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IN THE

Supreme Court of the United States

October Term, 1952 1961
No. 10 Original.

STATE OF ARIZONA,

Complainant,

vs.

STATE OF CALIFORNIA, PALO VERDE IRRIGATION DISTRICT, IMPERIAL IRRIGATION DISTRICT, COACHELLA VALLEY COUNTY WATER DISTRICT, METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, CITY OF LOS ANGELES, CALIFORNIA, CITY OF SAN DIEGO, CALIFORNIA, and COUNTY OF SAN DIEGO, CALIFORNIA,

Defendants.

ANSWER OF DEFENDANTS TO BILL OF COMPLAINT.

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OUTLINE OF ANSWER.

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STATE OF ARIZONA,

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STATE OF CALIFORNIA, PALO VERDE IRRIGATION DISTRICT, IMPERIAL IRRIGATION DISTRICT, COACHELLA VALLEY COUNTY WATER DISTRICT, METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, CITY OF LOS ANGELES, CALIFORNIA, CITY OF SAN DIEGO, CALIFORNIA, and COUNTY OF SAN DIEGO, CALIFORNIA,

Defendants.

ANSWER OF DEFENDANTS TO BILL OF COMPLAINT.

Defendants, by Their Duly Authorized Attorneys, Jointly Answer the Complaint Herein as Follows.

FIRST AFFIRMATIVE DEFENSE.

Defendants Have the Right to the Beneficial Consumptive Use of 5,362,000 Acre-feet per Annum of Waters of the Colorado River System Under the Colorado River Compact, the Boulder Canyon Project Act, the Statutory Compact Between the United States and California, and the Contracts of the Secretary of the Interior Executed Pursuant Thereto.

A. HISTORICAL AND GEOGRAPHICAL BACKGROUND.

1.
Introduction.

The defendants in this action are the State of California and public agencies of this State authorized by its laws to serve water to their inhabitants and lands. The rights which the State and these agencies defend are their rights to the beneficial consumptive use of waters of the Colorado River System for projects already constructed and now operating. These projects represent more than 75 years of continuous development, the oldest dating from 1877, the newest from 1923.

More than four million inhabitants of the State of California use, and are dependent in whole, or in substantial part, upon the waters of the Colorado River System. The area within the defendant agencies served by these waters exceeds two and one-half million acres. More than sixty California cities and other public entities are served with water from the Colorado River System. To provide this service, the defendants have constructed, or have obligated themselves to pay the cost of, works costing more than five hundred million dollars. Within the area served by these works the value of property now exceeds twelve billion dollars, and the gross value of the products of agriculture and industry in 1952 exceeded $3,500,000,000. The economy of Southern California is dependent upon the use of the waters here in controversy.

This controversy centers on the desire of Arizona to secure a right to the use of water for the Central Arizona Project, which has not been authorized by the Congress. She seeks to obtain water for that project by taking it from the existing and operating California projects.

Further details as to the proposed Arizona project appear in Paragraphs 65 and 66 of this Answer.

This First Affirmative Defense is concerned with the rights of the defendants under contracts into which they entered with the United States, more than twenty years ago, for the delivery to them of water under the Boulder Canyon Project Act. It outlines (A) the projects dependent upon the waters to be delivered under these contracts, (B) the provisions of the Colorado River Compact, (C) the provisions of the Boulder Canyon Project Act and (D) the provisions of the contracts themselves.

The Second Affirmative Defense alleges the facts which estop Arizona from questioning the validity of these contracts; the Third, the appropriative rights of the defendants; the Fourth, the indispensability of the United States as a party to this action. The Traverse to the Complaint follows these Affirmative Defenses.

2.

The California Projects.

The projects which carry the waters of the Colorado River System into Southern California are three in number. From north to south they are as follows: (See Plates 1 and 2 in the Appendix to this Answer.)

(a) The Colorado River Aqueduct, financed and constructed by defendant The Metropolitan Water District of Southern California, diverts from the main stream of the Colorado River above Parker Dam, 155 miles below Hoover Dam and 170 miles above the Mexican border. The main aqueduct transports water 242 miles westward and there connects with a system of about 300 miles of distribution aqueducts to serve the cities and other public bodies which are parts of the District. These

cities now number 48, including defendants City of Los Angeles and City of San Diego. They extend 150 miles along the coastal plain of Southern California and encompass a service area of over 1500 square miles. The total direct investment in the Colorado River Aqueduct System to date is over $244,000,000, and, when works now under construction are completed, will be in excess of $300,000,000. These sums are in addition to the Hoover Dam power obligations of this District and the City of Los Angeles. The District's minimum water requirements from the Colorado River are in the amount of 1,212,000 acre-feet per year, and this is the quantity provided for in its contracts with the United States. A full description of this project is contained in Exhibit A to this Answer and is incorporated herein by reference as though here fully stated. (See also Plates 6A and 6B.)

(b) Defendant Palo Verde Irrigation District diverts water from the Colorado River at a point 212 miles below Hoover Dam and 113 miles above the Mexican border. It contains within its boundaries approximately 120,500 acres, including the lands of the Palo Verde Valley, the oldest irrigated area in the Colorado River Basin. Its people have spent more than $20,000,000 to build the works that serve this area. A full description of this project is contained in Exhibit B to this Answer and is incorporated herein by reference as though here fully stated. (See also Plate 3.)

(c) The All-American Canal diverts at Imperial Diversion Dam, 303 miles below Hoover Dam and 22 miles above the Mexican border. It transports water into the Imperial Valley for defendant Imperial Irrigation District and into Coachella Valley for defendant Coachella Valley County Water District, delivering water enroute to the

Yuma Reclamation Project, of which 25,000 acres are in California and 50,000 acres are in Arizona. The total California investment in this project is over $60,000,000. A full description of the All-American Canal project is contained in Exhibit C to this Answer and is incorporated herein by reference as though here fully stated. (See also Plates 4 and 5.)

The minimum water requirements from the Colorado River System of the Palo Verde Irrigation District, Yuma Project in California, Imperial Irrigation District and Coachella Valley County Water District, are 4,150,000 acre-feet per year, which is the quantity provided for by their contracts with the United States, and is within the quantities of their appropriations made a half-century and more ago.

3.

Background of Colorado River Compact.

(a) Prior to 1920 appropriators in California, and to a limited extent in Arizona, had appropriated and put to use all of the natural flow of the main stream of the Colorado River which existed in the late summer irrigating season. Uses by junior appropriators in Arizona, Colorado, Utah, New Mexico and Wyoming were interfering with the uses under the senior appropriations in California and Arizona. Satisfaction of such junior appropriations was dependent upon the construction of storage works to salvage the flood waters then wasting to the Gulf of California during the spring months of the year. These spring flood waters were a menace to all of the lands along the lower river in Arizona and California. The menace was increasing because the deposition of silt by the river in its delta area was constantly raising the river bed, making the protection of the threat-

ened areas by means of levees steadily more difficult and precarious. The geographical situation required the critical levees to protect Imperial Valley to be built and maintained in Mexico, and the main canal serving the Imperial Valley at that time followed a contour which carried it through Mexican territory enroute. The construction of an All-American Canal was essential to the removal of international complications and problems, and was of concern to all the States in the Colorado River Basin and to the United States. Commencing in 1918, legislation was introduced in the successive Congresses to authorize the construction of such an All-American Canal. In the course of consideration of such legislation there became apparent the necessity for construction of storage works to control the floods, retain silt, and provide stored water for the expansion of junior appropriations. Such storage was desired by and was essential to all seven States of the Colorado River Basin. However, the States of the Upper Division (Colorado, Utah, New Mexico and Wyoming) were insistent that they be protected in some manner from the probability that after such storage was provided, appropriations in the Lower Basin would expand so rapidly as to appropriate all of the conserved waters and again forestall the possibility of long-range but slower expansion of uses in the Upper Basin.

(b) In 1921, the seven States of the Colorado River Basin enacted legislation authorizing negotiation of an inter-state compact for the division of the waters of the Colorado River System, and the Congress, by the Act of August 19, 1921 (42 Stat. 171), authorized the participation of a federal representative therein. The negotiations so authorized were undertaken and were carried on at various times from January 26 to November 24, 1922.

when the Colorado River Compact, described in later paragraphs of this Answer, was signed.

4.

Comparison of Rights of California and Arizona at the Time of Signature of the Colorado River Compact.

(a) As of the date of signature of the Colorado River Compact, November 24, 1922, complete irrigation distribution systems were in operation and providing service to Palo Verde Irrigation District, Imperial Irrigation District, and the portion of the Yuma Project in California, for a total of approximately 610,000 acres, for which the demand on Colorado River water was not less than 4,500,000 acre-feet per annum. On a comparable basis such works had been completed and were in service along the Colorado River in Arizona for the Parker Project, Yuma Project, and other miscellaneous areas, for a total of 65,000 acres, for which the demand for water from the Colorado River was about 450,000 acre-feet per annum. In addition, works had been constructed in Arizona on the Gila River, a tributary of the Colorado River, requiring an additional 2,000,000 acre-feet per annum.

(b) As of the same date, there were vested appropriative rights, valid under the laws of California, to the beneficial consumptive use of not less than 6,000,000 acre-feet per annum of the waters of the Colorado River System, including those referred to in Paragraph (a) above. The appropriative rights claimed by Arizona were alleged by that State in *Arizona v. California,* 283 U. S. 423, to aggregate 3,900,000 acre-feet per annum, of which a quantity of approximately 3,000,000 acre-feet per annum was alleged to relate to the waters of the Gila River and its tributaries.

B. THE COLORADO RIVER COMPACT.

5.

Signature of Text of Compact.

On November 24, 1922, representatives of the States of Arizona, California, Nevada, Utah, Colorado, New Mexico, and Wyoming signed the text of a proposed compact (Appendix 1 to this Answer) to become effective upon ratification by their legislatures and consent of the Congress. This Compact became effective as the Six-State Colorado River Compact June 25, 1929, in the manner hereinafter described, Arizona having rejected and refused to ratify it. Wherever in this Answer the effect of the Six-State Colorado River Compact is pleaded, such effect is that which was reported by the negotiators in their published reports to their legislatures and to the Congress, and which appears in the legislative history of the Boulder Canyon Project Act which granted Congressional consent thereto in modified form.

6.

Text of Compact: Article I: Purposes.

Article I of said Compact states its major purposes to be for the equitable division and apportionment of the use of the waters of the Colorado River System; to establish the relative importance of different beneficial uses of water; to promote interstate comity; to remove causes of present and future controversies; and to secure the expeditious agricultural and industrial development of the Colorado River Basin, the storage of its waters, and the protection of life and property from floods. Article I further provides that to these ends the Colorado River Basin is divided into two Basins, and an apportionment of the

use of part of the water of the Colorado River System is made to each of them with the provision that further equitable apportionments may be made.

7.

Article II: Definitions.

Article II(a) of said Compact defines the term, "Colorado River System," to mean that portion of the Colorado River and its tributaries within the United States of America. Defendants allege: said definition includes, as a necessary part of the Colorado River System, the Gila River and its tributaries. The Gila River rises in New Mexico and flows across Arizona to join the main stream of the Colorado River near Yuma, Arizona.

Article II(b) of said Compact defines the term "Colorado River Basin" to mean all of the drainage area of the Colorado River System and all other territory within the United States of America to which the waters of the Colorado River System shall be beneficially applied. Defendants allege: as so defined, the Colorado River Basin includes all of the areas in the State of California served by the defendants.

Article II(c) of said Compact defines the term "States of the Upper Division" to mean the States of Colorado, New Mexico, Utah and Wyoming.

Article II(d) of said Compact defines the term "States of the Lower Division" to mean the States of Arizona, California and Nevada.

Article II(e) of said Compact defines the term "Lee Ferry" to mean a point in the main stream of the Colorado River one mile below the mouth of the Paria River.

Article II(f) of said Compact defines the term "Upper Basin" to mean 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 Colorado River System which are now or shall hereafter be beneficially served by waters diverted from the System above Lee Ferry. Defendants allege that the term "Upper Basin" as so defined is not identical with the term "States of the Upper Division" as defined in Article II(c), but includes a portion of Arizona, which is not a State of the Upper Division.

Article II(g) of said Compact defines the term "Lower Basin" to mean 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 System below Lee Ferry. Defendants allege that as so defined, the Lower Basin includes all of the areas in the State of California served by the defendants, and all of the drainage area of the Gila River and its tributaries in Arizona. The term "Lower Basin" as so defined is not identical with the term "States of the Lower Division" as defined in Article II(d), but includes portions of Utah and New Mexico, which are not States of the Lower Division.

8.

Article III(a): Apportionments.

Article III(a) of said Compact apportions from the Colorado River System in perpetuity to the Upper Basin and to the Lower Basin, respectively, the exclusive beneficial consumptive use of 7,500,000 acre-feet of water per annum, which it states "shall include all water necessary for the supply of any rights which may now exist." Defendants allege: the apportionment in perpetuity effected by Article III(a) of the Colorado River Compact is intended to and does reserve the use of the quantities therein stated from the operation of the laws of appropriation as between the Upper Basin and the Lower Basin. Said apportionment is from the waters of the entire Colorado River System, including the Gila River and its tributaries, and not merely from the virgin flow of the main stream.

The term "consumptive use" is not defined in said Compact, but is defined as "diversions less returns to the river" in Section 4(a) of the Boulder Canyon Project Act (Act of Dec. 21, 1928, 45 Stat. 1057), which statute granted the consent of the Congress to said Compact.

The foregoing definition of "consumptive use" was again employed in the Mexican Water Treaty signed February 3, 1944 (Treaty Series 994), as follows:

> Article I(d): " 'To divert' means the deliberate act of taking water from any channel in order to convey it elsewhere for storage, or to utilize it for domestic, agricultural, stock-raising or industrial purposes

whether this be done by means of dams across the channel, partition weirs, lateral intakes, pumps or any other methods."

Article I(h): "'Return flow' means that portion of diverted water that eventually finds its way back to the source from which it was diverted."

Article I(j): "'Consumptive use' means the 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."

Such was the commonly accepted meaning of the term at the time of negotiation of the Compact and of the Congressional consent thereto, and was and is the meaning of said term as used throughout said Compact. Beneficial consumptive uses in California and in Arizona were and are intended and required by the Compact to be measured in the identical manner and at the places of use, wherever they occur, not in terms of "man-made depletion" of the flow of only the main stream at some lower point. No beneficial consumptive uses at places of use are excepted or exempt from said method of measurement, whether of natural flow or of water salvaged by storage or otherwise in any part of the Basin. The words "per annum" as used in said Compact mean "each year" and not an average of such uses over a period of years.

Uses of the waters of the Gila River and its tributaries under rights which existed as of June 25, 1929, are chargeable first against the apportionment made to the Lower Basin by Article III(a) of the Compact. Such uses in Arizona as of that date aggregated not less than 2,000,000 acre-feet per annum.

9.

Article III(b): Permission to the Lower Basin to Increase Its Uses.

Article III(b) of said Compact provides that, in addition to the apportionment made in Paragraph (a) of Article III, the Lower Basin is given the right to increase its beneficial consumptive use of the waters of the Colorado River System by one million acre-feet per annum. Defendants allege: the terms "beneficial consumptive use" and "per annum" as used in Article III(b) have the same meaning as in Article III(a). The first million acre-feet of beneficial consumptive uses above 7,500,000 acre-feet per annum, wherever such uses in the Lower Basin may occur, are encompassed by Article III(b), and said Article III(b) does not relate solely to waters found flowing in the Gila River or any other specific portion of the Lower Basin.

Said Compact contains no provision apportioning the use of water as between Arizona and California or among any States; imposes no restriction or limitation upon the amount which any State may use of the waters apportioned by Article III(a) to the Basin in which such use is made; and imposes no restriction or limitation upon Arizona, California, Nevada, Utah or New Mexico with respect to their respective participations in the increase of beneficial consumptive use permitted to the Lower Basin by Article III(b) of said Compact.

10.

Article III(c): Mexico.

Article III(c) of said Compact provides that if, as a matter of international comity, the United States of America shall recognize in the United Mexican States any right to the use of any waters of the Colorado

River System, such waters shall be supplied first from the waters which are surplus over and above the aggregate of the quantities "specified" in Paragraphs (a) and (b) of said Article III, and if such surplus shall prove insufficient for this purpose, then the burden of such deficiency shall be equally borne by the Upper Basin and the Lower Basin, and whenever necessary the States of the Upper Division shall deliver at Lee Ferry water to supply one-half of the deficiency so recognized in addition to that provided in Paragraph (d), hereinafter referred to. Defendants allege: neither in said Article III(c) nor in any other provision of the Colorado River Compact is water or the use of water apportioned to the United Mexican States. The obligation assumed in Article III(c) by the States of Colorado, New Mexico, Utah and Wyoming, being the States of the Upper Division, to deliver water to supply one-half of the Mexican deficiency, does not include any obligation on the part of Arizona, with respect to that portion of her territory which is in the Upper Basin, to make such delivery. In the event that a deficiency must be borne by the Lower Basin under Article III(c), the Lower Basin is not required to diminish the uses apportioned to it by Article III(a) unless the additional uses permitted it by Article III(b) shall have been first yielded and shall have proved insufficient to meet the Lower Basin's share of the Treaty requirement.

On April 18, 1945, the Senate of the United States consented, with reservations, to a treaty (Treaty Series 994) with the United Mexican States, and the same was ratified, effective as of November 8, 1945. Defendants allege that the performance of said treaty as to the Colorado River System will require the guaranteed delivery, from any and all sources, of 1,500,000 acre-feet of water

per annum at the Mexican boundary, and that said sources are the entire Colorado River System, including the Gila River and its tributaries.

11.

Article III(d): Guarantee by States of the Upper Division.

Article III(d) of said Compact provides 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 ten consecutive years reckoned in continuing progressive series beginning with the first day of October next succeeding the ratification of said Compact. Defendants allege: the quantity of 75,000,000 acre-feet specified in Article III(d) bears no quantitative relationship to the beneficial consumptive use of 7,500,000 acre-feet per annum apportioned to either the Upper Basin or Lower Basin by Article III(a).

12.

Article III(e): Reasonable Use.

Article III(e) of said Compact provides that the States of the Upper Division shall not withhold water, and the States of the Lower Division shall not require the delivery of water, which cannot reasonably be applied to domestic and agricultural uses.

13.

Article III(f, g): Further Apportionment.

Article III(f) of said Compact provides that further equitable apportionment of the beneficial uses of the waters of the Colorado River System unapportioned by Paragraphs III(a), (b), and (c) may be made in the manner provided in Paragraph (g) at any time after October 1, 1963, if and when either Basin shall have reached its total beneficial consumptive use as set out in Paragraphs (a) and (b) of Article III.

Defendants allege: the provisions of Articles III(f) and III(g) are permissive and not mandatory, and no State has committed itself to enter into such a future compact.

The "further apportionment" referred to in Article III(f) relates only to an apportionment between Basins and then only on mutual consent of all States in both Basins.

Neither Article III(f) nor any other article of the Colorado River Compact prohibits or prevents the United States from presently contracting for the delivery from storage of, or the defendants herein from receiving, appropriating or using, waters surplus to those required to sustain the uses apportioned by Article III(a), nor does it postpone the enjoyment of the use thereof until another interstate compact is made, some time after October 1, 1963, if such a compact is ever made.

Article III(f) postpones the right of either Basin to demand the negotiation of such a compact until after (1) October 1, 1963, and (2) beneficial consumptive uses in the Upper Basin exceed 7,500,000 acre-feet per annum or such uses in the Lower Basin exceed 8,500,000 acre-feet per annum.

Article III(g) provides the mechanics for the calling of a conference and the formulation of a compact for a further apportionment as referred to in Article III(f), subject to legislative ratification thereof by the signatory States and consent by the Congress.

14.

Article VII: Indian Tribes.

Article VII provides that nothing in the Colorado River Compact shall be construed as affecting the obligations of the United States of America to Indian tribes. Defendants allege: all beneficial consumptive uses of water by Indian

tribes pursuant to obligations of the United States to such tribes are chargeable to the beneficial consumptive uses available under the Compact to the Basin, and to the State, in which such uses are situate.

15.

Article VIII: Present Perfected Rights.

Article VIII of said Compact provides that "present perfected rights" to the beneficial use of waters of the Colorado River System are unimpaired by this Compact. Said Article VIII provides further that whenever storage capacity of 5,000,000 acre-feet shall have been provided on the main Colorado River within or for the benefit of the Lower Basin, then claims of such rights, if any, by appropriators or users of water in the Lower Basin against appropriators or users of water in the Upper Basin shall attach to, and be satisfied from, water that may be stored not in conflict with Article III. Said Article VIII further provides that all other rights to beneficial use of waters of the Colorado River System shall be satisfied solely from the water apportioned to that Basin in which they are situate.

Defendants allege: "Unimpaired" as used in this Article means unimpaired as to both the quantity and the quality of the waters to which said perfected rights relate. The Compact does not define the term "present perfected rights." The rights existing in the defendants on and prior to June 25, 1929, are alleged in Paragraph 28 of this Answer.

16.

Article XI: Ratification.

Article XI of the Compact provides that said Compact shall be binding and obligatory when it shall have been

approved by the Legislatures of each of the signatory States and by the Congress of the United States.

17.

Ratification of Seven-state Compact by Six States: 1923.

During the year 1923, the Legislatures of California, Colorado, Nevada, New Mexico, Utah and Wyoming ratified the proposed Colorado River Compact. The Legislature of Arizona rejected it, after first adopting in one house or the other reservations or amendments which, among others, would have provided "That the Gila River System, including the waters of said Gila River and streams tributary thereto, be not included, considered or involved in any way with the so-called Colorado River Compact."

18.

Rejection by Arizona: 1925.

In 1925 the Governor of Arizona formally announced that Arizona elected to rely on the law of appropriation as between States as announced by this Court in *Wyoming v. Colorado,* 259 U. S. 419 (1922), and that Arizona did reject the proposed Colorado River Compact.

19.

Ratification of Six-state Compact: 1925-1929.

Between 1925 and 1929, the Legislatures of California, Colorado, Nevada, New Mexico, Utah and Wyoming enacted legislation reciprocally waiving the provisions of Article XI of the proposed Colorado River Compact (which article made the Compact effective when approved by the Legislatures of seven states), and enacting that said Compact should become effective when six states should have ratified it and the Congress should have given its consent.

C. THE BOULDER CANYON PROJECT ACT AND THE STATUTORY COMPACT BETWEEN THE UNITED STATES AND CALIFORNIA.

20.
Consideration of the Boulder Canyon Project by the Congress.

From April 25, 1922, to December 21, 1928, the Congress gave consideration in hearings and debates to four measures, popularly referred to as the Swing-Johnson bills, for the purpose of ratifying the Colorado River Compact, authorizing the construction of a storage dam on the Colorado River at or near Boulder Canyon, and authorizing the construction of an All-American Canal from the Colorado River to the Imperial and Coachella Valleys.

In the course of these hearings and debates the projects of the defendants as now constructed, and the water requirements of these projects, were thoroughly examined and made known to the Congress, and to all of the States of the Colorado River Basin, and said legislation in its successive stages was formed and adapted to make possible the construction of said projects, to assure them an adequate water supply, and to require said defendants to undertake the repayment of the cost of Hoover Dam and the All-American Canal to that end.

Among the successive steps of legislative consideration a bill was favorably reported by committees in the 70th Congress, passed the House, but was prevented from coming to a vote in the Senate by filibusters of the Arizona Senators in February, 1927, and May, 1928.

Thereupon the Congress enacted the Act of May 28, 1928 (45 Stat. 1011), authorizing the President to ap-

point a Board of Engineers to review the economic and engineering features of the proposed Boulder Canyon Project. The Board, known as the "Sibert Board," reviewed the proposed Boulder Canyon Project, including water requirements of the defendants and of other areas to be served by the said project, and rendered its report, favorable to the project, on December 3, 1928 (H. Doc. 446, 70th Congress, 2d Session; reprinted in H. Doc. 717, 80th Congress, p. A187).

Thereafter the Congress proceeded to the consideration and final passage of the fourth Swing-Johnson bill, which became the Boulder Canyon Project Act (Act of December 21, 1928, 45 Stat. 1057). The full text of this statute appears as Appendix 2 to this Answer. Wherever in this Answer the effect of that Act is pleaded, the construction relied upon is the construction of the Act supported by the legislative history thereof.

21.

Alternative Consent to Seven-state or Six-state Compact by Congress.

The Boulder Canyon Project Act enacted, among other things, the consent of Congress to the proposed Compact signed at Santa Fe, New Mexico, November 24, 1922, either as a seven-state compact, or, in the alternative, as a six-state compact, conditioned, in the latter event only, upon the enactment by California of a statute in specified terms; and said Act delegated to the President the power to proclaim at the expiration of six months the effectuation and existence of either the seven-state compact or the

alternative six-state compact, but not both. The language of the statute in this respect reads:

> Sec. 4(a). Par. 1: "This Act shall not take effect * * * unless and until (1) the States of Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming shall have ratified the Colorado River compact, mentioned in section 13 hereof, and the President by public proclamation shall have so declared, or (2) if said States fail to ratify the said compact within six months from the date of the passage of this Act then, until six of said States, including the State of California, shall ratify said compact and shall consent to waive the provisions of the first paragraph of Article XI of said compact, which makes the same binding and obligatory only when approved by each of the seven States signatory thereto, and shall have approved said compact without conditions, save that of such six-State approval, and the President by public proclamation shall have so declared, and, further, until the State of 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 of 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 four million four hundred thousand acre-feet of the waters apportioned to the lower basin States by paragraph (a) 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."

Sec. 13(a). "The Colorado River compact signed at Santa Fe, New Mexico, November 24, 1922, * * * is hereby approved by the Congress of the United States, and the provisions of the first paragraph of article 11 of the said Colorado River compact, making said compact binding and obligatory when it shall have been approved by the legislature of each of the signatory States, are hereby waived, and this approval shall become effective when the State of California and at least five of the other States mentioned, shall have approved or may hereafter approve said compact as aforesaid and shall consent to such waiver, as herein provided."

Defendants allege: The term "excess or surplus waters unapportioned by said compact," as so used in said Act, includes the increase of use of 1,000,000 acre-feet per annum permitted to the Lower Basin by Article III(b) of the Colorado River Compact.

22.

Authorization of a Tri-state Agreement.

Section 4(a), Paragraph 2, of the Boulder Canyon Project Act also authorized, but did not require as a condition precedent or otherwise, an agreement among Arizona, Nevada and California, pertaining to the use by said States of water apportioned to the Lower Basin by Article III(a) of the Colorado River Compact and water not apportioned by Article III(a) of said Compact, subject, however, by the terms of Section 8(b) of said Act, to the requirement of further consent of Congress at least

if such Agreement should be made after January 1, 1929. Section 8(b) of the Project Act further provided that any Agreement among Arizona, California, or Nevada to which Congress should give its consent after January 1, 1929, should be subject to all contracts made by the Secretary of the Interior under Section 5 of said Act. The Secretary has made such contracts with the defendants, as stated in this First Affirmative Defense.

Paragraph 2 of Section 4(a) contained no reference to the increase of use of 1,000,000 acre-feet per annum specifically permitted to the Lower Basin by Article III(b) of the Colorado River Compact. Rather, in like manner as in Paragraph 1 of said Section 4(a), the proposed Tri-State Agreement suggested an allocation to Arizona of one-half of any excess or surplus waters unapportioned by Article III(a) of the Colorado River Compact, said excess including water referred to in Article III(b) of said Compact as well as other surplus.

The Tri-State Agreement proposed by the second paragraph of Section 4(a) of the Project Act makes no provision for uses by Utah and New Mexico, States which are in part within the Lower Basin.

It has not been ratified by any State.

23.

Legislation by California as to Compact.

The Legislature of California thereafter ratified the proposed Colorado River Compact in the alternative as a seven-state compact or as a six-state compact, whichever the President should proclaim at the end of six months from December 21, 1928. (Calif. Stats. 1929, Ch. 1, p. 1; Stats. 1929, Ch. 15, p. 37; see Stats. 1929, Ch. 16, p. 38, *infra.*)

24.

Enactment by California of Limitation Act.

California, in response to the first paragraph of Section 4(a) of the Boulder Canyon Project Act, on March 4, 1929, enacted the following statute (Stats. 1929, Ch. 16, p. 38; hereinafter referred to as the California Limitation Act, Appendix 3 to this Answer) to become effective only upon the ratification of the Colorado River Compact by six States, and its non-ratification by the seventh State (Arizona) within six months from December 21, 1928, and proclamation of the latter event by the President:

> "An act to limit the use by California of the waters of the Colorado river in compliance with the act of Congress known as the 'Boulder Canyon Project Act,' approved December 21, 1928, in the event the Colorado River compact is not approved by all of the states signatory thereto.
>
> "The people of the State of California do enact as follows:
>
> "Section 1. In the event the Colorado river compact signed at Santa Fe, New Mexico, November 24, 1922, * * * is not approved within six months from the date of the passage of that certain act of the Congress of the United States known as the 'Boulder Canyon Project Act,' approved December 21, 1928, by the legislatures of each of the seven states signatory thereto, as provided by article eleven of the said Colorado river compact, then when six of said states, including California, shall have ratified and approved said compact, and shall have consented to waive the

provisions of the first paragraph of article eleven of said compact which makes the same binding and obligatory when approved by each of the states signatory thereto, and shall have approved said compact without conditions save that of such six states approval and the President by public proclamation shall have so declared, as provided by the said 'Boulder Canyon Project Act,' the State of California as of the date of such proclamation agrees 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 the said 'Boulder Canyon Project Act' that the aggregate annual consumptive use (diversions less returns to the river) of water of and from the Colorado river for use in the State of California including all uses under contracts made under the provisions of said 'Boulder Canyon Project Act,' and all water necessary for the supply of any rights which may now exist, shall not exceed four million four hundred thousand acre-feet of the waters apportioned to the lower basin states by paragraph 'a' of article three of the said 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.

"Sec. 2. By this act the State of California intends to comply with the conditions respecting limitation on the use of water as specified in subdivision 2 of section 4(a) of the said 'Boulder Canyon Project Act' and this act shall be so construed."

25.

Proclamation of Six-state Compact by President.

On June 25, 1929 the President of the United States proclaimed that (a) seven States had not ratified the Colorado River Compact within six months from the date of the approval of the Boulder Canyon Project Act, but that (b) six states (including California) had ratified said compact and consented to waive the provisions of Article XI thereof requiring seven-state approval, as prescribed in Section 13(a) of the Boulder Canyon Project Act; (c) that California had met the requirements set out in the first paragraph of Section 4(a) of the Boulder Canyon Project Act necessary to render said act effective on six-state approval of said compact, and (d) all prescribed conditions having been fulfilled, the Boulder Canyon Project Act was effective June 25, 1929. (Appendix 4 to this Answer, 46 Stat. 3000.)

26.

Legislation by Arizona as to Compact.

On February 24, 1944, the Legislature of Arizona enacted a statute entitled "An Act ratifying the Colorado River Compact; and declaring an emergency." (Sess. L. Ariz. 144, pp. 427-428.) The effect of said statute is referred to in Paragraph 59 of the Traverse in this Answer.

27.

Statutory Compact.

(a) The Boulder Canyon Project Act offered to California, and California by its Limitation Act accepted, a Statutory Compact between the United States and Cali-

fornia, on the basis of the interpretations of the Colorado River Compact, the Boulder Canyon Project Act, and the proposed Statutory Compact appearing in the legislative history of the Boulder Canyon Project Act; and said Statutory Compact is now in existence, subject to the terms of the six-state Colorado River Compact.

(b) Arizona has acquiesced in and does by the present action acquiesce in the existence of said Statutory Compact.

(c) Said Statutory Compact authorizes the United States to contract to deliver, and to presently deliver, water from storage to users in California up to the full quantities stated in said Statutory Compact.

(d) Said quantities comprise the aggregate annual beneficial consumptive use of not to exceed:

(1) Four million four hundred thousand acre-feet of the waters apportioned to the Lower Basin by Article III(a) of the Colorado River Compact, plus

(2) One-half of all excess or surplus waters not apportioned by Article III(a) of the Colorado River Compact, including in said excess or surplus the waters referred to in Article III(b) of said Compact.

(e) The waters so delivered by the United States are for permanent service and available, among other purposes, for the supply of any rights which existed in California as of June 25, 1929.

(f) Said Statutory Compact does not provide for the reduction of said quantities in consequence of reservoir,

evaporation or other losses occurring prior to delivery of said waters at the points of diversion in California.

(g) Said Statutory Compact authorizes California and users therein to presently contract with the United States for the delivery to such users of water stored by the United States, and to receive, appropriate and presently use the same.

(h) Neither the Colorado River Compact nor said Statutory Compact withdraws said excess or surplus waters from present appropriation or use in California, nor prohibits nor prevents the United States from lawfully contracting to deliver, and presently delivering, such excess or surplus waters for present use in California and for permanent service.

(i) California was induced to enact the Limitation Act and thereby accept the offer of a Statutory Compact made by the United States in the Boulder Canyon Project Act by the representation of the United States, known to Arizona, that the said offer and proposed compact had the meaning and intent above alleged.

(j) California has fully performed all obligations of said Statutory Compact on its part to be performed to date, and is entitled to the performance of said Statutory Compact by the United States.

28.

Rights of California as of June 25, 1929.

(a) As of June 25, 1929, the effective date of the Colorado River Compact, the Boulder Canyon Project Act, and the Statutory Compact, projects had been constructed and were in operation in California requiring the bene-

ficial consumptive use of more than 4,950,000 acre-feet per annum of the waters of the Colorado River System. Rights to the use of that quantity were part of then vested appropriative rights of the defendants valid under the laws of California, to the beneficial consumptive use of a quantity greatly in excess of 5,362,000 acre-feet per annum of waters of the Colorado River System.

(b) In addition to the projects of the defendants in this action, there are large areas in California readily susceptible of irrigation from the Colorado River System by means of feasible projects for which valid appropriations had been made under the laws of California long prior to the enactment of the Boulder Canyon Project Act. In consequence, however, of the limitation imposed upon California's uses by the said Statutory Compact, California's valid appropriations, which aggregated in excess of eight million acre-feet per annum as of June 25, 1929, were restricted by the formula stated in said Statutory Compact to a basis adequate only to supply the amounts required by the Palo Verde Project, the Colorado River Aqueduct, and the All-American Canal as constructed. The minimum amounts required by these projects for beneficial consumptive use aggregate 5,362,000 acre-feet per annum.

(c) As of June 25, 1929, the comparable statistics relative to Arizona did not differ materially from those alleged in Paragraph 4 of this Answer with reference to the date November 24, 1922.

D. DEFENDANTS' WATER CONTRACTS WITH THE SECRETARY OF THE INTERIOR EXECUTED PURSUANT TO THE AUTHORITY OF THE BOULDER CANYON PROJECT ACT AND THE STATUTORY COMPACT.

29.

The Boulder Canyon Project Act: Authorization for Construction and Repayment Contracts: Sections 1 and 4(b).

Section 1 of the Boulder Canyon Project Act (Act of December 21, 1928; 45 Stat. 1057; Appendix 2 to this Answer) authorized the construction of Hoover Dam and the All-American Canal.

Section 4(b), Paragraph 2, of said Act established the following conditions precedent to the construction of the All-American Canal:

> "Before any money is appropriated for the construction of said main canal and appurtenant structures to connect the Laguna Dam with the Imperial and Coachella Valleys in California, or any construction work is done upon said canal or contracted for, the Secretary of the Interior shall make provision for revenues, by contract or otherwise, adequate in his judgment to insure payment of all expenses of construction, operation, and maintenance of said main canal and appurtenant structures in the manner provided in the reclamation law."

To comply with the foregoing conditions, the defendants Imperial Irrigation District, and later Coachella Valley County Water District and City of San Diego, entered into contracts with the United States, described in

subsequent paragraphs of the First and Second Affirmative Defenses for the repayment of the cost of the Imperial Dam and All-American Canal.

30.

Section 5: Authorization for Water Delivery Contracts.

Section 5, Paragraph 1, of said Act authorized the Secretary of the Interior to contract for the storage and delivery of water, and for the disposition of electric energy, in the following terms:

> "That the Secretary of the Interior is hereby authorized, under such general regulations as he may prescribe, to contract for the storage of water in said reservoir and for the delivery thereof at such points on the river and on said canal as may be agreed upon. for irrigation and domestic uses, and generation of electrical energy * * * upon charges that will provide revenue which, in addition to other revenue accruing under the reclamation law and under this Act, will in his judgment cover all expenses of operation and maintenance incurred by the United States on account of works constructed under this Act and the payments to the United States under subdivision (b) of section 4. Contracts respecting water for irrigation and domestic uses shall be for permanent service and shall conform to paragraph (a) of section 4 of this Act. No person shall have or be entitled to have the use for any purpose of the water stored as aforesaid except by contract made as herein stated."

Contracts under the said Act for delivery of water from storage were entered into between the United States and each of the defendants (except the City of Los Angeles and County of San Diego), as set forth in subsequent paragraphs of this First Affirmative Defense.

31.

Section 6: Utilization of the Hoover Dam Reservoir.

Section 6, Paragraph 1, governing the use of Hoover Dam and reservoir, provided in part as follows:

> "That the dam and reservoir provided for by section 1 hereof shall be used: First, for river regulation, improvement of navigation, and flood control; second, for irrigation and domestic uses and satisfaction of present perfected rights in pursuance of Article VIII of said Colorado River compact; and third, for power * * *"

32.

Seven-party Agreement.

On August 18, 1931, pursuant to request of the Secretary of the Interior, representatives of the defendants, other than the State of California, signed an agreement (referred to as the "Seven-Party Agreement," Appendix 10 to this Answer) fixing the relative priorities of the defendants in water available to California under the Colorado River Compact and the Statutory Compact, which they thereafter ratified (H. Doc. 717, 80th Cong., p. A479), and which the Division of Water Resources of the State of California approved and recommended to the Secretary of the Interior as a uniform schedule of priorities to be included in all contracts for the storage and delivery of water of the Colorado River System into which said Secretary might enter with users in California.

33.

General Regulations.

On September 28, 1931, the Secretary of the Interior promulgated amended general regulations (H. Doc. 717, 80th Cong., p. A487), incorporating in Article 6 thereof

the aforesaid schedule of priorities. The said regulations are now in full force and effect with respect to the delivery of water from storage for use in California. Their full text appears as Appendix 8 to this Answer, and the effect of the schedule of priorities therein contained is tabulated below:

Priority No.	Agency and description	Annual quantity in acre-feet (beneficial consumptive use)
1	Palo Verde Irrigation District—104,500 acres in and adjoining existing district	
2	Yuma project (California division)—not exceeding 25,000 acres	
3	(a) Imperial Irrigation District and lands in Imperial and Coachella Valleys to be served by All-American Canal	3,850,000
	(b) Palo Verde Irrigation District—16,000 acres of adjoining mesa	
4	Metropolitan Water District and/or City of Los Angeles	550,000
5	(a) Metropolitan Water District and/or City of Los Angeles	550,000
	(b) City and/or County of San Diego	112,000
6	(a) Imperial Irrigation District and lands in Imperial and Coachella Valleys to be served by All-American Canal	300,000
	(b) Palo Verde Irrigation District—16,000 acres of adjoining mesa	
		5,362,000
7	Agricultural use in the Colorado River Basin in California, as designated on Map 23000, U. S. Bureau of Reclamation.	All remaining water available for use in California

34.

Contracts for Delivery of Water to the Defendants.

Pursuant to the aforesaid statutory authority and in accordance with the aforesaid regulations, the United States has entered into contracts severally with the defendants, Metropolitan Water District of Southern California, City of San Diego, Palo Verde Irrigation District, Imperial Irrigation District and Coachella Valley County Water District, for the delivery to them at stated points of diversion of water from storage for beneficial consumptive use in California, in the quantities and in accordance with the priorities stated in said regulations, subject to the availability thereof for use in California under the Colorado River Compact and the Boulder Canyon Project Act. Said contracts are for permanent and continuous service. The full text of each of said contracts appears as an Appendix to this Answer, and is incorporated herein by reference as though here fully stated. Each of said defendants has performed and is performing all obligations of all of its contracts with the United States to be performed by said defendant to date, and is entitled to performance of said contracts by the United States.

The said contracts, together with contracts related thereto, are identified below by reference to dates, parties, subject matter and the numbers they bear in the Appendix to this Answer:

DATE	PARTIES	SUBJECT MATTER	APPENDIX NO.
	Palo Verde Project Contract		
February 7, 1933	United States and Palo Verde Irrigation District	Water Delivery Contract	No. 11
	All-American Canal Contracts		
October 23, 1918	United States and Imperial Irrigation District	Laguna Dam Repayment Contract	No. 12
December 1, 1932	United States and Imperial Irrigation District	All-American Canal Water Delivery and Repayment Contract	No. 13
February 14, 1934	Imperial Irrigation District and Coachella Valley County Water District	Agreement of Compromise	No. 14
October 2, 1934	United States and City of San Diego	San Diego Participation in the All-American Canal	No. 15
October 15, 1934	United States and Coachella Valley County Water District	All-American Canal Water Delivery and Repayment Contract	No. 16
December 22, 1947	United States and Coachella Valley County Water District	Coachella Valley Distribution System Construction Contract	No. 17
March 4, 1952	United States and Imperial Irrigation District	All-American Canal Operation and Maintenance Contract	No. 18

DATE	PARTIES	SUBJECT MATTER	APPENDIX NO.
	Colorado River Aqueduct Contracts		
April 24, 1930	United States and Metropolitan Water District of Southern California	Water Delivery Contract	No. 19
April 26, 1930	United States and Metropolitan Water District of Southern California	Contract for Power to Pump Water	No. 20
September 28, 1931	United States and Metropolitan Water District of Southern California	Amended Water Delivery Contract	No. 21
February 10, 1933	United States and Metropolitan Water District of Southern California	Parker Dam Co-Operative Contract	No. 22
February 15, 1933	United States and City of San Diego	Water Delivery Contract	No. 23
October 4, 1946	United States, Metropolitan Water District of Southern California, and San Diego City and County	Merger of San Diego Water Delivery Contract	No. 24
October 17, 1945	United States and City of San Diego	Repayment Contract for San Diego Aqueduct	No. 25
March 14, 1947	City of San Diego and Metropolitan Water District of Southern California	Assignment	No. 26
April 1, 1952	United States and San Diego County Water Authority	Repayment Contract, Second Barrel, San Diego Aqueduct	No. 27

35.

Rights of Palo Verde Irrigation District, Imperial Irrigation District, and Coachella Valley County Water District to Delivery of Water by the United States.

Defendants, Palo Verde Irrigation District, Imperial Irrigation District, and Coachella Valley County Water District are entitled, by virtue of their aforesaid contracts with the United States, to the delivery from storage of so much water as may be necessary to enable them and the lands within the Yuma Project in California to make aggregate annual beneficial consumptive use (diversions less returns to the river) in California of not less than 4,150,000 acre-feet per annum, subject to the availability thereof under the Colorado River Compact and the Boulder Canyon Project Act, with relative priorities as stated in Article 6 of said regulations dated September 28, 1931 (Appendix 8 to this Answer), being the aggregate of priorities 1, 2, 3 and 6 therein stated; and further subject, as between Imperial Irrigation District and Coachella Valley County Water District, to the "Agreement of Compromise" between them dated February 14, 1934, appearing as Appendix 14 to this Answer.

36.

Right of Metropolitan Water District to Delivery of Water by the United States.

The Metropolitan Water District of Southern California is entitled, by virtue of its aforesaid contracts with the United States, and of assignment to said District of rights of the City of San Diego theretofore held under contract between said City and the United States, to the delivery from storage of so much water as may be necessary to enable said District to make aggregate annual beneficial consumptive use (diversions less returns to the river) in

California of 1,212,000 acre-feet per annum, subject to the availability thereof under the Colorado River Compact and the Boulder Canyon Project Act, with relative priorities as stated in Article 6 of said regulations dated September 28, 1931 (Appendix 8 to this Answer), being the aggregate of priorities 4 and 5 therein stated.

37.

Seniority of California Contracts.

The said contracts between the United States and each of the defendants vests in said defendants, respectively, a right in accordance with the terms of said contracts to the delivery from storage of water of the Colorado River System for beneficial consumptive use in the respective quantities hereinabove alleged. Said contract rights, severally and collectively, are senior in time and right to any and all rights which may exist by virtue of contracts between the United States and any other parties for the delivery of water from Hoover Dam storage to, or for use in, Arizona, with the partial exception of contracts, if any, made with the Yuma Project in Arizona relating to such rights as that project may have owned prior to the construction of Hoover Dam. The aggregate of the quantities of water which the United States has agreed in said contracts, subject to availability under the Colorado River Compact and the Boulder Canyon Project Act, to deliver to the defendants from storage is the quantity required to enable them to make aggregate annual beneficial consumptive use (diversions less returns to the river) in California of 5,362,000 acre-feet. There are so available for delivery from storage by the United States, and for receipt and beneficial consumptive use by the defendants, quantities of water in excess of that amount.

SECOND AFFIRMATIVE DEFENSE.

Arizona Is Estopped and Precluded From Asserting the Interpretations of the Colorado River Compact, the Statutory Compact, and the Defendants' Contracts Alleged in the Bill of Complaint.

38.

All of the allegations of the First Affirmative Defense heretofore stated are referred to and made a part hereof as though fully set out.

39.

Ratification by California of the Statutory Compact in Reliance Upon Its Contemporaneous Interpretation.

(a) California ratified the Colorado River Compact as a Six-state Compact and entered into the Statutory Compact with the United States, in reliance upon the interpretations and contemporaneous construction of the Colorado River Compact appearing in the published reports of the negotiators thereof to their Legislatures, and in the legislative history of the Boulder Canyon Project Act, which Act evidenced the offer to California of said Statutory Compact and the consent of Congress to said Six-state Colorado River Compact, conditioned upon the acceptance by California of both. Said interpretations and contemporaneous construction of the Colorado River Compact and the Statutory Compact were those stated in paragraphs 6 to 16, inclusive, and 27 of the First Affirmative Defense of this Answer.

(b) California entered into the Statutory Compact by enacting the Limitation Act to comply with the stated condition for the effectuation of a Six-state Compact only because of Arizona's rejection of the Colorado River Compact as a seven-state Compact and her refusal to ratify the

same within the six-month period specified in Section 4(a) of the Boulder Canyon Project Act, and not as an inducement to Arizona to ratify said Compact. If Arizona had so ratified within said six-month period, the California Limitation Act by its terms would not have taken effect.

(c) By acceptance of the Statutory Compact with the United States heretofore alleged, California sustained serious and substantial detriment, (i) in the limitation of her beneficial consumptive uses to an aggregate amount which is less than that to which her valid appropriations entitled her and less than the quantity which she was otherwise entitled to use under the Colorado River Compact, and (ii) in the classification of such uses under the Colorado River Compact.

(d) The interpretations of the Colorado River Compact and Boulder Canyon Project Act asserted by Arizona in the present action are in contravention of each of the interpretations of said documents above alleged, in reliance upon which California entered into said Statutory Compact.

40.

Litigation.

(a) On October 13, 1930, Arizona instituted an action in this Court (*Arizona v. California, et al.*, 283 U. S. 423 (1931)), to enjoin the construction of the Hoover Dam and All-American Canal, to declare the Boulder Canyon Project Act unconstitutional, and to invalidate the Colorado River Compact. In that action Arizona by its pleadings and briefs represented to this Court that the Colorado River Compact and the Statutory Compact bore

interpretations generally consistent with those stated in the First Affirmative Defense of this Answer, and alleged that Arizona had refused to ratify the Colorado River Compact for the reason that the Compact did have that meaning. Said representations are reprinted in Appendix 28 to this Answer. The representations of Arizona to the Court in that case are inconsistent with the interpretations now alleged by Arizona in the Bill of Complaint in the present cause.

(b) On February 14, 1934, Arizona moved for leave to file in this Court a bill to perpetuate the testimony of the negotiators of the Colorado River Compact. (*Arizona v. California, et al.,* 292 U. S. 341 (1934).) This Court denied the motion for leave to file; the Opinion rejected Arizona's claim that the Colorado River Compact "means that the waters apportioned by Article III(b) of said Compact are for the sole and exclusive use and benefit of the State of Arizona."

(c) In October, 1935, Arizona filed in this Court a motion for leave to file a Bill of Complaint against the States parties to the Six-state Colorado River Compact praying an equitable apportionment, which motion was denied. (*Arizona v. California,* 298 U. S. 558 (1936).)

(d) In not one of the three cases above referred to did Arizona challenge the validity under the Boulder Canyon Project Act, the Colorado River Compact, or the Statutory Compact, of the water delivery contracts entered into between the Secretary of the Interior and the defendants, nor the right of the United States to presently and permanently deliver, and the defendants to presently and permanently use, one-half of the excess or surplus waters unapportioned by said Compact.

41.

Legislative and Administrative Construction of Statutory Compact.

(a) The capacities of the Colorado River Aqueduct and All-American Canal were fully known to the executive departments of the United States and to the Congress and were approved by them, and were fully known to Arizona, and said works were constructed to said capacities, before the interpretations now asserted by Arizona were disclosed. Thus:

(i) The first water delivery contract of The Metropolitan Water District of Southern California with the United States, dated April 24, 1930 (Appendix 19 to this Answer), was accompanied by one between the same parties dated April 26, 1930 (Appendix 20 to this Answer), which obligated that District for 36% of the firm energy to be produced by Hoover Dam for 50 years, to be paid for whether used or not, but to be used solely for pumping the said water into and in the Colorado River Aqueduct in accordance with said water delivery contract. This obligation amounted to a minimum of $75,000,000. Both contracts by their terms were contingent upon the making of necessary appropriations by the Congress for the construction of Hoover Dam, and the power contract by its terms was not to take effect until the first such appropriation was made. Both contracts were reported by the Secretary of the Interior to the Congress in support of the first appropriation for construction of Hoover Dam, were fully considered by the Congress, and the first appro-

priation was made in the Act of July 3, 1930, 46 Stat. 860, Ch. 846, with the knowledge and approval of Congress of the administrative construction of the Colorado River Compact and the Boulder Canyon Project Act evidenced by the execution of said contracts. Arizona opposed said legislation but did not therein disclose the present contentions of that State.

(ii) In the Act of June 18, 1932, 40 Stat. 324, the Congress granted a right-of-way to the Colorado River Aqueduct across lands of the United States, this being required because the capacity of the aqueduct was in excess of that contemplated by then existing general right-of-way legislation.

(iii) By the Act of August 30, 1935, 49 Stat. 1039, the Congress authorized the Parker Dam Project and ratified all contracts and agreements which had been executed in connection therewith. Such contracts and agreements included, (1) the contract between the United States and the defendant The Metropolitan Water District of Southern California for the financing and construction of Parker Dam as a diversion dam for the Colorado River Aqueduct (Appendix 22), (2) the Water Delivery Contract amended as of September 28, 1931 (Appendix 21), and (3) the Power Contract (Appendix p. 20).

(iv) The capacity of the All-American Canal was not only known to the Congress but was calculated, designed and built by the United States to carry the full quantities of water which it had agreed to deliver to Imperial Irri-

gation District, Coachella Valley County Water District, lands of the Yuma Project in California, and City of San Diego, as heretofore alleged. Such capacity, and the progress of construction, were reported to the Congress during the consideration of more than twenty appropriation Acts between the years 1934 and 1952, and money was appropriated by the Congress in knowledge and approval thereof.

(b) The interpretations of the Colorado River Compact, the Statutory Compact, and the contracts of the defendants with the United States, now asserted by Arizona are in contravention of the interpretations of said documents known to and relied upon by both the Congress and defendants in the enactment of the foregoing legislation and the construction of works thereunder.

42.

Arizona Is Estopped to Assert Her Present Interpretations of the Colorado River Compact, Statutory Compact, and Contracts Executed Pursuant Thereto.

(a) Arizona did not officially assert any other or different interpretations of the Colorado River Compact or the Boulder Canyon Project Act than those alleged in the three actions in this Court above cited, until 1944.

(b) During the period between 1929 and February 24, 1944, in reliance upon the interstate contractual and compact relationship which resulted from Arizona's rejection of the Colorado River Compact, as described in the First Affirmative Defense, and in reliance upon the interpreta-

tions advanced by Arizona as reasons for rejecting ratification of the said Compact, the defendants herein underwrote the cost of Hoover Dam and the All-American Canal, constructed the Colorado River Aqueduct, and proceeded with the costly works and entered into the contracts and financial obligations elsewhere in this Answer described, and have developed an economy dependent thereon and have irrevocably changed, to defendants' detriment, their respective positions. Arizona is now estopped to assert interpretations of the Colorado River Compact and the Statutory Compact inconsistent with and more favorable to Arizona and detrimental to defendants than were her earlier representations and interpretations as herein alleged, and upon which the defendants herein, and Congress and the executive officers of the United States, relied in enacting legislation and entering into contracts, constructing projects and incurring obligations as herein alleged.

(c) If Arizona now claims that said Statutory Compact confers rights upon her, then said State is obligated to accept and is estopped to deny the interpretations of said Compact placed upon it by the United States and California, the parties thereto, as such interpretations are evidenced by its legislative history and by the legislative and administrative construction thereof as pleaded in this Answer.

THIRD AFFIRMATIVE DEFENSE.

Defendants Have Appropriative Rights to the Beneficial Consumptive Use of Not Less Than 5,362,000 Acre-feet of Colorado River System Water per Annum, Senior to the Claims Made by Arizona in the Bill of Complaint.

43.

All of the allegations of the First and Second Affirmative Defenses heretofore stated are referred to and made a part of this Third Affirmative Defense as though fully here set out.

44.

Appropriations of California's Agricultural Areas.

(a) Defendant Palo Verde Irrigation District includes within its boundaries approximately 120,500 acres. Appropriations under the laws of California were duly and regularly made July 17, 1877, and amended and supplemented on subsequent dates, for the use of 3800 cubic feet per second of the waters of the Colorado River System for the irrigation of all of said area and domestic and other purposes therein by the predecessors in interest of said District. Said appropriations have been duly conveyed to said District and are now owned by it. Water was first diverted from the Colorado River System and used within said area under said appropriations in the year 1877 and has been continuously so used since that date. Defendant District, its predecessors and the property owners within said District have constructed works to divert and use said waters, and said works are now in operation. Said District, its predecessors and property owners have at all times exercised due diligence to put to beneficial use the full quantity of water so appropriated.

(b) The Yuma Reclamation Project, lying principally in the State of Arizona, includes within its boundaries approximately 25,000 acres in California. Said 25,000 acres is comprised in part of lands in Indian reservations created by the Act of March 3, 1865 (13 Stat. 559), and diversion of water for all of said 25,000 acres was authorized by the Act of April 21, 1904 (33 Stat. 189). Appropriations under the laws of California were duly and regularly made July 8, 1905, for the use of waters of the Colorado River System for the irrigation of all of said area, and domestic and other purposes within said area, as well as in Arizona, by the Secretary of the Interior. Water was first diverted from the Colorado River System and used within said area in California under said appropriations in the year 1910 and has been continuously so used since that date. The Secretary of the Interior and the owners of said lands in California have at all times exercised due diligence, and are now exercising due diligence, to put to beneficial use the full quantity of water so appropriated for use in California.

(c) Defendant Imperial Irrigation District presently includes within its boundaries approximately 900,000 acres and is committed to include 90,000 acres in addition. Appropriations under the laws of California were duly and regularly made in 1893, amended and supplemented on subsequent dates, for the use of 10,000 cubic feet per second of the waters of the Colorado River System for irrigation of all of said areas and other areas and domestic and other purposes therein by the predecessors in interest of said District. Said appropriations were duly conveyed to said District and are now owned by it. Water was first diverted from the Colorado River System and used within said areas under said ap-

propriations in the year 1901 and has been continuously so used since that date. Defendant District, its predecessors and the property owners within said District have constructed works to divert and use said waters for said purposes and said works are now in operation. Said District, its predecessors and property owners have at all times exercised due diligence, and are now exercising due diligence, to put to beneficial use the full quantity of water so appropriated.

(d) Defendant Coachella Valley County Water District includes within its boundaries 278,000 acres. Appropriations under the laws of California were duly and regularly made in the year 1893, and amended and supplemented on subsequent dates, for the use of waters of the Colorado River System for irrigation of all of said area and domestic and other purposes therein by the predecessors in interest of said District. Water was first diverted from the Colorado River System and used within said area under said appropriations in the year 1948 and has been continuously so used since that date. Defendant District, its predecessors and the property owners within said District have constructed works to divert and use said waters, and said works are now in operation. Said District, its predecessors and property owners have at all times exercised due diligence, and are now exercising due diligence, to put to beneficial use the full quantity of water so appropriated.

(e) Under the laws of California the defendants Palo Verde Irrigation District, Imperial Irrigation District,

Coachella Valley County Water District, and the defendant State of California as *parens patriae* for the lands within the Yuma Project in California, were, prior to June 25, 1929, entitled to make beneficial consumptive use (diversions less returns to the river) in California of an aggregate quantity of water greatly in excess of 4,150,000 acre-feet per annum, and since that date, have been, and now are, entitled to make such use of an aggregate quantity of water of not less than 4,150,000 acre-feet per annum, all of which is reasonably required for the service of their inhabitants and lands. The relative priorities of defendants are controlled by an agreement among them dated August 18, 1931 (Appendix 10 to this Answer), supplemented as to defendants Imperial Irrigation District and Coachella Valley County Water District by an Agreement of Compromise dated February 14, 1934 (Appendix 14 to this Answer).

45.

Appropriations of The Metropolitan Water District of Southern California, City of Los Angeles, and City of San Diego.

(a) Defendant City of Los Angeles is one of the cities the corporate area of which is included within The Metropolitan Water District of Southern California. Appropriations under the laws of California were duly and regularly made June 28, 1924, and amended and supplemented on subsequent dates, for the use of 1500 cubic feet per second of waters of the Colorado River System for municipal and other purposes within said area by said City.

Construction of works for such purpose had commenced in 1923. In 1928, to facilitate the service of said waters to areas on the coastal plain of Southern California, the City joined with other public agencies in the organization of The Metropolitan Water District of Southern California.

(b) Defendant City of San Diego is one of the cities, the corporate area of which is included within The Metropolitan Water District of Southern California. A portion of the defendant County of San Diego is also within said District. Appropriations under the laws of California were duly made April 15, 1926 by The City of San Diego, and amended and supplemented on subsequent dates, for the use of 155 cubic feet per second of the waters of the Colorado River System for municipal and other purposes within the defendants, the City of San Diego and the County of San Diego. On June 9, 1944, to facilitate the service of said waters within said City and said County, said City joined with other public agencies within said County in the organization of the San Diego County Water Authority, and on December 17, 1946, the area within said Authority was annexed to and became a part of The Metropolitan Water District of Southern California. On October 4, 1946, by agreement among said City, County, Authority and District, the rights of said City, County and Authority, including those hereinabove described, were transferred to and merged with those of The Metropolitan Water District of Southern California. (Appendix 24 to this Answer.)

(c) Defendant The Metropolitan Water District of Southern California includes within its boundaries the corporate areas of 48 cities, districts, and other entities on the coastal plain of Southern California. Appropriations under the laws of California were duly and regularly made as aforesaid on June 28, 1924, and April 15, 1926, for the use of waters of the Colorado River System for municipal and other purposes by the cities of Los Angeles and San Diego and are now administered by The Metropolitan Water District of Southern California. After its incorporation, and for the purpose of consolidating and taking in its own name, filings theretofore made by the City of Los Angeles, the defendant Metropolitan Water District in 1929 and 1930 filed applications for the appropriation of waters of the Colorado River System, which applications have been amended from time to time and were and are filings upon and appropriations inclusive of the water of the Colorado River designated in said notices of appropriation theretofore filed by the defendant City of Los Angeles. Water was first diverted from the Colorado River System and used within said area in 1941 under said appropriations and has been continuously so used since that date.

(d) Defendants, Metropolitan Water District of Southern California, City of Los Angeles, and City of San Diego have constructed works to divert and use said waters, and said works are now in operation. Said defendants have at all times exercised due diligence, and are now exercising due diligence, to put to beneficial use

the full quantity of water so appropriated. Under the laws of California, the said defendants were on June 25, 1929, and now are, entitled under said appropriations to divert and to make beneficial consumptive use (diversions less returns to the river) in California of not less than 1,212,000 acre-feet per annum of the waters of the Colorado River System, all of which is reasonably required for the service of the inhabitants and lands within said District.

46.

Total Appropriations of Defendants.

Prior to June 25, 1929, the defendants herein and other appropriators in California were vested with valid appropriative rights entitling said defendants to the beneficial consumptive use (diversions less returns to the river) in California, of an aggregate quantity of water greatly in excess of 5,362,000 acre-feet per annum; and since that date defendants have been, and now are, vested with valid appropriative rights entitling said defendants to such use of an aggregate quantity of water not less than 5,362,000 acre-feet per annum. Said rights were on said date, and are, within, protected by, and capable of being satisfied from the uses provided for California by the Statutory Compact between California and the United States described in the First Affirmative Defense of this Answer.

All of said quantity can be put to beneficial consumptive use by means of works heretofore constructed and now

substantially complete and in operation, and is reasonably required by the defendants for the service of their inhabitants and lands.

47.

California's Appropriations Are Senior to Arizona's

(a) All of the appropriations of each of the defendants above alleged are senior in time and right to all appropriations made for the use of waters of the Colorado River System in Arizona, with the partial exception of (1) certain beneficial consumptive uses, the quantities being unknown to the defendants, of the Yuma Project in Arizona, the Colorado River Indian Reservation, and small miscellaneous uses from the main stream and tributaries other than the Gila River, and (2) beneficial consumptive uses of approximately 2,000,000 acre-feet per annum of the waters of the Gila River and its tributaries.

(b) The only appropriation or appropriations made for the use of water from the Colorado River System for the Central Arizona Project referred to in the complaint herein were initiated in the year 1951, and are junior in time and right to all the rights of defendants as hereinbefore alleged.

(c) The claims to the use of water asserted by Arizona in its bill of complaint would require the further curtailment of said senior appropriations in California for the benefit of said junior appropriations in Arizona, for projects in the inceptive and formative stage and lacking economic feasibility.

FOURTH AFFIRMATIVE DEFENSE.

The United States Is an Indispensable Party.

48.

All of the allegations of the three preceding Affirmative Defenses heretofore stated are referred to and made a part of this Fourth Affirmative Defense as though fully here set out.

49.

The United States of America is an indispensable party to this action, and the United States of America is not sued herein and has not given its final consent to be sued.

50.

On December 31, 1952, the United States of America moved this Court for leave to intervene in the above entitled cause and for leave to file a petition for intervention, and on January 19, 1953, this Court granted said motion. Upon the filing by the United States of America of the Petition for Intervention, and upon the United States of America becoming finally committed to be bound by any decree or judgment rendered by this Court in the above entitled cause, defendants herein will withdraw this Fourth Affirmative Defense.

TRAVERSE.

Come now the defendants and admit, deny and allege:

51.

(a) Answering Paragraph IV(a) and (b) of said Complaint, admit that the mileages therein stated are approximately correct.

(b) Answering Paragraph IV(c) of said Complaint, admit that the mileages therein stated are approximately correct, and deny all the other allegations of said paragraph.

52.

Answering Paragraph V of the said Bill of Complaint, deny the allegations of said paragraph, except as such allegations conform to the facts set out in Paragraphs 3, 5, and 17-27 inclusive of the First Affirmative Defense and Paragraph 59 of this Traverse.

53.

Answering Paragraph VII of said Complaint, deny that any apportionment of the beneficial consumptive use of water is made by any other part of Article III of the Colorado River Compact than Paragraph (a) of said Article III. Deny that the pertinent provisions of said Article III of the Compact are correctly set out in said Paragraph VII and allege that they are correctly set out in Appendix 1 to this Answer.

54.

Answering Paragraph VIII of said Complaint, deny the allegations of said paragraph, except as such allega-

tions conform to the facts set out in the First and Second Affirmative Defenses and Paragraph 59 of the Traverse of this Answer.

55.

Answering Paragraph IX(c) of said Complaint, deny the allegations of said paragraph and allege that the provisions of Section 13(a) of the Boulder Canyon Project Act are correctly set out in Appendix 2 to this Answer.

56.

(a) Answering Paragraph X(a) of said Complaint, allege that the only conditions precedent established by Section 4(a) of the Project Act were established by the first paragraph of said Section 4(a).

(b) Answering Paragraph X(b) of said Complaint, allege that the proclamation referred to is set out in Appendix 4 to this Answer.

57.

(a) Answering Paragraph XI(a) of said Complaint, deny the allegations of said paragraph, except as such allegations conform to the facts set out in the First Affirmative Defense of this Answer.

(b) Answering Paragraph XI(b) of said Complaint, admit the execution and existence of the Seven-Party Priority Agreement therein referred to, but deny that the purpose thereof was solely to determine the quantities of Colorado River water which the contracting defendants were entitled to receive and allege that the purpose of said Seven-Party agreement was to determine the relative priorities of said defendants in the beneficial consumptive use of water available for use in California, under the Colorado River Compact and the Statutory Compact be-

tween the United States and California. Deny all other allegations of said Paragraph XI(b).

(c) Answering Paragraph XI(c) of said Complaint, allege that the quotation therein made is partial, allege that the effect of the contracts therein referred to can be determined only by consideration of the complete texts thereof, respectively, and allege that said complete texts are annexed to this Answer as Appendixes, suitably identified.

(d) Answering the allegations of Paragraph XI(d) of said Complaint, deny the allegations of said paragraph, except that defendants admit that, by the terms of the Statutory Compact evidenced by the Boulder Canyon Project Act and the California Limitation Act, the aggregate annual consumptive use (diversions less returns to the river) of water of and from the Colorado River for use in the State of California, including all uses under contracts made under the provisions of said Boulder Canyon Project Act and all water necessary for the supply of any rights which existed as of June 25, 1929, shall not exceed 4,400,000 acre-feet of the waters apportioned to the Lower Basin by Paragraph (a) of Article III of the Colorado River Compact, plus not more than one-half of any excess or surplus waters unapportioned by Article III(a) of said Compact, such uses always to be subject to the terms of said Compact, and allege that defendants lawfully own the right to use said quantities on said terms.

Allege that the quantities of excess or surplus water unapportioned by Article III(a) of the Colorado River Compact are such that the portion thereof which is now available and which will continue to be available to California under said Statutory Compact for beneficial con-

sumptive use in California is not less than one million acre-feet per annum.

58.

(a) Answering Paragraph XII(a) of said Bill of Complaint, deny the allegations of said paragraph, except as such allegations conform to the facts set out in the First Affirmative Defense of this Answer and Exhibits A and C hereto. Allege that construction of Hoover Dam commenced September 17, 1930, that said Dam commenced the storage of water February 1, 1935, that said Dam commenced power operation June 1, 1937, and that the maximum storage capacity of the reservoir (Lake Mead) created thereby is approximately 30,000,000 acre-feet. Allege that construction of Parker Dam was authorized on August 30, 1935, by the Rivers and Harbors Act of 1935 (49 Stat. 1039; Appendix 5 to this Answer). Allege that Davis Dam was constructed to perform functions under the Mexican Water Treaty and for other purposes.

(b) Answering Paragraph XII(b) of said Complaint, admit that the facilities therein referred to were constructed for one or more of the purposes therein stated in connection with waters of the Colorado River System, but not solely the main stream of the Colorado River, and allege that said facilities are governed by, and must be maintained, operated and administered in conformity with, the Boulder Canyon Project Adjustment Act (Act of July 19, 1940, 54 Stat. 774), the Mexican Water Treaty signed February 3, 1944 (Treaty Series 994), with 11 reservations thereto appended by the Senate of the United States and protocol dated November 14, 1944, the Reclamation Law and other laws, as well as in conformity with

the laws mentioned in said Paragraph XII(b) of the Bill of Complaint.

(c) Answering Paragraph XII(c) of said Complaint, deny, except as herein expressly admitted or alleged, all the allegations of said paragraph. Allege that, through the operation of the facilities mentioned in said Paragraph XII(c) and other facilities, California and its water users may make aggregate annual beneficial consumptive use (diversions less returns to the river) of water of and from the Colorado River System in the amount of four million four hundred thousand acre-feet of the waters apportioned to the Lower Basin States by Paragraph "a" of Article III of the Colorado River Compact, plus not more than one-half of any excess or surplus waters unapportioned by Article III(a) of said Compact, and have a right to do so, and such right is not in contravention of the Colorado River Compact or the Statutory Compact between the United States and California, and allege that the quantity of such excess or surplus waters is such that the portion thereof available for present and continuing beneficial consumptive use in California is in excess of one million acre-feet per annum. Allege that the designed capacity of said facilities was intended to be and will (taking into consideration the seasonal fluctuations of demand for beneficial consumptive use of water in California and usual and proper operating practices), make possible the aggregate annual beneficial consumptive use of Colorado River System water in California in the quantity of approximately 5,362,000 acre-feet. Allege that such claim is rightful and that California and its water users are lawfully entitled to, and own the right to, use said quantity of said water annually on the terms stated in said Statutory Compact.

59.

(a) Answering Paragraphs XIII(a) and (b) of said Bill of Complaint, defendants deny each and every allegation thereof except as said allegations are herein specifically admitted or alleged.

(b) Defendants admit that on the 24th day of February, 1944, the Legislature of the State of Arizona adopted an act entitled, "An Act ratifying the Colorado River Compact; and declaring an emergency," Sess. L. Ariz., page 427.

(c) The interpretations, intent, meaning and effect of the said Colorado River Compact and the Statutory Compact set out in the First Affirmative Defense, and relied on by California, are based on the text of said documents, the legislative history thereof and the contemporaneous and administrative interpretations thereof. Such interpretations were in large part identical with the interpretations presented to this Court by Arizona in the case of *Arizona v. California,* 283 U. S. 423 (1931), and are the interpretations upon the basis of which Arizona rejected the Colorado River Compact and sought to have that Compact and the Boulder Canyon Project Act declared invalid and void. Such interpretations were well known to Arizona long prior to, and in, February of 1944. Any ratification of the Colorado River Compact by Arizona in 1944 necessarily constituted an acceptance of such interpretations.

(d) The Statutory Compact became operative solely by reason of Arizona's failure to approve and ratify the Seven-State Compact within the six months' period set out in Paragraph 1 of Section 4(a) of the Boulder Canyon Project Act. Arizona, in this action, seeks to establish alleged rights dependent upon that State's participation

as a party to the Colorado River Compact as a Seven-State Compact, and also seeks to establish alleged rights as a third party beneficiary of the said Statutory Compact. Arizona has not herein, or otherwise, offered to do equity and to waive any rights as such third party beneficiary, or by such waiver, or otherwise, to place California in the same position in its relation to Arizona as that which California would have occupied with respect to contractual or other rights to the use of waters of the Colorado River System, had the Legislature of the State of Arizona approved and ratified the proposed Colorado River Compact as a Seven-State Compact prior to June 25, 1929. Arizona cannot, as of February 24, 1944, and thereafter, be permitted to assert, to her advantage, and to California's detriment, rights allegedly derived from, and dependent upon, both the Colorado River Compact and the Statutory Compact.

(e) Defendants admit that on the 24th day of February, 1944, the Legislature of the State of Arizona adopted an act entitled "An Act ratifying the contract between the United States and the State of Arizona for storage and delivery of water from Lake Mead, and declaring an emergency," Sess. L. Ariz. 1944, page 419, and allege that said statute contained the following provisions, among others:

> Article 7 "(h) Arizona recognizes the right of the United States and agencies of the State of California to contract for storage and delivery of water from Lake Mead for beneficial consumptive use in California, provided that the aggregate of all such deliveries and uses in California from the Colorado River shall not exceed the limitation of such uses in that State required by the provisions of the Boul-

der Canyon Project Act and agreed to by the State of California by an act of its Legislature (Chapter 16, Statutes of California of 1929) upon which limitation the State of Arizona expressly relies."

"Article 10. Neither Article 7, nor any other provision of this contract, shall impair the right of Arizona and other states and the users of water therein to maintain, prosecute or defend any action respecting, and is without prejudice to, any of the respective contentions of said states and water users as to (1) the intent, effect, meaning, and interpretation of said compact and said act; (2) what part, if any, of the water used or contracted for by any of them falls within Article III(a) of the Colorado River Compact; (3) what part, if any, is within Article III(b) thereof; (4) what part, if any, is excess or surplus waters unapportioned by said Compact; and (5) what limitations on use, rights of use, and relative priorities exist as to the waters of the Colorado River system; provided, however, that by these reservations there is no intent to disturb the apportionment made by Article III(a) of the Colorado River Compact between the Upper Basin and the Lower Basin."

"Article 18. Wherever terms used herein are defined in Article II of the Colorado River Compact or in Section 12 of the Boulder Canyon Project Act, such definitions shall apply in construing this contract."

60.

Answering Paragraph XIV of said Complaint, deny, except as herein expressly admitted or alleged, all the allegations of said Paragraph XIV. Allege that by contract made March 30, 1942, the United States agreed to deliver to Nevada from storage in Lake Mead "so much water

as may be necessary to supply the State a total quantity not to exceed One Hundred Thousand (100,000) acre-feet each calendar year" and that Nevada agreed to pay charges therefor. Allege that by contract made January 3, 1944, the United States and Nevada agreed to amend said contract of March 30, 1942, to provide that

> "Subject to the availability thereof for use in Nevada under the provisions of the Colorado River Compact and the Boulder Canyon Project Act, the United States shall, from storage in Lake Mead, deliver to the State each year at a point or points to be selected by the State and approved by the Secretary, so much water, including all other waters diverted for use within the State of Nevada from the Colorado River System, as may be necessary to supply the State a total quantity not to exceed Three Hundred Thousand (300,000) acre-feet each calendar year * * *."

Allege that Nevada has contended that it has not by any official or binding act limited its claims of right to use of waters of the Colorado River System to said quantity of 300,000 acre-feet per annum or any other specific quantity, and allege that legislation is now pending in the Congress to authorize construction of projects in Nevada requiring the aggregate annual beneficial consumptive use of quantities of water in excess of said amount.

61.

Answering Paragraph XV of said Complaint, deny, except as herein expressly admitted or alleged, all the allegations of said Paragraph XV. Admit that portions of New Mexico and Utah are located within the Lower Basin of the Colorado River System, as defined by Article

II(g) of the Colorado River Compact. Admit that in Article 7(g) of its alleged contract with the United States of February 9, 1944, "Arizona recognizes the rights of New Mexico and Utah to equitable shares of the water apportioned by the Colorado River Compact to the Lower Basin and also water unapportioned by such compact, and nothing contained in this contract shall prejudice such rights." Allege that such "equitable shares" have not been defined nor determined. Defendants have no knowledge, information or belief upon the subject sufficient to enable them to answer and, placing their denial upon that ground, deny that Arizona expects to negotiate with New Mexico and Utah, or New Mexico or Utah, a compact, or compacts, which will define the respective rights, or any rights, of those States, or either of them, to participate as Lower Basin States, or otherwise, in the use of Colorado River water, or Colorado River System water, apportioned now or hereafter to the Lower Basin. Allege that neither New Mexico nor Utah has, by any official or binding act indicated that it intends to, or will, negotiate any compact with Arizona in the premises. Allege that New Mexico and Utah contend that they have not, by any official or binding act, limited their respective claims to the use of waters of the Colorado River System available for use in the Lower Basin. Allege that there are present, or potential, controversies between Arizona on the one hand and New Mexico and Utah on the other, as to whether any portions (and if so, what portions), of the present or future rights of use of New Mexico and Utah relate to the waters, the right of use of which is apportioned to the Lower Basin by Article III(a) of the Compact, or relate to the waters of which the Lower Basin is entitled to increase its use under Article III(b)

of the Compact, or relate to some other category of waters.

62.

Answering Paragraph XVI of said Complaint, deny all the allegations of said paragraph except as hereinafter expressly admitted or alleged. Allege that the treaty between the United States and the United Mexican States, signed February 3, 1944, and proclaimed effective as of November 8, 1945 (Treaty Series 994), allotted to Mexico a guaranteed annual quantity of 1,500,000 acre-feet of water, from any and all sources, and any other quantities arriving at the Mexican points of diversion. Said Treaty also provides that in any year in which there exists a surplus of waters of the Colorado River System in excess of the amount necessary to supply users in the United States and the guaranteed quantity of Mexico, the United States will deliver additional waters of the Colorado River System to provide a total quantity not to exceed 1,700,000 acre-feet a year. Allege that said guaranteed quantity of 1,500,000 acre-feet may be reduced in the event of extraordinary drought or serious accident to the irrigation system in the United States, in the same proportion as consumptive uses in the United States are reduced. Allege that the terms "any and all sources" as so used in said treaty means the entire Colorado River System as defined in Article II of the Colorado River Compact, including the Gila River and its tributaries. Allege that by the terms of Article III(c) of the Compact any right of Mexico to the use of any waters of the Colorado River System:

> "shall be supplied first from the waters which are surplus over and above the aggregate of the quantities specified in paragraphs (a) and (b); and if

such surplus shall prove insufficient for this purpose, then, the burden of such deficiency shall be equally borne by the Upper Basin and the Lower Basin, and whenever necessary the States of the Upper Division shall deliver at Lee Ferry water to supply one-half of the deficiency so recognized in addition to that provided in paragraph (d)."

63.

Answering Paragraphs XVII(a) and XVII(b) of said Complaint, deny, except as herein expressly admitted or alleged, all of the allegations of said paragraphs. Allege that there is available to Arizona, Nevada, Utah and New Mexico in the aggregate the beneficial consumptive use of 3,100,000 acre-feet per annum of the waters of the Colorado River System, including the Gila River and its tributaries, apportioned by Article III(a) of the Colorado River Compact, plus one-half of the excess or surplus waters unapportioned by Article III(a) of the Compact, including in such excess or surplus waters unapportioned by Article III(a) of said Compact the increase of use permitted to the Lower Basin by Article III(b) of the Compact, said aggregate being subject to an undetermined deduction on account of reservoir and other losses, and such deductions as may be required in consequence of the Mexican Water Treaty. Allege that the share thereof to which Arizona may be entitled, and to which each of the other said States may be entitled, of the uses to which the four said States are entitled in the aggregate, has not been determined in any manner. Admit that Arizona is not presently beneficially consumptively using 3,800,000 acre-feet of water per annum. Allege that there have been or are now being constructed in Arizona projects which, when fully operating, will require the beneficial con-

sumptive use (diversions less returns to the river) of waters of the Colorado River System in the approximate amount of 3,200,000 acre-feet per annum, of which not less than 2,000,000 acre-feet per annum is so used from the waters of the Gila River and its tributaries, and of which the remainder will be so used by the Yuma Project, Parker Valley Indian lands, lands in Mohave Valley, and by the Gila Project and other projects from the main stream of the Colorado River and by other projects from the waters of the Little Colorado River and other tributaries. The aforesaid quantities are exclusive of the quantities proposed by Arizona to be used from the main stream of the Colorado River upon the Central Arizona Project.

64.

Answering Paragraph XVIII of said Complaint, allege that defendants have not sufficient information or belief to enable them to answer the last sentence of said Paragraph XVIII, and, placing their denial on that ground, deny the allegation that there is no controversy which relates to the use of waters of the Colorado River System by Indians or Indian tribes which involves the complainant. Allege that under Article 7(a), 7(b), 7(d), 7(j) and 7(l) of the alleged contract between the United States and Arizona of February 9, 1944, all beneficial consumptive uses in Arizona of Colorado River System water, whether by Indians or others, are chargeable to Arizona.

65.

Answering Paragraph XIX of the Complaint, deny, except as herein expressly admitted or alleged, all of the allegations of said paragraph. Admit that Arizona is, in a large part, an arid state, and that irrigation is essential

to its successful agriculture, that water is needed for domestic, municipal and industrial purposes and that precipitation is insufficient to satisfy the need for water unless conserved and stored, and allege that the same facts are true of the Lower Basin generally and of the areas served by the defendants in particular. Admit that there are in Arizona in excess of 725,000 acres of land presently irrigated by the use of surface and underground water. Admit that Arizona has no substantial source of water except the Colorado River System and certain large underground water basins which in part feed, or are fed by, waters of the Colorado River System. Allege that the beneficial consumptive use of such water, to the extent that it is derived from the waters of the Colorado River System, is chargeable to Arizona. Allege that, since 1944, Arizona has permitted and encouraged the expansion of the irrigated area in that State by several hundred thousand acres through the leasing and sale of state-owned land and otherwise, in knowledge of the inadequacy of the surface and underground water supply to support such irrigation on a sustained basis, and has not enacted suitable or any effective legislation for the control of the overdraft and depletion of the underground water supply, or to protect the underground water supply of existing projects from drainage by new projects. If, as alleged in the Bill of Complaint, the underground supply in Arizona is grievously depleted, that situation is due to the failure of Arizona to regulate the reckless and speculative expansion of acreage, waste of water and overdraft of ground water basins in that area, and not to any act of the defendants. Allege that the water supply presently available to the Central Arizona area is ample to sustain a population and industrial production more

than twice as large as now exists, and that the reduction, if any, in value of agricultural production which may result from inability to import water from the main stream Colorado River to that area will be minor in extent and will have no appreciable effect on the economy of the State. Allege that the Secretary of the Interior in his reports, referred to in the Bill of Complaint, on the Central Arizona Project, has stated that in terms of gross crop value the average annual loss in Central Arizona without the Project would be only $5,300,000, which is approximately 1% of the construction cost allocated to irrigation.

66.

(a) Answering Paragraph XX of said Complaint, deny, except as herein expressly admitted or alleged, all the allegations of said Paragraph XX. Admit that at the request of Arizona the United States Bureau of Reclamation has investigated a project to bring water to Central Arizona from the main stream of the Colorado River. Admit that such project is known as the Central Arizona Project, and allege that it includes many features other than those required to bring water from the main stream of the Colorado River to Central Arizona. Deny that plans for such project are substantially as set out in House Document 136, 81st Congress, and allege that physical and engineering features, financial plans and cost of the project have been materially altered from time to time since the preparation of said report. Admit that during the 79th and succeeding Congresses Arizona has endeavored to obtain Congressional authorization for the construction of one or another kind of Central Arizona Project by the Bureau of Reclamation. Admit and allege that defendants have vigorously resisted such legislation

upon the grounds hereinafter stated. Admit that bills to authorize one or another kind of Central Arizona Project were passed by the United States Senate in the 81st and 82nd Congresses but failed of passage in the House of Representatives. Admit that on April 18, 1951, the House of Representatives Committee on Interior and Insular Affairs adopted a resolution that consideration of the bills relating to the Central Arizona Project

> "be postponed until such time as use of the water in the lower Colorado River Basin is either adjudicated or binding or mutual agreement as to the use of the water is reached by the States of the lower Colorado River Basin."

Allege that on October 10, 1951, the same committee adopted a resolution

> "To defer action on S.75 (a bill to authorize construction of the Central Arizona Project) until February 1, 1952, or some time thereafter, to give the proponents an opportunity to have decided the justiciable issue before the Courts, or draft new legislation that will create a justiciable issue without authorizing a project of undetermined feasibility."

(b) Allege that such Congressional action has been due, among other things, to the following facts:

(1) Arizona has not shown that there is any water of the Colorado River System lawfully available for permanent beneficial consumptive use in Arizona in addition to the quantities of such water now used by, or committed to the use of, projects now constructed or under construction in Arizona.

(2) Such waters as were available for use in Arizona have been rendered unavailable for use by the proposed

Central Arizona Project by acts of the State of Arizona and in consequence of causes beyond the control of California and these defendants, and specifically because:

(i) In 1948, Arizona, with knowledge of the present controversy over the waters of the Colorado River System, elected to dedicate the beneficial consumptive use of 600,000 acre-feet of water per annum to the development of raw desert land on the Gila Project on the main stream of the Colorado River, and has done so, in preference to preserving the right to such waters for the Central Arizona Project.

(ii) Until the eve of this action, Arizona had made no appropriations under her own laws for the Central Arizona Project, and had permitted other projects in that State to acquire priorities superior to the priorities of that project.

(3) The Central Arizona Project, as shown by the official reports thereon by the Department of the Interior, is infeasible and uneconomic in the following, among other respects:

(i) The Project described in said H. Doc. 136, 81st Congress would lift irrigation water more than 985 feet and transport it more than 325 miles to grow grains, cotton, alfalfa and other field crops. Essentially, the plan proposed is to deprive the Salt River Project of approximately one-half of the supply which said project normally receives from the reservoirs it has constructed on the Salt River, transport to the Gila Valley the waters so taken from the Salt River Project, and replace such waters with waters from the main stream of the Colorado River, plus some waters for other areas. In the course of this substitution only about one-half of the water diverted

from the main stream would be delivered to the land, the remainder disappearing in transit.

(ii) The capital cost of the Project is not less than $800,000,000, and said official reports of the Department of the Interior concede that no part of this sum could or would be repaid by the irrigation water users.

(iii) The Central Arizona Project would require a capital investment of approximately $2,000 per acre to irrigate lands which would have an average value of $300 per acre when given a full supply of water.

(iv) The Project's annual irrigation operating costs alone would exceed the entire payment capacity of the irrigators, making it necessary to sustain the irrigation features by means of subsidies equal to the entire capital cost thereof, plus all of the interest on the capital costs, plus part of the costs of operation and maintenance thereof. The maximum portion of the construction cost which the latest of said reports claims that the irrigators can repay, in any circumstances, above the cost of operation maintenance and replacements, is less than ten cents per acre per year.

(v) Bridge Canyon Dam, as proposed by this Project, would have a reservoir capacity so small that it would be filled with silt in less than thirty years, unless an additional and much larger reservoir were built upsteam at an estimated cost of not less than $350,000,000. No provision is made in the Central Arizona Project for the construction or payment of the cost of said upstream reservoir, and such cost is in addition to the cost of $800,000,000 heretofore alleged.

(vi) Bridge Canyon Dam would neither conserve nor make available any water for the Central Arizona Pro-

ject, but is arbitrarily included therein so that the power revenues therefrom, including therein the amounts collected from the power users as interest on the capital invested by the Federal Government, may be diverted from servicing the federal debt occasioned by construction of that dam, and used to subsidize the Project's irrigation aqueduct and distribution system.

(vii) The Project would consume one billion five hundred million kilowatt hours per annum—one-third of the power output of the proposed Bridge Canyon power plant —for uneconomic purposes.

(viii) All of the Project's gross revenues from all sources, including power, would be less than the simple interest on the total investment.

(ix) The burden upon the federal taxpayers occasioned by the necessity to pay the interest upon the increase in the national debt occasioned by the Project (for the payment of which the Project would supply no revenues), would, according to official reports to the Congress by the Secretary of the Interior supplementing H. Doc. 136, 81st Cong., referred to in the Bill of Complaint, exceed two billion dollars during the first seventy-five years alone, at the end of which time no part of the Project investment would have been repaid; and this burden would continue to increase indefinitely thereafter.

(c) Allege that the report of the Department of the Interior on the Central Arizona Project (H. Doc. 136, 81st Congress) was conditioned upon the enactment by Arizona of suitable legislation to control the expansion of new acreages and the overdraft on the underground water supply. No such legislation has been enacted, and the irrrigated acreage in Arizona has expanded more than

250,000 acres since the date of said report. Said expansion exceeds the area which the Bill of Complaint alleges in Paragraph XIX thereof will go out of cultivation if additional water is not supplied.

(d) Allege that the said report of the Department of the Interior was further conditioned upon the organization of a district or other entity embracing the service area of the proposed Project with powers of taxation, to contract with the United States for the repayment of the Government's investment allocated to irrigation. No such district has been organized.

(e) Allege that the Project violates the standards of feasibility established by the Congress, its authorization would require the reversal of the policies of nearly fifty years of federal legislation, and there is no assurance that necessary legislation to authorize said Project will ever be enacted.

(f) Allege that Arizona cannot, in equity, demand the curtailment or abandonment of projects now existing and operating in California in order to reserve water for an uneconomic and infeasible Central Arizona Project. The detriment to California and the United States thereby to be occasioned would far exceed the benefits claimed for the Central Arizona Project. No net benefit would result from the application of water to the Central Arizona Project at the sacrifice of projects already constructed in California.

67.

(a) Answering Paragraph XXI(a) of said Bill of Complaint, deny that Arizona is entitled to the amount of water of the Colorado River System claimed by her, and allege that she and the States of Nevada, Utah, and New

Mexico are entitled in the aggregate to not more than the quantities of said water as alleged in Paragraph 63 of this Traverse. Allege that defendants are without information or belief to enable them to answer the other allegations of said Paragraph XXI(a) of said Bill of Complaint, and placing their denial on that ground, deny all other allegations of said Paragraph XXI(a).

(b) Answering Paragraphs XXI(b) and (c) of said Bill of Complaint, allege that defendants are without information or belief sufficient to enable them to answer, and, placing their denial on that ground, deny all the allegations of said paragraphs.

(c) Answering Paragraph XXI(d) of said Bill of Complaint, deny that the claims of defendants to waters of the Colorado River System are improper or wrongful and allege that said claims of defendants are proper and valid as more particularly alleged in the Affirmative Defenses in this Answer. Allege that defendants are without information or belief to enable them to answer the other allegations of said Paragraph XXI(d), and, placing their denial on that ground, deny all other allegations of said Paragraph XXI(d).

(d) Answering Paragraphs XXI(e) and (f) of said Bill of Complaint, allege that defendants are without information or belief sufficient to enable them to answer, and, placing their denial on that ground, deny all the allegations of said paragraphs.

68.

Answering Paragraph XXII of the said Bill of Complaint, admit that controversies exist between the plaintiff and the defendants as to the interpretation, construction, and application of the Colorado River Compact, the Boul-

der Canyon Project Act and the California Limitation Act, but deny that the subject of such controversies is fully or accurately set out in the said Paragraph XXII, and allege that there are additional subjects of controversy disclosed by Affirmative Defenses and denials contained in this Answer. Deny the accuracy or validity of the alleged solutions to the controversies suggested by Arizona in said Paragraph XXII, and deny that Arizona's position is sustained by this Court's decision in *Arizona v. California,* 292 U. S. 341, or in any other decision.

69.

Answering Paragraph XXIII of said Bill of Complaint, admit that there are claims asserted by the defendants in addition to the controversial subjects partially stated in Paragraph XXII of the Bill of Complaint, which adversely affect the alleged right of the State of Arizona to the beneficial consumptive use of 3,800,000 acre-feet of water from the Colorado River System, allege that such claims are stated in the Affirmative Defenses and denials contained in this Answer, and deny all other allegations of the said Paragraph XXIII.

70.

Answering Paragraph XXIV of said Complaint, deny all the allegations of said Paragraph XXIV except as expressly herein admitted or alleged. Admit and allege that under the authority of the Colorado River Compact, Boulder Canyon Project Act, California Limitation Act, Boulder Canyon Project Adjustment Act (54 Stat. 774) as amended, the Reclamation Law, the Mexican Water Treaty and other laws, Hoover, Davis, Parker, Headgate Rock, Palo Verde, Imperial and Laguna Dams have been constructed in the main stream of the Colorado River,

the Metropolitan (Colorado River) Aqueduct and All-American Canal have been constructed in California, and the Yuma Project in Arizona has been built and the Colorado River Indian Reservation irrigation project and Gila reclamation project in Arizona are under construction and are in partial operation. Allege that complainant and defendants have used and benefited from such facilities and that none of such facilities would have been constructed had it not been for one or more of said laws. Allege that Arizona and its water and power users are now estopped and forever precluded, as stated in the Second Affirmative Defense, from denying the validity and integrity of the Colorado River Compact, Boulder Canyon Project Act, California Limitation Act, and other laws in this paragraph mentioned, their effect as alleged in this Answer, and rights of defendants pursuant thereto. Admit and allege the validity and integrity of said laws in accordance with the true intent and meaning thereof at the time when they were respectively adopted or promulgated, as stated in the Affirmative Defenses of this Answer.

71.

Answering the allegations of Paragraph XXV of the said Bill of Complaint, deny all the allegations thereof.

72.

Answering Paragraph XXVI of said Complaint, deny, except as herein expressly admitted or alleged, all the allegations of said paragraph. Admit that facilities now constructed and in use to divert water from the Colorado River System for use in California, if said facilities were operated to their maximum capacity every day in the year, would have a capacity to take annual quantities exceeding 5,362,000 acre-feet of water, but allege that such capacities

are designed for peak deliveries to accommodate seasonal variations in demand for water, and except as such capacities provide a maximum rate of diversion, they are not directly related to actual beneficial consumptive use of water in the State of California, and that the designed capacity of said works, taking such factors into account, is based on the beneficial consumptive use of approximately 5,362,000 acre-feet per annum. Admit and allege that during the years 1946 to 1952, inclusive, defendants, through the use of such facilities, diverted water from the Colorado River System in the following quantities:

DIVERSIONS.

1946—3,381,000 acre-feet
1947—3,392,000 acre-feet
1948—3,714,000 acre-feet
1949—3,944,000 acre-feet
1950—4,312,000 acre-feet
1951—4,540,000 acre-feet
1952—4,588,000 acre-feet

Allege that each of the above stated quantities is materially greater than the beneficial consumptive uses of such water in California, in that they represent diversions, without regard to returns to the river. Admit and allege that defendants and each of them have intended for many years, and do now intend, to make beneficial consumptive use (diversions less returns to the river) in California of quantities of Colorado River System water in excess of an aggregate annual consumptive use of 4,400,000 acre-feet, to-wit, 4,400,000 acre-feet per annum plus one-half of the excess or surplus waters unapportioned by Article III(a) of the Colorado River Compact (including in such excess or surplus the waters referred to in Article III(b) of said Compact), plus any additional quantities which may from

time to time be available for use in California under said Compact, the Boulder Canyon Project Act, California Limitation Act, Mexican Water Treaty and other laws above mentioned, by reason of non-use by others; and allege that defendants have the right to make use of such water. Admit that defendants will in the future continue to increase their diversions and beneficial consumptive use of Colorado River System water, within the limits above stated.

73.

Answering Paragraph XXVII of the said Bill of Complaint, admit that the controversy between the parties hereto is a controversy of serious magnitude, but deny each and every other allegation of the said paragraph.

74.

Answering Paragraph XXVIII of said Bill of Complaint, admit the allegations of said paragraph, and allege that the States of California and Nevada through their Senators and Representatives, in the 79th, 80th, 81st and 82nd Congresses, have presented and urged the adoption by said Congresses of resolutions consenting that the United States be made a party to an action or actions in this Court for determination of the controversies existing among the Lower Basin States as to their respective rights to the use of Colorado River System water. Allege further that Arizona has opposed the adoption of any and all such resolutions.

75.

Answering Paragraph XXIX of said Bill of Complaint, admit the allegations of said paragraph and allege that Arizona is not entitled to any remedy against these defendants.

PRAYER.

WHEREFORE, defendants pray

1. That complainant be ordered by the Court to reply to the affirmative matter stated in this Answer.

2. That the Court decree that complainant take nothing by its Complaint, and that defendants recover their costs and disbursements herein expended.

3. That the Court grant to the defendants such other and further relief as to the Court may seem meet and proper.

Respectfully submitted,

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EXHIBIT "A."

Facts Relative to the Colorado River Aqueduct.

The Colorado River Aqueduct, financed and constructed by defendant The Metropolitan Water District of Southern California, diverts from the main stream of the Colorado River above Parker Dam, 155 miles below Hoover Dam and 170 miles above the Mexican border. The aqueduct transports water 242 miles westward and there connects with a system of 215 miles of distribution aqueducts which serves the cities and other public bodies which are members of the District. These now number 48, including defendants City of Los Angeles and City of San Diego, extending 150 miles along the coastal plain of Southern California and encompassing a service area of over 1,570 square miles.

In 1923 the City of Los Angeles surveyed routes and began the design for such an aqueduct, and in 1924 appropriated water therefor under the laws of California. In 1926 the City of San Diego made appropriations for the same purpose and commenced the design of works.

The District was organized in 1928, under the authority of the Metropolitan Water District Act (Chap. 429 Cal. Stat, 1927, p. 694). It now has a population of over four million people and an assessed valuation exceeding five billion dollars.

As of June 25, 1929 (the effective date of the Colorado River Compact and the Boulder Canyon Project Act), the City of Los Angeles had expended about $3,000,000 in the design and preliminary construction expense of the Colorado River Aqueduct. Such preliminary work was later taken over and paid for by the defendant District.

The major works of the aqueduct, large-scale construction of which began in 1932 and was completed in 1941, have a capacity of 1,800 cubic feet per second for a diversion of 1,212,000 acre-feet per year. Water is lifted by five pumping plants 1,617 feet net.

In 1931 the District joined with the other defendant agencies in an agreement establishing their respective priorities in the use of Colorado River water available to California, thereby accepting a low priority which it would not have accepted under the construction of the Colorado River Compact and the California Limitation Act now urged by Arizona. On September 28, 1931, the District entered into a contract (amending an earlier contract of April 24, 1930) with the United States (Appendix 21), providing for delivery, from storage at Hoover Dam, of water with the priority and in the quantity set out in that Priority Agreement. As a part of the same transaction, and for the purpose of pumping water into and in its aqueduct, as well as assuring to the United States revenues to repay the cost of the Hoover Dam and Power Plant, the District also entered into a fifty-year contract to take (and to pay for whether taken or not) about one-third of the firm electrical energy output of the project. (Appendix 20.) This obligation amounts to about $75,000.000.

Parker Dam was built at the expense of this District by the United States under a contract dated February 10, 1933, ratified by the Act of August 30, 1935, 49 Stat. 1039. (Appendices 5, 22.) This dam provides a point of diversion for the quantity of water agreed by the United States to be delivered to the District from storage at Hoover Dam, under the Water Delivery Contract referred to above.

The water delivery contract, electrical energy contract, and contract for the construction of Parker Dam, all were parts of an integrated plan for the delivery, diversion and pumping of water of the Colorado River for consumptive use on the coastal plain of Southern California, with the priority, and in the quantity, set out in the Priority Agreement.

A qualified fee in the public lands traversed by the aqueduct was granted to the District by the Act of June 18, 1932, 40 Stat. 324.

The District has sold interest-bearing bonds and expended in excess of $200,000,000 in the construction of the Colorado River Aqueduct, the distribution system and Parker Dam, and is now expending $60,000,000 more for the construction of additional works.

Service of water through the Colorado River Aqueduct commenced in June, 1941, and has continued since that date.

The aqueduct system is designed to meet the needs of the expanding population and industry of the coastal plain of Southern California for the foreseeable future. Prudent practice in the planning and construction of large municipal water supply systems in areas with a history of rapid growth of population and industry requires that the capacity of such works, and the firm water supply, be sufficient to care for the needs of the population projected so as to avoid disastrous water shortages.

The San Diego branch of the Colorado River Aqueduct, extending from a point on the main aqueduct for a distance of approximately 71 miles to the south, was constructed by the Bureau of Reclamation for the Navy Department under an executive order, ratified by the Act

of April 15, 1948, 62 Stat. 171, to meet a shortage of water in a critical defense area. The San Diego County Water Authority, of which the City of San Diego is part, is obligated by contract to repay to the United States the cost of this branch aqueduct, $15,000,000.

A second "barrel" to the San Diego Aqueduct was authorized by the Act of October 11, 1951, 65 Stat. 404, and is now under construction. The San Diego County Water Authority also is obligated to repay to the United States the true cost of this second barrel, an additional $18,000,000 with interest. The aggregate capacity of the two San Diego barrels is approximately 200 cubic feet per second.

The total investment in the Colorado River Aqueduct System, its San Diego extension, and distribution works, to date, is over $244,000,000; and when works now under construction are completed, this investment will be in excess of $300,000,000. The ultimate investment, to which the community is committed, will be considerably greater.

The area served by the Colorado River Aqueduct is notably rich in agriculture and petroleum products and has sustained a phenomenal industrial growth. Many important military installations and defense industries are located within said service area.

The climate of Southern California is extremely arid. Local water supply is limited and variable and the area is dependent upon a supplemental supply from the Colorado River Aqueduct.

Maps showing the boundaries of the District are included in the Appendix hereto as Plates 6A and 6B.

EXHIBIT "B."

Facts Relating to Palo Verde Irrigation District.

The defendant Palo Verde Irrigation District contains within its boundaries approximately 120,500 acres, including 16,000 acres of the irrigable lands on the Lower Palo Verde Mesa. The Palo Verde Valley proper is located on the west bank of the Colorado River, about 35 miles along the river and about 6 miles wide. The "Lower Mesa," containing approximately 34,000 acres, adjoins the Valley on the west.

In point of settlement Palo Verde Valley is one of the oldest irrigated areas in the Colorado River Basin. About 1856, Thomas H. Blythe located in the Valley on lands riparian to the Colorado River. These lands, later known as the "Blythe Rancho" were not acquired by Blythe, however, until the middle 70's when 36,000 acres were deeded to him by the State of California as swamp and overflow land. The westerly portion of the Valley and the Mesa area were then government land.

While diversions for irrigation were made by Blythe, appropriations under the laws of the State of California were not made until July 17, 1877, when two filings were posted and recorded by Thomas H. Blythe for 190,000 miner's inches or 3800 cubic feet per second of the waters of the Colorado River for "agricultural, mining, manufacturing, domestic and commercial purposes" to supply water to the entire Palo Verde Valley area and the Palo Verde Lower Mesa. In 1877 Blythe constructed diversion works (an intake structure of 800 cubic feet per second capacity) for the irrigation of the Valley. This was an open gravity-fed canal, protected by a natural rock point which projected into the river in the northeasterly portion

of the Valley. The natural slope of the terrain through the Valley being from the north to the south and westerly from the river, the water thus diverted flowed by gravity to any portion of the Valley area to be irrigated.

Additional notices of appropriation were posted and recorded by Blythe and his associates as follows:

December 15, 1878, O. P. Calloway and T. H. Blythe for 95,000 miner's inches, and for the overflow waters of Olive Slough;

February 15, 1883, Thomas H. Blythe, 100,000 miner's inches;

April 2, 1904, A. A. Moore, Jr., and Mrs. Florence Blythe Moore, 300,000 miner's inches.

All of these appropriations were supplemental to and not in conflict with the prior notices of appropriation of 1877.

On November 15, 1905, the Blythe Estate sold and transferred title to the Blythe Rancho and its water rights and system to A. L. Hobson, W. A. Hobson and Frank Murphy. Immediately thereafter, the Hobsons and Murphy organized the Palo Verde Land and Water Company, a California corporation, for the purpose of acquiring the property and water rights of the Blythe Rancho. The Palo Verde Land and Water Company proceeded to initiate an over-all irrigation plan and design. This consisted of an arterial canal system leading from the Blythe intake, hereinabove described, and extending by main canal southwesterly and southerly through the Valley area. The main canals were so designed that the entire Valley area could be irrigated by the construction of laterals. Under this over-all plan, the intake structure was enlarged to a capacity in excess of 1500 cubic feet per second. This

was a reinforced concrete intake structure. The canal system then in existence was enlarged and extended. The intake and upper portion of the main canal was designed and constructed of sufficient size and capacity to divert water to a point where it could be and would be, under said over-all plan, transported to the Lower Mesa area by the construction of a pumping plant and additional main canals in that area.

In the year 1908, the Land and Water Company caused to be organized the Palo Verde Mutual Water Company and by deed dated July 28, 1908, conveyed to the Mutual Water Company the irrigation system, water rights, rights-of-way, and all other lands and properties owned by said Land and Water Company. The Mutual Water Company immediately took over the irrigation system and rebuilt the intake structure and enlarged the entire canal system. All of this construction work was undertaken pursuant to the over-all plan and design theretofore adopted. Although the Mutual Water Company had acquired all of the water rights under the prior notices of water appropriations posted and recorded by Blythe and associates, as hereinabove described, the Company on September 14, 1908, through C. W. Petit, caused to be posted and recorded a notice of appropriation for the Mutual Water Company claiming 200,000 miner's inches of water of the Colorado River "for the purposes of irrigating Ranch lands, for domestic and stock uses, and for power for operating machinery and for generating electric energy and for other useful and beneficial purposes." The area claimed in the appropriation is the same as that set forth under the Blythe filings. Again on August 5, 1911. an additional notice of appropriation was posted and recorded by C. J. Berg for the Mutual Water Company of

a claim for 200,000 miner's inches of water of the Colorado River "for the purpose of irrigating ranch lands, for domestic and stock uses, and for other useful and beneficial purposes." These appropriations made on behalf of the Mutual Water Company were thereafter assigned to the company and are supplemental to and not in conflict with the prior appropriations which had been transferred to the Mutual Water Company by its predecessors in interest.

During 1910, after the construction by the federal government of Laguna Dam for the Yuma Project in Arizona, it was discovered that the bed of the river had been raised and that levees would have to be constructed, heightened and strengthened to protect the irrigated area from flood waters. In 1914, the Palo Verde Joint Levee District was formed for the purpose of protecting the Valley area from flood waters and to control the river. More than 35 miles of levee works were constructed by this District during its existence and until its functions were transferred to defendant Palo Verde Irrigation District, as hereinafter set forth.

The said rising bed of the river subsequent to 1910, in addition to necessitating the levee work, also caused a corresponding rise in the water table of the Valley area and a serious drainage problem had developed. To meet this situation, the Palo Verde Drainage District was formed in 1922, and during the time of its existence and until its functions were transferred to Palo Verde Irrigation District, the said Drainage District had constructed approximately 72 miles of drains and spillways to expedite the return flow of the water to the river and to lower the underground water table.

In 1917 the 1908 intake structure was widened to a capacity in excess of 2100 cubic feet per second. This

intake structure was thereafter known as the "Blythe Intake."

About the year 1921 the management of the Levee District and the Drainage District was practically identical. In order to consolidate the functions of the Mutual Water Company, the Levee District and the Drainage District under one management and to continue the development of one comprehensive plan for the entire Palo Verde Valley and Mesa areas, the Palo Verde Irrigation District, defendant herein, was organized under a special act of the California Legislature (Chap. 452, Calif. Stats. 1923). The District thereafter succeeded to all of the properties and water rights of its said predecessors in interest.

As of June 25, 1929, the defendant Palo Verde Irrigation District, its predecessors in interest, and property owners within its boundaries had constructed the above described Blythe Intake, 440 miles of main canals and laterals, more than 72 miles of drains and spillways, and more than 35 miles of protective levee works. The diversion and irrigation works have at all times been in continuous operation.

As hereinabove set forth in the First Affirmative Defense of this Answer, Palo Verde Irrigation District entered into a contract with the Secretary of the Interior on February 7, 1933, for the delivery of water to the District under the aforesaid appropriation in a total quantity in accordance with the amounts and priorities set forth in the Seven-Party Priority Agreement hereinabove described in said First Affirmative Defense, said water to be delivered to the District and measured at the point of diversion known as the "Blythe Intake."

On April 21, 1938, defendant District filed Application No. 9280 with the State of California, Department of Public Works, Division of Water Resources, to appropriate waters of the Colorado River at the point of diversion, said Blythe Intake, for use on the lands in the District and between the District and the Colorado River, a gross area of 104,500 acres and 16,000 acres in the Lower Palo Verde Mesa. Said application provided that it was filed to supplement the existing rights and without waiving any of the existing rights or claims to such rights under the appropriations filed from July 17, 1877 to August 5, 1911. Pursuant to said application, Permit No. 7652 was issued by the State of California for a maximum rate of diversion not exceeding 2100 cubic feet per second, and an average rate of diversion not exceeding 1500 cubic feet per second.

In 1944 and 1945, in consequence of the retrogression or scouring of the river bed following the construction of Hoover Dam, a rock-filled diversion weir was constructed at the expense of the United States. Since this weir was located upstream from the former Blythe Intake, the District was compelled to construct a new reinforced concrete intake structure, which is of a capacity in excess of 2100 cubic feet per second. This intake structure is the one now in use by this District.

At the present time the Palo Verde Valley proper has a population of approximately 11,000 people. The 1952 farm income from field crops, truck crops and livestock was in excess of $20,500,000. The Palo Verde Irrigation District has no other source of water supply except from said Colorado River through said intake, canals and works hereinabove described. The diversion works and distribution system and protective works of the District at the

present time consist of the intake structure hereinabove described, more than 450 miles of main and lateral canals extending throughout the entire Valley area, and more than 106 miles of drains and spillways. There are presently more than 85,000 acres, gross, of land in cultivation in the Valley proper and approximately 2000 acres on the "Lower Mesa."

During the time that the foregoing diversion and distribution system had been constructed, the property owners within the District have expended considerable sums in the clearing and leveling of lands in order to put the aforesaid appropriative waters to beneficial use. From 1877 to date, the defendant Palo Verde Irrigation District, its predecessors in interest and property owners, have expended in said construction of said intake, canals, laterals, drains, spillways, levees and land leveling, in excess of $20,000,000.

During all of said time from 1877 to date, said defendant Palo Verde Irrigation District and its predecessors in interest have had a definite plan and project for the utilization of the full amount of said appropriated water and have at all times exercised the utmost of due diligence in the construction of said works and the improvement of said lands. Said plan for the project is now substantially completed. The full quantity of water under the appropriations made by its predecessors in interest was and is necessary and essential for beneficial consumptive use within said District, and said use is within the said appropriations, all of which appropriative and other rights and properties of its predecessors, as hereinabove set forth, are now owned by Palo Verde Irrigation District, and said rights relate back to 1877.

EXHIBIT "C."

Facts Relative to the All-American Canal Project.

The All-American Canal diverts at Imperial Diversion Dam, 303 miles below Hoover Dam and 22 miles above the Mexican border. It transports water into the Imperial Valley for the Imperial Irrigation District and into Coachella Valley for the Coachella Valley County Water District, delivering water enroute to the Yuma Reclamation Project, of which 25,000 acres are in California and 50,000 acres are in Arizona.

An area of about 1,550,000 acres in the Imperial Valley and its northwestern extension, Coachella Valley, lies below the elevation of the Colorado River at the International boundary line. Over 1,000,000 acres of this area lie below sea level. The bringing of water from the Colorado River to irrigate these lands was first proposed in the 1850's, and the approval of such a project was given by an act passed by the California Legislature in 1859. The area is climatically of high temperatures and is one of the most arid in the United States, with practically no rainfall. These conditions, combined with a fertile soil and a year-round growing season, result in a high per-acre requirement for water.

Development of Imperial Valley commenced with surveys and plans made in 1893 to divert water from the Colorado River at a point which was later the site of Laguna Dam. It followed in general the present route of the All-American Canal.

A less expensive route was used in 1901 for the construction of a canal (Alamo Canal) which diverted in California a short distance above the Mexican boundary, traversed Mexican territory for some 60 miles and then

re-entered the United States, utilizing for much of the distance an old overflow channel of the Colorado River. This canal and its extensions totaling 130 miles continued in service until 1942. Although the route was thus changed from that originally surveyed, the area to be developed remained the same, viz., the area in Imperial Valley to be ultimately served by Imperial Irrigation District through the All-American Canal.

Formal appropriations of water under the laws of California for irrigation and power development, each of which was in the amount of 10,000 cubic feet per second of the flow of the Colorado River, were made by the predecessors of Imperial Irrigation District in the period 1893-1899 and succeeding years. The area described in these appropriations is that now to be served by means of the All-American Canal.

Irrigation commenced in Imperial Valley in June, 1901, and has been maintained continuously since that date. The original wooden headgate was replaced in 1906 by a permanent headgate, Hanlon Heading, with a capacity of 10,000 cubic feet per second.

In 1905, river floods broke into the Alamo Canal in Mexico and the entire flow of the Colorado River for a period of approximately two years ran from Lower California into Imperial Valley, threatening the whole valley with destruction, inundating a substantial part of the reclaimed lands, filling the lowest portion of Salton Sink, and creating what is now known as the Salton Sea. The break was not successfully repaired until 1907.

The defendant Imperial Irrigation District, organized in 1911, succeeded in 1916 to all of the water rights and other property above mentioned. By 1922 approximately

540,000 acres of the land now within this District had received water service from the Colorado River.

Interference by junior divertors in the Upper Basin with senior appropriators in California, the need for storage and flood control, the desirability of removing the District's water supply from the jurisdiction of Mexico, the necessity of eliminating existing diversion difficulties, and the insistence by the United States on a diversion works at or near Laguna Dam, all manifested the need for an All-American Canal.

Accordingly, in 1918 this District entered into a contract with the Secretary of the Interior providing for surveys and plans for an All-American Canal to Imperial Valley, to divert at the then completed Laguna Dam, as proposed by the 1893 plans and surveys. The Secretary appointed a Board of Engineers which made a favorable report July 22, 1919. The plans and route proposed were substantially the same as those of the present All-American Canal to Imperial Valley.

On October 23, 1918, the District acquired by contract with the United States the right to utilize Laguna Dam as a diversion dam, and agreed to construct an All-American Canal from that point into Imperial Valley. For the right to use the Laguna Dam, this District agreed to pay, and has paid the United States—including a small proportion later paid by Coachella Valley County Water District and San Diego—the sum of $1,600,000.

In 1919 and 1920 the Congress held hearings on legislation authorizing the construction of the All-American Canal. At these hearings interests in other states, with water rights junior to those of Imperial Irrigation District, protested the construction of the canal, which would

expedite development of Imperial Valley, unless storage on the Colorado River was provided to protect the junior appropriators, since the normal flow of the river had already been appropriated and in some years fully utilized. Storage was also urgently needed for flood control to relieve the increasing cost of protecting the whole lower river area by levees in Arizona, California and Mexico. As a result, the Congress enacted the "Kincaid Act" (Act of May 18, 1920, 41 Stat. 600), providing for an investigation by the Secretary of the Interior, and the Secretary transmitted a report, "Problems of Imperial Valley and Vicinity" to the Congress in February, 1922 (Sen. Doc. 142, 67th Cong., 2d Sess.). This report recommended that the United States construct a high storage dam, at or near Boulder Canyon on the lower Colorado River, and an All-American Canal from Laguna Dam to the Imperial Valley.

This report was the genesis of the Boulder Canyon Project and was utilized in the negotiation of the Colorado River Compact.

In 1922 Congress began consideration of the first of the Swing-Johnson bills to carry out the recommendations of that report. Similar bills were considered by Congress in succeeding years, culminating in the Boulder Canyon Project Act of 1928.

The Upper States of the Colorado River Basin, Colorado, New Mexico, Utah and Wyoming, had objected that if such storage works were built, the additional rights which would be acquired through priority of appropriation by water users in the lower States would preclude the future expansion of uses by projects in the Upper Basin. The Upper States insisted that the rights for such future

development be protected before the project was authorized; and out of this demand came the Colorado River Compact.

As of June 25, 1929, the effective date of the Compact and Act, diversion works and a main canal had been constructed with a capacity adequate for the irrigation of 1,000,000 acres of lands in Imperial Valley, and over 600,000 acres were receiving water service from the Colorado River System.

On December 1, 1932, Imperial Irrigation District and the United States entered into a contract, under provisions of the Boulder Canyon Project Act, for the construction by the Bureau of Reclamation of the All-American Canal including a new diversion dam, Imperial Dam, located a few miles upstream from Laguna Dam, and repayment of the cost thereof to the United States; and for delivery of water to the District at Imperial Dam in accordance with its appropriative rights.

As provided in the Boulder Canyon Project Act, the All-American Canal contract between Imperial Irrigation District and the United States granted to Imperial Irrigation District the right to utilize the power possibilities upon that canal, including power possibilities at Pilot Knob. This contract requires the net proceeds from power development to be paid by Imperial Irrigation District to the United States to be applied upon the cost of the All-American Canal Project. The contract also provides that Imperial Irrigation District include within its boundaries certain designated lands on the Mesa areas of Imperial Valley so that Government and private lands there located would be served by the canal as contemplated by the District's appropriative rights. The inclusion of

said land is also intended to give Imperial Irrigation District an increased acreage base to bear the cost of said All-American Canal Project and other obligations in connection with the general reclamation of these areas. Imperial Irrigation District has developed the power possibilities on the All-American Canal Project. This District is the sole supplier of electrical energy throughout the Imperial Irrigation District and Coachella Valley County Water District and additional areas in Imperial and Riverside Counties, California.

Defendants City of San Diego and Coachella Valley County Water District (organized in 1918) entered into contracts in 1933 and 1934, respectively, with the United States for capacity in, and repayment based on capacities, of a proportionate part of the cost of the canal and dam.

Construction of the All-American Canal commenced August 8, 1934, and water was first delivered therefrom to defendant Imperial Irrigation District, May 23, 1940. All of the District's water supply has been received through the All-American Canal since February 14, 1942.

Water was first delivered through the All-American Canal to Coachella Valley County Water District in 1948. San Diego has never received service therefrom, but receives its water through the Colorado River Aqueduct.

The headworks of the All-American Canal at Imperial Dam have a capacity of 15,155 cubic feet per second. This initial capacity is maintained for 15 miles southward to "Syphon Drop," where 2000 cubic feet per second, carried for the Yuma Reclamation Project in Arizona (and 25,000 acres of the Yuma Project in California) is delivered to the Yuma Project, and to the Syphon Drop power plant, which is owned by the United States.

The All-American Canal maintains a capacity of 13,155 cubic feet per second for the next 7 miles, to Pilot Knob Check about one mile above the Mexican boundary. At this point, 3000 cubic feet per second and other canal capacity, when available, may be utilized for hydro power development at the Pilot Knob power plant, authorized by the Boulder Canyon Project Act to be constructed by the defendant Imperial Irrigation District, and such water will be discharged back into the Colorado River. Water passed through the Pilot Knob power plant or Pilot Knob Wasteway will go into the custody and control of the United States section of the International Boundary and Water Commission for disposal under the Mexican Water Treaty (Treaty Series 994).

The All-American Canal turns west below Pilot Knob Check to Imperial Valley, with a capacity of 10,155 cubic feet per second. Of this, 8500 is for defendant Imperial Irrigation District and 1500 for defendant Coachella Valley County Water District. The remainder, 155 cubic feet per second, is capacity reserved for and at the expense of defendant City of San Diego.

The cost of the All-American Canal, including Imperial Dam, for which the defendants Imperial Irrigation District and Coachella Valley County Water District are obligated to the United States, under repayment contracts referred to in the First Affirmative Defense, is $38,500,000. This is borne by them, in general, in proportion to the capacities of the sections of the works serving them. In addition, the defendant Coachella Valley County Water District is obligated to the United States in the additional amount of not to exceed $13,500,000, the cost of its distribution and other works. San Diego's share of the cost is about $500,000.

The gross area to be served by Imperial Irrigation District under the All-American Canal is approximately 1,000,000 acres, of which 900,000 acres are now within the boundaries of said District. The area within Coachella Valley County Water District is approximately 278,000 acres, of which an area of 135,000 acres is within the service area of the All-American Canal.

The total investment of Imperial Irrigation District, and its municipalities, in works dependent upon the waters of the Colorado River System (including that District's obligations with respect to the All-American Canal) is not less than $62,000,000. These works include more than 1800 miles of main canals and laterals, nearly 1400 miles of drainage canals in Imperial Valley, some 130 miles of main canals, and 75 miles of river protective levees.

The irrigation, domestic and industrial water requirements of all the lands in Imperial Irrigation District, together with the municipal and industrial water requirements of some eleven cities and towns within that District, and the requirements of extensive military and defense bases, depend entirely upon the waters of the Colorado River System. There is no appreciable local rainfall, no usable underground water supply, and no other source of water available. The value of the agricultural production of the lands within Imperial Irrigation District amounted to $133,000,000 for the year 1952, and the very existence of the people, as well as the entire economy of the area within this District, is wholly dependent upon the wa-

ter supply from the Colorado River System through the All-American Canal.

The investment of Coachella Valley County Water District, its predecessors and landowners in all these works is not less than $33,000,000. The value of the agricultural production of Coachella Valley County Water District in 1952 was about $28,000,000, and its economy is dependent in substantial part upon the waters of the Colorado River System received through this canal.

The entire plan for the reclamation of all lands to be included within the Coachella Valley County Water District were well known to the Congress and to all of the interested States and Agencies in the Colorado River Basin long prior to 1929. The development, progressively as above outlined, in the reclamation of said area and the building of said dam, canal and works to the above indicated capacity, has been effected to the end of completing the project as originally planned; and the amount of water to which Imperial Irrigation District and Coachella Valley County Water District are entitled under their appropriations and contracts with the United States, as elsewhere herein recited, is the minimum amount required for the maintenance of said projects and the economy within said areas.