

California's Stake in the Colorado River

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COLORADO RIVER BOARD OF CALIFORNIA

The Colorado River Board of California was created as a State agency by the Legislature under Chapter 838, Statutes of 1937 (Sections 12500 to 12533, State Water Code). It has the statutory responsibility of protecting the interests of California, its agencies and citizens in the waters of the Colorado River system. The Board is composed of six members appointed by the Governor, each representing one of the public agencies of California having established rights to the use of water or power from the Colorado River. These agencies are: Palo Verde Irrigation District, Imperial Irrigation District, Coachella Valley County Water District, The Metropolitan Water District of Southern California, San Diego County Water Authority and City of Los Angeles Department of Water and Power. The Board selects from its members a chairman who serves as *Ex Officio* Colorado River Commissioner of California. The Commissioner, by statute, is the official representative of California in all communications or negotiations with other states and with the Federal Government in connection with Colorado River problems.

CALIFORNIA'S STAKE IN THE COLORADO RIVER

The State of California has a large and vital stake in the Colorado River. At least half of the State, measured in terms not only of present population but also of reasonably prospective population, is dependent in whole or in part on the Colorado River as the source of water supply for irrigation, domestic, municipal and industrial purposes, and also as a very substantial and important source of electric power supply.

Over a million acres of lands—about half of which are now irrigated—in the desert region of Southern California, situated chiefly in the Palo Verde, Imperial and Coachella Valleys, are dependent almost solely on the Colorado River as a source of water supply for irrigation and for domestic and industrial purposes as well. The irrigation of these lands will require in excess of 4,000,000 acre-feet annually of Colorado River water.

The metropolitan areas of Southern California, situated on the coastal plain and foothills lying south and west of the coastal range from Los Angeles-San Bernardino and vicinities on the north to San Diego and vicinity on the south—embracing a present population of more than 7,500,000 inhabitants—are dependent upon the Colorado River as a source of supplemental water supply for domestic, industrial and municipal purposes. Plans conceived many years ago contemplate the ultimate diversion of about 1,212,000 acre-feet annually of Colorado River water for use in the cities and areas within the Metropolitan Water District of Southern California. Without the supply available since 1941 from the Colorado River the great Los Angeles-Orange County industrial area could never have assumed the vital role in national defense and industrial production that it has played during and since World War II. The bringing of Colorado River water in 1947 to the City of San Diego and adjacent municipalities and districts came just in time to avert a disastrous water shortage.

Colorado River water is already being used in large quantities and is the only immediate source of supply to meet the rapidly increasing demands of further growth of population and industry in Southern California. About half the member agencies of the Metropolitan Water District of Southern California now receive major portions of their water supplies from the Colorado River. The day is rapidly approaching when the Colorado River Aqueduct as well as all local sources of supply on the coastal plain will be developed to their full capacities. For ultimate maximum development of the metropolitan areas, additional water from other sources will be needed.

The total amount of water from the Colorado River contemplated in the design and construction of projects for beneficial consumptive use in Southern California aggregates about 5,400,000 acre-feet annually. The main works, which are utilizing the bulk of this amount,

have long since been built and in operation. More water from the Colorado River could readily be used in California but may not be by reason of a limitation placed upon the State by the Boulder Canyon Project Act.

In addition to its role as a source of water supply for Southern California, the Colorado River is one of the largest sources of electric power for Southern California. It appears at this time to be the only large potential source of additional hydroelectric power that might be made available for Southern California's future needs.

Thus, Southern California looks to the Colorado River not only as a large source of water supply which is of basic and primary importance, but also as a possible future source of electric power which will be needed in adequate amounts and at reasonable costs to serve anticipated power demands of increased population and expanded industrial and commercial activities.

HISTORICAL BACKGROUND

The history of California's developments and interests on the Colorado River is a long and interesting one covering a century of progressive planning and development. It begins with a plan to divert Colorado River water to the Imperial Valley area, that was envisaged in 1849 by Dr. Oliver M. Wozencraft. That plan actually advanced to the stage of authorizing legislation with the passage of an act by the State Legislature in 1859 but necessary companion legislation by the Congress failed of passage. Although the proposed scheme did not materialize, it is significant as marking the beginning of plans to utilize Colorado River water in California, and as the forerunner of the plan which was actually carried out some 40 years later.

Palo Verde Valley Development

California's active interests in and rights to the use of water from the Colorado River date from the seventies when water was first appropriated for the Palo Verde area. In 1877 Thomas Blythe acquired about 40,000 acres in the Palo Verde Valley under the Swamp and Overflow Act, and made a water filing in the amount of 95,000 miners inches on July 17, 1877, which was followed by numerous additional filings in subsequent years, for irrigation and other purposes in the Palo Verde Valley and adjoining lands. The original Blythe filing, as far as known, is the first of record on the lower Colorado River.

Due to numerous difficulties irrigation development proceeded slowly under private and mutual organizations. The present Palo Verde Irrigation District was created by special act of the Legislature in 1923. The district embraces an area of 104,500 acres bordering and extending along the river for nearly 30 miles, and 17,500 acres of adjoining lands on the Palo Verde Mesa. Substantially two-thirds of the lands in the district are now under irrigation and the irrigated area is continuing to expand.

Imperial Valley Development

The largest irrigation development in the desert area of Southern California is that of the Imperial Valley area which was initiated in the nineties. The first filing was made on May 16, 1895, by E. I. Rockwell for 10,000 second-feet of Colorado River water for the irrigation of the Imperial Valley area in the United States. This was followed by several subsequent filings, one of which contemplated irrigation of the Coachella Valley area as well as the Imperial Valley area. All these filings have been maintained in good standing and were transferred to Imperial Irrigation District upon its organization.

In 1892 an engineer, C. R. Rockwood, after making a reconnaissance along the Alamo River to Salton Sink, organized, with associates, the Colorado Irrigation Company. This was succeeded in 1896 by the California Development Company, which was organized to develop the Imperial Valley, with C. R. Rockwood in charge of engineering and construction. Initial diversion from the Colorado River to the new canal was made in May, 1901, and in June, 1901, irrigation began in the Imperial Valley.

Although the canal diversion was within the United States, for practical reasons the canal had to be located and constructed through the territory of Mexico en route to the Imperial Valley, and accordingly it was necessary to get a concession from the Mexican Government. This concession, which was obtained in May, 1904, through a Mexican subsidiary of the California Development Company, provided that water from the canal should be made available and delivered for the irrigation of lands in Lower California up to one-half the volume of water passing through the canal.

In 1905 floods broke through a temporary heading of the canal in Lower California and water flowed through the canal into the Salton Sea with disastrous results. Efforts to close the break were not successful until 1907. The Southern Pacific Company, which was interested not only in the development of the Imperial Valley but also in the protection of its railroad around the Salton Sea, took over the work of closing off the river and it was through its efforts and financing that the break was finally closed.

As a result of this disaster, the California Development Company got into financial difficulties. Its management and operations were taken over by the Southern Pacific Company in 1905 and it went into receivership in 1909. The Southern Pacific Company acquired the company's entire system both in Mexico and the United States at a receiver's sale in February, 1916.

The Imperial Irrigation District was organized in 1911 with an area of 523,000 acres. In June, 1916, the California Development Company's canal system was purchased by the district from the Southern Pacific Company, including irrigation facilities in Mexico. In subsequent years the district at its own expense constructed a system of levees in Mexico to protect the Imperial Valley from the recurrent floods of the Colorado River, and in addition, improved the canal system.

The political obstacles encountered in constructing and operating this system were almost as serious as the physical difficulties. The Mexican concession was unsatisfactory in many respects, aggravated by unstable political conditions in Mexico. As a result, efforts to obtain a substitute diversion canal which would be entirely in United States territory were early initiated. Numerous surveys and investigations were made, culminating in a favorable report on the All-American Canal issued in 1919 by a board consisting of Elwood Mead, W. W. Schlecht, and C. E. Grunsky. In the same year a bill was introduced in Congress by Congressman Kettner to authorize construction of the canal. This was the forerunner of the Boulder Canyon project.

Coachella Valley Area

Irrigation of the Coachella Valley area was early contemplated in conjunction with the Imperial Valley development. However, it was not included in the area irrigated by the works constructed by the California Development Company as subsequently enlarged and extended by the Imperial Irrigation District.

Nevertheless, irrigation development started in the Coachella Valley in 1902 by water supplies obtained from the artesian basin underlying the valley. There followed a gradual expansion of the irrigated area, accompanied by a substantial increased use of underground water. As a result of this expansion, coupled with the relatively small water supply, artesian pressures and underground water levels gradually subsided. Realization of the fact that the underground supply was being drawn upon in excess of replenishment convinced the landowners in the valley that remedial measures would be essential. In 1913 the Coachella Valley County Water District was organized for the initial purpose of conserving local supplies and replenishing the underground basin. Gross area of the Coachella Valley County Water District is about 268,000 acres. The fully conserved local water supply is far from sufficient, however, to serve the irrigable area in the valley. Accordingly the district immediately turned its attention to the Colorado River as a source of water supply, and cooperated with the Imperial Irrigation District in planning and promoting the All-American Canal and Boulder Canyon dam.

Yuma Project in California

Another early development providing for the irrigation of lands in California from the Colorado River is the Yuma Federal Reclamation Project which was authorized in 1904. This was one of the first projects authorized under the Reclamation Act and the first thereunder on the Colorado River. In addition to lands in Arizona, the project covers a gross area of about 25,000 acres in California, including valley lands lying within the Yuma Indian reservation. Irrigation started in 1907, and about 11,000 acres are now under irrigation in California. The present area irrigated lies partly within the Bard Irrigation District which was organized in 1927.

Other Proposed Irrigation Projects

In addition to the foregoing irrigation developments, a number of potential projects for irrigation of lands in California from the Colorado River were early investigated and proposed. These included projects for irrigation of lands in the Mojave, Chemehuevi, Parker and Chuckwalla Valleys, and on the Palo Verde Mesa.

Altogether, including existing and proposed projects, plans had been definitely made or were under consideration, prior to the twenties, for irrigating lands in California from the Colorado River, aggregating nearly 1,500,000 acres and involving an estimated net annual use of Colorado River water of 6,250,000 acre-feet.

Metropolitan Areas of Southern California

Prior to the turn of the century, the intensive irrigation developments and the cities and towns throughout the coastal plain area had obtained the necessary water supplies for irrigation, domestic and municipal use, by the development of local surface and underground water supplies.

The first importation of water into the area was undertaken by the City of Los Angeles which initiated the construction of works for bringing in a water supply from the Owens River in 1907. The Owens River Aqueduct was completed in 1913 with a capacity of 400 second-feet. It was thought at the time that this imported supply would solve the city's water problem for many years to come. However, rapid growth of population and other factors combined to prove otherwise, and less than 10 years later it became evident that the combined local and imported supply would become inadequate within 10 to 15 years.

It was in the early twenties that William Mulholland, then chief engineer of the water department of the City of Los Angeles, envisaged the idea of going to the Colorado River for an additional water supply. After considering various other possible sources, it was concluded that the Colorado River was the only adequate source for the additional water supply needed. Preliminary surveys were initiated in 1923 which established the general feasibility of bringing water in from the Colorado River. On June 28, 1924, the City of Los Angeles filed an application to appropriate 1,500 second-feet of water from the Colorado River. During the next five years intensive surveys and studies of alternate diversion routes were carried out under the direction of Mr. Mulholland and H. A. Van Norman by the City of Los Angeles.

During 1924 general sentiment developed for the construction of an aqueduct from the Colorado River which would benefit all of the metropolitan areas of Southern California. The Colorado River Aqueduct Association was organized to sponsor the project. Through the efforts of this association, an act was passed by the Legislature and approved by the Governor on May 10, 1927, authorizing the organization of metropolitan water districts.

The Metropolitan Water District of Southern California was incorporated on December 6, 1928, following an election on November 6th

of that year held in the several cities proposed to be included in the proposed district. The 11 cities which voted approval and were included in the district, comprised the following: Beverly Hills, Burbank, Glendale, Los Angeles, Pasadena, Santa Monica, San Marino, San Bernardino, Colton, Anaheim and Santa Ana. San Bernardino and Colton subsequently withdrew. Permanent organization of the District was effected in 1929. In 1931 the cities of Compton, Fullerton, Long Beach and Torrance joined the district and these four, combined with the former nine remaining, comprise the "13 original cities."

According to the first annual report of the Metropolitan Water District, issued in 1939, the Colorado River Aqueduct was planned "not as a Los Angeles project, but as a Southern California enterprise, not on the basis of meeting immediate needs alone, but on the far broader basis of insuring for generations to come an adequate water supply for the region as a whole."

It was estimated by the district that a supply from the Colorado River of 1,000,000 acre-feet annually in combination with full practicable development and utilization of local supplies and the importations from the Owens River augmented by an additional supply from Mono Basin, would provide a total gross supply for this general metropolitan area of approximately 1.4 acre-feet per acre. As pointed out in that report, this amount of water considered for irrigation purposes is a modest supply, and it is low considered as a domestic supply even for sparsely settled sections and makes no allowance for heavy usage in congested and industrial areas. It is now evident that the amount of water contemplated to be imported from the Colorado River by the Metropolitan Water District represents the very minimum required to provide a reasonably adequate supply for near future needs of the area. Additional water from other sources will be required under conditions of maximum ultimate development.

The City of San Diego was also modest in considering what its needs might be for Colorado River water to supplement local sources of supply. On April 15, 1926, the city filed an application to appropriate 155 second-feet of water from the Colorado River. Its plans for which subsequent provision was made contemplated an aqueduct to bring in to San Diego and vicinity 112,000 acre-feet annually of Colorado River water. In the light of recent population trends in San Diego and vicinity, this is obviously a small amount considering the relatively limited local water supply that can be made available under full practicable development. Additional water from other sources will be required to provide for maximum development of San Diego County.

The San Diego County Water Authority, consisting originally of five cities including San Diego, three irrigation districts and one public utility district, was organized June 9, 1944 under an enabling Act of the California Legislature. Its primary purpose was the importation of Colorado River water to San Diego County. On December 17, 1946, the Authority following a fourteen to one majority vote of the electors

became a member of the Metropolitan Water District of Southern California. The rights of the City of San Diego to water from the Colorado River under its 1926 filing were merged with those of the Metropolitan Water District by agreement of March 14, 1947. As of 1961, the Authority comprised 10 municipal water districts, 4 irrigation districts, the Fallbrook Public Utility District and the cities of Escondido, National City, Oceanside and San Diego.

BOULDER CANYON PROJECT

Prior to and during the early twenties, California agencies initiated and formulated plans to augment the water supply of Southern California by storage and diversion of water from the Colorado River, and incidentally, for development of hydroelectric power. These plans were subsequently crystallized and carried out by the Boulder Canyon Project and its related developments. This project was the outgrowth of the varied combined needs of Southern California. Its initiation and planning came as a logical step in the development of the Colorado River to provide necessary control, conservation and regulation of the waters of the Colorado River for California developments. It had its initial impetus in the studies and investigations surrounding the proposal of an All-American Canal. But its further impetus and final scope grew out of other important necessities in addition.

By the twenties, rights had been perfected to the use of Colorado River water embracing the entire low water flow of the stream along the borders of California. Junior appropriations upstream combined with subnormal flow in dry years had resulted in many instances of substantial shortages in water supply for the existing irrigation development in the Imperial Valley. On the other hand, there were recurrent floods which were not only a menace to the developed irrigated lands along the river and in the Imperial Valley, but also resulted in large amounts of water being wasted into the Gulf of California.

In addition, the silt problem in connection with these irrigation developments was becoming more serious year by year, involving not only large expense in the maintenance of the canal facilities, but also jeopardizing the continued successful irrigation of the lands and materially adding to the flood menace. It has been stated that unless some means could have been found to control the silt of the Colorado River, irrigation of lands from the lower river might have been faced with abandonment.

Although the junior appropriators upstream might have been enjoined, such litigation would have been long and costly and it was decided that efforts should be directed to a more constructive solution to obtain adequate water supplies as well as other important benefits. It was recognized that storage would be needed to regulate and conserve the floodwaters in order to obtain an adequate supply not only for irrigation but also for importation into the metropolitan areas of Southern California, and to provide for control of floods and silt.

In order to meet these combined needs the Boulder Canyon Project was conceived and promoted by the several Southern California agencies concerned, actively supported by most of the citizens and organizations of Southern California and throughout the State. Numerous investigations and reports were made by various federal agencies, particularly the Bureau of Reclamation. The most important of these reports was the Fall-Davis Report of 1922, authorized by the Kincaid Act of 1920, which for the first time recommended the joint authorization of Boulder Dam and the All-American Canal. It was followed by a comprehensive report by F. E. Weymouth in 1924, in which the plans for the storage dam (now Hoover Dam) and the All-American Canal were crystallized substantially as subsequently carried out.

However, efforts to secure the authorization and construction of Boulder Canyon Project as a federal undertaking resulted in a long drawn-out battle extending over a period of eight to ten years.

The Colorado River Compact

When the project was first proposed and the plans of California to develop and use Colorado River water became generally known, it became apparent that unless some prior understanding could be reached with respect to the division of the waters of the Colorado River and its tributaries among the seven states of the Colorado River Basin, it would be difficult if not impossible to secure the authorization of the project as a federal undertaking. The negotiation and signing of the Colorado River Compact in 1922, therefore, apportioning the waters of the Colorado River System, was an essential initial step in the consummation of the project.

As a result of several meetings of representatives of the Colorado River Basin States, starting as early as 1918 and culminating in a meeting held at Denver, Colorado, in August, 1920, it was agreed that a compact should be entered into between the states based upon the general idea of equitable apportionment. In 1921, each of the seven basin states adopted appropriate legislation authorizing the appointment of compact commissioners. On August 19, 1921, Congress consented to the negotiation of such a compact and provided for the appointment of a commissioner to represent the United States, to which position Herbert Hoover, then Secretary of Commerce, was appointed.

The compact commission was organized in January, 1922. It held numerous meetings which culminated in the signing of the Colorado River Compact at Santa Fe, New Mexico, on November 24, 1922.

The Colorado River Compact, sometimes referred to as the "Santa Fe Compact," did not apportion the water between the several states of the basin as originally contemplated. It did and does, however, apportion the water between what are designated therein as the Upper and Lower Basins, the boundary between which runs through a point on the river known as Lee Ferry, in Arizona near the Utah boundary.

Briefly, the compact (Article III) apportions from the Colorado River System (defined as the Colorado River and its tributaries within

the United States), in perpetuity to each basin for beneficial consumptive use, 7,500,000 acre-feet of water annually, including all water necessary to supply any rights "which may now exist." In addition, the Lower Basin is given the right to increase its beneficial consumptive use by 1,000,000 acre-feet per annum.

It also provides that if, at some future time, a treaty is executed between the United States and Mexico covering Mexico's rights to Colorado River System waters, such waters shall be supplied first from the surplus over and above the foregoing specified quantities to the Upper and Lower Basins; and if such surplus should prove insufficient the burden of such deficiency should be borne equally by the Upper and Lower Basins.*

It further provides that the states of the Upper Division (defined as Colorado, New Mexico, Utah and Wyoming) "will not cause the flow of the river at Lee Ferry to be depleted below an aggregate of 75,000,000 acre-feet for any period of 10 consecutive years. . . ."

There is a further provision 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."

It also provides that further equitable apportionment may be made at any time after October 1, 1963.

There are several other important provisions of the compact. Article VIII declares that present perfected rights to beneficial use of water are unimpaired by the compact; and provides that whenever a storage capacity of 5,000,000 acre-feet shall have been provided on the main Colorado River for the benefit of the Lower Basin, then claims of such rights by appropriators or users in the Lower Basin against appropriators or users in the Upper Basin "shall attach to and be satisfied from water that may be stored not in conflict with Article III."

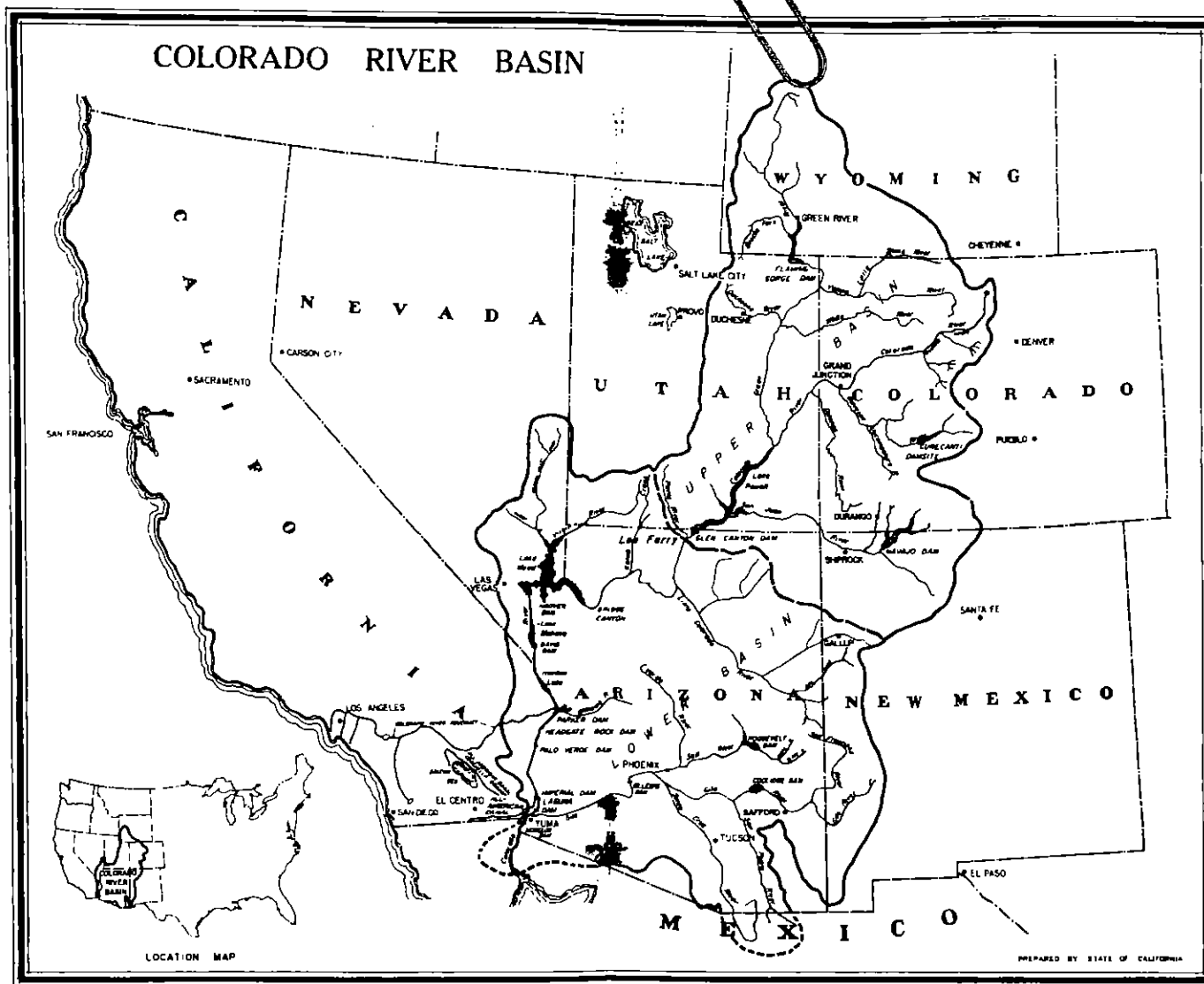
Article XI of the compact provides that it shall become binding and obligatory when it shall have been approved by the legislatures of each of the signatory states, and by the Congress of the United States.

In 1923 the legislatures of all of the basin states, except Arizona, ratified the compact as signed by commissioners of all seven states. The California Legislature in 1925 adopted the so-called "Finney" resolution, making California's ratification effective when a storage reservoir of 20,000,000 acre-feet (instead of 5,000,000 acre-feet as provided in the compact) had been authorized. The State of Arizona continued its refusal to ratify the compact until 1944 when its legislature purportedly gave its approval.

Swing-Johnson Bill

The initial legislation in connection with further development on the Colorado River was the so-called Kettner Bills which were introduced in 1919 and 1920 but failed to come to a vote. These sought only to

* A water treaty with Mexico was ratified November 8, 1945. See page 24.



authorize the construction of the All-American Canal, but were the forerunner of the larger Boulder Canyon Project.

The first bill providing for the authorization of the Boulder Canyon Project was introduced in April, 1922, by Congressman Phil D. Swing and Senator Hiram W. Johnson, and became known as the first Swing-Johnson Bill. The bill was amended and reintroduced in subsequent years during its consideration by Congress.

The fourth and final bill was introduced on December 5, 1927. Before it was finally passed by Congress and approved on December 21, 1928, it was substantially amended. It is of particular importance to note that in order to secure its passage it was necessary for our representatives to agree to a proviso in the bill limiting California's use of water from the Colorado River, which the State would have to adopt in order to put the Project Act into effect unless as an alternative all seven states ratified the Compact.

Boulder Canyon Project Act

The Boulder Canyon Project Act provided for the construction of a storage dam and power plant at Black Canyon or Boulder Canyon of not less than 20,000,000 acre-feet capacity, and the All-American Canal, to Imperial and Coachella Valleys. It authorized construction of the dam to be started when the Secretary of the Interior had executed contracts for sale of water and power, which would assure repaying the entire cost of the dam and power plant with 4 percent interest together with operation and maintenance expenses, etc. It also authorized construction of the All-American Canal to be started when the Secretary had executed a contract for repayment without interest of its cost under the provisions of the Reclamation Law. It provided that there should be no charge for water or for the use, storage, or delivery of water for irrigation and domestic use in the Imperial and Coachella Valleys.

One of the most important provisions of the act is Section 4(a) which is the subject of much discussion. It relates to the California limitation previously referred to. Because of its importance and the frequent references thereto, the pertinent portion of it is quoted in full as follows:

SEC. 4. (a) This act shall not take effect and no authority shall be exercised hereunder and no work shall be begun and no moneys expended on or in connection with the works or structures provided for in this act, and no water rights shall be claimed or initiated hereunder, and no steps shall be taken by the United States or by others to initiate or perfect any claims to the use of water pertinent to such works or structures 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 4,400,000 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.

In view of Arizona's refusal to ratify the compact, the California Legislature which convened in 1929 promptly gave consideration to the matter of limitation and on March 4, 1929, ratified the six-state compact and accepted the limitation in substantially identical words of the Project Act.

On June 25, 1929, six states including California having ratified the compact, President Hoover declared the Boulder Canyon Project Act in full effect. Under the provisions of the Project Act, the Colorado River Compact also became fully effective.

Power Contracts

In 1930 power contracts were executed by the Secretary of the Interior with the Metropolitan Water District of Southern California, the City of Los Angeles Department of Water and Power and the Southern California Edison Company, Inc., and others. Under these contracts, all of the firm power output of the Hoover Dam power plant was disposed of and commitments made to purchase all of the power, at a price which was fixed largely on the basis of competitive cost of steam generated power and which would yield a revenue calculated to be sufficient to meet the capital and annual costs of the dam and power plant, including interest.

These contracts were later modified under the provisions of the Boulder Canyon Project Adjustment Act approved in 1940, under which the interest rate on the unpaid power investment was reduced from 4 percent to 3 percent per annum. The Act further provided for payments from power revenues of \$300,000 a year in lieu of taxes to each of the States of Arizona and Nevada and for payment of \$500,000 a year into a Colorado River Development Fund to be used for further investigations and development of projects in the Colorado River Basin.

Water Contracts

During the period from 1930 to 1934, contracts were executed under the terms of the Project Act by the Secretary of the Interior with the several Southern California agencies concerned, for storage and delivery of water from Hoover Dam Reservoir (Lake Mead). It was necessary prior to their execution for these California agencies to agree among themselves as to the division or allocation of Colorado River water to which California would be entitled under the limitation placed upon the State by the Project Act and accepted by act of the State Legislature. On November 5, 1930, Secretary of Interior Wilbur requested that this be accomplished with the assistance and approval of the State

Division of Water Rights, and further suggested that the agreed allocations be included as a uniform clause in all of the water contracts.

On August 18, 1931, after several months of negotiations, the California agencies concerned signed an agreement apportioning among themselves the waters of the Colorado River available for use in California under the compact and the Project Act, both as to amount and priority as follows:

Priority No.	Agency and description	Annual quantity in acre-feet
1.	Palo Verde Irrigation District—104,500 acres in and adjoining existing district	3,850,000
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 (b) Palo Verde Irrigation District—16,000 acres of adjoining mesa	
4.	Metropolitan Water District, City of Los Angeles and/or others on coastal plain	550,000
5.	(a) Metropolitan Water District, City of Los Angeles and/or others on coastal plain (b) City and/or County of San Diego	550,000 112,000
6.	(a) Imperial Irrigation District and lands in Imperial and Coachella Valleys to be served by All-American Canal (b) Palo Verde Irrigation District—16,000 acres of adjoining mesa	300,000
Total		5,302,000

A seventh priority with respect to all remaining water available for use in California was apportioned for agricultural use in the Colorado River Basin in California as shown on Map No. 23,000 of the Department of the Interior, Bureau of Reclamation.

This agreement was executed by representatives of and ratified by each of the seven agencies concerned, comprising: Palo Verde Irrigation District, Imperial Irrigation District, Coachella Valley County Water District, The Metropolitan Water District of Southern California, City of Los Angeles, City of San Diego, and County of San Diego, and accordingly, has become known as the "Seven-Party Water Agreement." It was based upon a recognition of the priorities of appropriations made by the several projects. The schedule of priorities contained in the agreement was recommended to the Secretary of the Interior by the Chief of the State Division of Water Rights and on that recommendation, was included in and made a part of each of the water contracts executed by the secretary with California agencies.

When the San Diego County Water Authority became a part of the Metropolitan Water District of Southern California in December, 1946, the contract rights of the City of San Diego and the Authority to Colorado River water became merged with those of the District. As between the Authority and the District there now is no distinction as to

priority. Being a part of the district, the authority has the right to participate in the use of waters of the Colorado River under the provisions of the Metropolitan Water District Act. The merger of priorities 4 and 5 did not affect other parties to the seven-party agreement.

The contracts executed by Imperial Irrigation District, and Coachella Valley County Water District, in addition to covering delivery of water from Hoover Dam reservoir, provide for repayment of the cost of the All-American Canal in an amount not to exceed \$38,500,000.

It was considered at the time the water contracts were executed in the early thirties that the total amount of water contracted for by California agencies, aggregating 5,362,000 acre-feet, is within the limitation placed upon California by the Project Act. In this connection it is of interest to note that, in a decision rendered by the United States Supreme Court in 1936 on an action brought by Arizona against California and other basin states, Mr. Justice Stone stated, after referring to the provisions of the Limitation Act passed by the California Legislature in conformity with the Project Act, that "by its provisions, the use of the water by California is restricted to 5,484,580 acre-feet annually."

Construction and Development

The execution of the power contracts guaranteeing repayment of capital and annual costs of Hoover Dam and power plant set the machinery in motion for appropriation of funds for construction to proceed. Construction work on the dam proper started in 1931. The dam was completed and the power plant placed in operation for delivery of commercial power in October, 1936.

Construction of the All-American Canal unit of the Boulder Canyon Project was started in 1934. On February 13, 1942, the All-American Canal commenced the delivery of all of the Imperial Irrigation District's water supply, and use of the old Imperial Canal through Mexico was discontinued except for Mexican service. Construction of the Coachella Branch Canal was started in 1936, and completed for initial operation in 1949.

Davis Dam and Power Plant on the Colorado River between Hoover Dam and Parker Dam was authorized in 1941 for construction as a Federal project. Construction was delayed by the war but was completed thereafter and water was first stored in the reservoir in January, 1950. Principal purposes of the project are: development of hydroelectric power, reregulation of the fluctuating releases from the Hoover Dam Power Plant and storage of water for delivery to Mexico under the terms of the Mexican Water Treaty.

The All-American Canal contemplates and is designed to irrigate over a million acres of land in the Imperial and Coachella Valleys. The capacity of the main canal below Pilot Knob is 10,155 second-feet divided 8,500 second-feet to the Imperial Irrigation District, 1,500 second-feet to the Coachella Valley County Water District and 155 second-feet for possible future use by San Diego.

The Imperial Irrigation District is the largest single operating irrigation project in the United States. It comprises more than 900,000 acres in gross area, of which about 500,000 acres are now irrigated and producing crops, and about 250,000 acres remain to be developed for irrigation.

The Coachella Valley County Water District, with about 138,000 acres of irrigable lands in eastern Riverside County lying north of the Salton Sea, is now served by the Coachella Branch, All-American Canal, and shares in the rights to Colorado River water originally established in the 1890's. Approximately 75,000 acres have been (1961) developed for irrigation by means of a concrete pipe distribution system. In addition, construction is progressing on an irrigation distribution system and drainage facilities for 10,500 acres of Indian lands. The District is also furnishing domestic water supplies in areas within its boundaries.

In addition to the work undertaken by the Federal Government, the construction of the Colorado River Aqueduct was undertaken and financed directly by the Metropolitan Water District of Southern California. A bond issue of \$220,000,000 was voted by the people of the district on September 29, 1931. Construction on the aqueduct was started in 1933, and on Parker Dam in 1934. The main aqueduct to Lake Mathews was completed in 1940 and water delivered into that reservoir. Since that year the aqueduct has been functioning and water delivered to member cities and agencies.

During World War II, the Federal Government, under a contract executed with the City of San Diego, built the San Diego Aqueduct to connect the Colorado River Aqueduct to the San Vicente Reservoir of the city. It was completed and placed in operation in December, 1947, providing for about half the ultimate capacity needed. Construction of a second barrel to complete the San Diego Aqueduct was started in 1952 and completed in 1954. A second aqueduct was completed in 1960 and is now in operation.

The Metropolitan Water District since the beginning of operation has continued to grow by further annexations. The district* now (1961) embraces an area of more than 4,000 square miles, with a population in excess of 7,500,000. More annexations are pending. Use of Colorado River water has been continuously increasing and all additional requirements of the metropolitan areas on the coastal plain will be served from this source, up to the limit of the district's rights.

* In 1961 the District covered substantially all the coastal plain in Ventura, Los Angeles, Orange, Riverside, San Bernardino and San Diego Counties, except the upper San Gabriel Basin and the San Bernardino-Colton area. It comprised 25 municipalities and districts including, in addition to the original 13 cities, the following districts: Central Basin, Chino, Coastal, Eastern, Foothill, Orange County, Pomona Valley, West Basin, Western, Calleguas and Los Virgenes municipal water districts, and San Diego County Water Authority, which together included 80 additional cities, making a total of 93 cities in the District.

CALIFORNIA'S RIGHTS TO COLORADO RIVER WATER

The foregoing history reveals step by step the story and background of California's rights and interests in and to the use of Colorado River water, from the first appropriation and use of the waters to the completion of the Boulder Canyon Project and related works and facilities—a history covering a period of progressive planning and development of nearly a hundred years.

With the consummation of the long drawn-out battle to secure the enactment of legislation authorizing the Boulder Canyon Project, the execution of contracts for water and power made available thereby, the completion or near completion of construction of the works authorized by the act, and the construction of other works and facilities needed in conjunction therewith, the people of Southern California had every reason to believe that the future water needs of Southern California would be taken care of with reasonable adequacy. Southern California agencies agreed to underwrite and have underwritten the entire cost of the Boulder Canyon Project; and in addition have undertaken other substantial obligations, in consideration of the express terms of the Project Act which provides:

1. That water stored by Hoover Dam would be used *exclusively* within the United States;
2. That the All-American Canal would be constructed to enable the Imperial Valley area to be served by facilities *entirely* within the United States;
3. That California would not only have its established rights to the use of Colorado River water fully protected and served, but also would be allowed reasonable expansion, including sufficient water to meet the potential requirements of the metropolitan areas of the coastal plain of Southern California.

Specifically, Southern California agencies expected to obtain the full amount of Colorado River water to which its agencies have established rights by appropriation and use or by contract under the terms of the Project Act; namely, 5,400,000 acre-feet annually in round figures, divided among the several agencies as set forth in the Seven-Party Water Agreement. It was in anticipation of these benefits and in reliance on this amount of water that Southern California agencies made commitments and investments aggregating already about \$800,000,000. The main works and facilities are already constructed and in operation to utilize the entire amount of water covered by these established rights.

On February 9, 1944, the Secretary of the Interior executed a contract with the State of Arizona for delivery of water from Lake Mead under the provisions of the Boulder Canyon Project Act. This Arizona water contract expressly recognizes California's right to the full amount of Colorado River water permitted by the California Limitation Act. Also in 1944, the Secretary of the Interior executed a water delivery

contract with the State of Nevada. (Amending an earlier contract of 1942.)

CONFLICTING DEVELOPMENTS

There have been several developments, and more are in the making, which conflict with California's rights to Colorado River water and jeopardize all of these carefully laid plans to provide a reasonably adequate water supply for Southern California.

Mexican Water Treaty

The Mexican Water Treaty, as ratified on November 8, 1945, guarantees Mexico an annual delivery of 1,500,000 acre-feet of water from the Colorado River System. Under practical operation of the river due to various technical factors, it appears probable that a yearly delivery of over 1,700,000 acre-feet of water will be required. This delivery of water to Mexico will have to be supplied chiefly from storage in the United States.

This treaty was approved over the strenuous objections of California and Nevada. It was supported by the legislative representatives of Arizona and all of the Upper Basin States. However, many of the water-user organizations in Arizona and several in the Upper Basin States opposed the treaty, and some of these organizations testified against the treaty at the Senate hearings. The effect of the treaty in meeting the required delivery to Mexico is to create a demand on the Colorado River System of nearly 1,000,000 acre-feet more water than was anticipated at any time prior to negotiation of the treaty.

The Mexican Water Treaty has apparently created a first lien on all of the water supply of the river from "any and all sources." The result is that the water budget of the river has been thrown drastically out of balance. As long as the treaty is in effect, it appears that the water required to meet the deliveries to Mexico must be furnished even at the expense of users within the United States having prior rights thereto.

Proposed New Projects

California's rights to Colorado River water are jeopardized still further by proposals to authorize and construct certain new projects for the diversion and use of the waters of the Colorado River System. In March, 1946, the Bureau of Reclamation issued a comprehensive report on the Colorado River which presents an inventory of 134 potential new projects within the basin and also refers to several potential new projects for exportation of water from the Upper Basin. The report sets forth the fact that the combined water requirements of these potential new projects and existing and authorized projects, would exceed by about 25 percent the long-time average water supply of the Colorado River System available for use within the United States.

Of particular concern to California have been and still are new major water developments in the Upper Colorado River Basin and two new projects in Arizona. One of the new projects in Arizona—the

Gila Project—has already been completed. The other and much larger undertaking—the Central Arizona Project—is still in the proposal stage.

Upper Colorado River Basin Projects

Bills were introduced in the 83d Congress (1953-54) and again in the 84th Congress (1955-56) to authorize as Federal Reclamation undertakings a major plan for development of the Upper Colorado River Basin, called the Colorado River Storage Project and Participating Projects, and a related development designated the Fryngpan-Arkansas Project. The over-all major plan comprises nine large dams and reservoirs with hydroelectric plants on the Colorado River and principal tributaries above Lee Ferry, and an indefinite number of "participating" reclamation projects, to enable the Upper Basin to develop its legal share of the remaining beneficial consumptive use of water of the Colorado River System. Initial construction cost, as estimated by the Bureau of Reclamation would be one to one and a half billion dollars. Ultimate cost would be five billion dollars or more.

The Fryngpan-Arkansas Project, although sought to be authorized in separate bills, is a definite part of the over-all plan of development. It proposes a transmountain diversion of water from the Colorado River Basin to the Arkansas River Basin and additional conservation and use of Arkansas River waters, to provide a supplemental irrigation supply to lands along the Arkansas River in Colorado, furnish municipal water supplies to cities and towns in the area and also provide for flood control and hydroelectric power production. The cost of the project is most recently estimated by the bureau at \$170 million.

Subsequently additional participating projects of the Upper Basin development have been proposed for authorization including the Navajo Indian Irrigation Project and the San Juan-Chama Project in New Mexico and the Savery-Pot Hook Project in Wyoming and Colorado. The Navajo Indian Irrigation Project is planned to furnish a water supply from the Navajo Reservoir, now under construction on the San Juan River as a unit of the Storage Project, for the irrigation of 110,000 acres of raw land in the Indian reservation, at an estimated cost of \$178 million including the cost of Navajo Dam and Reservoir. The San Juan-Chama Project is planned to divert water from San Juan River tributaries for supplemental irrigation and municipal use in the Rio Grande Basin, at an estimated cost of \$86 million. The Savery-Pot Hook Project is planned for the irrigation of 38,000 acres of land at an estimated cost of \$15 million. Plans for many additional participating projects are being pressed to completion looking to early authorization.

California favors sound beneficial development of the water resources of the Upper Basin, provided the developments are economically feasible and are carried out with due regard to the rights of California under the Colorado River Compact and the Boulder Canyon Project Act.

However, these new Upper Basin projects as set up in the legislation and the reports by the Bureau of Reclamation do not qualify under sound economic criteria and do pose a threat to California's rights. The financial plans depart very materially from existing reclamation law, and entail immense hidden subsidies by the Nation's taxpayers on behalf of the irrigators. The engineering studies of water supply and utilization are set up on arbitrary assumptions and erroneous interpretations of the Colorado River Compact which are detrimental to California's interests.

California was forced into the task of focusing attention upon the fundamental issues and questions of policy involved, and of opposing or questioning the wisdom of proposed legislation, pending the resolution of those issues and questions, and the furnishing of complete information, including satisfactory evidence that the rights of the Lower Basin, and of California in particular, would not be impaired by the proposed developments in the Upper Basin.

Despite the opposition of California representatives, the Storage Project Bill was passed by the Congress in March, 1956, and signed by the President on April 11, 1956 (Public Law 485, Eighty-fourth Congress, Second Session). Still remaining to be resolved are the fundamental issues as to the potential effects of the Project upon the Lower Basin. The Act specifically authorizes four of the proposed major storage dams and 11 participating projects, and directs that investigations be made looking toward authorization of many additional participating projects. Glen Canyon Dam and Reservoir, located upstream from Lee Ferry on the Colorado River near the Utah-Arizona boundary is the largest of the four storage units, with a gross capacity of 28,000,000 acre-feet, almost as large as Lake Mead. Because of its location and size it will most directly and substantially affect the water supply available to the Lower Basin. Construction of the Glen Canyon unit was started early in 1957 and the reservoir is expected to start filling in 1962.

Also under construction are the Flaming Gorge unit in northeastern Utah on the Green River, the Navajo unit in northwestern New Mexico on the San Juan River and the Curecanti unit in western Colorado on the Gunnison River. Storage capacity of these three will aggregate about 6,500,000 acre-feet. Power plants will be built in conjunction with the Glen Canyon, Flaming Gorge and Curecanti units.

California is vitally concerned in the construction, filling and subsequent operation of these storage units of the Upper Basin Project. For their filling and subsequent operation there must be formulated and put into effect operating principles that will adequately protect the rights and interests of California and its agencies, as well as those of the Lower Basin in general, in the use of water and power from the Colorado River. California representatives have been active to this end, and must continue a constant vigilance over the operations of these Upper Basin developments in an endeavor to forestall any detrimental effects upon California's rights.

The Storage Project Act (Sections 7 and 14) directs the Secretary of the Interior, in the operation of all facilities under his jurisdiction and in the storage and release of water from reservoirs in the Colorado River Basin, to comply with the Colorado River Compact, the Boulder Canyon Project Act and other statutes and documents comprising the existing Law of the River and not to interfere with the operation of the provisions of those laws as well as any contract lawfully entered into thereunder. The Act further provides that should the Secretary fail to so comply, any state of the Basin may bring suit in the Supreme Court of the United States and join the United States as a party, defendant or otherwise.

Fryingpan-Arkansas Project bills were passed by the Senate in several different Congresses, but failed of passage in the House primarily because of the criticism voiced by California and Western Colorado interests. Following a series of conferences, representatives of the two states reached substantial agreement in 1960 on amendments proposed by California which are deemed essential to the protection of California's interests in the Colorado River, including restriction of the annual use of water by the project to a relatively small amount (90,000 acre-feet). Such amendments were incorporated in the project bills introduced in the 87th Congress (1961).

Bills to authorize the Navajo irrigation and San Juan-Chama projects passed the Senate in the 85th and 86th Congresses but were not acted upon by the House. A bill again passed the Senate in the 87th Congress, with action pending in the House. California has proposed amendments directed to the safeguarding of its interests in the Colorado River.

Gila Project

A bill to authorize the new Wellton-Mohawk unit and to reauthorize a reduced area of the original Yuma Mesa unit of the Gila Project which was authorized in 1937, was passed by the Eightieth Congress, but only after having been amended at the insistence of California to limit the aggregate consumptive use of water on both the old and new units of the project to the same amount (600,000 acre-feet annually) contemplated under the 1937 authorization. With this limitation, the Gila Project as reconstituted and reauthorized is intended to be unchanged from the originally authorized project insofar as use of Colorado River water is concerned, and the bill was passed by the Congress with this understanding.

During the hearings, California's representatives served notice that the Gila Project as authorized would utilize the last water available that was not in conflict. The House Committee on Public Lands, in its report on the bill, recognized this situation, recommended that the water rights controversy be settled by agreement or court action, and stated in effect that authorization of any additional new projects for diversion of water from the main stream of the Colorado River in the Lower Basin would have to be delayed unless and until a settlement is reached.

Construction of the Gila Project has been under way since the original authorization and is substantially completed except for major drainage works since found to be needed. Initial delivery of water to the Yuma Mesa unit commenced in 1943; and to the new Wellton-Mohawk unit in 1952.

Central Arizona Project

The proposed Central Arizona Project contemplates the diversion of 1,200,000 acre-feet annually of Colorado River water into Central Arizona. The final report of the Bureau of Reclamation on the proposed project (Project Planning Report No. 3-8b.4-2 dated December, 1947) was transmitted to the Congress by the Secretary of the Interior on September 16, 1948, after having been referred to the affected states and interested federal departments for comment. The official comments of the State of California opposing the authorization and construction of the proposed project were submitted to the Secretary of the Interior by Governor Earl Warren on December 29, 1948.

Bills to authorize this project were introduced in the Eightieth Congress in 1947 and in subsequent Congresses. Extensive hearings were held before the Senate and House Interior and Insular Affairs Committees. The Senate twice (1950 and 1951) approved a bill in different forms but the House Committee refused to approve.

The proposed project would involve a cost estimated (1951) by the Bureau of Reclamation at \$738,265,000. The official report of the State of California, referred to above, clearly shows that the project as then proposed is not economically feasible under existing reclamation law or any reasonable modifications thereof, and that substantial subsidies would be required from the Federal Treasury or from other sources to finance the project. Of most serious concern to California is the fact that the contemplated diversion of 1,200,000 acre-feet of Colorado River water for this project threatens to invade California's rights to Colorado River water by a like amount.

Water Budget

The dependable water supply of the Colorado River System is insufficient to furnish any part of the quantity required for the proposed Central Arizona Project, in addition to meeting the water requirements of existing and authorized projects covered by the California water appropriations and contracts, of existing and authorized projects in Arizona, including the Gila Project, of commitments to other states of the Lower Basin, and the existing and contemplated uses in the Upper Basin. The deficiency in the water supply of the basin has been accentuated by the extremely low runoff of recent years and the consequent prolongation of the period of drought conditions that began about 1930. In fact, according to the best information now at hand, the long-time average annual water supply that will be available to the Lower Basin, if the Upper Basin continues to develop according to announced plans and the Mexican Treaty requirements are met, will

be far from sufficient to meet the consumptive use requirements of even the existing projects in the Lower Basin. It is obvious, therefore, that if any new projects are authorized and constructed in the Lower Basin the water used thereby must be at the ultimate expense of existing projects in the Lower Basin states, or of contemplated projects in the Upper Basin states.

Water Allocation

Controversy has long persisted over the division of the waters of the Colorado River System available to the Lower Basin under the terms of the Colorado River Compact, the Boulder Canyon Project Act and the California Limitation Act. Efforts were made for many years to negotiate an agreement between California and Arizona in particular, but these efforts proved unsuccessful.

Arizona's interpretations of the compact and the California Limitation Act have been widely at variance with California's interpretations. In accordance with Arizona's contentions, the net annual amount of water that California would be entitled to and that would be available to the California agencies from the Colorado River, would hardly be sufficient to cover the first, second, and third priorities allotted to irrigation under the Seven-Party Water Agreement as set forth in the Hoover Dam water contracts, and would leave little, if any, water for the metropolitan area. Furthermore, such amount of water would be very little more, if any, than was actually used in California from the Colorado River before Hoover Dam was built.

It became evident that litigation in the Supreme Court of the United States offered the only hope of final determination of the fundamental conflict between Arizona and California as to the division of water available to the Lower Basin. To this end legislation was introduced by California's representatives and senators in the Eightieth Congress in 1947, and in subsequent Congresses, to authorize such litigation. Hearings were held on the proposed legislation in 1948 and 1949 before the Senate Committee on Interior and Insular Affairs and before the House Judiciary Committee. Representatives of Arizona and the Upper Basin States opposed the legislation and it died in committee.

Arizona officials long contended that all matters as to division of water were settled already in accordance with their own interpretation of the basic documents. They opposed all California proposals for settlement, including litigation. Instead, Arizona's representatives sought a political determination in the Congress, by endeavoring to secure the passage of legislation to authorize the Central Arizona Project.

However, after thorough consideration of all the controversial matters, the House Committee on Interior and Insular Affairs refused to approve the Central Arizona Project legislation by initial action on April 18, 1951; and finally on October 10, 1951, adopted a motion to defer action indefinitely "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."

Arizona Suit

In August 1952, Arizona, completely reversing its former position, brought suit in the United States Supreme Court against California and the California agencies involved, seeking court resolution of the very same issues which Arizona had previously contended were already settled. California marshaled its forces, led by the Attorney General and the Colorado River Board, in vigorous defense of its rights.

Nevada, a Lower Basin state, intervened as a party over the opposition of Arizona. The United States intervened in the suit, which was necessary because it had been determined to be an indispensable party by the Supreme Court in a previous suit brought by Arizona which ended in 1936.

The basic issues in the suit involve all states of the Colorado River Basin and all water developments therein including new projects proposed or already authorized in Arizona and the Upper Basin. However, a motion by California to join the Upper Basin states was opposed by those states and Arizona and was rejected, except that Utah and New Mexico were made parties in their Lower Basin capacities.

In June 1954, a Special Master, George I. Haight of Chicago, Illinois, was appointed by the Supreme Court. After conducting preliminary meetings and hearings, Mr. Haight died in September 1955 and was replaced in October 1955 by Simon H. Rifkind of New York City. The newly appointed Special Master held pre-trial hearings in April 1956 in an effort to define the issues for the trial and procedural rules. The trial began in San Francisco in June 1956 and continued intermittently through August 1958, with 132 days of hearings. The transcript covers more than 22,000 pages, containing the testimony of 106 witnesses. Nearly 4,000 exhibits were received in evidence or marked for identification.

Following the filing of proposed findings of fact, conclusions of law, and briefs by the parties in 1959, the Special Master on May 5, 1960, issued a draft of his report and proposed decree which if entered would be disastrous to California. Comments and suggestions were filed with the Master by the parties and upon motion by California oral argument and conference with the Master ensued in New York City in August 1960. In December 1960 Judge Rifkind submitted to the Supreme Court his final report and proposed decree, little changed in substance from his May draft.

The proposed decree would render the Colorado River Compact irrelevant to any issue in the suit. The Master concludes in his report that the Compact is not a guarantee of right to either the Upper or the Lower Basin, but merely a ceiling on appropriations of water and that the ultimate division of the available supply between the basins is a problem for the Congress, not the Court, to resolve.

The proposed decree would remove two million acre-feet of annual water uses on the tributaries in Arizona from any accounting with respect to interstate apportionments. Instead it would divide only the use of water in the main stream below the head of Lake Mead under a formula which the Master concedes is based upon a novel interpretation of the Boulder Canyon Project Act, and which would substantially abrogate the traditional western appropriation doctrine of "first in time first in right." The effect, if the Upper Basin continues to develop and if Arizona and Nevada are able to put to use all the water available to them under the proposed decree, would be to reduce the dependable water supply permanently available from the Colorado River for use in California to annual amounts less than the quantities used for many years past by the agricultural agencies, and to dry up the Colorado River Aqueduct of the Metropolitan Water District.

Exceptions to the Master's report and proposed decree were filed with the Supreme Court on February 27, 1961, by Arizona, California, Nevada, and the United States, followed by the submission of briefs in support thereof. Final briefs are scheduled to be submitted to the Court October 2, 1961. Subsequently the case will be decided by the Supreme Court, doubtless after oral argument by the parties.

There are three issues of overriding importance raised by the Master's proposed decree:

(1) What is the meaning of the limitation, prescribed by section 4(a) of the Boulder Canyon Project Act (quoted p. 18) and accepted by the California Legislature because of Arizona's failure to ratify the Colorado River Compact? Does the limitation refer to the Colorado River Compact and the rights which the Compact expressly prescribes for the Lower Basin from the main stream and tributaries in the Lower Basin, as California says, or does the limitation refer only to the main river from Lake Mead to the international boundary without reference to the Compact, as the Master says?

(2) Are shortages to be allocated on the principle of first in time first in right, to protect existing projects, as California says, or are they to be allocated among the states on the basis of parity, as the Master says? This issue is rendered extremely acute if the Master's interpretation, eliminating all Lower Basin tributary uses and uses from the main stream from Lee Ferry to Lake Mead, should be adopted.

(3) Can an effective and useful decision be rendered, as the Master proposes, without determining dependable Lower Basin water supply and without determining the effect of the Compact?

The final outcome of the suit cannot be forecast, but California is certain that her cause is honorable. California seeks a decree which is believed to be fair and just, based upon a recognition of interstate priorities and principles of equitable apportionment and within the limitations of the Colorado River Compact and the California Limitation Act—a decree which would confirm California's rights to enough

annual consumptive use of Colorado River water to insure the continued operation of her existing projects. However, physical availability of water supply in the Colorado River System for use in the Lower Basin may result in less water being permanently available for use in California than previously anticipated, even though the legal issues are finally decided in California's favor.

California's stake in the Colorado River is a large and vital one. Every legitimate effort must be made to protect and preserve that stake in order to assure the continued growth and prosperity of Southern California.

COLORADO RIVER BOARD OF CALIFORNIA

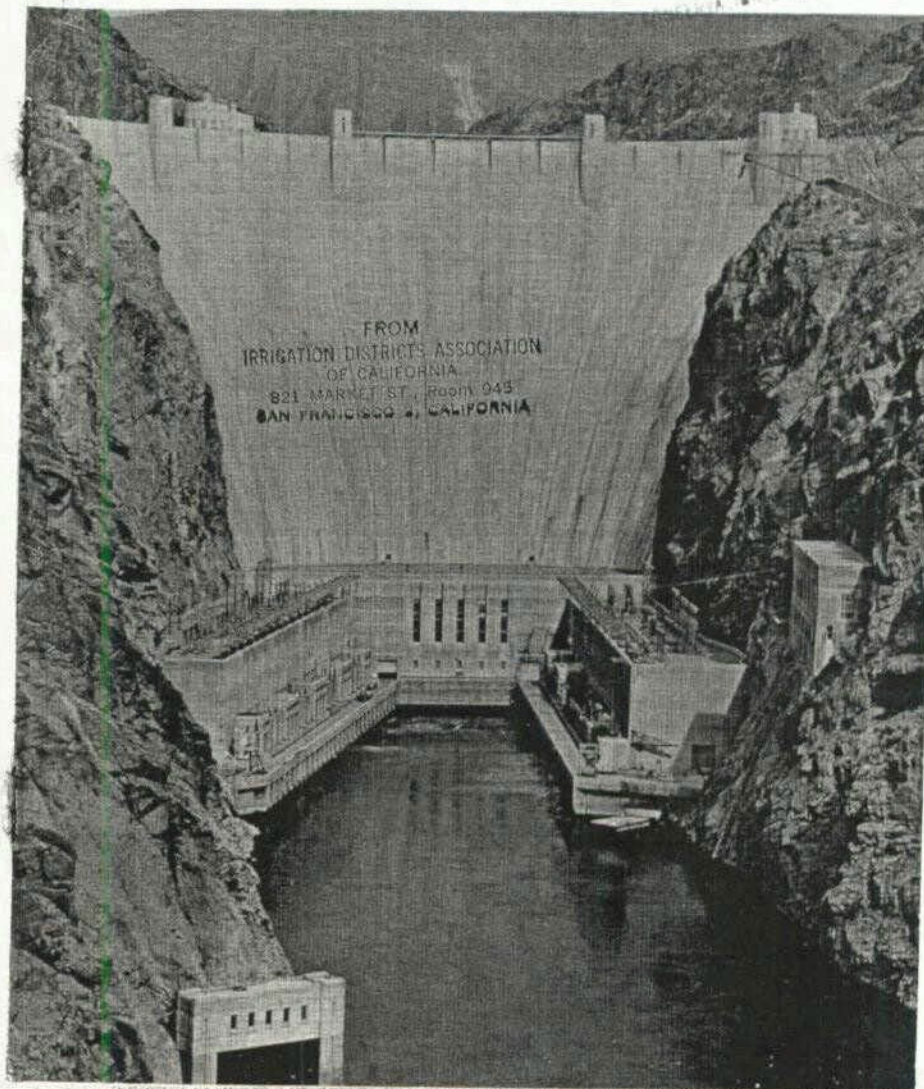
RAYMOND MATTHEW, Chief Engineer



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File *California's Stake in the Colorado River*

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