that reservoir losses be shared by the States benefiting from the storage of water in reservoirs in proportion to the benefits received from such storage.

While Arizona's interests further required that machinery be set up whereby the States of the upper division would make deliveries of water at Lee Ferry for use in the lower basin, such interest is because Arizona is a lower basin State. That portion of Arizona which is in the upper basin does not share in the obligation to make deliveries at Lee Ferry.

Accordingly, it was felt that Arizona should not be represented on the administrative commission which is set up by the upper basin compact to administer water rights as between Colorado, New Mexico, Utah, and Wyoming, so that those States will make the deliveries at Lee Ferry which they agreed to make under the provisions of the Colorado River compact.

THE UPPER COLORADO RIVER COMPACT

Each of you has been furnished with a copy of the upper Colorado River Basin compact signed at Santa Fe, N. Mex., October 11, 1948, by the commissioners of the respective States and by Grover E. Giles, secretary of the commission, and approved by Harry W. Bashore, chairman of the commission and the representative of the United States of America.

It is believed that the upper basin compact is clear and concise.

ANALYSIS OF THE UPPER BASIN COMPACT

The preamble merely gives the names of the States and the commissioners and recites that they have agreed, subject to the provisions of the Colorado River compact, to determine the rights and obligations of each signatory State respecting the uses and deliveries of the water of the upper basin of the Colorado River as is set forth in later articles of the upper basin compact.

Article I

Article I sets forth the purposes of the compact and recognizes that the Colorado River compact is in full force and effect and that the provisions of the Upper Colorado River Basin compact are subject thereto.

Article II

Article II contains definitions which are believed to be clear and need no further explanation.

Article III

Article III apportions to the State of Arizona in perpetuity the consumptive use of 50,000 acre-feet of water per annum. (This is believed to be ample for any ultimate possible uses in that portion of Arizona which is in the upper basin.)

The consumptive use of the balance of the water apportioned to the upper basin by the Colorado River compact is apportioned as follows:

	Percent		*Percent*
State of Colorado	51.75	State of Utah	23.00
State of New Mexico	11.25	State of Wyoming	14.00

The apportionment is of any and all man-made depletions. The beneficial use is the basis, the measure and the limit of the right to use.

Article III further provides that no State shall exceed its apportioned use in any water-year when the effect of such excess use as determined by the Upper Colorado River Commission set up as the administrative agency is to deprive another signatory State of its apportioned use during that water-year. The apportionment to each State includes all water necessary for the supply of any rights which may now exist.

No apportionment is made of the use of any surplus water and the apportionments of water shall not be taken as any basis for the allocation among the signatory States of any benefits resulting from the generation of power.

Article IV

Article IV provides for the curtailment of the use of water in the States of the upper division (Colorado, New Mexico, Utah, and Wyoming) in the event such curtailment is necessary in order that the flow at Lee Ferry shall not be depleted below that required by article III of the Colorado River compact, and empowers the Upper Colorado River Commission, the administrative agency set up by the compact, to determine the curtailment necessary to be made in each State.

Article V

Article V provides that reservoir losses shall be shared in proportion to the benefits received from the storage of water in each reservoir.

Article VI

Article VI provides that the consumptive use of water for the upper basin and for each State shall be determined by the inflow-outflow method in terms of man-made depletions of the virgin flow at Lee Ferry, unless the commission by unanimous action shall adopt a different method of determination.

This of course is in complete accord with Arizona's construction of the Colorado River compact and it is believed will be helpful to Arizona in opposing California's arguments on the Gila River.

Article VII

Article VII provides that consumptive use of water by the United States or any agency, instrumentality or wards shall be charged as a use by the State in which the use is made.

Article VIII

Article VIII provides for the creation of an interstate administrative agency to be known as the Upper Colorado River Commission. It provides that it shall be composed of one commissioner representing each of the States of the upper division, namely; Colorado, New Mexico, Utah, and Wyoming, and by a Federal representative appointed by the President.

The article sets forth the powers and duties of the commission. It was believed by the Arizona commissioner that Arizona should not be represented on such commission for the reason that it concerns the States of the upper division and not the States of the upper basin, and sets up the machinery by which the States of the upper division will meet their obligations for deliveries of water at Lee Ferry for use in the lower basin, and Arizona desires to retain unimpaired her rights as a State of the lower basin against the States of the upper division jointly and severally to require deliveries at Lee Ferry. And again, it was thought by the Arizona commissioner that it would be embarrassing to Arizona to be represented on the commission and would likewise entail some needless expense.

Article IX

Article IX contains provisions respecting the acquisition, construction, and use of facilities in one State for the benefit of another State. On account of the geography of the basin, this article does not directly concern Arizona.

Article X

Article X recognizes the La Plata River compact between Colorado and New Mexico, and does not directly concern Arizona.

Article XI

Article XI constitutes an agreement between Colorado and Wyoming as to the use of water of the Little Snake River, an interstate tributary, but does not directly concern Arizona.

Article XII

Article XII constitutes an agreement between Utah and Wyoming concerning the use of water of Henry's Fork, Beaver Creek, Burnt Fork, Birch Creek, and Sheep Creek, interstate tributaries of the Green River, and does not directly concern Arizona.

Article XIII

Article XIII constitutes an agreement between Colorado and Utah concerning the use of the water of the Yampa River, an interstate tributary, and does not directly concern Arizona.

Article XIV

Article XIV constitutes an agreement between Colorado and New Mexico concerning the use of the water of the San Juan River and its tributaries, and does not directly concern Arizona.

Article XV

Article XV provides that water may be impounded and used for the generation of electrical power, but that such use shall be subservient to and shall not interfere with or prevent use of water for agricultural and domestic purposes, and further provides that the provisions of the compact shall not interfere with the right or power of any State to regulate within its boundaries the appropriation, use, and control of water, the consumptive use of which is apportioned and available to such State by this compact.

Article XVI

Article XVI provides that the failure of any State to use the water apportioned to it by the compact shall not constitute a relinquishment of the right to such use to the lower basin, or to any other State, nor shall it constitute a forfeiture or abandonment of the right to such use. In other words, the apportionment is in perpetuity.

Article XVII

Article XVII provides that the use of any water imported into the natural drainage basin of the upper Colorado River Basin shall not be charged to any State under the apportionment of consumptive use made by the compact.

Article XVIII

Article XVIII provides that the State of Arizona reserves its rights and interests under the Colorado River compact as a State of the lower division and as a State of the lower basin. It further provides that the State of New Mexico and the State of Utah reserve their respective rights and interests under the Colorado River compact as States of the lower basin.

Article XIX

Article XIX provides that nothing in the compact shall be construed as:

(a) Affecting the obligations of the United States of America to Indian tribes;

(b) Affecting the obligations of the United States of America under the treaty with the United Mexican States (Treaty Series 994);

(c) Affecting any rights or powers of the United States of America, its agencies or instrumentalities, in or to the waters of the upper Colorado River system, or its capacity to acquire rights in and to the use of said waters;

(d) Subjecting any property of the United States of America, its agencies or instrumentalities, to taxation by any State or subdivision thereof, or creating any obligation on the part of the United States of America, its agencies or instrumentalities, by reason of the acquisition, construction or operation of any property, or works of whatever kind, to make any payment to any State or political subdivision thereof, State agency, municipality, or entity whatsoever, in reimbursement for the loss of taxes;

(e) Subjecting any property of the United States of America, its agencies or instrumentalities, to the laws of any State to an extent other than the extent to which such laws would apply without regard to this compact.

The provisions of this article were considered necessary by the members of the commission and were specifically requested by Federal agencies.

Article XX

Article XX provides that the compact may be terminated by unanimous agreement and that in the event of such termination all rights established under it shall continue unimpaired.

Article XXI

Article XXI provides that the compact shall become binding and obligatory when it shall have been ratified by the legislatures of each of the signatory States and approved by the Congress of the United States of America, and provides for notifications of such ratification and approval.

The concluding clause sets forth that the compact is executed in six counterparts, each of which shall be and constitute an original, one of which shall be deposited in the archives of the Department of State of the United States of America, and one of which shall be forwarded to the governor of each of the signatory States.

The commissioner for the State of Arizona has delivered Arizona's signed counterpart of Acting Governor Dan E. Garvey.

CONCLUSION

I deem it a great honor and privilege to have been called upon to represent Arizona in the negotiation of this upper Colorado River Basin compact. I believe it to be fair, just, and equitable to all of the States, and particularly valuable to Arizona in that it supports Arizona's position in opposition to the arguments made by certain California interests.

Respectfully submitted.

CHARLES A. CARSON.

STATE OF ARIZONA

OFFICE OF THE SECRETARY

UNITED STATES OF AMERICA,
State of Arizona, ss:

J. Wesley Bolin, secretary of state, do hereby certify that the attached document is a true, correct, and complete copy of chapter 4, house bill No. 13, nineteenth legislature, regular session; that I am the official of the State of Arizona having custody and control of the original of said copy and the legal keeper thereof.

In witness whereof, I have hereunto set my hand and affixed the great seal of the State of Arizona. Done at Phoenix, the capital, this 2d day of March A. D. 1949.

[SEAL]

WESLEY BOLIN,
Secretary of State.

STATE OF ARIZONA

HOUSE OF REPRESENTATIVES, NINETEENTH LEGISLATURE, REGULAR SESSION

CHAPTER 4

HOUSE BILL No. 13

AN ACT Ratifying the upper Colorado River Basin compact, and declaring an emergency

Be it enacted by the Legislature of the State of Arizona:

SECTION 1. *Ratification.*—The upper Colorado River Basin compact executed in Santa Fe, N. Mex. on October 11, 1948, by representatives of the States of Arizona, Colorado, New Mexico, Utah, and Wyoming, is unconditionally ratified, approved, and confirmed.

SEC. 2. *Emergency.*—To preserve the public peace, health, and safety it is necessary that this act become immediately operative. It is therefore declared to be an emergency measure, to take effect as provided by law.

Approved by the Governor, January 21, 1949.

Filed in the office of the secretary of state, January 21, 1949.

Mr. MURDOCK. Are there any questions?

Mr. CARSON. I might add that I went over this language here as read by Judge Stone and I am in accord with that and I think it is proper.

If you put anything like that in there you would want to be sure it goes both ways. Because otherwise we would be faced sometime, somewhere with an argument that by putting in that it did not agree to our interpretation that there was an implication that Congress had disagreed, and I do not think you have to either agree or disagree. All you have to do here is to give the consent to our compact to make it binding only upon us, not the United States and not California or Nevada.

Mr. MURDOCK. Mr. Engle.

Mr. ENGLE. I was going to ask one or two questions.

Mr. Carson, are you an attorney?

Mr. CARSON. Yes.

Mr. ENGLE. Is it your view that a declaration of intent with reference to a contract, made 26 years after the contract was entered into, in whatever form, will be accepted by a court as having evidentiary value as to what the parties meant 26 years ago when they entered into the contract?

Mr. CARSON. I think it will, Mr. Congressman. I think again, too—I do not want to be misunderstood here as saying that the original compact and the California Limitation Act and the Boulder Canyon Project Act need any interpretation. In my judgment they are clear

in their terms and in their language, and if properly read they mean the same thing that this upper basin compact construed them to mean.

Mr. ENGLE. That is precisely why, Mr. Carson, I think the answer Mr. Bashore submitted to question 8 of the letter I sent him, as I have told my good friend, the distinguished chairman today, not only misses the target, but is a blank.

Mr. CARSON. I am agreeable to this language that Judge Stone read and I think you can then have no more kick coming.

But if you put it in there without the reciprocal language, then I am sure that some day sooner or later we would be faced with the argument that Congress in consenting to this upper basin contract expressly disagreed with the constructions that were placed on the original compact by this upper Colorado River Basin compact. This would remove that possibility and it would remove our possibility which we never intended to do anyway, because we know that, in consenting, you do not either agree or disagree with the interpretation.

Mr. ENGLE. As I said previously, Mr. Carson, the protection which has been suggested from the language is perfectly appropriate and it has not been my intention——

Mr. CARSON. I understand that.

Mr. ENGLE. To imply anything different.

I will have to say also that as an attorney I disagree with your view that a statement made 26 years after a contract, in the nature of a declaration of intention in regard to the contract, will be accepted as having any evidentiary value. I think a court——

Mr. CARSON. I think that will be up to the Court, would it not?

Mr. ENGLE. I think the Court would look with a good deal of misgiving on a self-serving and self-benefiting declaration of that type 26 years later.

But I am compelled to ask you this question with regard to article VI. Article VI provides that the depletion theory shall be adopted, but it hangs on a significant proviso when it says, "Unless the Commission, by unanimous action, shall adopt a different method of determination." In other words, is it to be implied from that that at some future time their minds can be changed about what was intended in the basic act?

Mr. CARSON. Yes, sir; that was the purpose of putting it in there. There may be developed better methods, or the Supreme Court or somebody might hold that we had adopted here the wrong method. If that were done then this commission would have to determine another method, but it would not destroy this compact.

Mr. ENGLE. I cannot agree with you that the discovery of any better method would vary the terms of the contract entered into by the parties in 1922. If the compact of 1922 is so clear and unequivocal in its terms that it requires no interpretation, as you have previously indicated, it would seem to me you are stuck with the depletion theory—if that is the correct theory—and I doubt it—unanimous action by the commission or not. That section 6 wobbles a bit.

There is one other question I would like to ask you. Is it your view that Arizona is a party to the Colorado River compact?

Mr. CARSON. Yes; of course we are. We have ratified it fully and completely and we are a party to it and as firmly bound by it as the State of California, in my judgment.

Mr. ENGLE. Which compact are you a party to, the seven States or the six States compact?

Mr. CARSON. The seven States compact.

Mr. ENGLE. What are you going to do with the Boulder Canyon pact and the California Limitation Act?

Mr. CARSON. We are going to try to hold you to it if we can.

Mr. ENGLE. It is not relevant to this inquiry, Mr. Carson.

Mr. CARSON. No.

Mr. ENGLE. But I think there is a very grave question as to whether or not Arizona can come along 26 years after the contract is entered into and after intervening acts have occurred, predicated upon the refusal of Arizona to participate in the original seven-State compact, and claim the benefits of the seven-State compact and not disown, and disgorge I might say, the benefits which have accrued by subsequent legislation and action.

As I say, it is not a relevant inquiry here.

Mr. CARSON. It is not relevant, but let me say this to you, Mr. Congressman. Would you prefer that Arizona not be a member of the compact?

Mr. ENGLE. I am not expressing a preference. I am just wondering what the law is. I am wondering if California gets status quo under those circumstances.

Mr. CARSON. Yes, of course. By this concept your position is not changed. You are just where you were before this compact was negotiated and this consent given which is my definition of "status quo."

Mr. ENGLE. It is a fine definition, but to use Mr. Breitenstein's expression, I think in that connection it was our dog that got kicked first.

Mr. CARSON. I am sorry for these other points to come in, gentlemen of the committee, but we will be back here on some other legislation which will involve these things, and I will be glad to discuss them with you very thoroughly and fully.

Mr. ENGLE. Mr. Carson, I am glad that we are in agreement on the language that can go into this report. I think it will eliminate any necessity of controversy among us and will facilitate an early and successful consideration of this compact.

Mr. CARSON. Yes, I think that is right.

Mr. MURDOCK. Are there any other questions?

Mr. POULSON. Out of this 7,500,000 acre-feet of water per annum for the upper basin only 30,000 feet is for Arizona.

Mr. CARSON. 50,000.

Mr. POULSON. It is less than 1 percent?

Mr. CARSON. Yes.

Mr. POULSON. Then having less than 1 percent in that, would you as Arizona's representative, have signed this compact if they had made a different interpretation of the term "beneficial consumptive use"?

Mr. CARSON. No, sir, I would not. I will tell you why, because that is an argument between California and Arizona in the lower basin. Arizona is bound by this compact; California is not. If we had agreed to any other interpretation here, of course, it would have been used against us in the lower basin.

So we could not consistently agree to any other definition.

But let me make this clear to you: This depletion theory was the considered judgment of all of the negotiators of this compact and their

advisers as to the proper method of measuring beneficial consumptive use under the original Colorado River compact. It was not because of my insistence or the Arizona position that this conclusion was reached. We reached it before this compact was negotiated. We reached it in the old Colorado River Basin States Committee, which was then a committee of 14 and 16 and from which California withdrew and Nevada withdrew and have broken off relations with that committee. That was settled policy and the interpretation of all of the interstate committees, of which I have any knowledge on the river, with the exception of California and Nevada.

Mr. POULSON. However, it still states in here, as Mr. Engle points out, that there is still the chance for the commission by unanimous action to adopt a different method?

Mr. CARSON. Yes.

Mr. POULSON. On that same basis, since you have stated that you would not have signed it had it not had this interpretation, then can it not be taken that your main interest in having this consent granted by Congress is to try to establish a basis for determining that your interpretation is correct? Is that your main interest in the contract?

Mr. CARSON. I would not say that it was the main interest. I would say it was the main benefit. Of course, we were interested and are, in Arizona, in trying to aid sister States develop their water resources and irrigate land and make homes for people. So we wanted to join in for that purpose and protect our own people who were there. But the comparative water supply that Arizona could use there is limited. We do believe it would be valuable to Arizona in this lower-basin question to know how "beneficial consumptive use" shall be employed and we think that is one of the greatest values to us.

Mr. POULSON. You are still supporting the proposed wording in the report to the effect that it is not to be interpreted as either for or against? You are not consistent in the statement you are making now and in the statement of the report, are you?

Mr. CARSON. Yes; they are consistent but you are misquoting the statement. The statement says that Congress, by consenting, does not do so. It does not say that you would not do so if it became material or that a court could not consider it. That is one thing that I want to be sure about, that in whatever language you put in this report, we are not foreclosed from the right, which is a legitimate right, to present this to whoever has to consider the question as an agreement among five parties to the original compact as to how it should be done.

With the aid of that we should try to have the compact construed, if we can, in the way we contend.

Mr. MURDOCK. Are there any further questions of Mr. Carson?

Mr. Carson, there are other members here from Arizona, are there not? Would you introduce them?

Mr. CARSON. Yes; Mr. Aiken and Mr. Killian.

Mr. MURDOCK. What are their positions?

Mr. CARSON. Mr. Aiken is chairman of the Arizona Interstate Streams Commission and Mr. Killian is the executive secretary.

Mr. MURDOCK. Have you gentlemen any statement that you would like to make to the committee or insert in the record in the hearing?

Mr. AIKEN. No.

Mr. KILLIAN. No.

Mr. MURDOCK. We have also with us Judge Howell, of Utah.

STATEMENT OF J. A. HOWELL, ASSISTANT TO THE ATTORNEY GENERAL, STATE OF UTAH

Mr. HOWELL. My name is J. A. Howell. I reside in Ogden, Utah, where I practice law. I appear in this proceeding as assistant to the attorney general of Utah. The attorney general of the State of Utah, Clinton D. Vernon, is also here representing the State of Utah.

I may say to you by way of explanation of Utah's position at this time that in these proceedings that under the statute of the State of Utah the State engineer, with the consent of the government, is authorized to negotiate compacts with one or more of Utah's sister States and as you will have observed this compact was negotiated by and signed by the then State engineer of the State of Utah, Ed H. Watson. His term of office expired upon March 1, and owing to a change of Governors he was not reappointed, and the new State engineer, of course, is totally unfamiliar with the negotiation of this compact or its terms and so it was deemed wise that instead of his coming on here, the attorney general should come and I should accompany him by reason of the fact that I was legal adviser to the State engineer in negotiating the compact and I am familiar with its terms.

I say that particularly for the benefit of Mr. Engle, to assure him that we have the authority to speak for the State of Utah, and if he has any doubt about it as we say in the law, we will be glad to give you any further assurance that you may require.

I would like to present for the record the bill which was introduced in the legislature ratifying this compact which was senate bill No. 1. I am sorry that I have not a certified copy of it, although the attorney general has sent for one. I know of my own knowledge that it is the bill that was introduced as Senate bill No. 1 because I drew it. It was passed without amendment and signed by the Governor.

I am sorry that I have not here the report, which I also drafted, of the State engineer to the Governor and the legislature, but the attorney general has wired for that also. As soon as it comes we will ask that it be made a part of the record.

Mr. MURDOCK. This act of the legislature of the State of Utah contains the text of the compact, does it not?

Mr. HOWELL. It does.

Mr. MURDOCK. I will ask in this case, as in one or two other cases, that the portion of the document which is pertinent be included in the record, with the omission of the text of the compact. Is there any objection? It is so ordered.

(The material referred to is as follows:)

STATE OF UTAH

EXECUTIVE DEPARTMENT—SECRETARY OF STATE'S OFFICE

I, Heber Bennion, Jr., secretary of state of the State of Utah, do hereby certify that the attached is a full, true, and correct copy of Senate bill No. 1 passed by the Utah Legislature on January 25, 1949, and approved by the Governor of the State of Utah on January 31, 1949, as appears of record in my office.

In witness whereof, I have hereunto set my hand and affixed the great seal of the State of Utah at Salt Lake City, this 16th day of March 1949.

HEBER BENNION, Jr.,
Secretary of State.

SENATE BILL NO. 1

By Merrs. Hopkin and Melich

AN ACT Ratifying the Upper Colorado River Basin Compact entered into at Santa Fe, New Mexico, on October 11, 1948, by those States of the Upper Colorado River Basin; namely, Arizona, Colorado, New Mexico, Utah, and Wyoming, by the representatives of those States, with the approval of the representative of the United States of America

Be it enacted by the Legislature of the State of Utah:

SECTION 1. The Upper Colorado River Basin Compact entered into at Santa Fe, New Mexico, on October 11, 1948, by the Upper Colorado River Basin States, namely, Arizona, Colorado, New Mexico, Utah, and Wyoming, by the representatives of those States, with the approval of the representative of the United States of America, is hereby unconditionally ratified, approved, and confirmed for and by the State of Utah.

SEB. 2. The text of said Compact is as follows: * * *

SEC. 3. The Compact ratified by this Act is the original signed by the Commissioners representing the States of Arizona, Colorado, New Mexico, Utah, and Wyoming, and the Secretary of the Commission, and approved by the representative of the United States of America, and deposited in the archives of the Department of State of the United States of America, and in the office of the secretary of state of the State of Utah.

SEC. 4. Any error made, if any, in copying the original Compact in Section 2 hereof, shall be held not to invalidate the ratification of the Compact in any way:

SEC. 5. This act shall not take effect until said Upper Colorado River Basin Compact has been ratified by the States of Arizona, Colorado, New Mexico, and Wyoming, and until the Congress of the United States of America has consented thereto, but upon such ratification and such consent, shall at once take effect.

Mr. HOWELL. So far as there is any testimony in behalf of Utah, I am sure that any testimony I might give would be purely cumulative, and with the consent of the chairman and the members of the committee, Utah would like to submit this matter as Utah's presentation of the case, that is, the testimony that has already been given here and the answers thereto, as far as they are pertinent to any matter that is before the committee at this time.

With that, I have nothing further to present except that I would be glad to answer any questions that I may be able to answer.

Mr. MURDOCK. Mr. Engle?

Mr. ENGLE. Did you mention any official report made by your negotiator to your State?

Mr. HOWELL. I did. I said that I regretted that we did not have it with us, but we had sent for it and that as soon as it came in we would furnish it to you and ask that it be made a part of the record.

Mr. ENGLE. I would suggest that it be made a part of the file, because I do not know how voluminous it is.

Mr. HOWELL. I do not care.

Mr. ENGLE. I take it that you have already considered this language which has been under discussion here.

Mr. HOWELL. Yes; I have. I agreed to it.

Mr. MILLER. Utah is in the upper or lower basin or both?

Mr. HOWELL. In both.

Mr. MILLER. What percentage and what division?

Mr. HOWELL. A very small percentage is in the lower basin. The greater part is in the upper basin.

Mr. MILLER. How much water under the compact would be your share?

Mr. HOWELL. Twenty-three percent in accordance with the compact.

Mr. MURDOCK. Judge Howell, are there others here from Utah? Are there members of your streams commission here?

Mr. HOWELL. Only the attorney general, Clinton D. Vernon, is here.

Mr. MURDOCK. Will you introduce him?

Mr. HOWELL. This is Mr. Vernon, the attorney general.

Mr. MURDOCK. Mr. Vernon, would you like to make a statement to the committee?

Mr. VERNON. I have no further statement than that which was made by Judge Howell.

Mr. MURDOCK. We congratulate you and Judge Howell both.

Mrs. BOSONE. Mr. Chairman, I hope that you believe everything that Judge Howell said. He is from Utah which makes him doubly creditable.

Mr. MURDOCK. I do believe him.

Mr. BARRETT. I have known Judge Howell for quite some time, and I know the attorney general. They are both fine men.

Mr. MURDOCK. This concludes the statements of the representatives of the five States participating in the compact. However, we have not yet heard from the Federal representative.

Before we do that, we have two gentlemen here from New Mexico, the Governor informs me. Governor Miles, will you introduce them?

Mr. MILES. We have with us Mr. Bliss, the State engineer, and Mr. Curry, who is a member of the interstate streams commission.

Mr. MURDOCK. We are glad to have you here, gentlemen. We have with us John R. Riter, engineer adviser to the Federal representative of the upper Colorado River Basin compact. Mr. Riter should be able to speak on this matter before we call on the former Commissioner, Mr. Bashore. Go right ahead, Mr. Riter.

STATEMENT OF JOHN R. RITER, ENGINEER ADVISER TO FEDERAL REPRESENTATIVE, UPPER COLORADO RIVER BASIN COMPACT

Mr. RITER. I have a brief statement that I would like to read, with your permission.

Mr. MURDOCK. Go right ahead.

Mr. RITER. Mr. Chairman, I deem it a privilege to appear before this committee in connection with the proposed upper Colorado River Basin compact.

My name is John R. Riter. I am employed as an engineer by the Bureau of Reclamation; my present position is Chief, Hydrology Division, Branch of Project Planning. In July 1946 I was asked to serve as engineer adviser to the Federal representative in connection with the upper Colorado River Basin compact negotiations. I also served as chairman of the engineering advisory committee to the Upper Colorado River Basin Compact Commission.

Other engineers served on the engineering advisory committee, as follows:

Arizona: R. Gail Baker and R. I. Meeker.

Colorado: R. J. Tipton, R. M. Gildersleeve, F. C. Meriell, and C. L. Patterson, who served until January 1948.

New Mexico: J. H. Bliss and J. R. Erickson.

Utah: C. O. Roskelley; F. W. Cottress, served intermittently; C. S. Jarvis, served until January 1948.

Wyoming: R. D. Goodrich and H. T. Person.

Federal: H. P. Dugan.

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The committee also secured the services of Harry F. Blaney and Wayne D. Griddle of the Department of Agriculture to advise on consumptive use rates in the upper Colorado River Basin.

Pursuant to instructions from the Upper Colorado River Basin Compact Commission, the engineering advisory committee studied and reported on factual data useful to the commission in negotiating the upper Colorado River Basin compact. Progress reports were submitted to the commission in September 1946, December 1947, July 1948, and October 1948. A final report summarizing the various progress reports was prepared and submitted November 29, 1948.

I wish to state that all of the conclusions of the engineering studies were available and submitted to the commission before the compact was completed.

The November 1948 report was merely a compilation of the conclusion of the various progress reports of the engineering committee.

The various factors studied by the committee and the conclusions are briefly discussed herein.

Potential uses of water constitute important factors in dividing the available water supplies among the individual States, and are considered to be involved up to the 7,500,000 acre-feet heretofore allocated to the upper basin by the Colorado River compact.

The report by the Bureau of Reclamation, The Colorado River, House Document No. 419, Eightieth Congress, first session, describes present developments and lists potential irrigation and power projects within the Colorado River Basin. According to the Bureau of Reclamation estimates, if all of the listed potential project possibilities in the upper Colorado River Basin were constructed, the flow of the Colorado River at Lee Ferry would be depleted by about 9,100,000 acre-feet.

In addition to the project potentialities presented in the Bureau of Reclamation report, in each State used, data from its own files pertaining to water use potentialities, particularly on water required for irrigation of potential pasture land and for industrial and municipal purposes. Use was made also of data submitted to the commission by the Office of Indian Affairs on potential uses of water by Indian irrigation projects.

To assist in the water analysis, base maps were prepared to show the locations of stream gaging stations on the Colorado River and tributaries, drainage areas above the gaging stations, sites where climatological data have been secured, and locations of present and potential irrigation developments within the upper Colorado River Basin.

Water contributions by States were determined by the committee for the 32-year period 1914–45, inclusive. This period was chosen for study because it was found to be most reliable from the standpoint of available stream-flow records which could be used to determine the water contributions by States. To complete this portion of the assignment, it was necessary to—

(*a*) Tabulate historic stream flows at key gaging stations on the Colorado River at Lee Ferry and on tributaries near the State lines.

(*b*) Extend the available discharge records, where necessary, by estimates based on correlations with available records at other stations to secure a complete record for the study period 1914–45, inclusive.

(*c*) Estimate run-off from ungaged drainage areas between State lines and key gaging stations. This involved a more refined determi-

nation of drainage areas above the gaging stations and estimates of unit rates of run-off on the basis of records from similar drainage areas and from precipitation data.

(*d*) Estimate past average annual stream-flow depletions due to man-made developments at the sites of use, at State lines, and at Lee Ferry. To assist in solving this particular problem, data on irrigated acreages compiled by the Bureau of Reclamation, State and other agencies were reviewed; climatological data in the water use areas were compiled and analyzed; a field inspection trip was made through the upper Colorado River Basin and the services were secured of two experts from the Department of Agriculture—Harry F. Blaney, senior irrigation engineer, and Wayne D. Criddle, irrigation engineer. Under the direction of George D. Clyde, Chief, Division of Irrigation and Water Conservation, Soil Conservation Service Research, these two experts prepared for the committee a special report, entitled "Consumptive Use of Water Rates in the Upper Colorado River Basin," June 15, 1948.

(*e*) Estimate channel losses between the sites of use, State lines, and Lee Ferry and the relationship between annual channel loss and annual discharge. This study involved consideration of concurrent inflows and outflows to various river sections, channel areas, and rates of evaporation and transpiration losses by water areas and native vegetation adjacent to stream channels.

There is presented on page 6 the water uses and water contributions by States, the average for the period 1914–45, inclusive.

With the permission of the chairman, I will have it inserted without reading it.

Mr. MURDOCK. Yes, if you wish. We will insert it in the record at this point.

(The information requested is as follows:)

Water uses and water contributions by States, averages for period 1914–45, inclusive

[Units 1,000 acre-feet]

State	Arizona	Colorado	New Mexico	Utah	Wyoming	Total
Past annual depletions: [1]						
At sites of use	4.0	1,062.8	72.2	556.5	227.7	1,923.2
At State lines	4.0	1,042.8	71.3	544.8	226.4	1,889.3
At Lee Ferry	4.0	1,016.1	69.5	544.3	216.0	1,849.9
Historic stream flows:						
At State lines	133.2	10,408.4	186.1	2,022.8	1,610.6	14,361.1
Out-of-State channel losses	1.0	455.6	7.7	6.0	102.2	572.5
Contribution at Lee Ferry	132.2	9,952.8	178.4	2,016.8	1,508.4	13,788.6
Virgin stream flows: [2]						
At State lines	137.2	11,451.2	257.4	2,567.6	1,837.0	16,250.4
Out-of-State channel losses	1.0	482.3	9.5	6.5	112.6	611.9
Contribution at Lee Ferry	136.2	10,968.9	247.9	2,561.1	1,724.4	15,638.5
Percent of total	0.87	70.14	1.58	16.38	11.03	100.00

[1] Differences between indicated depletions at sites of use, State lines, and Lee Ferry, represent salvaged channel losses.

[2] Reconstructed flows to represent conditions as they would be prior to any man-made developments within the upper Colorado River Basin.

Mr. RITER. The flow of the Colorado River is not uniform but varies from year to year. At Lee Ferry the historic flow has ranged between a minimum of about 4,400,000 acre-feet in 1934 to a maximum of about 21,900,000 acre-feet in 1917. The average historic flow for 1914–45, inclusive, was 13,788,600 acre-feet. In the 10-year period of lowest historic flow, 1931–40 inclusive, the average annual flow at Lee Ferry was 10,151,000 acre-feet.

To permit full use in the upper basin of its apportioned water during drought cycles and still meet its compact obligation for delivery of 75,000,000 acre-feet at Lee Ferry in any period of 10 consecutive years, it is evident that hold-over reservoirs must be constructed in the upper Colorado River Basin to impound water in years of high run-off and to release such stored water in critical periods of low run-off. such as 1931–40 to help meet the upper-division obligation at Lee Ferry.

The effects of the operations of irrigation projects and of storage reservoirs which will be constructed in connection with such projects will be to partially regulate the stream flow. Rough studies made by the Engineering Advisory Committee indicate a required live-storage capacity of not to exceed 30,000,000 acre-feet of river regulation. As developments and additional studies proceed, the amount of storage capacity needed for regulatory purposes will be more precisely determined in the future. There are known storage sites in the upper Colorado River Basin which have potential combined capacities greatly in excess of the indicated live-storage requirements for river regulation.

Special studies were made of the potential uses and residual stream flows in the Green, Yampa, and San Juan Rivers to assist the Commission in preparing articles XII, XIII, and XIV of the proposed compact.

That concludes my statement.

Mr. MURDOCK. May I ask a question with respect to (*d*) at the bottom of page 4, please, which gives the basis of your estimate of stream flow.

Did your committee make any use of the tree-ring studies conducted by Dr. Douglas?

Mr. RITER. No, sir. We did not. We confined ourselves to the period of record on the river from 1914 to 1945, inclusive. That period included the most severe drought for which we have stream-flow records on the Colorado River.

Mr. MURDOCK. Do you know how that period of drought compares with other periods of drought as indicated by the tree-ring records?

Mr. RITER. No, sir; we have not considered tree rings. We did have an indication by comparing the fluctuations of the level of the Great Salt Lake where records have been available for about 100 years. Now, of course, it is presumptive evidence.

There is no direct mathematical correlation, but it did indicate that recent droughts—the one that we hope has been broken by this year's run-off—were as severe as any other droughts for which we have records for, comparing it with the Great Salt Lake records.

Mr. MURDOCK. Are there other questions?

Mr. WHITE. What is the amount of water—it has been stated over and over again, but I did not get it—that is permitted to flow down

the Colorado River in the original compact for the States at Lee Ferry? What is the volume?

Mr. RITER. You mean the amount that was permitted to go down?

Mr. WHITE. The first compact permitted about 50 percent of the water of the Colorado River to go over to the States. What is that item?

Mr. RITER. The upper basin is committed to leave 75,000,000 acre-feet in any 10-year period. That means an average of 7,500,000 acre-feet in any 10-year period.

Mr. WHITE. 7,500,000 acre-feet?

Mr. RITER. Yes.

Mr. ENGLE. And you say the flow there was about 4,400,000 acre-feet in 1934, and it swelled to a maximum of about 21,000,000 acre-feet. Then, there is quite an excess of over half the water that is now going by Lee ferry?

Mr. RITER. Yes, sir.

Mr. WHITE. Is it contemplated to use all the water except the amount that is embraced in the first compact?

Mr. RITER. The upper basin contemplates the use of the 7,000,000 feet per year on the average if such water is available after meeting the commitment of the lower basin and meeting the commitment of the Mexican treaty to which all the basin States are bound.

Mr. WHITE. According to you statement on page 7, during the year 1934, the minimum period, there would not be enough water in the whole river to supply the needs of the lower-basin States from Lee Ferry. You were short about 3,000,000; right?

Mr. RITER. That is true, with the unregulated river. But, sir, it is planned that large reservoirs will be built in the upper Colorado River Basin which will store water in years of high run-off and release that water in years of low run-off.

Mr. WHITE. Is is contemplated to hold the water over from year to year or to regulate the flow?

Mr. RITER. It is planned to hold the water over from year to year.

Mr. WHITE. When you had the peak in 1917, you had three times as much water going by Lee Ferry?

Mr. RITER. That is right.

Mr. WHITE. Was it contemplated in making this first pact that it would be possible to carry out the terms of the agreement that there would be storage places built upstream?

Mr. RITER. You are asking me questions that I cannot answer. I was not present at the first pact. It is the concept of the States of the upper Colorado River Basin that reservoirs will be built on the main stream to generate hydroelectric power and also furnish regulation.

Mr. WHITE. It appears from your statement there would not be any water left for the upper-basin States if they were bound to permit 7,500,000 to go down the stream when there is only 4,400,000 now. What would the upper-basin States get out of it?

Mr. RITER. Remember that that 7,500,000 is an average obligation in any 10-year period. The lowest 10-year period of record was 1931 to 1940.

Mr. WHITE. You have 1 year when it was only 4,400,000?

Mr. RITER. That is right.

Mr. WHITE. What do those people do? They cannot wait for averages. They have to have the water when they need it each year.

Mr. RITER. You understand there is a large reservoir on the lower basin that will help in that. The original compact provided 75,000,000 acre-feet in a 10-year period.

That did not necessarily mean, sir, that there has or had to be 7,500,000 in any year. It means a 10-year period. If you want to get a yardstick, let us look at the average for 1931 to 1940, where it averaged about 10,000,000 acre-feet.

So, even without stream-flow regulation, there would be some water left for the upper basin to develop. Does that answer your question, Mr. White?

Mr. WHITE. I cannot contemplate that the men representing those States would go into an agreement where the water would fluctuate like that. They have to have a steady supply.

Mr. REGAN. Do you yield?

Mr. WHITE. Yes.

Mr. REGAN. In 1 year they had 4,000,000, and in the next year they had 21,000,000. That is 25,000,000. They have a reservoir down below that stores the water; so that, over a 10-year period, they get 7,500,000 each year.

The people irrigating the land below will have sufficient water.

Mr. WHITE. It will not do any good to set up an irrigation project with the water fluctuating.

Mr. MURDOCK. Will the gentleman yield?

Mr. WHITE. I do not want to delay the proceedings. I just want some information.

Mr. MURDOCK. I hope, from what has just been said by the two gentlemen and the witness, that it is clear to everyone that this plan will not work unless we have a storage in order to enable the upper basin to deliver its average of 7,500,000 feet.

Mr. ENGLE. Let me add this one point. I think it should be clear. If I am wrong I hope the witness will straighten me out. My understanding is that the 75,000,000 acre-feet which has to be delivered at Lee Ferry over an average of 10-year period is the minimum, not the maximum.

Mr. RITER. Congressman, if there is more water available, it will be delivered. Of course, the upper basin—in fact, the whole basin—is bound by the Mexican treaty which guarantees to Mexico certain quantities of water; and under the basin compact there is a provision which indicates that, if there is no surplus water to meet the demands of the treaty in the upper basin and the lower basin, they will have to share equally in any deficiency. Which means, if that condition should arise, in addition to the 75,000,000 acre-feet, the upper basin would also have to deliver its share of the Mexican-treaty burden. Then, if there is water left over, in addition to the Mexican-treaty water and in addition to the 75,000,000 acre-feet in every 10-year period, if there is any water left over after the upper basin has used its share, such excess would go to the lower basin. Does that answer your question?

Mr. ENGLE. It does. And it brings me to the point I wanted to get around to, and that is the table on page 6 of your statement.

In the first bracket, you have indicated the past annual depletions in units of 1,000 acre-feet, and note 1 says that the differences between

indicated depletions at sites of use, State lines, and Lee Ferry represent salvaged channel losses.

Mr. RITER. Yes, sir.

Mr. ENGLE. I notice over here in the total the difference between the first figure, which is at the sites of use, is 1,923.2, and at Lee Ferry it is 1,849.9.

Now, subtracting those two, I get 83.3. How much water would that be?

Mr. RITER. 73,300 acre-feet.

Mr. ENGLE. 73,000?

Mr. RITER. And 300 acre-feet.

Mr. ENGLE. I subtracted wrong. It is 73.3. That is the salvage?

Mr. RITER. Yes, sir.

Mr. ENGLE. If the right of the upper States to 7,500,000 acre-feet of water is measured by the depletion theory at Lee Ferry, the difference between the amount measured at Lee Ferry and at the site use would be the salvage water which is to be used to raise corn and to raise crops and would not be chargeable against their beneficial consumptive use of 7,500,000 acre-feet; is not that correct?

Mr. RITER. Under that interpretation; yes, sir. You understand, of course, that I am not an attorney. I am not trying to place any construction on this. My connection with the compact negotiations was merely that of an engineer to secure factual information.

These calculations that you have referred to are the result of our calculations of these eminent engineers from each State. They are matters of factual information. Now, the compact commission has decided as a matter of policy, or for other reasons which are beyond a mere engineer, that the depletion theory is the correct theory.

Mr. ENGLE. If they do not change their minds.

Mr. RITER. And I think that is a highly significant statement in article 6, incidentally, which leaves flexibility.

Mr. ENGLE. I did not intend to put you in the position of construing the compact.

Mr. RITER. I understand that.

Mr. ENGLE. I have been trying all day to bring out the fact that some water could be used to raise corn and grow vegetables which, under one construction of this agreement, would be available to the upper-basin States, and under another theory would not be. I want to ask this further question as an engineering matter: As improvements are made on the stream, then your salvaged channel losses will increase; will they not?

Mr. RITER. That is something we do not know exactly. We discussed that in our engineering committee and we could not come to a uniform agreement on it. There were some members of the committee who felt that this salvage would continue indefinitely.

My view is this, sir: These reservoirs will occupy stream channels so the opportunity for salvage will be reduced by virtue of the fact that a large part of the channel will be covered up by the reservoir and will increase the losses on it. That is one thought. There is some possibility, sir, that, as we further reduce the amount of water carried in the stream, the stream channels will tend to deteriorate.

In other words, these streams are not clear streams. They carry quantities of sediment; and, as the discharge of the streams decreases,

some of that sediment will tend to become deposited in the channels and it may cause them to deteriorate and actually cause loss of water rather than a salvage.

We were unable to agree on that in our engineering committee. That was the reason Mr. Tipton was unable to give you a direct answer to your question this morning. We did discuss it, and there were those two conflicting viewpoints brought out.

Mr. ENGLE. Thank you very much.

Mr. WHITE. You speak of this depletion. What do you attribute that to, seepage, evaporation, or diversion?

Mr. RITER. The largest share of this, sir, is consumptive use within the basin.

Mr. WHITE. That would be diversion?

Mr. RITER. Yes.

Mr. WHITE. What about seepage?

Mr. RITER. We have found some areas that have seeped.

Mr. WHITE. Do you think seepage is one of the factors in the depletion?

Mr. RITER. Yes, sir.

Mr. WHITE. What about evaporation?

Mr. RITER. It is definitely a factor, sir.

Mr. WHITE. You speak of this silt. Isn't the tendency of silt to seal the bottom and the channel so that the water cannot seep out?

Mr. RITER. Yes; but this seepage that I refer to, sir, is seepage adjacent to the irrigated land.

Mr. WHITE. What part would you attribute to seepage?

Mr. RITER. That is difficult to say precisely.

Mr. WHITE. What percentage do you attribute to diversion?

Mr. RITER. Approximately 90 percent.

Mr. WHITE. Would not evaporation easily account for 10 percent?

Mr. RITER. Yes; evaporation would and diversion out of the basin.

Mr. MURDOCK. Unless there are further questions we will excuse you, Mr. Riter.

Thank you.

Now we come to the conclusion. We would be glad to have a statement from Mr. Bashore, former Commissioner of Reclamation and Presidential appointee as chairman of this conference who drew the compact.

Mr. Bashore.

STATEMENT OF HARRY W. BASHORE, REPRESENTATIVE OF THE UNITED STATES, CHAIRMAN OF UPPER COLORADO RIVER BASIN COMPACT COMMISSION

Mr. BASHORE. Mr. Chairman, I appreciate having this opportunity to appear before this distinguished committee of the House of Representatives. Some years have elapsed since I have testified before a committee of the Congress. I have always felt that our congressional committees have evidenced great interest in the Federal reclamation program of the West. I have noted that, in recent years as in the past, the congressional committees have continued to exhibit keen interest in all matters affecting the 17 western States and, of course, particularly in the water problems there arising.

The entire delegations from the States of Arizona, Colorado, New Mexico, Utah, and Wyoming are supporting legislation to grant the consent of the Congress to the compact entered into by those States on October 11, 1948. You have heard the witnesses from the upper basin States. The compact has been before the Congress officially since January 31, of this year. Many members of this committee, however, have been familiar with its terms prior to that date. My report on the negotiation of the compact was forwarded 2 months ago both to the President of the Senate and to the Speaker of the House. It is contained in Senate Document 8 of the first session of this Eighty-first Congress and has been made widely available. In the circumstances, I consider that it is unnecessary for me to dwell at length upon the negotiations which took place over a fairly extended period and which, finally, culminated in that document called the upper Colorado River Basin compact. It would be inappropriate for me to do so in any event for preceding witnesses here have discussed the details of that compact with you.

Let me, then, just point out some of the high spots of the compact itself. The purpose of the compact and the effect of the compact are principally to apportion among the States directly concerned the use of waters of the Colorado River system which was apportioned to those States as a group under the Colorado River compact. Fifty thousand acre-feet have been apportioned to Arizona; 51.75 percent of whatever remaining use is available to the upper basin under the Colorado River compact has been apportioned to Colorado; 11.25 percent of that use has been apportioned to New Mexico; 23 percent of that use has been apportioned to Utah; and 14 percent of that use has been apportioned to Wyoming.

There, gentlemen, is the nub of the compact. Necessarily, some rather elaborate provisions had to be written, and were written, to define and to protect the rights of the States that are parties to the upper Colorado River Basin compact.

Furthermore, an agreement among the States necessarily required some administrative provisions. Those were and are provided. Finally, no compact would be complete or could be satisfactory unless it took cognizance of the prerogatives, powers, and rights of the Federal Government in all respects. Many provisions of the upper Colorado River Basin compact have been written to that end. I am satisfied with them and I have so advised the President and the Congress.

The commissioners from the respective States that are parties to the compact are men of learning and experience. They were well aware, for instance, of the expectation that major water development works in the Colorado River Basin must, in the future, as they have in the past, be undertaken largely by Federal agencies carrying out constitutional and statutory purposes of the Federal Government. We were all concerned that this compact should be so written as to foster such development with due regard of course for the best interests of the several affected States and of all States in the basin as a whole.

I am happy to be able to advise this committee that this compact is so written as to foster development by Federal agencies as well as by agencies of the several States; as to promote the fulfillment by the States of the Upper Basin States of their part of the obligations entered into by the United States in its treaty with Mexico.

There is nothing in this compact that in any sense or in the remotest degree adversely affects the rights and privileges of any States that are parties to the Colorado River Basin compact. Nothing in this compact affects the obligations of the United States to the Indian tribes or circumscribes the United States in caring for and in promoting the welfare of its Indian wards, or affects the rights of those wards.

I do not want to express myself at any length, at all, but I must deal before this committee with one or two matters that I have heard discussed since the upper Colorado River Basin compact was entered into.

I have heard it suggested that the upper Colorado River compact prematurely adopts a theory affecting the measurement of the consumptive use of water and that consent by the Congress to the compact would constitute adoption by the Congress of the self-same theory as being legally proper. It is then said that, since consent by the Congress would constitute congressional adoption of that theory, the rights of lower basin States might be impaired should those States, at some time or another, become engaged, let us say, in litigation wherein, among other things, the propriety of that theory might be brought into question.

I have been advised by my counsel that the mere consent by the United States to this compact would not of itself constitute implicit adoption by the Congress of one theory of measurement of consumptive use as against another. I hereby solemnly advise this committee, therefore, that congressional consent to this compact would not have, and is not intended to have, such effect.

I have heard it suggested that the provisions in the upper Colorado River Basin compact—to the effect that the consumptive use of water by the United States of America or of any of its agencies, instrumentalities, or wards shall be charged as a use by the State in which such use is made—adversely affects the rights of the Indians. Nothing could be further from the truth. The provision in question is obviously intended only as a practical guide to the respective States. It does not, and cannot have the effect of limting the rights of the United States of America, whether exercised in behalf of its wards or in any other behalf or the rights of Indian tribes or wards. The compact specifically disclaims any intent whatsoever to affect the obligations of the United States, its agencies, or instrumentalities in or to the waters of the upper Colorado River system. Obviously, such rights and powers include rights and powers to create developments in behalf of its Indian wards as well as in fulfillment of its obligations to Indian tribes.

On October 11, 1948, at the ceremonies incident to the formal signature of the upper Colorado River Basin compact, which were held in the historic Palace of the Governors at Santa Fe, N. Mex., I was privileged to say a few words.

On that occasion I described the upper Colorado River Basin compact as it then seemed to me. I have not changed my mind about it and I think, therefore, that it may be appropriate for me on this occasion to quote a portion of my address on that date. I then referred to the upper Colorado River Basin compact as "a document which will forever be an example of fairness, a demonstration of statesmanship of the highest order, and finally, a proof of the ability

of States to deal with their mutual problems no matter how complex, through the traditional and constitutional compact method."

Mr. Chairman, in concluding the presentation of matters relating to the upper Colorado River Basin compact, may I be permitted to make a few remarks concerning the work of those with whom it has been my honor to be associated and, also, a few comments on these hearings.

It has been a great satisfaction to me to work with men of the fairness and ability of the commissioners and their legal and engineering advisers of the five upper Basin States. As the State of Colorado supplies the major portion of the water to the Colorado River and as the Colorado commissioner and his advisers have had much experience in the negotiation of compacts, the major burden of our work fell naturally on Judge Stone—a lawyer who has earned and deserves a high reputation throughout the West for integrity, ability, and fairness. In my opinion, he is to be highly commended for the leadership he has taken among the State commissioners.

In appearing before this distinguished committee, it has been our plan to make our presentation as brief as possible in order to conserve your time. There has been no attempt to evade answers nor to avoid furnishing any information which this committee, in its wisdom, felt necessary. I believe that you will agree that the States have ably and fairly presented the facts relating to the negotiation of the compact and its intent.

Mr. Chairman, I have attended many hearings here in Washington, but I want to say that you personally have conducted these hearings in an orderly and courteous manner and have been very patient with all of our witnesses. The members of the committee have with promptness in attendance and great patience listened to our presentation and the questions have been direct and to the point. I desire to express my appreciation to Mr. Engle and Mr. Poulson of California—particularly to Mr. Engle, whose questions served to develop facts in the most direct manner. His questions have been incisive and clear.

I would also like to have inserted in the record my appreciation of the work of my legal adviser, Mr. J. G. Will, and my engineering adviser, Mr. John R. Riter. They have been of great assistance to the Federal representative and, I believe, to the commission as a whole, and have attempted at all times to be fair and cooperative.

To you, Mr. Chairman, and to all members of this distinguished committee, I express my deep appreciation for your patience and courtesy.

That concludes my statement, Mr. Chairman.

Mr. MURDOCK. Since you, Mr. Commissioner, and I grew up within "hog-calling" distance of each other in our boyhood days there are many things I would like to say to you, and about you, but I am going to yield now to Congressman Miller, in whose district I believe you are a resident and his constituent. Mr. Miller.

Mr. MILLER. Thank you, Mr. Chairman.

I want the record to show that Harry Bashore—I do not know how many years he has served in the Reclamation Service, but it goes back, I guess, nearly a third of a century—thought he was going to retire from the Reclamation Service. He did retire, and moved out to a little farm in western Nebraska, an irrigated farm in an irri-

gation district, I think Harry Bashore was instrumental in setting up in 1903.

Mr. BASHORE. Congressman Miller, please do not give me credit for all the mistakes that might have been made.

Mr. MILLER. He was in on the ground floor. It is one of the oldest irrigation districts in the United States.

When I first came to Congress 6 years ago Harry Bashore was Commissioner of Reclamation, and many members on this committee know the great service that he rendered at that time to me and to the committee.

It was a great service.

I want the record to show that the service of Harry Bashore as rendered to the 17 western States in matters of irrigation and their problems has been invaluable.

While he thought he was going to retire, like a good soldier, when the President asked him if he would not sit in on this upper basin State compact he responded.

I hope that now if he is to lay down his duties, he will get out again in western Nebraska where men live a little closer to the soil and sun. He has been a useful and faithful citizen to western Nebraska and the Nation. I want the record to show he is my constituent and we are proud of him.

Mr. MURDOCK. This compact is a fitting monument to a life well spent in the cause of reclamation.

Mrs. BOSONE. It seems to me the only mistake that the gentleman has made concerning Mr. Bashore is that he did not settle in Utah where we have the lowest death rate in the country.

Mr. ENGLE. We think that Mr. Bashore will eventually wind up where so many other thousands of American people are spending their final happy days of retirement, in the great State of California. We will welcome you when you are ready to come.

Mr. BASHORE. That is a possibility, of course.

Mr. ENGLE. I have one or two questions I would like to ask Mr. Bashore.

Mr. MURDOCK. Very well, Mr. Engle.

Mr. ENGLE. In undertaking your responsibilities representing the Federal Government on this commission, what did you regard as your obligations to the Federal Government and to the States in carrying out your duties?

Mr. BASHORE. Well, to see that all of the United States was properly protected and to give whatever assistance I could in helping the States to reach an agreement on the apportionment of water that would be provided for them in the Colorado River compact.

Mr. ENGLE. Referring to the provision of the Constitution requiring the consent of Congress to interstate compacts, do you know the purpose of putting that in the Constitution?

Mr. BASHORE. Congressman Engle, I am not a lawyer and all I know about law is the association that I have had with it. I refer that to my legal adviser.

Mr. ENGLE. The reason I ask is that I have been a little bit puzzled about the status of a Federal representative on this commission. If it is true that the consent of Congress is asked for no other purpose than the bare legal requirement of consent under the Constitution, what is his function? Is he a referee?

STATEMENT OF J. G. WILL, BUREAU OF RECLAMATION

Mr. WILL. There are certain classes of agreements which, under the Constitution, States may not enter into.

I believe that one of the primary purposes of a Federal representative to participate in negotiations is so that he may aside from lending assistance to the negotiating parties report back to the Congress on the negotiations so that the Congress through his report may, among other things, ascertain that the agreement does not belong in that class of inhibited or prohibited agreements.

Mr. ENGLE. It may be necessary to determine that the compact was not within the range of those which are not proper for a State to enter into. Secondly, it would seem to me that he would have as his obligation the duty of protecting the interest of the Federal Government.

Beyond that he would be a presiding officer, if he is so designated.

Mr. WILL. By courtesy of the Commission, Mr. Bashore was unanimously elected chairman of the Upper Colorado River Basin Compact Commission.

Mr. ENGLE. You have heard, Mr. Bashore, the discussion in regard to the language which has been suggested as a part of the report of this committee. From listening to your statement I take it that that language is in accord with your views?

Mr. BASHORE. That language is in accord with my views. If you put it in the report of the committee, I do not think it would be objectionable whatever.

Mr. ENGLE. I have one further question. You have filed, have you not, a report?

Mr. BASHORE. Yes.

Mr. ENGLE. Is there any objection to his report being made a part of the record in this proceeding?

Mr. MURDOCK. The Chair hears none.

Mr. WILL. That report is Senate Document No. 8.

(The document referred to is as follows:)

[S. Doc. No. 8, 81st Cong., 1st sess.]

UPPER COLORADO RIVER BASIN COMPACT

Compact Entered into by the States of Arizona, Colorado, New Mexico, Utah, and Wyoming on the 11th day of October 1948, To Determine the Rights and Obligations of Those States Respecting Uses and Deliveries of the Water of the Upper Basin of the Colorado River

LETTER OF SUBMITTAL

MITCHELL, NEBR., *January 31, 1949.*

Hon. ALBEN W. BARKLEY,
President of the Senate.

MY DEAR MR. PRESIDENT: I have the honor to enclose a conformed copy of a compact entered into on the 11th day of October 1948, among the States of Arizona, Colorado, New Mexico, Utah, and Wyoming, to determine the rights and obligations of those States respecting uses and deliveries of the water of the upper basin of the Colorado River.

By virtue of my appointment by the President as the representative of the United States, I participated in the negotiations which led to the compact. My report thereon is enclosed.

Sincerely yours,

HARRY W. BASHORE,
Representative of the United States,
Upper Colorado River Basin Compact Negotiations.

Upper Colorado River Basin Compact

(Report and recommendation by Harry W. Bashore, representative of the United States)

I. APPOINTMENT OF THE REPRESENTATIVE OF THE UNITED STATES

On the 17th day of July 1946 I was appointed by the President to participate, as representative of the United States of America, in the negotiation of a compact proposed to be entered into among the States of Arizona, Colorado, New Mexico, Utah, and Wyoming to the end of determining the rights and obligations of those States respecting the uses and deliveries of the water of the upper basin of the Colorado River.

II. PURPOSES OF THE COMPACT

The major purposes sought to be accomplished by the compact in question are more particularly and best stated in paragraph (a) of article I of the compact itself, which reads as follows:

"(a) The major purposes of this compact are to provide for the equitable division and apportionment of the use of the waters of the Colorado River System, the use of which was apportioned in perpetuity to the Upper Basin by the Colorado River Compact; to establish the obligations of each State of the Upper Division with respect to the deliveries of water required to be made at Lee Ferry by the Colorado River Compact; to promote interstate comity; to remove causes of present and future controversies; to secure the expeditious agricultural and industrial development of the Upper Basin, the storage of water and to protect life and property from floods."

III. RECOMMENDATION

I recommend that the Congress of the United States grant its consent to this compact as promptly as possibly after the compact shall have been ratified by the legislature of each of the signatory States.

IV. BACKGROUND OF THE COMPACT

The report entitled "The Colorado River" (H. Doc. 419, 80th Cong.) contains, among other things, the following recommendation jointly made by Messrs E. A. Moritz and E. O. Larson, regional directors, respectively, for regions 3 and 4 of the Bureau of Reclamation, Department of the Interior;

"* * * That the States of the Colorado River Basin determine their respective rights to deplete the flow of the Colorado River consistent with the Colorado River compact * * *."

The upper Colorado River Basin is defined in the Colorado River compact as "those parts of the States of Arizona, Colorado, New Mexico, Utah, and Wyoming within and from which waters naturally drain into the Colorado River system which are now or shall hereafter be beneficially served by waters diverted from the system above Lee Ferry." It is, as pointed out in the Interior Department's report, an area "larger than New York, Pennsylvania, and New Jersey combined." It is the source of the greater part of the water reaching the Colorado River.

By the Colorado River compact there was apportioned in perpetuity to the upper basin "the exclusive fieneficial consumptive use of 7,500,000 acre-feet of water per annum * * *." That compact does not apportion such use among the States concerned. Under the terms of that compact the upper-basin States are obligated also, among other things, not to "cause the flow of the river at Lee Ferry to be depleted below an aggregate of 75,000,000 acre-feet for any period of 10 consecutive years reckoned in continuing progressive series beginning with the 1st day of October net succeeding" its ratification.

V. HISTORY OF THE COMPACT NEGOTIATIONS

The task of reaching agreement upon an apportionment, among the States concerned, was begun officially on July 31, 1946, at Salt Lake City, Utah, the date upon which the group, consisting of one commissioner from each of the States of Arizona, Colorado, New Mexico, Utah, and Wyoming, and their engineering and legal advisers first met formally. On that date I was honored by being elected to preside over those and subsequent negotiations and deliberations. Seven additional sessions followed: Two at Santa Fe, N. Mex.; two at Denver, Colo.; one at Cheyenne, Wyo.; one at Vernal, Utah; and the series of hearings

held, respectively, at Rock Springs, Wyo.; Grand Junction, Colo.; Price, Utah; and Farmington, N. Mex.

Meetings of the Upper Colorado River Compact Commission were open to the public. The public was invited at all times to express opinion and helpful advice. At the hearings, to which I have referred, the Commission was successful in eliciting much testimony that served greatly to assist in its subsequent deliberations.

Agencies of the Federal Government contributed much to the successful negotiation of the compact. Regional Directors Larson and Batson, of the Bureau of Reclamation, attended most of the sessions. They made their engineering and legal aides available at all times. The Commission was greatly assisted by Mr. J. R. Riter, Chief, Division of Hydrology, Branch of Project Planning, Bureau of Reclamation, who served as chairman of the Commission's engineering committee and who, together with other distinguished engineers from each of the signatory States, performed a monumental task in the collation and the interpretation of basic data. All agencies and departments of the Federal Government having an interest in the outcome of the negotiations were invited to inform the Commission, through me, of their views on the solution of the problems with which the Commission was faced. They were invited to confer with me at any time. So that no agency or department should be overlooked, I invited the Director of the Bureau of the Budget, after having informed him that I had requested views from the Secretaries of War, Agriculture, and Interior, and from the Federal Power Commission, to apprise all other agencies or departments of my interest in receiving their views. This general inquiry was followed, some months later, by a specific request to each of such agencies to advise, first, what right, if any, to the use of upper Colorado River water the agency had or claimed on behalf of the United States, and, second, what particular provision and what particular language should be incorporated in the compact to protect the right, if any, to the use of upper Colorado River water held or claimed by such agency on behalf of the United States. All information and suggestions received were given careful consideration by the Commission.

VI. TREATMENT OF FEDERAL INTERESTS

All specific suggestions made by Federal agencies for incorporation in the compact of language to protect the interests of the United States or of its wards were adopted.

Outstanding provisions in which these interests are protected under the terms of the compact are, in the order in which they appear:

(1) The provision in article VIII of the compact for representation of the United States on the Upper Colorado River Commission.

(2) The provision of paragraph (a) of article IX whereby no State may—"deny the right of the United States of America * * * to acquire rights to the use of water, or to construct or participate in the construction and use of diversion works and storage reservoirs with appurtenant works, canals, and conduits in one State for the purpose of diverting, conveying, storing, regulating, and releasing water to satisfy the provisions of the Colorado River Compact relating to the obligation of the States of the Upper Division to make deliveries of water at Lee Ferry, or for the purpose of diverting, conveying, storing, or regulating water in an upper signatory State for consumptive use in a lower signatory State when such use is within the apportionment to such lower State made by this Compact;".

(3) The provisions of paragraph (c) of article XIV, whereby "any preferential uses of water to which Indians are entitled under Article XIX" are required to be "excluded in determining the amount of curtailment to be made" under such paragraph; and

(4) Article XIX, which provides that nothing in the compact shall be construed as—

"(*a*) Affecting the obligations of the United States of America to Indian tribes;

"(*b*) Affecting the obligations of the United States of America under its treaty with Mexico;

"(*c*) Affecting any rights or powers of the United States of America, its agencies or instrumentalities, in or to the waters of the Upper Colorado River system, or its capacity to acquire rights in and to the use of said waters;

"(*d*) Subjecting any property of the United States, its agencies or instrumentalities, to taxation by any State or subdivision thereof, or creating any obligation on the part of the United States of America, its agencies or instrumentalities, by

reason of the acquisition, construction, or operation of any property or works of whatever kind, to make any payment to any State or political subdivision thereof, State agency, municipality, or entity whatsoever, in reimbursement for the loss of taxes; and

"(e) Subjecting any property of the United States of America, its agencies, or instrumentalities, to the laws of any State to an extent other than the extent to which such laws would apply without regard to the Compact."

VII. MEASUREMENT AND CURTAILMENT OF USE

The provisions in the compact for the measurement of use and for the curtailment of the use of water when required in order to meet the obligations of the upper-basin States with respect to flows at Lee Ferry are fair and equitable to each of the States and manifest the intention of the States concerned to fulfill the joint and several obligations which they undertook in the Colorado River compact. The administrative body provided for under the compact will, in my judgment, constitute a thoroughly useful agency which will operate fairly, equitably, and efficiently and without conflicting in any way with operation by Federal agencies of those reservoirs, heretofore or hereafter constructed, for the purposes for which they were or many hereafter be authorized.

VIII. THE APPORTIONMENT

The apportionment of consumptive use, as provided by article III of the compact, is fair and equitable to each signatory State, is economically sound, and is consistent with the best information available as to potential development in the upper Colorado River Basin. The apportionment in questions is as follows:

"(1) To the State of Arizona the consumptive use of 50,000 acre-feet of water per annum.

"(2) To the States of Colorado, New Mexico, Utah, and Wyoming, respectively, the consumptive use per annum of the quantities resulting from the application of the following percentages to the total quantity of consumptive use per annum apportioned in perpetuity to and available for use each year by upper basin under the Colorado River Compact and remaining after the deduction of the use, not to exceed 50,000 acre-feet per annum, made in the State of Arizona.

	Percent
"State of Colorado	51.75
State of New Mexico	11.25
State of Utah	23.00
State of Wyoming	14.00"

IX. CONCLUSION

The compact will, in my judgment, effectively accomplish its stated purposes; it will fully protect the interests of the United States of America and of its wards; and, finally, it will tend to assure that the waters of the upper Colorado River Basin will be put to their best and most economical use.

HARRY W. BASHORE,
Representative of the United States of America,
Upper Colorado River Basin Compact Negotiations.

Mr. WILL. It includes the full text of the compact, and perhaps to save expense you may wish to omit that part of it.

Mr. ENGLE. I think that is proper.

Mr. MURDOCK. Yes, to save on printing only the pertinent parts of the report minus the text of the compact which is otherwise included, will be placed in the record.

Mr. ENGLE. Mr. Bashore, due to the presence of Mr. Will, your attorney, I assume that your views are not inconsistent with those of the Government agency which at other times Mr. Will represents?

Mr. BASHORE. All Government agencies that might have any interest in this compact were contacted and I am sure that we have represented those agencies in accordance with their wishes. I cannot anticipate

any objection on the part of any Government agency to any statement that Mr. Will has made or that I have made.

Mr. ENGLE. I understand, Mr. Will, there is a report pending.

Mr. WILL. I believe I should state, Mr. Engle, that I deeply regret that the Secretary of the Interior's report has not yet been received in this committee. The clearances of that report are under way at the present time. I hope it can be up here within something like 24 hours. I cannot guarantee it, but I certainly hope so. I hope that the Chairman's permission will be granted when it reaches here so that it may be included in the record.

(The report of the Secretary of the Interior is as follows:)

UNITED STATES DEPARTMENT OF THE INTERIOR,
Washington 25, D. C., March 21, 1949.

Hon. ANDREW L. SOMERS,
Chairman, Committee on Public Lands, House of Representatives.

MY DEAR MR. SOMERS: We are glad to comply with your request for an expression of this Department's views on H. R. 2325, H. R. 2326, H. R. 2327, H. R. 2328, H. R. 2329, H. R. 2330, H. R. 2331, H. R. 2332, H. R. 2333, and H. R. 2334, bills to grant the consent of the United States to the Upper Colorado River Basin compact.

The Colorado River compact apportioned to the upper basin "the exclusive beneficial consumptive use of 7,500,000 acre-feet of water per annum * * *." That use was not apportioned among the States concerned, to wit: Arizona, Colorado, New Mexico, Utah, and Wyoming. In its report entitled "The Colorado River" (H. Doc. 419, 80th Cong.) this Department suggested that the States of the Colorado River Basin determine their respective rights to deplete the flow of the Colorado River consistent with the Colorado River compact. This the Upper Basin States have done, after extensive negotiations that were participated in by Mr. Harry W. Bashore as representative of the United States.

Mr. Bashore's report on the negotiations in question has been filed with the Congress and is published as Senate Document No. 8, Eighty-first Congress. I commend that report to the consideration of your committee. Mr. Bashore finds that the Upper Colorado River Basin compact will accomplish the purpose of providing for the equitable division and apportionment of the use of the waters of the Colorado River system, the use of which was apoprtioned in perpetuity to the upper basin by the Colorado River compact; of establishing the obligations of each State of the upper division with respect to the deliveries of waters required to be made at Lee Ferry by the Colorado River compact; of promoting interstate comity; of removing causes of present and future controversies; and of securing the expeditious agricultural and industrial development of the upper basin, the storage of water and the protection of life and property from floods. He recommends that the Congress of the United States grant its consent to the Upper Colorado River Basin compact. I heartily concur in his findings and in his recommendation.

In view of my understanding that your committee wishes an immediate report on the bills enumerated above, I have been unable to ascertain from the Director of the Bureau of the Budget the relation of the recommendation made in this report to the program of the President.

Sincerely yours,

OSCAR L. CHAPMAN,
Under Secretary of the Interior.

Mr. WHITE. Mr. Chairman.

Mr. MURDOCK. Mr. White.

Mr. WHITE. I want to renew my question that I made at the beginning of this hearing. I would like to ask Mr. Stone a few questions.

Mr. MURDOCK. Are there any further questions?

Mr. BARRETT. Mr. Chairman, I would like to compliment Mr. Will and Mr. Bashore for their splendid work on this compact. I know the people in Wyoming and the people in the other States affected are

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deeply appreciative of the splendid work that they have performed on this compact.

Off the record.

(Discussion off the record.)

Mr. BARRETT. Will there be a comprehensive bill, or will these projects be presented individually?

Mr. BASHORE. I do not know how the Bureau of Reclamation will handle that. With this compact consented to by the Congress it seems to me there will be no wild scramble for water. They will know approximately how much water they will get. Each State will know approximately and then the projects that fall within that allocation will be presented to the Congress. They will be fostered by the States of Wyoming and Colorado and New Mexico, and so forth, and authorization will be sought in appropriations.

I judge that there will be an orderly development and that the States of the upper basin and lower basin, I hope altogether will push for the development of the Colorado River Basin project.

Mr. BARRETT. It ought to come along then in an orderly and reasonably fast order, should it not?

Mr. BASHORE. I do not know about the order. Of course, Congressman Barrett, there are a lot of things that come into the answer to that question. It would be the condition of the United States Treasury, the drains that are put on it, on account of other necessities, and so forth, but there is one thing about this compact that does please me, and that is any State is assured of its water in perpetuity regardless of its geographical position or of its possibly unfavorable climatic conditions. It has that water reserved for it in perpetuity and nobody can encroach upon it. Its development can come along.

Mr. BARRETT. That is true. That is a matter of great importance to the people of Wyoming.

Our people are somewhat impatient and they would like to have some actual construction before very long. I assume that the Bureau should be bringing up projects to this committee before long for authorization. I think it might be well for the States to determine the matter of priority. There might perhaps be some in each of these States. How about that, Mr. Will? Are you going to be prepared before long to submit some of these projects to the Congress?

Mr. WILL. We are preparing now, Mr. Barrett. The investigation has been proceeding for many years and they are continuing. A plan will be evolved and will be presented to the Congress. There will doubtless be recommendations for authorization in stages. Beyond that I do not feel that I can tell the committee with any degree of definitiveness in what form our recommendations will be made or what their substance will be.

Mr. BARRETT. I understand that you do have a report in the Department on the Seedskadie project now in from the field. I assume there are other projects and I wanted you to know that we have the matter in mind and we would like to have them expedited as much as we possibly can.

Mr. WILL. Yes, sir.

Mr. LEMKE. I noted the other day that there are over 2,000,000 unemployed people. The estimate was that at the end of this year there would be 5,000,000. Being a firm believer in employment assurance rather than unemployment insurance I think the Department can

bear that in mind, and we had better have some work to do for those people who have no employment rather than to pay them for loafing.

Mr. WILL. Yes, sir.

Mr. ENGLE. Can you tell us how soon we can anticipate the report that you say is at the Budget?

Mr. WILL. I did not say that, but that is where it is. I said, Mr. Engle, that I hoped to get it up within 24 hours.

Mr. BARRETT. I do not believe we asked if it was favorable.

Mr. LEMKE. You can guess.

Mr. WILL. At the time the compact was executed the Secretary of the Interior expressed himself as enthusiastic over it. So did the Commissioner of Reclamation.

Mr. MURDOCK. We thank you.

This will conclude our session but Congressman White would like to ask one or two questions of Judge Stone.

Judge Stone, could you return to the stand?

Proceed, Mr. White.

Mr. WHITE. Are you now commissioner of water for the State of Colorado?

Mr. STONE. I am director of the Colorado Water Conservation Board of the State of Colorado. That board has two principal functions. One is to take care of and handle interstate water matters and to aid in the development of the State's water program.

I was also commissioner of the State of Colorado in the negotiation of the upper Colorado River Basin compact.

Mr. WHITE. You have participated in the negotiations and in the proceedings in connection with the division of water of the Colorado River?

Mr. STONE. Yes; I did so on behalf of the State of Colorado.

Mr. WHITE. And you are now concerned with the interstate relations.

Does the provision of that contract in any way affect the division of the water of the Colorado River between the States of Colorado and Arizona?

Mr. STONE. As has been stated here and I concur in the statements that have been made in that regard, this compact is an agreement among five signatory States. Its provisions are binding only on those States and are not binding upon any State not signatory to the compact.

Mr. WHITE. Does the compact in any way affect the division of the water of the Colorado River between the States of California and Arizona? I will repeat the question.

Mr. STONE. This compact only involves the States of the upper basin. California is not a State of the upper basin. It is a State solely of the lower basin, and it, accordingly, cannot and does not adjust or attempt to adjust any controversy that may now exist between the States of Arizona and California.

Mr. WHITE. The utilization of water in the upper basin States will in no way affect the division of the States of California and Arizona, will it?

Mr. BARRETT. I would like to make a little observation. We have spent about a day on that very point.

Mr. WHITE. I do not think the record is very clear on the point, and I think Judge Stone is qualified to give an answer to the question.

Mr. STONE. Will you repeat that question?

Mr. WHITE. I said, "Does this compact in any way affect the division of the water of the Colorado River between California and Arizona?"

Mr. STONE. Since this compact is not binding on California, since it is not a signatory to this compact, and since Arizona has reserved any rights as a lower basin State and as a State of the lower division, my answer to that would be that it does not.

Mr. WHITE. Do you favor advocacy of the division of water between Arizona and California?

Mr. STONE. Congressman White, my advocacy one way or another would——

Mr. MURDOCK. May I interrupt the witness for one moment? Dr. Miller, I note you are about to leave. If you could wait just a moment, I think we can vote on this bill in the subcommittee.

Mr. STONE. I will answer it this way: In my judgment, and I believe in the judgment of everyone who is familiar with the Colorado Basin, it would be most desirable if Arizona and California and Nevada could agree, as we in the upper basin States, have agreed, on the apportionment of the water made available by the Colorado River compact to the lower basin.

Mr. WHITE. As a matter of fact, that is an issue now before the Congress, is it not?

Mr. STONE. Pardon me?

Mr. WHITE. I say that is an issue whether we will have the division by negotiation or by court procedure, and it is an issue before the Congress, is it not?

Mr. STONE. If I understand your question correctly, those of us who have been dealing with these problems believe that it is always more desirable to amicably adjust these interstate water matters rather than go to court. It occasionally happens, however, that an original action of the Supreme Court is the only means by which these controversies may be finally adjusted.

Mr. WHITE. I have one more question. The present reclamation law provides that in the sale of power, generally on Government-owned property or power projects, municipalities who operate will be given preference. Does that policy have your approval?

Mr. STONE. Yes; that is the present law. It has been the reclamation law for many years and has proven to be very desirable policy.

Mr. WHITE. And that has your approval, that the towns and cooperatives have preference in buying that power?

Mr. STONE. I have never opposed that policy. It has been the judgment of the Congress that that is a good policy. It was put in the law by the Congress, and it has remained there. I assume that it is generally accepted by the Congress as appropriate policy.

Mr. WHITE. In your previous participation in the negotiations and dealings you do know that that was an issue?

Mr. STONE. I recall that that has been in issue.

Mr. WHITE. That completes my questioning, Mr. Chairman.

Mr. MURDOCK. Mr. Poulson has a statement which he would like to have included in the record. In the interest of conserving time, unless there is objection, it will be inserted as given.

STATEMENT OF NORRIS POULSON, MEMBER OF CONGRESS, STATE OF CALIFORNIA

Mr. POULSON. Mr. Chairman and my colleagues on the committee, I desire to add my compliments to the upper river basin States for their success in agreeing among themselves as to how they will divide up their Colorado River compact apportionment of 7.5 million acre-feet of beneficial consumptive use annually. I wish that the lower basin States might agree among themselves as to the division of their water rights. This committee is now considering H. R. 2325, which seeks congressional consent to the compact made by the upper basin States.

As has been said here the upper basin States have the right to do with their water as they please, but they must not be permitted to change the basic Colorado River compact of 1922, signed by all seven States, which was approved by the Congress as a six-State compact by the Boulder Canyon Project Act (45 Stat. 10573). I say a "six-State compact" because that is what Congress did approve, and I do not know what the situation now is, since Arizona's ratification of the original seven-State compact in 1944.

Nor are the upper basin States to be permitted to adversely affect the interests of the United States or of the basin States which were not signatory to the upper Colorado River Basin compact. Mind you, I am not contending, at the moment, that the compact before us has any such purpose but we are correct in exploring the situation, and I applaud the attitude of my colleague, Congressman Engle, in his efforts to find out the true situation.

All of the members of this committee have heard of the unfortunate controversy that exists between Arizona and California with Nevada to some extent, caught in the middle. All of these States—Arizona, California, and Nevada—have contracts with the Secretary of the Interior, each calling for the delivery of a specified quantity of mainstream water. Now, each of the contracts contain a clause that makes such water delivery "subject to the availability thereof under the Colorado River compact and the Boulder Canyon Project Act."

So far so good, but the States are not in agreement as to their respective rights under the Colorado River compact and the Project Act. The contest still rages and one of the points in issue is just what the compact meant by the term "beneficial consumptive use" California contends that it means "diversions less returns," but Arizona contends it means something else. Arizona contends, with relation to its use of Gila River waters, that it should be charged not with the water it consumes, but on the theory of "man-made depletions of virgin flow." By this definition of "beneficial consumptive use" Arizona seeks to avoid being charged with its full use of Gila River waters.

Now, Mr. Chairman, the legal definition of "beneficial consumptive use" must still be made by the courts, but we find that in the upper basin compact which we are asked to approve, that the upper basin States, seek, by that compact, to establish for themselves that definition of "man-made depletions of virgin flow" (art. VI). Now that's all right, Mr. Chairman, for the upper basin States to so agree among themselves, but they ask this Congress to approve their compact containing such a definition. Even that may be all right, if they don't

lead the Congress into approving such a definition for itself, and, perhaps, for the States of California and Nevada, neither of which signed the upper basin compact. The upper States should not put us in any such possible position and we, of California, and our colleague from Nevada, are entitled to ask this committee for fair play and for protection. Who can say what the Supreme Court will think of such action by Congress? I don't know and I doubt if any of us know.

I urge you to carefully consider your position and to protect yourselves, the Federal Government, and the States of California and Nevada against the possibility of being injured by your action. All that is needed is definite assurance by amendment to the bill, or by other appropriate action that the United States is not, by consenting to this compact, committing itself to any interpretation, expressed or implied, of the main Colorado River compact, that is contained in the upper-basin compact. With such protection, Mr. Chairman, I am for the upper-basin compact, and I will vote for it.

STATEMENT OF HON. HAROLD A. PATTEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ARIZONA

Mr. PATTEN. Mr. Chairman, as a Congressman from the State of Arizona, I speak in behalf of the people of Arizona before this committee. We in Arizona have been interested in the security and economic well-being assured the State and Nation by the upper Colorado River Basin compact. This compact has been fully satified by Arizona and all parties interested in the improvement and development of this great area.

As a Representative, I heartily concur in all the evidence that has been presented in support of the resolution giving consent of the Congress to such a compact, and I shall earnestly endeavor to lend my full support to see that the resolution, without amendments, will be reported unanimously by the committee.

STATEMENT OF HON. JOHN H. MARSALIS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF COLORADO

Mr. MARSALIS. Mr. Chairman, my name is John H. Marsalis. I am a Member of Congress representing the Third District of Colorado. As such I introduced a bill, H. R. 2326, to ratify the upper Colorado River Basin compact, the same being identical to the bill upon which hearings are now being had. I favor the ratification of this compact.

The original compact entered into in 1922 and approved by the United States Government paved the way for development of the main and lower channel of the Colorado River and the erection of the Boulder Dam. This compact apportioned to each of the upper and lower basins in perpetuity a total of 7,500,000 acre-feet for beneficial consumptive use annually.

The time has now come when upper-basin States desire to proceed in the development of their area, and in order to proceed logically and safely with such program, it was necessary that an agreement be reached between them concerning the amount of water to which each was separately entitled under the 1922 compact award. An agreement was finally reached between the States of Arizona, Colorado, New

Mexico, Utah, and Wyoming, and thereafter incorporated into a compact duly ratified by the legislatures of such States and signed by their Governors. It is this compact that we now seek approval of by the United States Government, and it is my earnest hope that early ratification be obtained.

Mr. STONE. Mr. Chairman, were there any other questions?

Mr. MURDOCK. I believe that concludes the questions, Judge Stone.

Mr. BARRETT. If it is in order, I would like to move that H. R. 2325 be reported favorably to the full committee, with the understanding that the language agreed upon this afternoon shall be incorporated into the report of the bill.

Mr. WHITE. I second the motion, Mr. Chairman.

Mr. MURDOCK. You have heard the motion. It has been seconded. All in favor of the same make it known by saying "aye". Opposed, "no." It is carried unanimously.

STATEMENT OF HON. JOHN E. MILES, REPRESENTATIVE IN CONGRESS FROM NEW MEXICO

The adoption of the upper Colorado Basin compact by the legislatures of the signatory States and congressional consent to this compact will mark a great forward step in the development of the Colorado River.

I would like to state particularly for the record that it might be noted that by the terms of article XVIII the State of New Mexico and the State of Utah reserve their respective rights and interests under the Colorado River compact as States of the lower basin. This has reference to the provisions of the Colorado River compact of 1922, article II, subparagraph (g), whereby the term "lower basin" is defined as "those parts of the States of Arizona, California, Nevada, New Mexico, and Utah within and from which waters naturally drain into the Colorado River system below Lee Ferry, and also all parts of said States located without the drainage area of the Colorado River system which are now, or shall hereafter be, beneficially served by waters diverted from the Colorado River system below Lee Ferry." This recognizes the interest of New Mexico in the Gila and Little Colorado Rivers and their tributaries which rise in New Mexico. These rights are not affected by the terms of the upper Colorado River Basin compact. They are governed entirely by the terms of the original Colorado River compact of 1922. The portion of the waters of these rivers which New Mexico may be entitled to use consumptively has not been determined. This may have to be done by compact with the other States of the lower division, or in the case of the Gila River by the authorization by Congress of the construction of the central Arizona project, and congressional provisions binding on Arizona, California, and Nevada, apportioning a certain quantity of consumptive use to New Mexico, or by agreement with Arizona alone after Arizona and California settle their controversies over the waters of the lower Colorado and its tributaries.

Mr. MURDOCK. The committee stands adjourned.

(At 4:15 p. m., the hearing was adjourned.)

UPPER COLORADO RIVER BASIN COMPACT

FRIDAY, MARCH 18, 1949

HOUSE OF REPRESENTATIVES,
Committee on Public Lands,
Washington, D. C.

The full Committee on Public Lands met at 10 a. m., Hon. J. Hardin Peterson presiding.

Present: Messrs. Peterson, Murdock, Engle, Redden, Morris, Regan, Bentsen, Baring, Mrs. Bosone, Messrs. Marshall, Aspinall, Miles, Crawford, Lemke, Barrett, LeFevre, Miller, D'Ewart, Poulson, Sanborn, and Bartlett.

Mr. PETERSON. Mr. Murdock says he is ready to report his compact bill. The Subcommittee on Irrigation and Reclamation, which includes the full committee, has had rather extensive hearings on the compact bill with reference to the upper Colorado Basin compact. It is H. R. 2325.

In those rather extensive discussions there were certain things that they wanted written into the report. As I understand it, you reported it out unanimously from your committee?

Mr. MURDOCK. Yes, Mr. Chairman; the Subcommittee on Irrigation and Reclamation unanimously reported H. R. 2325 with the understanding that certain language was to be written into the report accompanying the bill. The bill itself is unamended. The language agreed upon by all parties is in the transcript. I have asked that it be recopied. I have again submitted copies of the language as agreed upon to certain members of the committee. Will it be necessary to read this?

Mr. PETERSON. I can do it quickly. If there is no objection, we will receive the report of the subcommittee recommending the reporting favorably of H. R. 2325, and if there is no objection the report is received.

If there is no objection, the bill will be considered as read.

Is there objection?

I hear none. The bill will be considered as read.

There is a report from the chairman of the subcommittee to the effect that his committee has recommended that this be included in the language of the report, and the member authorized to report the bill is instructed to include in his report the following wording:

The upper Colorado River Basin, compact is an interstate compact between the States of Arizona, Colorado, New Mexico, Utah, and Wyoming. Article 1, section 10, of the Constitution of the United States requires that before a compact or agreement between States is effective, the Congress of the United States must consent thereto. The purpose of S. 790 (H. R. 2325) is to give such congressional consent to the upper Colorado River Basin compact. S. 790 (H. R. 2325) does not, nor does the upper Colorado River Basin compact, alter, amend,

modify, or repeal the Boulder Canyon Project Act (45 Stat. 1057) or the Colorado River compact signed at Santa Fe, N. Mex., on November 24, 1922. It is recognized that the upper Colorado River Basin compact is binding only upon the States which are signatory thereto and does not impair any rights of any State not signatory thereto, and that the upper Colorado River Basin compact is subject in all respects to the provisions and limitations contained in the Colorado River compact.

It is further recognized that Congress, by giving its consent to the upper Colorado River Basin compact, does not commit the United States to any interpretation of the Colorado River compact expressed in or implied from the upper Colorado River Basin compact, and expresses neither agreement nor disagreement with any such interpretation.

Do I hear a motion?

Mr. BARRETT. Mr. Chairman, it occurs to me since we have read that again perhaps the reference to the bills ought to be transposed because the original agreement on the first part of this language was made in the Senate, and they referred to S. 790. Probably that was an agreement in the Senate, whereas we are putting in the "House."

Mr. PETERSON. You mean "H. R." would come ahead of the "S."?

Mr. BARRETT. The "S." ought to be in brackets instead of the "H. R. 2325."

Mr. PETERSON. With that objection, it will be changed. We will amend this language to include H. R. 2325 and then "(S. 790)."

Is there any objection?

The Chair hears none. It is so ordered.

Does the Chair hear a motion to instruct the member who is to report the bill?

Mr. POULSON. I so move.

Mr. BARRETT. I second the motion.

The motion should be explicit that we reported favorably.

Mr. PETERSON. My motion is that such member of the committee as may be designated to report it is hereby instructed to include in the report the following words. All in favor let it be known by saying "aye"; opposed, "no."

It is so ordered.

When the bill is reported, it shall contain those words in the report.

Does the Chair hear a motion to report H. R. 2325 favorably with the provision contained therein?

Mr. POULSON. I so move.

Mrs. BOSONE. I second the motion.

Mr. PETERSON. Is there any discussion?

If not, all those in favor of the motion let it be known by saying "aye"; opposed, "no."

The "ayes" have it. It is so ordered. The vote is unanimous.

(Whereupon, the committee adjourned.)

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