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**Twentieth Annual Report  
of the  
Arizona Interstate Stream Commission**

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**July 1, 1966, to June 30, 1967**

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# ARIZONA INTERSTATE STREAM COMMISSION

608 Greater Arizona Savings Building  
Phoenix, Arizona 85004

June 30, 1967

The Honorable Jack Williams  
Governor, State of Arizona  
and  
Members of the Legislature  
State of Arizona  
Phoenix, Arizona

In compliance with the provisions of Chapter 4, Senate Bill No. 1 of the 18th Legislature of the State of Arizona, Third Special Session, the Arizona Interstate Stream Commission submits this report of its transactions and proceedings for the fiscal year July 1, 1966, to June 30, 1967.

Respectfully submitted,

RICH JOHNSON  
Executive Director

## Personnel

**Douglas J. Wall**, Coconino County, Chairman  
Term expires on the third Monday of January, 1969.

**Evo De Concini**, Pima County, Vice-Chairman  
Term expires on the third Monday of January, 1971.

**Linton Claridge**, Graham County, Member  
Term expires on the third Monday of January, 1969.

**J. A. Roberts**, Pinal County, Member  
Term expires on the third Monday of January, 1971.

**John S. Hoopes**, Maricopa County, Member  
Term expires on the third Monday of January, 1973.

**Sidney S. Woods**, Yuma County, Member  
Term expires on the third Monday of January, 1973.

**George E. Leonard**, Maricopa County, Member  
Term expires on the third Monday of January, 1973.

**Obed M. Lassen**, State Land and Water Commissioner  
Ex Officio Member

**John E. Smith**, Chairman, Arizona Power Authority  
Ex Officio Member

**Rich Johnson**, Executive Director

**Ozell M. Trask**, Chief Counsel

**W. S. Gookin**, State Water Engineer

**Robert E. Farrer**, Assistant State Water  
Engineer

**Vivian Talton**, Administrative Assistant

**Rose Anstett**, Stenographer-Bookkeeper

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## FOREWORD

The authority and responsibilities of the Arizona Interstate Stream Commission were greatly expanded by the 28th State Legislature through its enactment of Senate Bill 204.

The Act authorized a State Water and Power Plan which includes not only the Central Arizona Project but also authority to accomplish statewide water project planning. The Stream Commission is enabled to plan, construct and operate these water projects with revenue bond financing provided by the Arizona Power Authority on the basis of its projected hydroelectric power program.

The Stream Commission anticipated this action by the Legislature and the need for it, and in October, 1966, began an economic study of non-federal financing of the Central Arizona Project water diversion and delivery system. Since the Commission's staff was too limited for the task, the world-famed Ralph M. Parsons Co. was retained to make the study. The job was completed in report form on January 20, 1967.

The report concludes "that the State of Arizona has the economic potential within the current financial structure of the State to support an aqueduct system for the transport of water from the Colorado River to central Arizona. Revenues generated from the sale of water would not be adequate for the project to be self-liquidating. Consequently the State of Arizona must determine the most appropriate method of financing the deficit compatible with the economic structure of the State."

The State Water and Power Plan proposes that the financing of the water project be accomplished by the Arizona Power Authority's capability to bond its revenues from hydroelectric projects. The Power Authority has applied for Federal Power Commission licenses to construct four such projects.

To further advance implementation of the water features of the State Water and Power Plan, the Stream Commission began in May, 1967, an intensive study of the steps which must be taken to achieve the overall water objectives of the Plan. This study will be completed in December, 1967.

The Stream Commission recognizes the need to reduce to a minimum the costs of project planning, construction and operation under a State-financed plan, and has begun an investigation of the availability of funds under a variety of federal programs

for which Arizona may qualify. One such source of money is provided by the National Water Resources Planning Act. The Commission has applied for matching funds available under this Act to cover a part of the costs of adding essential technical employees to its staff.

Through members of the Commission, its staff and consultants, liaison is maintained with the Governor, the Legislature and the Arizona Power Authority.

While pushing forward with planning for the State Water and Power Plan, it is also the responsibility of the Stream Commission to give full support to the State's effort to obtain congressional authorization of the Central Arizona Project as a federal reclamation project for so long as that is the policy of the State.

In the State Water and Power Plan Act the Legislature gave Arizona a new and significant tool for development of Arizona's water and power resources and likewise a greatly improved State water resources agency setup.

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This annual report contains not only the actions of the Commission during the 1966-1967 fiscal year but a continuation of the history of Arizona's struggle for Colorado River water as well. We present this historical account in some detail, so that those interested may view this significant aspect of Arizona's official life in its full dimensions. We contemplate, too, that future historians will want to know what transpired during these years of massive effort involving the Colorado River. The complete record will be found in this and previous annual reports of the Commission.

## Functions and Activities of The Commission

### **I. Central Arizona Project.**

The Commission's activities during the year in behalf of the Central Arizona Project are detailed elsewhere in this report.

### **II. Interstate Planning and Study.**

The Water Resources Planning Act (P.L. 89-80, July 22, 1965) established the Water Resources Council. The President transferred the functions and committee organization of the Interagency Committee on Water Resources to the Water Resources Council on April 10, 1966. This transfer included the Pacific Southwest Interagency Committee. By letter of October 10, 1966, the Water Resources Council requested the Pacific Southwest Interagency Committee to take leadership and coordinate the comprehensive studies in the Pacific Southwest, including the Lower Colorado Region. PSIAC accepted this responsibility by letter of November 21, 1966. An organization meeting to begin the Lower Colorado Region study was held on February 8, 1967. The Department of the Interior was designated to be lead agency and the Bureau of Reclamation provides chairmanship of the Lower Colorado Region State-Federal Interagency Group and Staff.

The Commission represents the State of Arizona in the Comprehensive Framework Study of present and future water supplies and needs in the Lower Basin. A final report is scheduled for 1970.

### **III. Protection of Arizona's interests on tributaries of the Colorado River and other streams.**

In addition to its functions with respect to the main stream of the Colorado River, the Commission is concerned with protecting Arizona's interests in other interstate streams such as the upper Gila River, Zuni River, Little Colorado River, Virgin River, Kanab and Johnson Creeks and the Santa Cruz River.

With respect to the Virgin River and its tributaries and Kanab Creek and its tributaries, we shall continue to maintain the closest relations with Nevada and Utah, to the end of promoting the development and use of the waters of those streams and fully protecting Arizona's present and future uses thereof.

As for the Santa Cruz: This presents delicate and difficult problems which have concerned the Commission and its engineering and legal staffs for some years. In this connection, the Commission maintains contact with the International Boundary and Water Commission as well as the areas in Arizona directly affected. It is possible that a further treaty with Mexico may be deemed advisable.

However, negotiations to this end cannot begin until a current hydrologic study of the Basin is completed by the Bureau of Reclamation.

#### **IV. Collection and analysis of basic data.**

Collection, analysis and publication of basic hydrologic data related to surface and groundwater continue to be of vital importance to formulation of plans and development programs for utilization of the waters of interstate streams.

The Commission cooperates with the office of the State Land and Water Commissioner and the Bureau of Reclamation in determining the nature of such investigations and the areas for which there is most urgent need of basic data.

#### **V. Arizona v. California Litigation.**

Following the Court's decision giving Arizona title to 2.8 million acre-feet of mainstream Colorado River water annually, the only remaining unresolved issue in the case is settlement of the claims to prior perfected rights by users of mainstream water in Arizona and California. The problems related to settlement of this issue continue as a function of the Commission's legal counsel.

#### **VI. New projects.**

The Commission maintains an active interest in new projects suggested or proposed for improved control and distribution of water as related to utilization of interstate streams. Such projects include those studied at a reconnaissance level by the Bureau of Reclamation in the northern counties. These would, in the main, implement exchanges of water.

#### **VII. Indian water uses.**

The rights and uses of water on Indian reservations are related to non-Indian uses. The commission continues to study the relationships and their implications for development of the waters of interstate streams.

#### **VIII. Aqueduct right-of-way.**

The Commission has established and continues to protect a right-of-way for an aqueduct from the Colorado River. The applications are renewed from time to time, as required by law.

#### **IX. Functions related to national legislation.**

Many measures are proposed to Congress which can affect the development of Arizona's water resources. The Stream Commission analyzes such measures, confers with other agencies about them and advises the Governor and Arizona's congressional delegation concerning them. Where such legislation could affect other States as well, representatives of the Stream Commission confer with representatives of agencies of the States involved.

Commission members and the staff are active in the National Reclamation Association, the National Rivers and Harbors Congress, the Colorado River Water Users' Association and the Association of Western State Engineers, as a means of keeping informed and influencing legislation which affects water development in Arizona.

Close liaison with the eleven western states is also maintained by membership in the Western States' Water Council, which has a primary interest in federal legislation affecting the States. The Council is an organization set up by the Western States Governors Conference.

#### **X. Water Quality.**

The national Water Quality Act of 1965 required each State to prepare and submit to the Federal Government its water quality control standards during the year. The Stream Commission was instrumental in calling the attention of the State Health Department to the possible effects of water quality standards on uses of water for irrigation.

The State Legislature, by Act of March 16, 1967, created the Water Quality Control Council within the State Department of Health, and the Stream Commission appointed Commissioner John Hoopes as its representative on the Council, with the Assistant State Water Engineer as his alternate.

Standards were prepared and adopted by the Council and were submitted to the Federal Government for approval.

#### **XI. State Water and Power Plan.**

In March, 1967, the Legislature established a State Water and Power Plan by enactment of S. 204. The Act authorized the Stream Commission "to plan, construct, operate and maintain the Central Arizona Project, or any portion thereof, and any other water projects hereafter included in the State Water and Power Plan, to acquire all real property required therefore in the name of the State, and to take such actions and proceedings as may be necessary or desirable in connection therewith."

On May 18, 1967, the Commission contracted with the engineering consulting firm of Ralph M. Parsons Company to investigate and recommend procedures prerequisite to financing construction and operation of the water diversion and delivery system authorized by S. 204. This report was to be submitted to the Commission on December 15, 1967.

A previous contract investigation by the Parsons Company produced a report on January 16, 1967, titled "Economic Study of Non-Federal Financing of an Aqueduct System from the Colorado River to Central Arizona". The conclusion drawn from this study was that "the economics of the State of Arizona are adequate within the current financial structure to support an aqueduct system from the Colorado River to Central Arizona."

## The Central Arizona Project: A Review of Events 1966-67

The fight for Colorado River water took on a now-or-never character as the new fiscal year opened. There was much to be done and little time in which to do it. The Colorado River development legislation containing the Central Arizona Project was out of the House Subcommittee on Irrigation and Reclamation, but it had yet to clear the parent Committee on Interior and Insular Affairs, then the House itself and, after that, the Senate. And, with the off-year elections upcoming, Congress would be going home soon, barring a national crisis. Finally, if Congress adjourned without approving CAP, nobody could be sure but that the next Congress—in the wake of traditional off-year attrition of administration strength at the polls—would be even less sympathetic to CAP than this Congress.

Even now, it was touch-and-go in the lower House. Ben Cole, the *Arizona Republic's* Washington correspondent, counted 157 votes for CAP and 196 votes against it. That left some 80 indifferent or undecided votes, and Arizona would have to get three out of every four of them. It would, said Mr. Cole, be a "cliff-hanger." "Cutting deepest against the vital Arizona bill," he wrote, "is the fantastic crusade mounted by the conservationists against it. The publicity being distributed by those who want to keep Bridge and Marble Canyon dams out of the Colorado River gorge is convincing millions that the Grand Canyon is about to be flooded rim-to-rim."

If, in spite of all this, the Central Arizona Project won approval, said Mr. Cole, "some day the people of Arizona will turn on their taps or water their fields with a supply that will come so easily that they are not likely to remember the nerve-wracking toil that has gone into this 40-year struggle."

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### Governor Defends the Dams

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Early in July Gov. Sam Goddard carried the fight for CAP to Los Angeles, where the National Governors Conference was to be held. With him he took a plastic scale model, 13 by 25 feet, of the Grand Canyon, which was mounted at the Century Plaza Hotel, the conference headquarters. There he called a press conference and, using the model for illustration, Governor Goddard demonstrated how the two dams could be built without doing vital harm to the heart of the canyon. The national park area, he pointed out, would be almost untouched by the waters to be impounded. "There is no way that you could even see where the water to be stored would be without having to shoot the rapids or ride a mule all day," said the governor.

Answering the Sierra Club's complaint that the dams would eliminate the sport of white-water river running through the

canyon, Governor Goddard noted that in the past 10 years an average of only 30 people a year had taken such a journey. "It is a costly venture and takes a great deal of physical stamina," he said. "The lakes that would be created by our dams would afford easy access by water to thousands who would never see these wilderness areas otherwise."

Following this demonstration, all seven Colorado River Basin states governors at the conference signed a letter to President Johnson asking for "an act of support" of the Colorado River Development Plan. The letter said the basin's water shortage was "extremely serious" and "rapidly becoming acute." "In several areas disaster is imminent if proper action is not initiated at once . . .," said the Basin governors in their communication to the President. "Our seven states, realizing the future of the entire river basin with its 30 million people is involved, have demonstrated the highest degree of water statesmanship by adopting a sound regional approach to resolve our inter-related problems. Your active support of the Colorado River Basin Project is urgently needed and respectfully requested."

Governor Goddard called this intra-Basin unity "history-making." "It demonstrates a new era of unified resource development among the Basin states," he said. "There is no limit upon the future of our region if our common water problems are solved."

#### Opposition from an Arizonan

If there was unity among the Basin governors, it was somewhat lacking among Arizonans. In Tucson an Episcopal minister, the Rev. John Clinton Fowler, sought signatures for a letter to the President and other Washington officials opposing the two dams. "We remain convinced, after arduous study of both sides," said the letter, "that vast areas of the Grand Canyon and adjoining regions will be effectively and permanently modified or destroyed if one or both of the dams are built. We further believe that if the nation's greatest natural gift cannot be protected, we shall see the same arguments of expediency and dollar practicality used to harm or destroy other wilderness areas of the nation. . . . New sources of water and power can be found, but once we have lost the Grand Canyon, or any part of it, we shall have lost it forever. Gentlemen, we Arizonans plead with you: Don't build the dam at Marble Gorge and Lower Granite Gorge."

The *Tucson Daily Citizen* made known its conviction a few days later that much of the opposition to the dams was the direct result of Sierra Club propaganda. "Snowed by the Sierra Club" was the title of an editorial in which the *Citizen* answered an attack on the dams in the *Rockford (Ill.) Morning Star*. The *Citizen* then made reprints of its editorial and sent them to Rockford to counteract the opposition. "Research," said the *Citizen* firmly, "would have disclosed these underlying and unassailable



facts: The Grand Canyon will NOT be ruined. The Grand Canyon will NOT be filled with water. The Grand Canyon will NOT be inundated. The 'entire length' of Grand Canyon Park will NOT be flooded." Concluding on a wistful note, the *Citizen* said, "The truth hopefully will stand up in the coming months where it is needed most—in the Congress of the United States."

The Sierra Club was not without its own troubles, however. The Internal Revenue Service had begun an investigation (it preferred the word "audit") to determine if the club was spending enough money influencing legislation to warrant loss of its tax exemption. What caught the attention of IRS were ads placed by the club in the *New York Times* and *Washington Post* opposing the dams. By placing such ads, said IRS Commissioner Sheldon S. Cohen, the club was initiating a nation-wide campaign to influence legislation "which could reasonably be expected to be vigorous and continuing. On the basis of these facts, some action on the part of IRS was clearly indicated. . . Under the circumstances, the IRS felt it was under a duty to warn the club and possible contributors of the consequences if the club were subsequently determined to be disqualified to receive tax deductible contributions." David Brower, executive director of the Sierra Club, called the IRS move a "gut blow, a low punch," charged that political pressure was behind it and conjectured that the federal government was "trying to scare us off."

### The Saylor Substitute

On July 12 the House Committee on Interior and Insular Affairs met to act on the bill. But before it could do so, Rep. John Saylor (R-Pa.), who had been a consistent critic of the program, introduced his own version of it—a substitute bill deleting the two dams and not providing for any water importation study. He said it had the support of conservationist groups. Rep. Morris Udall (D-Ariz.) declared that the Saylor proposal, if adopted, would "be the death knell for 30 years of effort."

The committee adjourned after an hour, to return a week later and act on the two proposals before it.

On July 19 the committee reconvened. First it took up the Saylor substitute. Rep. James H. Haley (D-Fla.) asked Congressman Saylor how much his version of the Colorado River plan would cost. Mr. Saylor was unable to give an estimate, and so Congressman Haley submitted an amendment to the Saylor substitute setting the cost at \$628 million. It carried by voice vote.

Rep. Ed Reinecke (R-Calif.) tried to amend the Saylor substitute to include a 4.4-million-acre-foot guarantee to California, but it was defeated. (Actually the guarantee was incorporated in the subcommittee version of the bill. Congressman Saylor described it as "California's price for supporting this bill" and said it was "unconscionable." "To give California this unjust enrichment at the expense of other states, I just cannot support" he said firmly. "This committee has authorized more



reclamation projects for California than for any other state of the union. . . It seems to me that California is being unfair, not only with the citizens of other neighbor states but with the citizens of the rest of the country.")

Up to this point things had gone pretty much as expected. But then something went awry. Rep. Walter Rogers (D-Tex.), chairman of the subcommittee which had brought out the Colorado River bill, submitted an amendment to the controversial water import study provision in the legislation. It would have limited the study to a situational report—in effect a reconnaissance—rather than a feasibility report. The study would be undertaken by a seven-member national commission and would cost \$4 million instead of the \$12 million estimated for a feasibility study. The amendment was approved 20-9. Arizonans and their friends on the committee hoped, through this device, to reduce opposition to CAP in the House and Senate, especially from the Northwest, which feared a diversion of water from the Columbia River to replenish the Colorado. But in the process they antagonized California. Northcutt Ely, special assistant attorney general heading up the California lobby, charged that the amendment broke an agreement. He said Arizonans lobbied for the amendment and failed to consult California about it. "Unless it is changed," he said bluntly, "this could mean the end of California's support of the Central Arizona Project." Rep. Harold T. Johnson (D-Calif.) said the feasibility study was a "must." And Rep. Craig Hosmer (R-Calif.) said the amendment "not only derogates the bill but shatters the seven-state agreement on it." "It's quite possible," he added, "that we will decide to move for its recommittal to the subcommittee." And that, of course, would have killed the bill for that session.

Representative Udall, who had been shepherding the legislation through the committee, acknowledged that CAP was in "serious" danger. "There was a failure of communication with regard to the amendment that was regrettable," he said. And he explained, "We've all been under great strains and pressures, working almost around the clock."

### **Keep Cool, Urges Gov. Brown**

The committee then deferred further consideration of the bill until the following week while efforts got under way to close the unexpected breach. Said California Gov. Pat Brown: "We should make no snap judgments or quick decisions in this momentous problem, and I am confident that California can arrive at a decision that is fair to us, fair to Arizona and good for the nation. I trust this can be done prior to the (next) committee meeting."

Governor Brown's reassuring words seemed to imply compromise, and that was indeed what followed. Arizona and California agreed on a revision of the Rogers amendment to provide that the national water commission make a preliminary

study of interbasin diversion possibilities. Then the commission would be authorized, if it so decided, to continue with an advanced or feasibility study if, in its judgment, such a study was warranted.

On July 25, possibly with the hope of mobilizing enough public sentiment to head off committee approval of the bill, the Sierra Club ran another ad against the dams in the *New York Times*. It contained coupons which readers were urged to clip and send to President Johnson, Secretary Udall and congressmen asking them to "join in the fight to save the Grand Canyon." (In Tucson, William H. Wheeler, chairman of the water resources committee of the Tucson Chamber of Commerce, charged in a speech that the Sierrans used "extreme means and distortion" in their campaign and that the club had opposed every dam ever built. And in Washington, Former U.S. Sen. Barry Goldwater of Arizona said in a speech at the National Press Club that the Sierra Club was misinforming the public. He charged that it used the "big lie" technique by applying such words as "inundate" and "flood" in discussing the dams and their impact on the Grand Canyon. "There is not enough concrete in the entire world to construct a dam large enough to flood the Grand Canyon," said Mr. Goldwater.)

On July 27 the bill came up for final action of the committee. Congressman Saylor admitted that Mr. Udall "has the votes to do whatever he wants in this committee." But, warned the *Pennsylvanian*, things would be different when the measure reached the floor.

Before the final vote was taken, several crippling or complicating amendments were voted down. One would have eliminated both dams while paying directly from the U.S. treasury a sum equal to what the dams would contribute to financing the water-import reconnaissance. Another would eliminate Hualapai Dam. Still another would include weather modification and desalting along with interbasin diversions in the reconnaissance. And, finally, there was an amendment—likewise rejected—to defer construction of the dams until the reconnaissance was made.

The preliminaries thus disposed of, Congressman Udall moved for a final vote on the bill the following day. Congressman Saylor could have objected, but he said he saw no point to it. Mr. Udall had the votes. Mr. Saylor said he admired the Arizonan for his skill in bringing the bill that far. But then he added, looking straight at Mr. Udall across the horseshoe-shaped committee table: "You have violated the policy of the administration. You have violated the wishes of the President. You have violated the Park Service. You have violated the recommendations of the Bureau of the Budget. And you have violated the recommendations of your own brother."

And so on July 28 the Lower Colorado River project bill came up for final vote. But even this late, with the outcome certain, there was rancor and argument. Representative Rogers didn't like the revision of the water import study provision. He

said he was "sorrowed" at the way the legislation was being "rammed through this committee." Representative Saylor didn't like the bill itself. He called it "evil," and he denounced the "nefarious dealings" that involved the water import section. "How naive do you think the American people are?" he demanded. "This is a scheme. It is a selfish move by some people to see to it that they and they alone get any benefit out of this." Congressman Saylor tried to kill the bill by having it recommitment to the subcommittee without instructions. His motion failed 22-8. At last, five minutes before scheduled adjournment, the bill was submitted for final vote and carried 22-10.

The scene in the committee room after the final vote was a mixture of jubilation and bitterness. The Arizonans were jubilant, Congressman Saylor bitter. As Former Assistant Secretary of the Interior Roger Ernst approached him to shake hands in a gesture of reconciliation, Mr. Saylor said angrily, "If you think I'll offer any kind of motion or anything else to get one drop of water for Arizona . . . after the way Arizona has acted in this, I'll see them in hell first." Arizona's three congressmen, in a joint statement, acclaimed the committee action. "At many points we have been told our project was dead," they said. "The hurdles we have had to overcome were many. Our policy has always been to take on one obstacle at a time, and this we shall continue to do. . . We believe the vote in committee, by members who have had an opportunity to hear all the testimony, pro and con, refutes the arguments of those ill-advised preservationists who have attacked this project as a threat to the Grand Canyon. Working together, we look forward to taking our fight to the House floor. Seven states and 30 million people have a direct and vital interest in its passage."

Uncertain as the future might be for CAP, a bit of history still had been made. It was the first time the project had cleared the House Committee on Interior and Insular Affairs. Sixteen years earlier the Senate approved CAP but it died in the House committee. Arizona then had to embark on a long detour to establish its rights to Colorado River water in the U.S. Supreme Court before returning to Congress again.

In Phoenix the president of the Central Arizona Project Association, Lawrence Mehren, said, "The association is particularly elated over this victory because it is another historical first for the Pacific Southwestern states. It would not have been accomplished unless all parties concerned had displayed the highest degree of water diplomacy."

Speaking in Denver almost at the same moment that the House Interior Committee was approving CAP, U.S. Reclamation Commissioner Floyd Dominy denounced conservationist opponents of CAP as "selfish" because, he said, they wanted to retain a wilderness area which fewer than 1,000 persons had ever seen. He ventured a guess that Congress would pass CAP in some form that session.

### Shoals Ahead in the Senate

The *Phoenix Gazette* wasn't quite as optimistic. In a speculative piece by Bill Werley, the *Gazette* said the bill—even if passed by the House—probably would not get through the Senate in that session. For one thing, wrote Mr. Werley, it had taken so long to reach that point in the House that there simply wasn't time. The bill wouldn't reach the House floor until early September at best, and Congress was driving for election-year adjournment October 1. Secondly, U.S. Sen. Carl Hayden (D-Ariz.), whose power was needed to get the bill through the Senate, had been hospitalized because of illness. Finally, because the legislation was so controversial, senators might be loath to tackle it in the closing weeks of the session, which would be hectic at best. "Should the Senate not act on the bill this year," concluded Mr. Werley, "the legislative processes will have to start all over again in the new Congress in January. Arizona is at a crossroads—and it appears there is no water there, either."

Another discordant note was struck by Gov. Cliff Hansen of Wyoming, who said the bill included "something for everyone except Wyoming." It contained projects for Arizona and Colorado which, he said, would consume all of the remaining water in the Colorado River. The governor promised to say as much to the Senate Committee on Interior and Insular Affairs when and if the bill was taken up by that committee.

Rather surprisingly, in view of the fact that they were on record in favor of it, the Navajo Indians also came out against the project. Their tribal council adopted a six-page resolution condemning the two dams as "a waste of public funds." It said Marble Canyon Dam, which would be located within the Navajo reservation, was planned without consulting the tribe and would "partially destroy one of the greatest resources of the Navajo people," namely, the scenery in Marble Gorge. Coal deposits on the reservation would provide cheaper "base power" to finance CAP, said the tribal council, and nuclear power would provide cheaper "peak power." The resolution criticized both Udalls for ignoring "the property rights and interests" of the Navajos and charged that they had won support from the Hualapais by providing for a \$16 million payment to that tribe.

Newspaper stories conjectured that there was a connection between the Navajo resolution and a feud between Secretary Udall and Norman Littell, counsel for the Navajo tribe. (Shortly after the appearance of the Navajo statement, seven other Arizona Indian tribes took an opposite stand. They sent a letter to Congress supporting CAP and Hualapai Dam. "Indians who have made their homes in the Southwest have lived in constant fear of a diminishing water supply, as others now have in other parts of the country," the letter said. It was signed by leaders of the Salt River Pima-Maricopas, Papagos, Gila River Indian Community, Yavapais, Colorado River Tribes, White River Apaches and Hualapais.)

## 12 Congressmen Side with Sierrans

There was another controversy-within-a-controversy—that which had developed between the Sierra Club and the Internal Revenue Service. In Washington the club gained some allies when 12 congressmen signed a letter to IRS Commissioner Sheldon Cohen advising him that they had made contributions to the club and intended to claim them as income tax deductions. The letter said the IRS had “cast a shadow over the club’s tax exemption, but avoided any action which the Sierra Club—or anyone else—could challenge.” Therefore, the congressmen wrote, a ruling should be handed down immediately to “clear up confusion and permit the club to take legal action to clear its name, if necessary.” “The question is not whether one supports or opposes the proposed controversial Grand Canyon dams which the Sierra Club is fighting,” said the letter. “It is whether or not the Internal Revenue Service ought properly to set public policy, or whether its only proper function is to carry out tax policy set by Congress. The announcement (by IRS) damaged not only the Sierra Club but every other conservation effort supported by public contribution. This is neither a fair nor a proper use of the taxing power of the federal government.”

The congressmen said their action was not to be construed either as opposition to or support of the dams.

A day or so after the congressmen’s letter was released, the Sierra Club became the subject of another communication, this one an angry statement in the House by Congressman Udall. He denied that he or his brother were responsible for bringing the club’s tax-exempt status into question. Mr. Brower, he said, “seems to be unable to conduct a discourse without a villain, and for want of a better target has placed my name in nomination. I decline the honor.” The congressman said Mr. Brower alone among conservation leaders had “persisted in false and unprincipled personal attacks on members of Congress and leaders of the executive branch.” “And he alone has recklessly ignored the facts and painted a grossly distorted picture of the Colorado River Basin project,” continued Mr. Udall. “In talking with my colleagues I find that the falsity of Mr. Brower’s campaign is becoming more and more clear to members of Congress. His irresponsible charges about ‘flooding the Grand Canyon’ are falling on deaf ears. And in my judgment the members and directors of the Sierra Club ought to be asking themselves whether Mr. Brower is doing their cause as much good as he is harm.”

Mr. Udall said he did not want to deprive the Sierra Club of its tax-exempt status. But neither did he want “this or any other organization” lobbying at taxpayers’ expense. “There exist conservation organizations, allied with the Sierra Club, which have never sought special tax status and which exist for this very purpose,” said Mr. Udall. “There are the organizations which ought to be accepting contributions and carrying on this

legislative fight. It ought not to be done by the Sierra Club itself, so long as it holds itself out to be a scientific, educational, tax-exempt corporation.

"One of these legislative organizations is the Citizens Committee on Natural Resources, of which David Brower . . . is a board member. How curious it is, then, that he has chosen to place the Sierra Club in jeopardy through this out-and-out legislative campaign. After all, our tax laws, which I did not write, draw a distinction between cultural, scientific and educational efforts, on the one hand, and lobbying or legislative efforts on the other. We have decided through our Congress that the first should be subsidized by the taxpayers through tax deductions and that the second should not. For most of its existence the Sierra Club has been primarily in the first category, and only recently under David Brower's direction has the club veered into the other . . ."

### More Lumps for the Sierra Club

A few days later the Sierra Club had to take its lumps from another Arizona official, Governor Goddard. He was in Tucson to preside over the installation at the city hall of the plastic model of the Grand Canyon which had been used at the governors' conference in Los Angeles. He said the Sierra Club was "inciting people with misinformation about the Grand Canyon" and Congressman Udall's statement in Congress was something "that needed saying and needed saying badly."

Asked what he thought was the Sierra Club's motive in fighting the dams, the governor said he thought it was a residue of bitterness left over from the club's unsuccessful opposition to Glen Canyon Dam. "There are people who just want nature to be left alone, whether it is wild and savage or gentle and kind," he observed.

Congress served as the forum for still another attack on the Sierra Club, this time by Congressman Hosmer of California. He called its opposition to the dams "the most outrageous demagoguery to hit town since Barnum left." "Many people have been taken in by these extravagant and completely erroneous charges . . .," said Mr. Hosmer. "The truth is that Marble Canyon Dam would be built 13 miles upstream from Grand Canyon National Park and nearly four times that distance from the traditional South Rim observation points. Hualapai Dam would be built 80.3 miles downstream from the western border of the park and 149.5 river miles from the South Rim. Even the recreation lake created by Hualapai Dam would be 55.5 miles from the South Rim. No dams or lakes would be visible from any easily accessible public observation point anywhere in Grand Canyon National Park. . ."



### Battle of the Films

There occurred at about this time, in the conflict between Arizona and the Sierra Club, a related skirmish which might go down in history as the Battle of the Films. Both contestants produced films to win adherents to their points of view. And both films became themselves the subjects of controversy.

Arizona's film was produced by the Central Arizona Project Association. It was made primarily for Eastern viewing, because it was in the East that conservationists had mustered some of the strongest opposition to the dams. The controversy developed when CAPA tried to buy time to show the film in Washington on station WTOP-TV, owned by the *Washington Post* and *Newsweek*. The station refused it and cited two reasons for its decision: (1) The film lacked broad enough appeal for its audience, and (2) the station had a policy against selling time to present material on controversial issues which it felt should be developed and produced by its own news and public affairs department. WTOP officials said also that there was a precedent for their action: They had turned down a request to buy a half-hour of time for a Medicare program. Arizonans conjectured, too, that a policy of the Federal Communications Commission may have had something to do with the station's decision. The FCC might have required WTOP, if it showed the CAPA film, to give the Sierra Club equal time.

The Sierra Club film was called *Glen Canyon* and was, in effect, a warning that if Hualapai and Marble Canyon Dams were built, the Grand Canyon would be flooded as was Glen Canyon in 1962. The club tried to show the film at a Yosemite Park hotel, lodge and camp but was refused permission to do so by the park superintendent. He said he did not believe the park should be used as a platform "to debate controversial issues" and explained: "If we permit opponents of the dams to have their say, we have to give the other side a chance to present its story. . ." The Sierra Club appealed to George Hartzog, national parks director, but he upheld the decision of the Yosemite superintendent.

### Majority Report Filed

On August 11 the House Committee on Interior and Insular Affairs filed the majority report on CAP. This formally cleared the way for a request to the Rules Committee that it bring the bill to the floor. The report stated the case for the Colorado River Development Project and took sharp aim at critics who, it said, were circulating "inaccurate and misleading" information. These critics, said the majority, "painted a picture of devastation and ruin wholly unsupported by the facts." Hualapai Dam and its 94-mile reservoir actually would be "an infinitesimally small work of man in a magnificently immense work of nature," said the report. It would not be visible from any existing road, trail or overlook on south or north rims.

The committee majority took issue with the Bureau of the Budget, which, in its recommendation that Hualapai Dam be deferred, contended that it would alter the wilderness character of that part of the river. National parks, said the committee, "are not—and never have been—wilderness areas." "The Grand Canyon National Park is accessible to millions by road, rail and air travel," the report continued. "A beautiful new lake, formed by Hualapai Dam, will form a 'water way' for miles through the towering splendor of the Grand Canyon National Monument and for 13 miles along the northern boundary of the park itself. This water 'highway' will permit hundreds of thousands of people annually to visit and view an area now open to only a handful of daring river-runners using expensive, special equipment to carry them through the violent rapids on this stretch of the river."

The majority report also addressed itself to the economic issue and the need for supplemental water to be brought in from outside the region—a need at least partially met by the legislation in question. Speaking of the Southwest's imbalance between water supply and water need, the report said, "It seems to the committee that this presently thriving, prosperous area of our nation is on a collision course with economic disaster unless this water gap can be closed by augmentation of the Colorado River Basin water supplies."

A minority report also was filed, bearing the signatures of nine members of the committee and charging that Arizona abrogated its Supreme Court victory to win support from other states. The dissenters agreed that Arizona should "reap the benefits" of her court victory, but they didn't like the form that the bill took. They objected to making the 1.5-million-acre-foot annual water delivery to Mexico a national obligation. They disliked the provision for a water import study. They opposed the two dams.

Separate statements were filed by other committee members who supported the project but had particular views they wished to advance. Three members—Reps. Teno Roncalio (D-Wyo.), Hugh L. Carey (D-N.Y.) and Jonathan Bingham (D-N.Y.)—wanted Marble Canyon Dam eliminated. They also expressed concern that Wyoming not lose its share of Colorado River water. Still further, they wanted a prohibition written into law to bar the so-called Kanab Cutoff project. This was a proposal, to cost about \$1 billion, for tunneling under the north rim of the Grand Canyon and carrying the river's flow underground 40 miles to Kanab Creek for power generation.

Another separate view was submitted by Representative Reinecke of California, who urged that the bill provide a determination of the feasibility of water importation before authorizing the two dams.



### Basin Disunity Evidenced

Although the legislation was now closer to House passage than it had ever been, hopes began to ebb as August wore on. It became obvious, for one thing, that there was something less than unity among the Basin states. At a soil conservation meeting in Albuquerque, Former Gov. George D. Clyde of Utah said there was a question whether his state would continue to support CAP. Its support, he said, might have to be conditioned on whether the bill was revised to include a water import study provision acceptable to Utah. "Arizona," said the former chief executive, "wants to use the water belonging to the Upper Basin pending the time other waters become available. With no replacement, the Upper Basin could be left holding an empty sack."

It was obvious, too, that the anti-dam forces had supporters within Arizona. In Tucson a group of people organized what they called Arizonans for Water Without Waste, which started circulating petitions against the dams. The group contended that "three-quarters of a billion dollars for building additional dams on the Colorado River" would be an "unnecessary expenditure." It urged Congress to bring water into central Arizona with alternate sources of power—coal from the Navajo Reservation, natural gas from California and nuclear power.

Some 80 Tucsonans also ran an ad in the *Arizona Daily Star* attacking the dams.

On August 16 Congressman Udall announced that the Colorado River bill should reach the floor in a week or two, and he reaffirmed his belief that it would pass the House in that session. But his optimism wasn't shared by others. The Associated Press reported from Washington a few days later that "prospects for final action this year do not appear bright." Moreover, said the AP, "failure of Congress to act this year could upset a compromise that has held off possible construction of one or both of the major dams by non-federal interests. Both the Arizona Power Authority and the City of Los Angeles have applications pending with the Federal Power Commission for licenses for construction of Bridge and Marble Canyon Dams. Consideration of these applications has been held up under a resolution passed by Congress in 1964. But the resolution expires December 31 this year."

### Wyoming Pulls Out

The growing disunity among the Basin states was underscored with the disclosure that Gov. Clifford Hansen of Wyoming had withdrawn his support of the project bill. He felt that the water importation provision was not strong enough. His attitude toward the bill was not shared, however, by Wyoming Congressman Roncalio, who said Governor Hansen had not consulted him before withdrawing his support from the

project. Now, said Mr. Roncalio, the chief executive was threatening "to tear the Upper Basin unity asunder." Governor Hansen, said the congressman, had erroneously interpreted the bill or been badly briefed on its provisions. "Stay faithful with our good neighbors in Colorado and Utah in working for a united Upper Basin stance in support of the bill," Congressman Roncalio admonished Governor Hansen. (The fact that the two Wyoming officials were of different parties and both contending for a Senate seat may have had some bearing on the dispute.)

On August 25 Secretary of the Interior Udall said in Washington that there was little prospect of getting the Colorado River bill through Congress that year. "It does appear at this stage that we are in the ninth inning, and chances are not too good for enactment this year," he said. Secretary Udall added that he was not too worried about the approaching expiration December 31 of the moratorium on Federal Power Commission licensing of dams on the Colorado. "The fact that this is something Congress is grappling with means we are much less concerned than we were a couple of years ago," he said. "The Arizona Power Authority possibly has had some second thoughts as well. I can't conceive of the Federal Power Commission moving in and granting licenses."

Secretary Udall's statement seemed to be the death knell for CAP insofar as 1966 was concerned. Arizona newspapers sadly accepted it as such. And in Washington the director of the Arizona Interstate Stream Commission, Rich Johnson, issued a statement blaming California for bottling up the bill in the House Rules Committee. He said the coast state didn't want the bill to go to the floor because it feared an amendment would pass to eliminate its 4.4-million-acre-foot guarantee. Congressman Saylor was expected to offer such an amendment and to try at the same time to eliminate the two dams, said Mr. Johnson. "Through many concessions," said the AISC director, "Arizona and California reached an agreement on this legislation, but it now appears that California is unwilling to act upon it in good faith. It isn't just the Central Arizona Project that is going down the drain. It is the hopes of all seven states for a cooperative effort to solve their mutual water problems. We in Arizona are saddened by the hard-nosed position on the part of our California friends at this critical point. We feel that they are being misled, and thereby losing the only opportunity that state has of obtaining a priority for its 4.4 million acre-feet of Colorado River water. Arizona must now begin a thorough examination of its alternative water plans. We will continue the effort in the Congress to the bitter end if need be, with the hope that there is a way still to be a good neighbor among the seven states, but we will find another way to solve our water problems if we are forced to do so."

### **California Denies 'Blackjacking'**

Mr. Johnson's statement brought vigorous reactions. Irving Sprague, California's Washington representative, said it was

"not really accurate" and added, "I resent any implication that California is in any way blackjacking anybody. My instructions from Gov. Pat Brown are quite clear. He wants this bill and he wants it badly."

Congressman Udall, commenting on the Johnson statement, said it was not based "on any consultation with me. I'm not in full agreement with what he says." Mr. Udall added that many California leaders "have given us the full measure of cooperation. We're going to have to live on the river with California." Nor did Mr. Udall acknowledge that the bill was dead, although he admitted that "the developments of the last two or three weeks have been discouraging." "We will continue until there is no hope left," he said.

California's Colorado River Board re-stated its support of the bill in a telegram from the board's chairman, Raymond R. Rummonds, to Mr. Johnson. Mr. Rummonds said California opposed any major changes in the legislation. If any part of it was to be renegotiated, he said, it should be done in meetings of all seven basin states "before rather than after the bill goes to the House floor." Replying, Mr. Johnson said Arizona had no changes to propose "and therefore nothing to renegotiate." And he added, "We have been asked by California's representatives to guarantee that some provisions of the bill will not be changed in the process of floor debate if a rule is obtained. Obviously such a guarantee on our part is impossible. We wish to proceed to the floor with H.R. 4671 in its present form."

On September 7 a joint statement was issued by Congressmen Udall and Rhodes, with Rep. George F. Senner, Jr., concurring, which for all practical purposes interred CAP insofar as that Congress was concerned. They confirmed in effect what Rich Johnson had said, to wit, that California's fear of losing its guarantee on the floor of the House persuaded its delegation to bottle the bill up in Rules. Also, they said, many House members, particularly from the East, were reluctant to commit themselves to the bill without some promise of approval in the Senate. And that assurance could not be given, partly because of Senator Hayden's illness and partly because Senator Jackson of Washington firmly opposed "any meaningful study of water importation." And there were other problems: Lack of time. Telling opposition to the dams by conservationists. Unremitting hostility on the part of Pacific Northwest states toward the water-import idea.

On California's role in the death of CAP, the Arizona congressmen had this to say: "While we believe California has been unnecessarily cautious and overly protective of its own interests, we recognize that regardless of our future course, our two states must continue to live together and confront mutual problems. . . . We close no doors of negotiations or cooperation with California and we report these developments more in sorrow than in anger. However, in the light of California's refusal to go forward with the bill as agreed upon, we feel that

we should serve notice that any commitment made in the past by us is now being restudied to determine whether or not it will in the future advance the primary interests of Arizona."

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### **Four Courses to Choose From**

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Where to from here? The congressmen suggested four possible routes for Arizona: (1) Go it alone with state development and financing, either through a bond issue or using revenues from the two dams; (2) go for a bare-bones CAP without the dams; (3) support a modified regional Colorado River bill "deferring basin action on some of the large and controversial components of the present bill," or (4) try again with the same bill in the next session.

There were withal some gains, said the congressmen. The bill had passed the House Committee on Interior and Insular Affairs in 1966 where it hadn't in 1951. The House and the nation at large were now aware of Arizona's water plight. Communication had been opened among the seven Basin states. And Arizona had put together an exceptional team of expert lawyers, engineers and technicians which, said the congressmen, "must be kept together."

Simultaneously with the issuance of the congressmen's "white paper," Governor Goddard made known that the state was now exploring the possibility of going it alone. He said he had asked the Arizona Interstate Stream Commission and the Arizona Power Authority to embark on a feasibility study. However, this did not mean that Arizona had given up its effort to obtain a federal reclamation project. Actually, said the governor, he had been consulting with officials of the two agencies for several months on possible alternatives. "It would have been short-sighted not to have considered the need for alternatives, while at the same time focusing the state's total resources on the pursuit of a federally-funded project," said Governor Goddard. He went on to explain that the state was studying not only the possibility of building the two dams itself but also financing CAP some other way if the FPC refused to license the dams. The chief executive said the two agencies had been asked to work together and bring back a feasibility report by the end of the year.

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### **Senator Hayden Criticized and Defended**

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The post-mortems, meantime, went on apace. Speaking before the Sun Valley Kiwanis Club in Phoenix, Lawrence Mehren, chairman of the board of the Central Arizona Project Association, blamed the death of CAP on the "selfishness, short-sightedness and duplicity of California." He also startled Arizonans by leveling criticism at Senator Hayden. "Unfortunately," said Mr. Mehren, "Senator Hayden has chosen to be of no help for a year and a half, to my knowledge, despite the influence

he should have throughout Congress as its senior member and Senate Appropriations Committee chairman. Why? I don't know. You'll have to ask him. Many prominent Arizonans have pleaded with him for help in this hour of need. Nothing productive has been forthcoming; no action either on the Senate side. And I am not talking about the period of his recent illness, for which I am genuinely sorry."

(The *Arizona Republic*, defending Senator Hayden, said one did not need a crystal ball to figure out why the senator "wasn't overly active" in behalf of the legislation. The original CAP had been expanded to a "vast regional project" by the Udall brothers, said the *Republic*, to placate California and keep it Democratic. "Needless to say, they have some support," said the newspaper. "Other Arizona politicians and water experts, both Republican and Democrat, both on the state and the national scene, went along with the Udall plan. After all, they spoke for the Kennedy administration, and it was before the tragedy of Dallas that the decision on a regional approach was made. At this point, Senator Hayden apparently said, 'Go ahead and play the game your way. Get the bill through the House and I'll get it through the Senate.'" The bill, however, never got to the Senate. Senator Hayden, said the *Republic*, "might have been able to secure passage of the Central Arizona Project, but (he) simply wasn't allowed to play the game as he wanted to.")

Mr. Mehren offered three alternative courses of action for Arizona: (1) Try to get a CAP bill passed in the next Congress without the dams, paying for the project with revenues from Parker, Hoover and Davis Dams. (2) Create a state authority empowered by the legislature to go it alone. (3) Cooperation of Arizona's congressional delegation with the other Basin states on separate but subsequent legislation to bring additional water into the Colorado River for a final solution of the water problem.

### A Plan for 1967

In Phoenix, meanwhile, Congressmen Udall and Rhodes met with the Arizona Interstate Stream Commission to talk strategy. They agreed to make a fresh start in the next Congress and to cancel all interstate commitments made in the course of trying to put the regional bill through that year. The bill to be introduced in 1967 should be a simple one, they agreed—perhaps along the lines of the CAP bill passed by the Senate in the 1950's.

The water strategists left open the possibility that Arizona might decide to go it alone with a bare-bones project—a pumping station to lift water out of Lake Havasu and a series of canals to bring it to central and south-central Arizona. Such an approach might trigger lawsuits that would tie Arizona up for another four or five years, Congressman Udall warned, although he promised to support it if that was the state's decision.

Analyzing the 1966 setback in Congress, Mr. Udall said, "We tried to do what California, Representative Aspinall (chair-

man of the House Interior Committee) and President Johnson wanted us to do. We were told to build a regional plan and we did, and we got agreement of all seven states. But in my opinion we had too much in the bill. We shouldn't try to do everything that will be needed over the next 30 years in one bill. Next session we should put in a less controversial bill." Mr. Udall and Mr. Rhodes thought such an approach could be financed with an appropriation of no more than \$600 million. "We have come a long way in the past two years," Mr. Rhodes said. "We now have overwhelming sympathy in the Congress for our need to get more water. We have overwhelming sympathy on our side in our struggle with California."

Arizona's third House member, Congressman Senner, agreed in a separate statement that the federal approach was best. "Who is going to lend the \$700 million needed and defer payments for seven to 10 years while we build the dams?" he asked. "No one but Uncle Sam, who also will write off about 10 per cent of the obligation for fish and wildlife and flood control." He predicted that CAP would go through the next Congress, "although we might have to eliminate one dam."

### **Stick Together, Pleads Mr. Ely**

While Arizonans talked of bare-bones bills and go-it-alone projects, an influential Californian continued to talk of the same regional approach which had failed and of preserving seven-state unity behind it. Northcutt Ely, speaking at the 10th Arizona Watershed Symposium at Tempe, said Colorado River legislation had a good chance in the next Congress if the Basin states would stick together. He also insisted that it wasn't California alone that killed the bill that year but all six of the other Basin states. They did it, he said, because they "did not want to see the results of two years' work go down the drain under a flank attack" by Congressman Saylor. The latter, he said, was reported to have the votes to strip the bill down to the CAP alone without any dams. Arizona's delegation would have had to vote for the truncated bill, said Mr. Ely, and California "could not get assurance that Arizona's senators would stand firm with Senator Kuchel and Senator Murphy (of California) to repair the damage."

Mr. Ely pointed out that the regional bill could never have moved out of the House Interior Committee without California votes. "The bill has made notable progress against formidable difficulties," he said, "and it has a good chance—I don't say an excellent chance—of passage in the next Congress if the seven states stick together."

He did see several difficulties ahead. They included continued opposition by the Sierra Club, the Pacific Northwest and the House economy bloc. And there was one more problem "which I have decided to speak plainly about to this Arizona audience. It is Arizona's internal politics. For 40 years the



Colorado River has been a political football in Arizona, and it threatens to become one again, to judge from current statements and editorials. Let us pray that it does not."

Arizona could, if it chose, go it alone, said Mr. Ely. But if it did so, he said, it would sacrifice the hard-won support of its sister states. Mr. Ely pictured them as mountain climbers tied together for survival. "We have just started up a very steep climb," he said. "At the moment we are on a ledge or plateau, at the end of this session of Congress. We have made excellent progress, but we can go no further until the political weather breaks after the election. We face two choices. We can stick together, rally our strength, and continue our progress at the beginning of the next Congress. This is what California and most of the other states intend to do. Or we can cut the rope and each of us go it alone, as some of our Arizona friends propose. If we do, there are going to be some casualties, and some of us are going to be back where we started—in the quicksands of dissension, and probably for a long time. The choice seems self-evident."

### **Secretary Udall Still Optimistic**

A week after Mr. Ely's appearance in Arizona, Secretary Udall said in Washington that he, too, was optimistic about the chances for passage of a regional bill. He proposed a complete re-evaluation and analysis of the bill which had died in the House Rules Committee. This should include a study of alternatives, among them the building of nuclear power plants on the Lower Colorado River, said Secretary Udall.

Still another hopeful note was struck by another Interior official, Undersecretary Charles F. Luce, in a speech in Phoenix. He said new approaches to the problem were being examined in the Interior Department's re-study. He hoped Arizona would not give up the idea of going the federal route. He said a go-it-alone option should be kept open, but he warned that a state-financed project would mean more expensive water. "The strongest argument for the Central Arizona Project," said Mr. Luce, "is that it is right. And somehow, however slowly, our democratic form of government eventually does the right thing. . . The Johnson administration is committed to try for a federal CAP and I believe that your congressional delegation will support this effort with all of its strength and wisdom. The state of Arizona deserves this project. Everyone agrees on that, even the Pacific Northwest. You won your case before the United States Supreme Court. You need the water. The project is economic. It would be ironic and, I think, unjust if Arizona, which has supported federal water projects in all of the other Western states, were herself not to receive the benefits of federal financing for her own project."

Mr. Luce said one alternative under consideration was to obtain 400,000 kilowatts of pumping power needed to lift water

into central Arizona through a federal investment in a WEST-sponsored thermal plant. Thus there would be less need for dams. (WEST was a group of private and public utilities serving the Southwest and Rocky Mountain area.)

Undersecretary Luce was followed into town by Secretary Udall, who supported his suggestion that Arizona think twice before deciding to go it alone for CAP. Mr. Udall said he didn't want to "throw cold water" on the idea, "but we should consider the obstacles to such a course." He went on: "Due to the nature of the project, there would have to be federal legislation. It would have to be approved by the Secretary of the Interior and we would have to go before the Federal Power Commission to get a permit to build the dam or dams. Then there is the final thing we should think of—the interest rate the state would have to pay, which could make the price of water substantially higher."

Secretary Udall said he believed Arizona could get a "stripped-down" CAP passed, without dams or water import provision. But he thought such a bill still would have to contain the skeleton framework for a Basin fund and future imports of water. The Interior Department was now studying such a project, even containing a provision that would eliminate any more dam-building on the Colorado. It would substitute a steam plant, powered with coal or nuclear energy, costing \$100 million instead of the \$700 million estimated for the two dams. However, the life expectancy of a steam plant would be 25 years compared to several hundred years for dams, said Mr. Udall.

### Diversion Coming, Northwest Told

Though the Pacific Northwest might have preferred to hear no more about an inter-regional water diversion, talk of it persisted. At a convention of the Inland Empire Waterways Association at Walla Walla, Wash., the chief of Army engineers, Lt. Gen. W. F. Cassidy, said firmly that the Northwest would have to face up to the possibility of having to share its water with drier areas. The idea of taking water temporarily or permanently from one section of the country for the benefit of another was gaining widespread appeal, said General Cassidy. "Sooner or later, such a concept must be considered for all the western part of the United States," he said.

U.S. Reclamation Commissioner Floyd Dominy also spoke at the Northwestern meeting. He assured Northwesterners that his agency had never recommended the exportation of water which conceivably could be used by that region. What the Northwest should do, he said, was put as much of its water to work as possible, speed up planning on potential projects and build all of them considered feasible as quickly as possible. Mr. Dominy promised that the Reclamation Bureau would oppose any export of water until it was clearly demonstrated that such water was



surplus. It would have to be shown also that the diversion of that water would be "the most economical means of meeting the need in areas where a shortage exists or is approaching," said Mr. Dominy.

Northwesterners weren't the only ones hearing about hard realities. In Tucson, Ashby Lohse, a member of the Arizona Interstate Stream Commission, said in a talk to the Tucson Rotary Club that President Johnson would veto any CAP bill that did not satisfy California. Yet the events in Congress during the past two years, he said, led to the "inescapable conclusion" that any bill satisfying California would not meet Arizona's needs. Therefore Arizona would have to demonstrate both its determination and its ability to build CAP on its own. Once it did so, said Mr. Lohse, California would take whatever it could get and a federal project could be put through Congress.

Therefore Arizona was considering three state approaches to CAP: (1) Build only the water-diversion works, costing about \$500 million. No dams. Incur a deficit of about \$300 million over a 50-year payout period, such deficit to be made up from some state source. (2) Build water-diversion works plus Marble Canyon Dam, using revenue from the sale of Marble Canyon power to pay off the project. (3) Build water works plus Marble plus Hualapai. Use revenues from Hualapai to pay for some kind of water importation project after CAP was paid for.

Could the project be financed if the state had to build it? Mr. Lohse said he had been assured by New York bond firms that it could.

But if both approaches—state and federal—failed, Tucson must be prepared to build its own water-diversion works, said Mr. Lohse. The cost? About \$125 million, which would mean doubling present city water rates. But the alternative—a ceiling or a restriction on Tucson's development—would be more costly. "Until Tucson has a secure water supply, it will have problems," said Mr. Lohse. "There is no source of supply other than the Colorado."

### **Pinal Farmers Back State CAP**

There was some soul-searching in Pinal county as well as Tucson, and the result was the formation of an association to go after a state CAP with no federal strings attached. The association was made up of Pinal farmers, including officers of irrigation and electrical districts. They sent a telegram to Secretary Udall advising that they favored immediate construction of a state-financed project. They said they opposed any further efforts to get federal approval if that involved guarantees to other states exceeding what the Supreme Court had granted them. "We're not against a federal program," said Chairman Martin Talla, Casa Grande and Stanfield farmer. "But we are definitely against the 4.4 plan for California." James L. Savage,

chairman of the board of the Central Arizona Irrigation District at Eloy, said Congressmen Rhodes and Udall told the farmers in 1965 that if Arizona did not get CAP in 1966, "we would never get it." So, he said, it was time to pursue CAP on the state level.

On October 29 the Arizona Reclamation Association held its annual meeting in Phoenix, and the subject, inevitably, was: Where do we go from here? Governor Goddard and the three congressmen favored trying the federal route again in 1967 and continuing a policy of cooperation with neighbor states, although, they said, the door should be left open for a state-financed project. Congressman Senner doubted if a state project would meet the water needs of northern Arizona. Congressman Rhodes hoped that any project introduced in the 90th Congress would not try "to solve all the water problems of the basin for the next 25 years." Congressman Udall asked Arizona not to blame all Californians for what happened in the 89th Congress and urged an Arizona public relations effort to counteract the Sierra Club's campaign.

It was agreed by all concerned that the first order of business after the off-year elections should be for the state's leadership to get together and decide on the next move.

### **Conservation 'Lunatic Fringe' Denounced**

On November 16 the National Reclamation Association held its annual convention in Albuquerque. The Colorado River was Topic No. 1 there, too. The president of the association, Harold Christy, Pueblo, Colo., denounced a "lunatic fringe in the conservation movement" which, he strongly implied, consisted of the leading critics of Hualapai and Marble Canyon Dams. "Those who enjoyed the majestic scenery of Lake Mead or Lake Powell or dozens of other reclamation lakes must find it hard to believe that similar lakes in Bridge and Marble Canyons will be quite the desecration that some people claim," said Mr. Christy.

U.S. Reclamation Commissioner Dominy had some words to say on the same subject. "I grit my teeth as I say this," he said. "For I contend, and have hundreds of pictures to prove it, that reclamation, in storing the spring runoff and regulating our streams for the public benefit, is not the great destroyer but, in fact, consistently improves the rivers for all purposes, including recreational uses and enjoyment of natural beauty."

Mr. Dominy urged, as did Sen. Clinton P. Anderson (D-N.M.), that a national water commission be established, to measure water needs in various parts of the country and point the way toward possible solutions. "We need," said Senator Anderson, "a system that will enable us to make broad-scale assessments, to weigh alternative approaches and to come up with what will prove the correct response. And the Central Arizona Project is one proposal that must receive such judgment."

But it wasn't these speeches that got the headlines. It was an announcement by Douglas J. Wall, chairman of the Arizona Interstate Stream Commission, of a new policy adopted by the commission. The new policy consisted of three points: (1) All commitments or guarantees made by Arizona in negotiations leading to and incorporated in the Colorado River development legislation were considered null and void; (2) no further commitments touching upon Arizona's entitlement to Colorado River water should be made without the express approval of the Commission, and (3) a license should be sought from the Federal Power Commission to build Marble Canyon Dam.

In effect, therefore, Arizona was now withdrawing support from any federal approach to regional water development.

### 'Serious Impasse' Feared

This was not the only sombre note struck at the Albuquerque meeting. The director of the Western States Water Council, Wright Hiatt, Portland, Ore., told the reclamation association that he saw little hope of compromise on the Northwest water diversion issue. The situation, he said, had "all the earmarks of a very serious political impasse." He thought there might be one ray of hope—a national water commission, to assess national problems and suggest solutions. Sen. Henry Jackson (D-Wash.), chairman of the Senate Interior Committee, had proposed the creation of such a commission. Mr. Hiatt said he had heard effective arguments from Northwesterners "as to why they are reluctant to support a study aimed at diverting their most vital natural resources to a distant region." "The fact that a distant region—the Southwest—is a rapidly growing, robust area of these United States which will certainly wither and revert to desert if not watered," said Mr. Hiatt, "elicits sympathy in the Northwest but nothing more."

Also on hand at the Albuquerque meeting was the Sierra Club's executive director, David Brower. It was obvious that the gulf existing between Mr. Brower and the reclamationists had, if anything, widened since Congress adjourned. He appeared in a panel discussion with Congressman Udall, and when the latter quoted Mrs. Lyndon B. Johnson as calling the lake formed by Glen Canyon Dam "the most beautiful body of water in the world," Mr. Brower said, "What Lake Powell destroyed was some of the most beautiful scenery on earth. I know what was under that water that is permanently gone. Mrs. Johnson doesn't know the beauty beneath it." The two men also differed sharply on whether nuclear-fueled power plants were preferable to hydroelectric. Mr. Udall said dams had not been out-dated by nuclear plants while Mr. Brower contended that nuclear power was now competitive and thus preferable. An Arizona Interstate Stream Commission study, done by the Ralph M. Parsons Co., comparing hydro with nuclear electric power generation, had proved the superiority of hydroelectric generation in connection with the project bill that was before the Congress.

The Sierra Club director tangled likewise with Chairman Aspinall of the House Interior Committee, who was a speaker at the meeting. In the hall outside the meeting room, as a photographer snapped them standing together, the congressman exploded at Brower, "You've been telling a bunch of damn lies to the newspaper and now you want your picture taken with me!" Mr. Brower, according to the UPI, "just looked startled."

While the reclamationists were meeting in Albuquerque, Secretary Udall announced in Washington that the Interior Department shortly would complete its restudy of the Colorado River Basin project. It would, he said, include a comparison of programs utilizing steam and hydro power for revenue.

### State CAP Only Option: Lohse

As Arizonans awaited the report, they contemplated a startling statement made by Stream Commissioner Lohse in a talk before the Pima County Republican Club at Tucson. He said a state-financed CAP would cost about a billion dollars more than a federal project because of the state's more limited borrowing power and thus higher interest costs. Yet, he went on, Arizona had exhausted all other avenues and had no option but to move forward with a state plan. Unless it did so, he said, and showed "a willingness to act without depending on support from California or New Mexico or anyone else," it could not get a federal project. Private financing was available, said Mr. Lohse, "but we're going to have to bind Arizona together as it never has been before."

He said that once Arizona had arranged its own financing and had its plans complete for a state CAP, it could then go to the federal government and put its cards on the table. It would be in a better position to get legislation for a federal CAP.

In Las Vegas, Nev., there were echoes of the Stream Commission's announcement which revoked all of Arizona's commitments to other states. At a meeting of the Colorado River Water Users Association, Joseph Jensen, chairman of the Metropolitan Water District of Southern California, accused Arizona of renegeing on its agreements in an attempt to sabotage interstate cooperation on the Colorado. He said the Stream Commission could not "terminate the commitments of Arizona so easily" and added that a peculiar situation existed in Arizona. "We have the Stream Commission taking a very definite position, we have the two senators sitting still and doing nothing and we have an aggressive group in the House willing to cooperate. Even if the Stream Commission says that all commitments and guarantees of the state are off, and the Commission wants to do something, it so happens that members of Congress are quite independent of the Stream Commission. If anything comes from Congress, it will not come through the Stream Commission."

### Interregional Diversion Seen as 'Folly'

Arizona came in for further criticism—although more implied than stated—at another meeting, this one in Tucson. It was a meeting of the President's Food and Fiber Commission, which was conducting sessions in various parts of the country to study various aspects of agriculture. The criticism was contained in a larger indictment of the whole idea of transporting water from the Northwest to the Southwest. The indictment came from Dr. E. Roy Tinney, director of the Washington State Water Research Center. He said proposals to move water across several states like that, and with government financing, were "a national folly." It was, he said, comparable to the government subsidizing the transporting of iron ore from the Midwest to the state of Washington because the Northwest had limestone deposits, hydroelectric power and coal. A steel industry adjacent to Puget Sound shipyards would surely improve the local economy, said Dr. Tinney, "but the real question is whether or not it would be to the general good of the nation. I submit that until the natural opportunities for resource development within a region are exhausted, it is not in the nation's interest to subsidize major resource transfers of either water or ores. Aid to depressed local economies must first take the form of subsidizing the readjustment of local economic patterns for intensive utilization of the productive factors within those localities—patterns that may reduce or even exclude irrigated farming."

Dr. Tinney contended that in the Southwest "enthusiasm for irrigation has led to many excesses." One of the most serious, he said, was the exploitation of underground water that could not be renewed. It was incredible that such a "mistake" could be repeated so often, observed Dr. Tinney. When a company exhausted an ore body in a mine and had to move elsewhere, he said, the "mine-based community finds another basis for economic activity or workers and townspeople move on to an area that has such a base." Not so with the mining of water. When water was depleted, people living in the community thought that someone—presumably the federal government—would replenish it. "But one might ask whether there is any more basis for replenishment here than in an ore mine. Is the rest of the country really obligated to provide what is needed to protect local communities and investments based on an erroneous assessment of the period of time that the resource would last?"

Rich Johnson, executive director of the Arizona Interstate Stream Commission, also spoke at the food-and-fiber meeting. He said a re-examination of the national reclamation program was needed. Disappearing farm surpluses made it imperative, he said, that national policy on the development of water resources be oriented toward the use of water for farm irrigation in the West, where a large "bank of land" remained. Said Mr. Johnson: "There are about 9 million acres of land in Arizona, largely in public ownership, which are susceptible to irrigation

and food production if water is made available. This land is in the southern half of the state, where the growing season is nearly year-long and crop failures are nearly unknown. Without water, these 9 million acres are, for all practical purposes, non-productive."

Dr. Tinney's indictment of the idea of interstate water transfers turned out to be only one side of the story, and Arizona heard the other side just a few days later. At a meeting in Scottsdale, a California consulting engineer said that such transfers would become a reality despite opposition by some of the states. The speaker was Harvey O. Banks, San Francisco, and he spoke at a convention of the Association of State and Interstate Water Pollution Control Administrators. "We can look forward in the next 25 years to very large projects for the regional distribution of water resources," said Mr. Banks. He said the primary blocks to interstate redistribution of water were "state jealousies" and traditional regional approaches to water management. "Eventually these problems must be overcome," said Mr. Banks.

### New Strategy Mapped

On December 6 the curtain rose on a new phase of the struggle for the Central Arizona Project. At the annual meeting of the Central Arizona Project Association, the state's congressional delegation made public its strategy for the coming session of Congress. It would introduce two bills, one in either house, each tailored for its respective body and thus different from the other. The state also would move ahead with plans for a state-financed CAP, based on obtaining a license from the Federal Power Commission to build Marble Canyon Dam. Thus, if the federal approach failed again, the state would be ready to proceed with a go-it-alone project. But Senator Hayden, speaking at the CAPA meeting, said the delegation was now convinced that if a state-financed project proved necessary, Arizona still would have to "seek congressional action as a prerequisite to (its) construction." "The efforts to obtain authorization on the federal level would provide a background which would make it easier to obtain the authorizations needed for a state-financed project," said Senator Hayden. "I hasten to add that it is my hope and belief that the need for these last-named authorizations will never arise."

Congressman Udall said the bill introduced in Congress would not include a 4.4-million-acre-foot guarantee to California. He and Congressman Rhodes said Arizona had reached valuable compromise agreements with other states in the Congress just ended and they hoped for accords with as many House members as possible in the Congress ahead. But they promised not to let the new bill get loaded down with too many amendments. "In the last session," said Mr. Rhodes, "everyone tried to use our project as a cannon to win the whole war on water problems of the West. We don't intend to let that happen again." Mr.

Udall asked Arizonans to be flexible and not succumb to the temptation "to tell people to go to hell." "Let us approach these problems in a spirit of reasonableness," he said. "It is nice to blame California, but let's remember there are 16 or 18 million Californians, and not all Californians are against us, and not all of the California delegation is against us." Referring to the recent Congress, he said, "The wonder is not that we failed. The wonder is that we came as far as we did."

Lawrence Mehren, retiring as chairman of the board of CAPA, said Arizona had learned valuable lessons from its recent defeat in Washington. "We learned," he said, "that Goliath across the river (meaning California) must have his way on his own terms, else he is an implacable foe. We learned that other members of the Great Alliance wavered under pressure. We found that the blood, sweat and tears must be basically Arizona's."

### **'Be Understanding,' Mr. Udall Urges Californians**

Congressman Udall went from the CAPA meeting to another at Coronado, Calif., to plead, on California's home ground, for support by that state of a "reasonable bill that can pass." The meeting was that of the Irrigation Districts Association of California. Mr. Udall asked Californians to be understanding of "Arizona's frustration and disappointment" at the failure of the Basin legislation in the Congress just past.

The Arizonan's words were a good deal less acrimonious than those spoken at the same meeting by one of his congressional colleagues, Representative Hosmer of California. He called Arizonans "naive" for thinking they could pass CAP in one session and said "Arizona collapsed in total disarray" when the bill failed. Then he told off the leading players of the Arizona team one by one. He criticized Lawrence Mehren for blaming California for the defeat and for attacking the latter's "selfishness, shortsightedness and duplicity." He said Senator Hayden offered no assistance for 18 months. He complained that the *Arizona Republic* "churlishly blasted as impractical from the beginning any idea of a compromise bill." He chewed out Governor Goddard for demanding, as he put it, "a report on the feasibility of an Arizona 'do it yourself kit' . . . before he leaves the statehouse." He complained that Rich Johnson also blamed California for the failure of CAP and had attacked California as being "unwilling to act in good faith." He accused Congressman Rhodes of favoring the selection of California "as an enemy rather than a friend." He charged Secretary Udall with precipitating "an even wider public-versus-private-power controversy" by stripping the dams away from the bill and substituting nuclear plants. And he claimed that Congressman Udall had "toyed with the idea of substituting water salvage for water importation" and of joining his brother in supporting nuclear "cash register" plants.

And what of California's position in the new Congress upcoming? That, said Congressman Hosmer, would "depend considerably on Arizona's decision and what initiative she decides to take." "It is to be recalled, in assessing California's attitudes concerning the Colorado," he said, "that alone, or with some federal help, our state still has parochial alternatives of its own to examine in specific relation to satisfying Southern California's burgeoning water needs. These include: nuclear desalting, local weather modification, a giant underseas plastic conduit to divert southward the excess flows of Northern California coastal rivers, installation of extensive (albeit expensive) salt water flushing systems in coastal areas paralleling fresh water supply and sewage systems, and some realignments between agricultural and municipal and industrial water use priorities."

### **Newspapers Differ on Go-It-Alone Plan**

The new Arizona strategy—first another old-school try at a federal project, then, if necessary, to go it alone—elicited different reactions from major Arizona newspapers. The *Arizona Republic* gave it guarded approval. But the *Arizona Daily Star* of Tucson didn't like a state approach involving construction of only one dam—Marble. It might be technically feasible for generating electricity to do the pumping, said the *Star* in an editorial, but it wasn't politically feasible. And the revenue from the sale of electricity would have to go for interest and sinking fund charges "to pay just the cost of the dam." "This poses the question: By whom and how is the cost of building the canal distribution system going to be paid?" asked the *Star*. "How is that money going to be raised? That cost alone is roughly estimated at \$600,000,000. The total project cost, as a water delivery system, would total \$1.2 billion. The interest cost on such an outlay would be a six per cent \$72,000,000 a year. Could the planned delivery of 1.2 million acre-feet raise that minimum annual charge? The bonds would be unsalable unless there were also charges for paying off the debt. One dam at Marble Canyon could not pay them."

For these reasons, said the *Star*, a dam at Bridge Canyon was also necessary. And "even with it, the federal government would have to contribute other funds for recreation, wildlife and flood control benefits." "It is obvious," continued the editorial, "that Arizona cannot go it alone, and it is most doubtful politically—and financially—that two dams can get through Congress, while one dam at Marble Canyon would not make the project feasible. Who would finance the building of the canal distribution system?"

Summing up, the *Star* said the main objective of CAP was to bring water into the state, and "whatever it takes to do that job should be done. If two dams are necessary to make it self-liquidating, they should be built. If Congress refuses, alternative plans should be proposed that would call upon Congress for



financial help to build the canal distribution system as a gift, with the state assuming the pumping costs. Put it up to Congress to determine how the electricity would be generated to do the pumping. These two factors should always be kept together. The state itself and the federal government should work together on how to bring Colorado River water into the state as far as Tucson. Now is no time to go off on a wild goose chase of 'going it alone.' "

But talk of eliminating one dam or another persisted in the Basin. In Denver the Colorado Water Conservation Board, which was that state's official agency watching over policy in matters involving interstate streams, decided to back away from Marble Canyon Dam and a full-fledged water import feasibility study. In place of that study, the Interior Department would do merely a preliminary study or reconnaissance. The move was aimed at pacifying conservation groups and the Pacific Northwest. The board's director, Felix L. Sparks, said the concessions were necessary if the Colorado River regional plan was to have any chance of going through in the next Congress. Mr. Sparks had urged such a compromise in an earlier meeting at Los Angeles of representatives of all seven Basin states. There was no indication that other states in the Basin had yet subscribed to the compromise idea advanced by Colorado.

#### A Symposium on a State CAP

In mid-December the Arizona Interstate Stream Commission and the Arizona Power Authority held a symposium in Phoenix to discuss ways and means of getting Colorado River water with state financing. Present in addition to officials of the two agencies were representatives of five of the nation's largest investment banking firms. They were Kuhn, Loeb & Co., Dillon, Read & Co., First Boston Corp., Lehman Brothers and Merrill Lynch, Pierce, Fenner & Smith, Inc. The symposium was in fulfillment of an earlier request by Governor Goddard—when it was apparent that CAP had failed in Congress—that a study be made of various go-it-alone approaches.

The symposium considered four different plans: (1) CAP with low dams at Marble and Bridge Canyons: Cost—\$828.4 million. (2) CAP with one dam at Bridge: Cost—\$716.9 million. (3) CAP with one dam at Marble Canyon: Cost—\$645.4 million. (4) CAP with no dams but a tax subsidy of \$6 to \$24 million annually. All four approaches would be combined with two pump-back projects, one to be located near Lake Havasu, the other in the Estrella Mountains 20 miles southwest of Phoenix, to be called the Montezuma pump-back project. These would be projects in which water would be lifted with relatively inexpensive off-peak power to a reservoir and then allowed to flow back during periods of peak power needs. Thus additional power would be generated, to be sold at a higher price.

The \$6-to-\$24-million spread in the projected tax subsidy derived from the factor of the pump-back projects. If such projects were included in a no-dam bare-bones CAP, the tax subsidy could be held to about \$6 million, it was estimated. If they were excluded, it would run to about \$24 million. Nor did the bare-bones project contemplate any federal subsidies or multiple use benefits, such as power production, flood control, recreation and fish and wildlife conservation. Explained State Water Engineer W. S. Gookin: "While it was recognized that such multiple purposes might be desirable adjuncts to the projects, it was concluded they should be considered item by item and included only if the beneficiaries of such functions could be identified and induced to pay the costs."

Douglas J. Wall, chairman of the Arizona Interstate Stream Commission, said the commission could not ignore advice of Arizona's congressional delegation that the upcoming Congress might be "persuaded to act favorably" on CAP. But then, he continued, neither could it overlook the possibility that Congress would again reject CAP. In that case, he said, the state must go ahead with its own financing. He recommended therefore that "any legislative action be taken in 1967 which may be required to implement a state plan at such time as a decision may be made that this is the only avenue open to us. . . Arizona must have water, not just a dry legal right to it."

Could Arizona get a license from the Federal Power Commission to build one or another or both dams? John E. Smith, chairman of the Power Authority, thought it might be somewhat difficult but it could be done. And John T. Monzani of Kuhn, Loeb & Co., speaking on behalf of the investment firms, said, "We're ready to move as soon as the state tells us to get started." Another financial representative, Arthur Guastello, vice president of Wainwright & Ramsey, New York, consultants on municipal finance, told the symposium that any of the four go-it-alone approaches to CAP would generate revenues sufficient to provide for operating expenses, necessary reserves and payment of principal and interest on all bonds. Moreover, he said, it could be done without subsidy and without resorting to any additional charges.

### **A Hard Look at the Realities**

Still and all, it was a formidable undertaking. Don G. Campbell, the *Arizona Republic's* business and financial editor, showed just how formidable it was by pointing out that even the cheapest of the three bonding plans, proposing only the construction of a low dam at Marble Canyon, involved an indebtedness exceeding all long-term debt outstanding against all state and local governmental bodies in Arizona at the end of 1963. He went on: "Any discussion of a state-financed CAP, however, passes quickly from the engineering aspects of what is planned and centers, critically, on a much more basic issue: whether it is feasible to assume that Arizona can float a bond

issue, in the first place, that is from a third to three-fourths greater than the state's entire revenues last year—\$468.2 million."

Furthermore, wrote Mr. Campbell, the kind of bonds contemplated for financing CAP would be revenue bonds, to be retired with revenues earned by the project. And this type of bond was considered more speculative than general obligation bonds backed by the taxing authority of a governmental unit and therefore would command higher interest rates. Right now, said Mr. Campbell, both kinds of bonds were more than usually difficult to sell because of the money squeeze then prevailing. "Realistically, too," he said, "it must be acknowledged that any CAP offering is going to run into a stumbling block of still another more insidious type: skepticism on the part of investors. Buying bonds backed by a turnpike entails some risk to the investor, of course, but revenues in most cases are at least fairly predictable, and there is historic reason for believing that a well-managed turnpike can be made to pay. But the sort of endeavor that the CAP represents—a hydroelectric-plus-irrigation project—is considered less well understood, even though it, too, isn't without precedence. None of which means that CAP can't be financed through the sale of bonds satisfactorily, but it would be a mistake to assume that the job would be a snap."

Another dubious note was sounded at a Tucson Chamber of Commerce breakfast forum. Dr. Robert A. Young, associate professor of agricultural economics at the University of Arizona, said Arizona farmers probably would refuse to pay what it would cost to get CAP water as long as they could pump water for less money. And he thought the underground supply would last another 50 years. Thus CAP was at this time "premature," said Dr. Young.

Dr. Young's view did not go uncontested. Stream Commissioner Ashby Lohse said CAP water would cost about \$10 per acre foot, and most farmers already were paying that and more for pump water. He said he knew of no farmer pumping for less than \$9. A third panelist, L. M. Alexander, assistant general manager of the Salt River Project at Phoenix, agreed with Mr. Lohse and said water must be channeled to all parts of the state regardless of cost.

### **Phoenix Mayor Sees Rate Increase**

In Phoenix, Mayor Milton Graham said that if Arizona chose the "go-it-alone" route toward CAP, Phoenicians' water rates would increase by \$12 to \$14 a year. But even so, he said, the rates would be lower than those paid in other metropolitan areas such as Tucson and Oklahoma City. (Mayor Graham's statement was challenged by the *Arizona Legislative Review*, which quoted "an Arizona Power Authority source" as saying his figures were "probably accurate but . . . misleading." Amplifying, the *Review* quoted the "APA source" as saying that

"annual water bills would increase the same amount whether Arizona financed the CAP or it was financed partly by the federal government through a larger regional plan. 'The cost of the water would be the same in any case,' the source said.")

Newspaper discussion of Arizona's dilemma continued unremittingly. Regional Editor Robert W. Glasgow of the *Arizona Republic* took note of a speech in Seattle by Ralph W. Johnson, professor of law at the University of Washington and principal consultant to the U.S. Senate Interior Committee. "Our attitude should not automatically be against diversion," said Professor Johnson, "but rather should be one of ascertaining as accurately as possible the exact cost, social, economic, and political, of diversion, to this region, the true needs of the Southwest and which of the various alternatives available, including a possible diversion, might best provide the answer to these needs. We cannot simply be negative about this question. Rather we must realize the very real water-related problems of the Southwest and attempt to assist in the solution of those problems. This does not deny the necessity for some tough, hard looks at the way the Southwest is using its present water supply. . . . Nor does it mean to imply that a diversion of the Columbia must ultimately come about. Rather it does suggest an attitude of mutual acceptance of responsibility for a problem that must be considered as regional, and profoundly important to the whole of the West."

Mr. Glasgow did not take much comfort from Mr. Johnson's remarks, though. While the Northwest might support a bill containing no provision for a diversion study, he suggested, California would not. And if California became convinced that Arizona would go it alone, "would politicians there change their position?" "There are those," wrote Mr. Glasgow, "who feel that California's support of the CAP would be forthcoming if Arizona guaranteed to California its allotted 4.4 million acre feet. But would that be wise for Arizona? What would Arizona do during the dry cycles that beset the Colorado? These are the tough questions that will face those drafting the new legislation, questions for which compromises may be hard to find."

As 1966 approached its close, the *Arizona Daily Star* of Tucson once again addressed itself to the question of whether it was feasible for Arizona to go it alone. And once again the *Star* concluded that it was not feasible, "daring as the idea sounds." "Yes," said an editorial, "there are bondsellers eager to help the state go into debt a billion or more dollars for a state-initiated and state-run power project involving the Colorado River. But no bonds could be sold without a host of legal difficulties being cleared away. . . ."

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### **Sierra Club Denied Exemption**

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There was one other significant development in the waning days of 1966. The Sierra Club lost its tax exemption. A ruling by the Internal Revenue Service held the club ineligible

for such exemption by virtue of "substantial legislative activity," carried on not only against the two Colorado River dams but also against destruction of the California redwoods. The ruling affected contributions to the club but not its operations and properties. Sierrans called it "attempted coercion" and said they would take it to court. "We are deeply concerned about what this action does to the entire conservation movement in the United States," said Executive Director Brower. "The IRS in effect penalized us in advance of giving us a chance to prove our innocence of unspecified charges." He estimated that the club had lost \$125,000 in contributions since the IRS first made known that it was investigating Sierra's tax status.

On January 3, 1967, the *Los Angeles Times* made its contribution to the chorus of journalistic comment concerning the interstate impasse over water. Arizonans reading the *Times* editorial might have been surprised at its friendly tone. While acknowledging the various controversies and cross-currents stirred up by the Colorado River legislation, the *Times* insisted that "nothing during the past year has changed the basic principles upon which the original regional plan was built. Only the stubbornness—and political muscle—of Northwest senators and House members prevents serious consideration of diverting surplus Columbia River water. Only the vehemence of Sierra Club members and like-minded special interests could cause the abandonment of reclamation dam projects in the name of 'conservation.' California's congressional delegation must not yield to this counsel of despair. We have joined in a sound and proper compromise to further the common cause of Western water development. We recognize the water rights of every other state except the 'right' to hoard water that it can never use. If water justice cannot be achieved this year, let us continue to fight. California, however, must never surrender its fundamental rights on the river for any kind of a spurious political 'deal.'"

### A New Start

A new political year for CAP began on January 10 when three identical bills were introduced in the House by Arizona's representatives—Congressmen Udall, Rhodes and Sam Steiger, newly-elected Republican from the third district. The new version was somewhat more modest than its predecessors. It called for a high dam at Bridge Canyon but none at Marble. It contained no mention of a 4.4-million-acre-foot guarantee to California. There was no provision for a study of how water might be diverted from the Columbia River. It did provide for a Basin fund to pay for Hualapai Dam and the aqueduct system.

Two other pieces of legislation on the Colorado River were introduced at the same time. Chairman Aspinall of the House Interior Committee introduced one. It called for a low dam at Bridge, none at Marble, a 4.4-million-acre-foot guarantee to California, a diversion study and the building of five Upper Basin projects in Colorado. Congressman Hosmer and fellow

Californians introduced the other bill, which duplicated the one that had died in the Rules Committee in 1966. It provided for both dams, an import study and Upper Basin projects.

There were also developments occasioned by the fact that a congressional moratorium on the building of Colorado River dams had expired December 31. The Interior Department advised the Federal Power Commission that it would want to be heard in opposition if the Arizona Power Authority came back asking for a license to build Marble Canyon Dam. "Congressional and national interest in the problem of the Lower Colorado River has reached a new crescendo of intensity," said Interior in its petition to the FPC. And an Eastern congressman, Rep. Richard L. Ottinger (D-N.Y.), introduced a bill asking for a second moratorium, this one to last three years.

### A Friendlier Chairman?

A modestly hopeful development in Arizona eyes was the accession of Rep. Harold T. Johnson (D-Calif.) to the chairmanship of the House Reclamation Subcommittee, which would consider the CAP bills. He succeeded Representative Rogers of Texas, who retired from Congress. Mr. Johnson's district was one in which the big Auburn-Folsom South Project—authorized in 1965—was located. Senator Hayden had given the project his blessing in its passage through the Senate, and Congressman Rhodes, as a member of the House Appropriations Committee, helped Mr. Johnson get money for the project. It went without saying that Arizonans hoped for a *quid pro quo* from Mr. Johnson.

If, however, CAP again got bogged down in the new Congress, machinery was in motion to start Arizona on the go-it-alone path. Spokesmen for the Arizona Interstate Stream Commission and Arizona Power Authority told the Natural Resources Committee of the Arizona Senate that legislation for a state-financed project would be submitted in two weeks. And, they said, they felt confident that such an approach was feasible. John Smith, chairman of the Power Authority, said the state could pay for the entire project with the sale of electricity if it was allowed to build both dams. The cost would be about \$828 million and the project would take about seven years to complete, he said.

The Senate committee talked about the possibility of passing a memorial to Congress, notifying it that Arizona intended to go it alone unless CAP went through in 1967.

The legislature's lower house likewise was alerted to the possibility that it would be asked to act on legislation authorizing a go-it-alone project. "We no longer can approach this vital water situation with but one shell in our gun," the House was told by Rep. William D. Lyman (R-Yavapai), chairman of the Committee on Fish, Game and Natural Resources. He said his committee agreed with Governor Williams that "the next two years should see the start of the Central Arizona Project, either

as a federal project or, alternatively, as a revenue bond-financed state project."

"Even the staunchest advocates of a state water project agree that the most logical and the most economical method of bringing water into central Arizona counties and providing exchange water agreements to satisfy the needs of other water-short counties of our state is through a federal project," said Representative Lyman. "The various past legislatures of Arizona have repeatedly endorsed this position and have given their unanimous bipartisan support to our congressional delegation in Washington. Yet, after more than 40 years of both congressional consideration and Supreme Court proceedings, we saw last fall the frustration of our hopes just as victory was in sight. We are all painfully aware of the factors which contributed to our defeat."

Mr. Lyman said there was "tremendous sympathy" for Arizona's cause. There also was a realization, he said, that all reclamation in the United States was on "dead center" until the CAP impasse could be resolved. Arizona must emerge with a bill which did not dilute her basic river rights, he said, and if that did not materialize, "we must—of necessity—be prepared to construct the Central Arizona Project as a state venture."

#### Encouraging Budget Item

A small encouraging note was heard, meanwhile, in Washington. President Johnson's new budget proposal included \$700,000 for planning and survey work on CAP, and Congressman Udall saw it as a sign that the project still had administration support. "It was included on the assumption that the project eventually will be authorized by the Congress," he said.

It quickly became a certainty, however, that the new year would see no lessening of Sierra Club opposition to any project—federal or state—which called for dams in the Grand Canyon. On January 30 the club filed a 75-page petition with the Federal Power Commission asking permission to intervene in opposition to the licensing of Marble Canyon Dam. It contended that the dam would be a "poor economic investment." The same amount of power, said the petition, could be provided by a nuclear plant in the vicinity of Phoenix at less than 80 per cent of Marble's cost. The club also asked permission to submit evidence on the "adverse effects" that the dam would have on Marble Gorge and Grand Canyon National Park.

#### A New Administration Plan

On February 2 Secretary Udall unveiled a new administration plan for Lower Colorado River development. It would authorize the Central Arizona Project without the two long-disputed dams. For electricity to pump the water into central Arizona, the government would spend \$80 to \$100 million to



build a thermal plant in association with the public utilities of WEST (Western Energy Supply and Transmission Associates). CAP would be financed by a .6-cent property tax in three beneficiary counties—Maricopa, Pinal and Pima—and/or by increasing municipal and industrial water charges to maintain a \$10-per-acre-foot irrigation level.

Other provisions of the administration proposal: Marble Canyon would be placed within Grand Canyon National Park by separate legislation. The question of the 4.4-million-acre-foot guarantee to California would be left to Congress to decide. There would be no provision for a study of water importation from the Pacific Northwest. And the question of a Basin account to receive revenues from Hoover, Parker and Davis Dams after their pay-out would be left for the Colorado River states to make a recommendation to Congress. (Hoover would be the first to pay out in 1987.)

Secretary Udall said the question of building Hualapai Dam also would be left for future consideration by Congress. If such a dam were built, he said, it should be a high dam.

Arizonans reacted somewhat ambivalently to the administration proposal. The property tax idea worried Senators Hayden and Fannin, although the former's administrative assistant, Roy Elson, said Senator Hayden might introduce the administration bill just to get it going. Congressman Udall said he was standing pat on the Arizona bill which the state's three representatives had introduced earlier. Rich Johnson, executive director of the Arizona Interstate Stream Commission, thought the new plan should neutralize opposition from the Sierra Club and the Pacific Northwest. "It looks to me," he said, "like the secretary looked at last year's experience and has backed away from the complicated Basin project and is coming up with something simpler that has a better chance of passing."

Governor Williams was dubious and, he said, "bewildered" by the proposal for an ad valorem tax. "It is certainly, I believe, a departure from any previous method of financing similar projects insofar as legislative or administrative policy is concerned," he said. The chief executive did find encouragement, however, in the fact that "positive action" toward a CAP was now being taken by the administration.

Spokesmen for the Arizona Power Authority expressed disappointment at the proposal to bring Marble Canyon within Grand Canyon National Park.

Probably the strongest language used by an Arizonan in the wake of the administration announcement came from State Sen. Ray Goetze (R-Maricopa), who charged that it was a "double-cross" by Secretary Udall. He said he regretted having supported a moratorium on Colorado River dam-building and said that if Arizona had gone ahead with the construction of Marble Canyon Dam, it would be nearly completed by now. (Shortly after the Udall announcement, memorials were intro-

duced in the state Senate asking Congress not to enlarge the boundaries of Grand Canyon National Park and not to block the two dams.)

### It's Doomed, Says Mr. Aspinall

The reaction of others involved in the Colorado River struggle was by no means ambivalent. Save for Senator Jackson of Washington, who saw in the Udall proposal a "sound basis" for resolving differences and getting a program through Congress, almost nobody in the West liked it. Chairman Aspinall of the House Interior Committee said flatly that it would not pass. "The executive department has the right to recommend and that it has done," said Mr. Aspinall. "Now Congress will go ahead and dispose of the matter. But I want to say right now that Udall isn't going to get the kind of bill he sets forth." Mr. Aspinall said he objected strongly to several aspects of the administration plan. "One is the capitulation to minority members of conservation groups. Another is that there isn't anything about Colorado projects or California guarantees. And Udall is playing games apparently with the desire of most Basin states for some study of augmentation of the river."

Congressman Hosmer of California called the Udall plan "fantastic" and said, "Possibly Secretary Udall will next propose two large gambling casinos at Las Vegas as a substitute for Hualapai and Marble Canyon Dam revenues. I hope that more statesmanlike views prevail in Arizona. If they do not, we will have to slug it out in committee." A few days later Mr. Hosmer made a speech in the House in which he charged that Arizona had backed out of a seven-state agreement for Basin development. He said that in drawing up the new administration proposal, Secretary Udall had consulted only with "his fellow Arizonans." And they, said Mr. Hosmer, "seem not to lack in imagination as to the ways and means for throwing monkey wrenches into the Pacific Southwest water machinery. Arizonans now insist that we forego any serious attempt to study means to augment the Colorado, apparently with the wistful thought that this can be done by a national water commission, not yet created, whose duties will be so far-reaching and numerous that it is pure whimsy to imagine that a practical plan could evolve before the Colorado River becomes an historic monument."

Senator Kuchel of California denounced what he called a "bewildering intellectual somersault" by Secretary Udall. "The regional approach to solving the water problems of all the Colorado Basin states, on which we had made such great progress, is now rudely shattered," he said. He recalled that the Secretary of the Interior previously had favored a water diversion study, a 4.4-million-acre-foot guarantee to California and hydroelectric dams to "make regional development economically sound." "The principles he espoused then are suddenly abandoned now," said Senator Kuchel. "We have a right to ask: Why the switch?"

Summing up what might be considered a California consensus on the administration plan, the *Los Angeles Times* called it a "watery compromise" that was "neither regional in scope nor creative in development." "It is, in fact, not so much a plan as a series of concessions," said a *Times* editorial.

### Upper Basin Opposition

Nor were other Upper Basin people any happier about the proposal. Sen. Frank E. Moss (D.-Utah) said he saw it also as a departure from the traditional approach to reclamation, by shifting the burden of repayment from power sales to users. "This new concept," he said, "would make many or perhaps most of our Western water projects uneconomical and would deprive us of redistribution of our water supplies to areas which have the greatest need." And the *Denver Post* saw the plan as "too simple," lacking as it did any provision for a water importation study or the building of dams. "If there is no balanced approach to Colorado River resources," said the *Post*, "the CAP bill as Udall envisions it becomes just a high-priced bid by Arizona to grab surplus water which belongs to Colorado, Utah and Wyoming. The upstream states will need that water by about 1990. If Arizona is granted the use of that surplus, there is little possibility the upstream states will be able to get it back when they need it. The only real possibility is by exchange—probably by importation." The *Post* said it hoped a compromise could be achieved, with some provision for importation or replacement studies. "If not, the Rocky Mountain region likely will have to oppose all Arizona water legislation," said the newspaper. "This is a prospect serving nobody's best interest."

It came as no surprise to Arizonans that the Sierra Club liked the administration plan, although Executive Director Brower warned that "the battle in Grand Canyon is not over." He had in mind the fact that Arizona was now petitioning the FPC for a license to build Marble.

A few days after disclosure of the new administration plan for the Colorado River and the resultant flurry over it, the Senate passed a national water commission bill for the second time. Senators from the Colorado Basin states weren't very happy with it. They feared that it would be used to sidetrack studies on diversion of water from the Northwest. But Senator Jackson assured them that the commission would be objective in its studies of national water problems. Every region "which either has, or which might in the future, experience water resource problems will be the beneficiary of the dispassionate, comprehensive, in-depth study which this bill will provide," he said.

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### California Offers Its Version

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On February 7 a new Colorado River bill was introduced in the Senate by Senator Kuchel. It bore the imprimatur of the Colorado River Board of California and contained what the Udall package did not: Hualapai Dam (but not Marble Canyon), a water diversion study, a 4.4-million-acre-foot guarantee for California and a ban on FPC licensing of any dams between Lake Mead and Glen Canyon. Senator Kuchel said the bill had the approval of California's new governor, Ronald Reagan, who, said the senator, considered the measure to meet three prime requirements: (1) Meaningful steps to augment the inadequate flows of the Colorado River; (2) protection of existing Lower Basin uses, including 4.4 million acre feet annually for California, and (3) recognition that dependable water supply in the lower Colorado Basin was insufficient both for existing uses and the proposed new Central Arizona Project.

Speaking in his home state a few days after he introduced his bill, Senator Kuchel said its passage was an absolute must if there was to be enough water for California's expected population of 50 million by the year 2000. He said the Udall plan was little more than a "stripped down" proposal for building CAP, and construction of the project without any guarantees for augmentation of the river's water supply "would spell disaster to the remaining Basin states." "There is no sound reason," said Senator Kuchel, "for shifting the use of water from its historical uses—taking it off the table in Los Angeles and off land in Coachella Valley—merely to service new uses in Phoenix and Tucson."

On February 13 the months of talk and planning relative to a go-it-alone approach came finally to a head with the introduction of a bill in the Arizona legislature to enable the state to build CAP itself. Sponsored in the Senate by that body's Committee on Natural Resources, the bill proposed to authorize the Arizona Power Authority to build the two dams and work jointly with the Arizona Interstate Stream Commission to finance the big project at an estimated cost of \$823 million. Fifty-year revenue bonds would be issued to finance it, and the bonds would be retired through the sale of water and of electricity produced by the dams. Other works specified in the bill included Granite Reef aqueduct to bring the water from Lake Havasu to Granite Reef dam northeast of Phoenix, Orme Dam reservoir on the Salt River Indian Reservation, Buttes Dam reservoir on the Gila River southeast of Phoenix, the Salt-Gila aqueduct from Granite Reef to Picacho Reservoir and thence to Tucson by aqueduct and Charleston Dam on the San Pedro River southeast of Tucson. A number of pump storage projects also would be developed along the main canal.

### Federal Route Still Best: Udall

A few days after the bill was introduced, Congressman Udall returned to the state and publicly reaffirmed his commitment to a federal rather than state approach to CAP. He carefully refrained from predicting that it would go through the current Congress, but he said the situation was "far from hopeless." The most important thing at this moment, he said, was to build the aqueduct—"in any way we can."

Mr. Udall was not unaware that he and his brother now had conflicting points of view on the project. Secretary Udall was against the dams. Congressman Udall was for them. The reason, he explained, was simply that he—the congressman—represented a single state, Arizona, while his brother was identified with a national administration which, in the middle of a war in Vietnam, felt constrained to hold down non-military expenditures. Moreover, the administration—and thus its Secretary of the Interior—had to consider water problems on a nation-wide scale.

For any CAP bill to pass Congress, said Congressman Udall, it would have to include a 4.4-million-acre-foot guarantee of some type for California and creation of a national water study committee, the latter aimed at attracting votes of Eastern and Midwestern congressmen. The bill also would have to be acceptable to the Pacific Northwest, he said. The Northwest would agree to a study, but such a study, to be acceptable, would have to be made by a national water committee or commission and not by the U.S. Bureau of Reclamation. The Northwest's position, in Mr. Udall's words, was: "Don't ask the biggest dam and aqueduct builder in the world if you can build some dams and aqueducts."

On the day that Mr. Udall spoke in Arizona, two CAP bills—differing only in minor respects—were introduced in the U.S. Senate. One was sponsored by Senators Hayden and Fannin and also Senator Jackson of Washington. The other was the administration's bill. Each carried a price tag of \$719 million. Both proposed the construction of a WEST thermal plant to supply pumping power instead of building the two controversial dams. Both contained no provision for water import studies, nor did they make any reference to California's requested guarantee of 4.4 million acre-feet per year. The administration bill called for enlargement of Grand Canyon National Park to take in Marble Canyon. The senators' bill did not.

Senator Hayden said in a statement, "I have been guided over the last 55 years by certain fundamentals. One is to keep a legislative proposal as simple as possible. Another equally important principle is to maintain a flexible position which permits the necessary compromise and adjustments as the proposal moves through the various stages of the legislative process. In addition, I have always tried in developing legislation to do it in such a way as to build the framework for future develop-

ment and expansion. I have approached the various proposals to enact the Central Arizona Project legislation with these views in mind."

### Aspinall Bill Goes In

While the administration and the Arizona and Washington senators were launching their bills in the Senate, Chairman Aspinall of the House Interior Committee submitted his own version to the House. It was considerably larger in scope, providing for Hualapai Dam and five Colorado projects and calling for an appropriation of \$2.167 billion. And in Seattle, at about the same time, an Arizona spokesman argued the state's case for water, hoping to neutralize opposition to an interstate diversion. Rich Johnson told the American Society of Range Management that Arizona's water shortage could not be considered a purely "local" problem for two reasons: (1) The state's population was growing because of the great migration westward, and (2) other parts of the country depended on the Southwest for food production. "Some of our neighbors outside the Southwest have suggested that the answer to our water problem is to simply stop growing," said Mr. Johnson. "Of course, this is provincial and defeatist advice—and also uneconomical as well as socially and politically impractical for a democratic society." He said Arizona did not propose to solve its water problem at the expense of another section of the country. But then, he observed, neither should other sections withhold water they could not use if real needs existed elsewhere. "I suggest," said Mr. Johnson, "that the water needs of the Southwest are the needs of the nation for the production potential of the region."

Visiting his home state to be on hand to welcome Vice President Humphrey, Secretary Udall expressed confidence in an interview that "we will get a Central Arizona Project this year," although he wouldn't speculate as to what the bill might contain. "I think," he said, "that since the administration unveiled its proposal for a simple Central Arizona Project three weeks ago, a lot of members of Congress are thinking of Arizona's water needs. That proposal embodies many elements for compromise. This means that the chances of getting a project approved this year are very good. I will be very disappointed if we don't." Secretary Udall thought nevertheless that the sponsors of the go-it-alone bill in the legislature were "doing a service by calling attention to the great need for water in the state and by positive action showing that Arizona has an alternative."

### Mr. Mehren Sees Some Flaws

At the moment, the alternative was getting considerably more attention than the federal proposal that Secretary Udall had helped fashion. Nor was it entirely favorable. As the state

Senate made ready to hold public hearings on the go-it-alone bill, a prominent figure in Arizona water matters spoke out on it, and what he had to say was sharply critical. Speaking at Casa Grande, former CAPA Chairman of the Board Lawrence Mehren said the bill had "many questionable provisions." One, he said, stipulated that "no commission, department officer or agency of the state or any political subdivision thereof shall have any jurisdiction, control or power over any of the acts or things to be done by the Stream Commission and Power Authority" in building CAP. "Just how powerful can you get?" asked Mr. Mehren. (The *Phoenix Gazette* shared Mr. Mehren's apprehension on this point, contending in an editorial that the provision in question might well lead to a "high-flying super bureaucracy answerable to no one.")

Other points made by Mr. Mehren:

—There was no "trigger" to flash a green light for a go-ahead on CAP. "Once passed, action can start immediately. Is this fair to the congressional delegation laboring for a solution in Washington? Should the 'trigger' be the decision of the governor, the congressional delegation, the House speaker, the Senate president—or all collectively?"

—CAP needed both dams for payout. Yet "there are many of us who have serious doubts" that FPC would license the dams. "Congressional pressures have mounted to either eliminate or reserve the sites on the Colorado River to the federal government. . . In this event, should not the state bill face squarely the fact that Arizona may need to construct its own power facility, large enough to provide salable power and above pumping requirements to provide some revenue? And must it not provide for taxing authority to make up any deficiencies in revenue to meet bond and operating requirements?"

Mr. Mehren said he was convinced that, in cutting back the Colorado River development plan, the White House had "bowed to the Sierra Club extremists." "I am firmly convinced," he said, "that Interior Secretary Stewart Udall had this program forced down his throat."

### Powers of Bonding Authority Debated

The question Mr. Mehren raised in his speech at Casa Grande, i.e., how broad the powers of the bonding authority should be, emerged as the principal sticking point when the bill came up for hearing in the Senate. Several witnesses expressed similar doubts. One of them, J. A. Riggins, Jr., counsel for the Salt River Project and the San Carlos Irrigation District, called it "open-ended, blank-check" financing. But two bonding experts, John G. Monzani, investment banker, and Frank E. Curley, bond counsel for the Power Authority, thought CAP would be attainable by the go-it-alone route only if the authority had such broad powers. Mr. Curley said the language contained in the bill was standard and, in fact, was the same



language used in legislation authorizing the New York Power Authority to issue more than \$1 billion in bonds. Any controls written into the CAP bill along the lines suggested by its critics could result in "complete destruction of the bonding machinery," he said. To call such wording a "blank check" was absurd, contended Mr. Curley. Moreover, constitutional questions would be raised if the law were written in such a way that the legislature sat as judge over the actions of an executive branch, in this case the Power Authority. If the legislature had to approve each bond issue of the Power Authority, "you'll never sell one of these bonds—not one," said Mr. Curley. He explained that investors needed assurance that the project would be completed and would fear that a future legislature might halt work on it by refusing to approve a bond issue. "Revenue from the project is an investor's only security," said Mr. Curley.

Objections to the bill as it stood were forthcoming likewise from Yuma county irrigation interests. It would be acceptable to them, they said, only if it were amended to recognize existing Yuma water rights and to provide for recognition of Yuma rights in all future contracts entered into by the Power Authority and the Stream Commission.

Still another objection came from the city of Phoenix. Assistant City Manager Charles A. Esser said he was afraid urban dwellers would be penalized seriously if cities had to pay \$55 per acre-foot for CAP water while farmers paid \$10. "Urban residents are going to pay for this and their welfare should be carefully considered," said Mr. Esser. "It's not going to be the farmers." By way of reply, W. T. Willey, counsel for the Power Authority, said the cities were protected inasmuch as they had bargaining power on water rates. If they refused to pay the rates, he said, there simply would be no project.

The Stream Commission's executive director, Rich Johnson, reported to the legislature that the Commission had retained the Ralph M. Parsons Co. to make an economic study of non-federal financing of an aqueduct system from the Colorado River to central Arizona, disassociated from the potential for revenues from hydroelectric power sales.

"The cost of project water to farmers at the aqueduct," Mr. Johnson said, "will be \$10 per acre-foot, which means a cost of something like \$15 to \$18 per acre-foot at the farm head gate. That is expensive water and can be used only as a supplemental source of supply.

"For cities," he continued, "an anticipated cost of \$50 or even \$55 is less expensive for that use than is the cost farmers will pay. The cost of raw water is a small part of the total cost of municipal water. Most of the cost urban users of water pay is accounted for by the treatment and delivery systems."

#### **Bill Approved by Committee**

On February 25 the Senate Natural Resources Committee put the CAP bill out with a "do pass" recommendation. Only

two minor amendments were adopted, one of them to meet the objections of Yuma interests. The controversial "blank check" provision was left untouched.

But as the bill began to move, doubts about it became increasingly audible. Roy Elson, administrative assistant to Senator Hayden, said during a visit to the state that the senator was dubious as to the state's ability to go it alone "without imposing some tremendous burdens on the taxpayers." "He's not opposed to the state doing it this way, if it comes to that," said Mr. Elson. "But he's always believed the federal way is the best way."

Legislators were more apprehensive, too, about "open-end" financing. Their misgivings were made acute by the recently revealed plight of the State Fair Commission and the Veterans' Memorial Coliseum which the Commission had built under legislative authorization.

Yet the legislators found themselves truly on the horns of a dilemma. They wanted to put some limit on the bonding authority, but they knew that if they did, it might make the sale of the bonds difficult and drive the interest rate up.

At a hearing on the House version of the CAP go-it-alone legislation, Ted Willey, counsel for the Power Authority, proposed a "middle way" amendment. Under its provisions, the bonding authority would be required to submit a feasibility report to the legislature before the bonds were sold. The authority could proceed then only with express approval of the lawmakers. A second amendment was proposed to forestall the creation of a huge state water-and-power mechanism in case CAP finally was passed by Congress. This amendment would provide that the state program would not go into effect until two weeks after the opening of the 1968 legislature. Chairman William Lyman (R-Yavapai) of the House Natural Resources Committee said this would permit the legislature to deal with any action that might be taken by Congress.

Although spokesmen for the Sierra Club attended both hearings and spoke out against the legislation, they were heavily outnumbered by proponents. Mr. Willey seemed to speak the sense of the majority when he called the go-it-alone bill "Arizona's declaration of independence from the national political strength of the Sierra Club and the unreasonable demands of the California representatives in Congress."

### **Measure Clears Senate**

The Senate passed the bill a few days later, amending it to include the feasibility-report feature but deciding not to tamper with the so-called "open end" provision. Five senators voted against it. One of them, Sen. Glen Blansett (D-Navajo), said he opposed it because he anticipated that the federal government would never permit the building of the two controversial dams. "We're only kidding ourselves and the people of

Arizona," he said. "I don't believe there are bonding people foolish enough to loan money without backing by the state." Senator Blansett also insisted that the cost of the project would be more nearly \$2 billion than \$1 billion.

A Republican senator from Tucson, Douglas Holsclaw, while voting for the bill, expressed hope that "the House has enough courage and foresight to insist on placing a limit on the amount of bonds which can be sold and also an interest limitation."

The House, however, found its own "middle way." This was an amendment which stipulated that even after the filing of a feasibility report, the bonding authority could issue bonds only with the express permission of the legislature. Rep. Delos Ellsworth (R-Maricopa), House majority whip, said it represented a preferable "positive" rather than "negative" approach.

Another House amendment directed the Power Authority and Stream Commission to look for alternative ways of paying out the project in case the FPC denied licenses to build the two dams. And a third amendment provided that the project could not be launched before December 15, 1967. This of course, was to give Congress, for all practical purposes, the rest of the year within which to approve a federal CAP.

Thus amended, the bill was passed 52-4 and sent back to the Senate, where the amendments were promptly accepted. It then went to Governor Williams, who signed it March 14 with a statement that "for the first time in its long dry history (this) puts Arizona on record with a clear-cut decision to tap water from the Colorado with or without the help of the federal government." He termed the legislation "a very significant step" toward the development of Arizona water resources and congratulated the legislature, the Stream Commission and the Power Authority. "Arizonans fought for 11 years before the U.S. Supreme Court decided in our favor the rights to Colorado River water," said Governor Williams. "Victory came June 3, 1963. We have waited another four years for Congress to authorize the CAP. Now we have taken the matter into our own hands and intend to proceed with all due haste to implement this act. We all agree that a federal project would be best, but a state project is far better than none. And Arizona must and shall put to beneficial use its fair share of Colorado River water."

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### **Congressional Hearing Starts**

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Even as the determined Arizona lawmakers were putting together their do-it-yourself CAP, federal legislation was once again starting through the congressional labyrinth. A hearing on several pending Colorado River bills got under way March 13 before the Subcommittee on Irrigation and Reclamation of the House Committee on Interior and Insular Affairs. The bills included Arizona's \$1.2 billion proposal providing for Hualapai

Dam but not Marble Canyon and omitting the 4.4-million-acre-foot guarantee to California. Another was the administration's so-called "bare-bones" proposal for a \$719 million CAP without either dam. Chairman Aspinall of the parent committee sponsored still another, calling for construction of Hualapai Dam but not Marble, plus five projects in Colorado, for a total of \$1.5 billion. The Aspinall measure included the 4.4-million-acre-foot guarantee to California. A duplicate of the Aspinall bill was introduced by the chairman of the subcommittee, Representative Johnson of California.

Also to be considered by the subcommittee was a Senate-passed measure sponsored by Senator Jackson to create a national water commission. Northwesterners wanted this to be the official body to study interstate water diversions instead of the U.S. Bureau of Reclamation.

Congressman Udall was the first witness. Much of his testimony turned on the fact that the Arizona bill this time contained no guarantee to California, a fact which moved the Associated Press to observe that "Colorado basin unity, nearly achieved by compromise a year ago, appeared to be shattering." Mr. Udall acknowledged that exclusion of the guarantee would draw objections. But to include it, he said, would be to give up much of the victory that Arizona won in the Supreme Court. It would, moreover, give California a guarantee in perpetuity though no shortage in the river could be expected for 20 years. Arizona was willing to accept the risks involved in the 4.4-million guarantee the previous year, explained Congressman Udall, because the bill embraced such safeguards as the dams and specific importation studies. This year the risks implicit in the California guarantee were "simply too high" in the absence of the dam-and-importation safeguards.

Mr. Udall asked California congressmen to support the Arizona proposal as an initial but feasible step in meeting the water shortage confronting both states. He said the 1966 legislation failed to pass because it was too ambitious, coping with problems that would not arise for decades. "After careful soul-searching—after a thorough and painful analysis of the legislative situation and after another hard look at our rapidly deteriorating water situation—the Arizona delegation is now convinced that Arizona cannot wait to solve all the water supply problems of the Southwest. . . Arizona must be rescued before it is too late—and the Congress can start by taking the first step now," said Mr. Udall.

He reminded Californians that they had potential water sources not only in the Colorado River but in the rivers of northern California and through desalinization of Pacific Ocean water. In fact, he said pointedly, he had supported a California bill earlier that month to authorize federal participation in a big desalting plant in the Los Angeles area at a cost to the government of \$72 million. Arizonans would continue to support such projects, said Mr. Udall, but "we will not stand idly by while these projects receive priority and funding and let our

own long over-due project—which is entirely reimbursable, self-sustaining and badly needed—be ignored.”

The Arizona congressman also reminded his colleagues that his state had been trying for 20 years to get its project through Congress, had won its lawsuit in the U.S. Supreme Court and still had no project. He said California's insistence on the 4.4-million-acre-foot guarantee was “the most troublesome issue which our two states must face—and which our two states must finally resolve.”

#### California Insists on 4.4

Californians' testimony before the subcommittee quickly demonstrated just how troublesome the issue was—and how divided were the two states. The theme was set by Governor Reagan, whose statement was read into the record by William R. Gianelli, director of the California Department of Water Resources: “We support authorization of the Central Arizona Project but ask that authorization include, in addition to studies of means of augmenting the supply of the Colorado, protection of existing uses until the river is adequately supplemented.” Then Northcutt Ely, special assistant attorney general of California, took up the burden of presenting California's substantive argument. Much of it turned on that state's insistence that any CAP legislation contain the 4.4-million-acre-foot guarantee. Even with such a guarantee, said Mr. Ely, California projects built at a cost of more than \$600 million and using 5.1 million acre-feet per year would have to cut back 700,000 acre-feet when a shortage developed. “California offers Arizona a fair proposal,” said Mr. Ely, “in that our two states share both the hope that imported water will be brought in and the risk that it will not. If we are disappointed in this, let both states share the burden.”

The California attorney criticized Secretary Udall's “bare-bones” proposal as “deleting the underpinning of the settlement between the Upper and Lower Basins.” “That underpinning,” he said, “was the reasonable expectation of the importation of at least 2.5 million acre-feet annually. We ask the committee to restore these settlements. They dispose peacefully and fairly of issues that otherwise would result almost inevitably in further litigation, which no one wants.” Such litigation, he said, would be needed to clarify issues like these: How much water was the Lower Basin entitled to receive from the Upper Basin at Lee Ferry? What formula should be used to divide any uncommitted water when the river fell below 7.5 million acre-feet per year? If any shortage-sharing plan of the Secretary of the Interior destroyed existing uses in California, was it compensable?

Representative Saylor of Pennsylvania interjected that if California got a 4.4-million-acre-foot guarantee, “it would be the first time in recorded history that somebody lost a case in

the Supreme Court and wound up with all the marbles." Mr. Ely replied that California lost only part of the case, i.e., exclusion of tributary waters from that part of the river apportioned to Arizona. He said Arizona "mousetrapped" its opponents by abruptly changing strategy in 1958 to base its case on that issue. So far as the 4.4 question was concerned, he said, California was insisting on the guarantee as a matter of law. Otherwise his state feared that one day it would find water being taken from projects already built and in use to be committed to the Central Arizona Project.

### Mr. Hosmer Sees a 'Death Wish'

Congressman Hosmer observed at one point in the proceeding that Arizona's current bill was "bizarre" and, he thought, derived from "some kind of morbid death wish." Mr. Hosmer was sponsoring a bill identical to the one which received Interior Committee approval the previous year, only to die in Rules.

Another Californian heard from on the first day of the hearing was Senator Kuchel, who supported the regional bill introduced by Chairman Aspinall. He said it signified "continuing recognition of the regional approach" to Colorado River development.

The subcommittee also received testimony from an Arizona organization formed to resist the dams—Arizonans for Water Without Waste—although this time the group gave qualified approval to a damless CAP. Its witness was its chairman, Juel Rodack, who said AWWW included engineers, economists, scientists and others interested in preserving the Grand Canyon. "Arizona needs CAP now only because nothing else has been developed," said Mr. Rodack. "But CAP is a partial, short-term answer to our problem. We are convinced that the answer to the water problem, local, regional and national, is to be found through a select national water commission." Mr. Rodack went on to contend that the Colorado River "is already bankrupt." "Seven states," he said, "divided up more water than exists. Worse, the river is over-developed."

### A Way to End the Water War: Secretary Udall

Secretary Udall came before the subcommittee on the second day of its hearing to champion the administration's "bare-bones" plan. He said it was designed to end the long controversy over Colorado River development and get CAP built. "I know of no serious opposition to the Central Arizona Project nor of any valid question as to its justification," said Mr. Udall. He recalled that hopes were high of getting a Colorado River bill through the previous Congress, but "the issues involved proved to be so complex that time ran out before they could be fully resolved." Now, he said, "on the foundation of agreement already achieved, I am optimistic that, in this session, the Congress

can hold and enact legislation that will be an acceptable, as well as an adequate, basis for meeting both the short and long-term water needs of the Colorado River Basin."

The Arizona cabinet member said the administration's proposal provided "a substitute for the low-cost pumping power and the financial assistance that would have been furnished by the Marble Canyon development. On that basis it has been concluded that the best use of the Marble Canyon site is to retain it in its natural state as an addition to the existing Grand Canyon National Park." As to Hualapai Dam, "the position of the administration remains unchanged," said Mr. Udall. "We believe that consideration of it should be deferred pending evaluation of the issues by the national water commission." Moreover, he suggested, Congress should remove the Marble and Hualapai sites from the jurisdiction of the Federal Power Commission. And the question of interstate priorities, i.e., the controversial 4.4-million-acre-foot guarantee to California, should be left for the states to resolve among themselves.

Chairman Aspinall of the parent committee was critical of the administration's power-purchase proposal. He said it was not good economics and was designed solely to avoid controversy. "If you think your plan is a means of ending controversy," he told Secretary Udall, "you are dreaming about a Heaven that is out of reach." Furthermore, he said, it would rankle private utilities, who would see in it the germ of federal steam plants. He wondered if the Bureau of Reclamation was planning to "get into the steam or nuclear powerplant business." Mr. Udall replied, "Our main objectives are to reduce costs and controversy." He added that the administration's plan would provide reclamation with a flexibility in the future that might disappear with the development of the last hydro-power sites.

Congressman Hosmer commented tartly on the fact that the administration proposal had not even been introduced as a bill yet. "Apparently it isn't so popular," he said. But Rep. Ed Edmondson (D-Okla.) interrupted to say that he planned to introduce the bill the next day. Mr. Hosmer also twitted the secretary about the administration's change of position with respect to river development. "Isn't it true," he asked, "that last year you approved one dam for Pat Brown, that now you don't give a dam for Ronald Reagan?"

### **Water Commission Incurs Criticism**

Even the administration-supported national water commission got a roughing-up from the subcommittee. Mr. Aspinall said there already existed a National Water Study Council, which could make whatever study was needed, thus obviating creation of a new group. Mr. Udall replied that he preferred a commission outside the federal government to make a national survey and bring in a recommendation. Mr. Aspinall observed that water study commissions had existed under both the Truman



and Eisenhower administrations. They spent millions of dollars, he said, but brought about no developments.

Congressman Hosmer said the water study plan was "not buying progress but buying delay," "Why," he demanded, "should Congress sit paralyzed on the sidelines while some sociological group studies the water problems for five years?"

Secretary Udall's testimony brought to light a disagreement within his department over the dams. The Bureau of Reclamation wanted them while the Park Service opposed them. It was, admitted Mr. Udall wryly, "a beaut of a dispute." (The *New York Times* commented later on the fact that Reclamation Bureau personnel accompanied Mr. Udall to the hearing but not Park Service personnel.)

The second day of the hearing also saw the introduction of a statement by Governor Williams, presented to the subcommittee by Arizona's three House members. He said Arizona's needs were critical, and continued: "We have already devoured vast quantities of our groundwater while waiting for our full share of Colorado River water. What might have been a sustained source of water for occasional use in emergency years now has been dangerously depleted by continuous use." The governor said Arizona was resolved to tread "the rocky path of aloneness" if no federal help was forthcoming. And, he said, it was not impossible for the state to achieve its end by this route, "as our neighbors in California have proved so well with their own self-dependent accomplishments."

Governor Williams said CAP, as then designed, would "meet the urgent water needs of people—not cows and carrots and cantaloupes." In a few short years, he said, Arizona's communities and industries would depend "for their very existence" on Colorado River water.

### Wyoming for It—with Strings Attached

Wyoming gave CAP its support on the third day of the hearing—but with a qualification so difficult of attainment that it made the indorsement almost meaningless. Gov. Stanley K. Hathaway told the subcommittee that Wyoming would support CAP if the legislation contained a provision for augmenting the supply of water in the Colorado River with water from northern California. He said Wyoming preferred the inclusion of the two dams in CAP legislation. He also gave voice to the apprehension that a national water commission would be dominated by Easterners who would not consider the West's water problems. To this Congressman Saylor of Pennsylvania replied, "Easterners are being asked to pick up the tab for these water projects, but your attitude is that Easterners must have no say in the studies." Several congressmen called the Wyoming position "selfish" and its proposal for diverting northern California waters "vague" and "impossible."

Another Wyoming witness was U.S. Sen. Clifford P. Hansen, who insisted that passage of any CAP legislation not interfere with Wyoming's "right to the use of water allocated under the Colorado River Compact."

Mr. Saylor said he was "saddened" by Wyoming's stand on the bill, and Chairman Aspinall urged that state to support legislation equitable to all basin states. Mr. Udall said Wyoming was "demanding impossible things" and asked Governor Hathaway if he thought it likely that Arizona congressmen would support future Wyoming projects should Wyoming block a project Arizona desperately needed now. The question went unanswered.

The pending national water commission bill elicited testimony from Northwesterners. They were united on one theme: Don't link such a commission with Colorado River legislation. H. Maurice Ahlquist, Washington state director of conservation, and Le Selle E. Cole, chairman of the Oregon Water Resources Board, presented their views in writing. Mr. Ahlquist said it could be expected of a national commission that it would provide an impartial review of the nation's water problems and the economic and social impact of inter-basin water transfers. Mr. Cole, in his presentation, urged no study of possible sources for supplementing the water supply of the Colorado River until Northwestern states had completed studies of their own needs and resources. Also, he said, the national commission should consider all alternatives before such a study was made. Mr. Cole said Oregon was making its own study and expected to complete it in June, 1969.

Rep. Catherine May (R-Wash.) said an initial study of Washington's water resources was made by two state universities. Their finding was that the state's water supply would be generally adequate for the next 50 years but insufficient to meet demands in about 100 years.

#### **A 'Short-Fused' Bomb, Says Coloradan**

Colorado's spokesman at the hearing was its governor, John A. Love. He called Secretary Udall's truncated river plan a "short-fused bomb which would lead to destructive competition among the Basin states." "It proposes a piecemeal solution to a part of a problem of only one state," said Governor Love, "and we are appalled at the apparent abandonment of the other Colorado River Basin states in favor of Arizona." He argued that the administration proposal did not "constitute a basis for solution to the many varied and complex water problems" of the area. The administration's suggestion that Hualapai Dam be delayed was characterized by the chief executive as being "barren of any logic." Hualapai, he said, was vital to creation of a Colorado River development fund, which could be used in later years to finance augmentation of the water supply in the river.

Governor Love said Colorado had yielded on many points and would agree to eliminate Marble Canyon Dam. "Because of the many concessions we have made," he said, "our own situation has reached the point where we can go no further. . . In the face of serious disagreements among our citizens, we have modified our position to recommend the elimination of Marble Canyon Dam and the substitution of a reconnaissance study in lieu of a feasibility study on the import problem. We are unable to make further concessions."

The governor noted that the administration said it had no objection to authorization of the Animas-La Plata and Dolores projects in Colorado but felt the other three sought by that state should be deferred pending studies by a national water commission. "If our development must halt pending a study of our problems by such a commission," said the governor, "then we think in all fairness that water development throughout the United States should meet a similar fate."

Governor Love told the subcommittee that he favored the Aspinall bill calling for \$1.5 billion of development, including Hualapai Dam and the five projects.

Nevada made known its support of CAP through a statement by Gov. Paul Laxalt, read to the subcommittee by Pat Head, administrator of the Colorado River Commission of that state. "Nevada feels that the Central Arizona Project should be authorized to meet the critical water problems of central Arizona," said Governor Laxalt.

### Californian Proposes 'Super-Dam'

Doubtless the most startling proposal to be made in the hearing came from Floyd L. Goss, assistant manager and chief electrical engineer of the Los Angeles Department of Water and Power. He suggested the building of a dam and power plant at Bridge Canyon capable of generating 5 million kilowatts of power—four times as much as Hoover Dam—instead of the 1.5 million kilowatts provided for in the original Hualapai design. This, he said, would provide pumping power for CAP and peaking capacity for participating utilities. The dam would cost \$728 million, but Mr. Goss said that if it were built in partnership with public and private utilities, the cost to the federal government might be as little as \$254 million. He said his agency would be willing to pay a share of the capital costs and build its own transmission lines to carry the power. He had not talked with other agencies or utilities, said Mr. Goss, but he thought they would participate, too. "It's an attractive scheme," he said. "I don't see why they wouldn't go for it."

The proposal hit Congressman Udall and possibly others like a "bomb shell," as Mr. Udall himself put it. "I must say I am impressed and a little bit stunned," he remarked. And Congressman Stiger said the proposal could delay authorization of CAP another year. In reply to questioning, Mr. Goss said

planning for the project started the previous fall, in anticipation of the expiration of the Dec. 31, 1966, moratorium on dam-building. When several committee members pressed Mr. Goss as to why he had come up so late with a brand new proposal, Congressman Hosmer interrupted angrily: "That's the third time the witness has been jumped on about this. It's like getting on the Wright brothers for not inventing the airplane sooner." Mr. Hosmer then asked Mr. Goss why the utilities would be willing to relieve the government of \$500 million in costs. Goss' reply was that the utilities would have to find the electrical capacity somewhere, and supplementing their base load facilities with a hydro-power peaking installation would be good business.

Chairman Aspinall asked that the committee record be left open to receive any additional material Mr. Goss might produce. Soon afterward the hearing ended.

The following week Congressman Hosmer gave the Goss plan a strong public endorsement and said he would endeavor to have it written into the CAP legislation. He said it made the abandonment of the Marble Canyon project "a lot more palatable." "This is by far the soundest, most constructive idea I've ever heard for the development of the Hualapai power potential," said Mr. Hosmer. "I'll do everything in my power to see that any bill we report has this excellent, businesslike proposition incorporated within it." He said the Goss plan made the administration's thermal-power idea "look even more ridiculous than when it was first yanked . . . out of Pandora's box. Under that scheme, Uncle Sam has nothing to show for his money. He gets a nice, fat cancelled check and that's all."

#### Congressman Argues for Goss Plan

Late in March Congressman Hosmer visited Phoenix to attend a conference conducted by the Atomic Industrial Forum, and again he spoke out strongly in favor of the "super-dam" at Bridge Canyon. He said it made "the financial deal offered U.S. taxpayers so much better that chances have improved several hundred per cent that this economy-minded Congress will want to pass a Colorado River Basin Project bill this session. The ratio of costs to benefits always has been favorable for this package of plans to develop water resources of the Colorado River to meet needs of the growing Southwest. Now repayment of U.S. funds advanced to build the water and power projects can be made sooner not only because the size of the loan is substantially smaller but because income from sale of Hualapai hydropower promises to be so much greater. After the reduced borrowing from the federal treasury is repaid, furthermore, the increased income will accumulate faster in the Basin fund to help pay for additional projects needed to meet demands of future growth in Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming—all states depending to a critical extent on water from the Colorado River.

This is the area to which people keep moving. We have to be ready to take care of them here and to provide enough water for their homes, farms and factories by which they earn a living."

Mr. Hosmer called particular attention to a "pumpback" feature of the "super-dam." Water used once to make electricity would be pumped back into the reservoir with electricity from steam plants during hours of little demand. The additional water would give the dam a better head of hydro power for peak hours.

Mr. Hosmer accused Arizona of speaking with a "forked tongue" in Washington and expressed hope that it would "come back into the fold" and support the big dam at Bridge. He predicted failure for a go-it-alone project because the Federal Power Commission would never give the state a license to build a dam on the Colorado. Its refusal, he said, would be based on the premise that such a dam would not be in the interests of the entire nation.

### Newspaper Fears It's a 'Lion's Den'

Not unexpectedly, Congressman Hosmer was taken to task by Arizona editorial writers. The *Phoenix Gazette* commented that the "fold" he talked about was "viewed in Arizona more as a kind of lion's den into which the lamb is being invited." Arizona congressmen, said the *Gazette*, could be expected to support "any workable proposal that included getting it started now." But "it is not at all likely, in the light of bitter experience, that our people in Washington would again tie themselves down in advance to anybody else's pet projects or combinations."

Mr. Hosmer replied, in a letter to the editor of the *Gazette*, that "if this be a den, the *Gazette* should consider becoming 'den mother.'" "It is," wrote the California congressman, "the friendliest, most sympathetic den a lamb will ever see. It is lined with scores of bills California wants passed, each of which provides for the Central Arizona Project. To speed passage California has come up with a plan enlarging Hualapai's generating capacity, fattening the Basin development account and cutting the project's cost below \$1 billion. It has dropped insistence on Marble Canyon Dam to diminish conservationist opposition. California presses for the CAP despite the fact it loses 700,000 acre-feet of water and its MWD (Metropolitan Water District) aqueduct starts running half-dry the minute CAP goes into operation. It does so because California honor-bound itself to abide by the *Arizona vs. California* decision."

Mr. Hosmer said it wasn't California that frustrated Arizona's drive for water. "Last year's bill failed," he said, "because Arizona senators refused to commit themselves to help restore it in the Senate to the agreed form if conservationists decimated it in the House. Chairman Aspinall of the Interior Committee has stated repeatedly it was he, not California, who decided against pressing the legislation. This year these two senators

still stand aloof from joining other Basin states in common cause. CAP's troubles are right at home in Arizona under the *Gazette's* nose. . ."

### The Young-Martin Article

Even while the storm over the proposed "super-dam" was subsiding, a new storm blew up over an article attacking CAP as uneconomical and unnecessary. It wasn't the attack that caused the tempest so much as the fact that it came from two University of Arizona faculty members and appeared in a U. of A. publication, *Arizona Review*. The authors were Drs. Robert A. Young and William Martin, associate professors of agricultural economics. They contended that the state had enough groundwater to support economic growth for 170 years. They also argued that CAP would subsidize farmers at the expense of municipalities and industry. "The water crisis in Arizona is not as widespread as some believe," said the authors. Nor, they said, had CAP been "clearly established as a satisfactory solution to the problems which in fact do exist." Alternatives to CAP were available which would permit the economic growth of the state to continue "at its recent rapid rate," said Drs. Young and Martin.

The two U. of A. faculty members advocated gradual elimination of food and feed grains and forage crops because they used too much water for the amount of financial return. In their stead Arizona farmers were urged to grow cotton, vegetables, citrus and other fruits which, said the authors, would produce four or five times the amount of personal income per acre-foot of water used.

The reactions to the Young-Martin article were, to say the least, brisk. The Water Resources Committee of the Tucson Chamber of Commerce held a special meeting and issued a statement that took sharp issue with the two professors. The committee said that in talking about underground water supply, they failed to point out that much of the water was poorly located for use in populated centers and too poor in quality to be used for people or industry. The committee also emphasized that it wasn't just for agriculture that CAP was needed but to accommodate the rapid immigration and industrialization being experienced by Arizona. If, said the committee, Arizona did not take steps to utilize the water legally apportioned to it, it might lose the water "by inaction."

James L. Knickerbocker, of the Tucson Gas and Electric Co., said he thought some of the points raised by Drs. Young and Martin were worthy of thought. But Ashby Lohse, Tucson lawyer and former member of the Arizona Interstate Stream Commission, insisted that "anything that hurts the Central Arizona Project hurts us and we should fight it."

The committee also voted to advise Secretary Udall that it opposed his idea of financing CAP with an ad valorem tax levied

in the counties benefiting from the project. Mr. Lohse disagreed with that position, saying, "Stewart Udall did Arizona a big favor in pointing out that the state could pay for the project through taxation. If we are going to do that, why shouldn't we own the project?"

### A Colleague Disagrees

The Young-Martin argument was challenged next by one of their colleagues, Dr. George W. Campbell, also a U. of A. agricultural economist. He said their study was "unrealistic," ignored "the facts of life" and "drew conclusions from incorrect analyses." The 170 years of available groundwater they talked about, said Dr. Campbell, was actually in scattered pockets throughout the state. It wasn't a homogenous mass, and Drs. Young and Martin had not taken into consideration the cost of transporting the water from where it was to where it would be needed. But even assuming there was enough water to last 170 years, said Dr. Campbell, it was of doubtful quality. For the general rule was that the deeper one had to drill for water, the worse it tasted.

He also assailed their thesis that municipal and industrial water users would have to subsidize farmers. The fact was, said Dr. Campbell, that cheap water for farming would be paid for through the sale of surplus electrical power generated by dams.

Finally, on the question of using expensive water on grain and forage crops: Without such crops, said Dr. Campbell, a whole array of related businesses would fail. There would be no forage for the cattle-feeding industry, fewer cattle to slaughter, fewer slaughter plants and thus fewer jobs.

"I agree with Dr. Young and Dr. Martin that it is important to examine the economics of Arizona's water problems," said Dr. Campbell. "I believe the results of these examinations should be made available to the people of Arizona whether such results are 'favorable' or 'unfavorable' to the construction and operation of the CAP."

But, said Dr. Campbell, he did not feel that the Young-Martin findings were "valid." "The CAP is not needed so much for the next 15 to 25 years," he said. "But after that, we're going to be in real trouble keeping our economy going, let alone having one that will grow, if we do not have a statewide distribution system of water. . . We are dealing with the lives of people and this cannot be brought down exclusively to considerations of dollars and cents. Saying who shall have and who shall not have water is a political as well as an economic question. Arizona is a family. As a father of four children, I would hate to be faced with a choice if there were not enough food or water to go around. . . The politicians of Arizona are in this position and I don't envy their position."

The Young-Martin criticism drew still another rebuttal, this one from State Water Engineer W. S. Gookin. He said it



was flawed by discrepancies and that the authors used "highly theoretical, impractical and wholly misleading" figures. "The entire procedure, rationale and principles embraced by the authors, if applied elsewhere in the United States, would demonstrate that agriculture in general should abandon the production of low income-producing crops . . . and irrigated agriculture should not be practiced," said Mr. Gookin.

### Assistant Secretary Optimistic

There were other developments in the early spring of 1967.

Assistant Secretary of Interior Kenneth Holum came to Phoenix and, in a speech, said he felt sure that the present Congress would approve CAP. Thus, he said, it would solve "the country's most pressing water problem—to deliver Arizona's entitlement of water from the Colorado River to the populous areas here in the central part of the state." Mr. Holum made his remarks at the annual meeting of the Colorado River Basin Consumers Power, Inc., a five-state organization representing about 200 consumer-owned electric utilities.

In San Francisco, the National Wildlife Federation, described by the press as the nation's largest outdoor conservation organization, put itself in conflict with the Sierra Club by declaring for Hualapai Dam if there was no other way to finance CAP. The federation favored steam plants to finance the project without dams, but if this was not feasible, it said, Hualapai should be constructed. The group joined the Sierra Club in opposing Marble Canyon Dam.

Governor Williams came back from Washington and announced that Arizona's determination to go it alone on CAP if need be was causing nervousness among federal officials. The Bureau of Reclamation, he said, was frightened lest it "lose its reclamation empire." But he was still optimistic that CAP might be built with federal help. Actually, he said, the needs of other Basin states put Arizona in a good position to bargain for a federal project. "Almost every state involved has some federal project they need to get going without delay," said the governor. "California is between a rock and a hard place." That state, he explained, needed "some projects very badly and would like to see this thing settled."

### An Offer of California Water

In early April there was an unexpected development. The Eel River Flood Control and Water Conservation District of northern California offered to export surplus water to the Lower Colorado River Basin to augment its supply. The offer was made in a telegram to Chairman Aspinall and was said by the *Phoenix Gazette* to involve about 2.5 million acre-feet per year from the Eel, Trinity and Klamath River systems. The *Gazette* said it was indicated that the association spoke for 11 northern California

counties—Marin, Contra Costa, Yolo, Solano, Napa, Lake, Sonoma, Mendocino, Humboldt, Trinity and Del Norte. In its telegram, the association "recommended" that the House committee "consider California's north coast as the initial source of water to be developed to offset the prospective shortages in the Lower Colorado River Basin occasioned by the Mexican Water Treaty and the limitations of the Colorado River Compact." The association said "this proposal offers a logical first step for future Western interstate water development." Mr. Aspinall was asked to make the telegram "a part of the record" in the Colorado River hearings.

What was behind the "astonishing offer" (as the *Gazette* called it)? The paper gave this explanation, attributing it to a "California source": "Northern California is a flood-ravaged area. It is ready to make common cause with the water-short Colorado River Basin to try to speed up water management programs—notably flood control—along the northwest coast of California. The north coast area acted independently of state and federal agencies."

Commenting on it, Rich Johnson of the Arizona Interstate Stream Commission said, "It is certainly an interesting proposal. We have always known there is surplus water in California, but this is the first time it has been offered by the area of origin to help the entire Basin. Of course, Arizona must insist that the proposal not delay congressional authorization of the Central Arizona Project. . ."

Testimony before the Senate Interior Committee suggested, at about the same time, that not only northern California but the atmosphere itself might be tapped for additional water. Secretary of the Interior Udall said there was "considerable evidence" that under certain meteorological conditions a 10 to 20 per cent increase in water yield from the atmosphere could be obtained over areas as large as 1,000 miles by means of cloud-seeding. Moreover, he said, the cost could be brought down to 50 cents per acre-foot, compared to \$60 to \$75 per acre-foot via reclamation projects. Dr. Archie M. Kahan, chief of atmospheric water resources for the Bureau of Reclamation, said he thought the cost would run more nearly \$1 to \$1.50 per acre-foot. Whatever the cost, remarked Senator Jackson of Washington, it would be much cheaper than a trans-basin diversion from the Columbia River.

### **Town Hall Says: Build CAP**

On April 12 the 10th Town Hall, meeting at Castle Hot Springs, brought forth a number of recommendations on agriculture. Prominent among them was a declaration that the state should build CAP if Congress refused and that "the people of the state should defray the expenses over the amount the users can afford to pay. We recommend, however, that a careful evaluation of the ability of the users to pay be made before

other areas of the state not actually involved in the delivery of water are assessed."

Two other Arizona organizations spoke out during April on the subject of the two dams—one for them, the other against. The southern Arizona branch of the American Society of Civil Engineers said the dams could be built and still leave enough "wild" river in the Grand Canyon "for those to whom it is important." The engineers noted that although "a significant proportion" of the Colorado River flowed through Arizona, existing dams primarily benefited Upper Basin states and California. Arizona, they said, "is not realizing its fair share of this natural resource of the state—either in the form of power revenues or water." The engineers also took issue with those who advocated a steam plant for generating power in place of dams. "Hydro power is peaking power," they said, "and firm base steam power cannot be substituted for it."

The other point of view was taken by the Arizona Academy of Science. A resolution was passed at its annual meeting in Tucson advocating extension of Grand Canyon National Park, the effect of which would be to prevent the construction of Marble Canyon Dam. It was made known that a survey of the academy's 639 members was conducted earlier in the year and the majority opposed any new dams on the Colorado. In a panel discussion, several members spoke out against the flooding of archeological sites and "drowning" things of beauty and of scientific curiosity. One member, however, defended the dams. Dr. John W. Harshbarger, geologist at the University of Arizona, said he thought there were "compelling economic reasons" to build the dams. Arizona's water needs far exceeded its supply, he said. By the year 2030 Tucson would require 575,000 acre-feet a year, of which 300,000 acre-feet would have to be imported, said Dr. Harshbarger. "Arizona must take steps to transport water for which it has a legal right—or lose it," he said.

### A Strategy Meeting

On April 17 Arizona's water strategy "team" met in Washington to prepare for two major phases of the Colorado River effort. One was the "marking up" of the CAP bill by the House Interior Committee. ("Marking up" is congressional jargon for the final writing of a bill, with amendments, by a committee preparatory to reporting it out.) The other event upcoming was a three-day hearing by the Senate Interior Committee, scheduled to start May 1.

Taking part in the Arizona strategy meeting, held in Senator Hayden's office, were Governor Williams, members of the state's congressional delegation, legislative leaders and officials of the Arizona Power Authority and Arizona Interstate Stream Commission. Their decision was essentially this: While legislation was pending in Congress, and so long as there was

a chance of getting congressional approval of CAP, an Arizona task force would work in Washington in support of the state's senators and representatives. If CAP failed in Congress, the state's congressional delegation would swing in behind the effort for a go-it-alone plan. Governor Williams called it a "two-furrow" plan. He said a state-built CAP was less desirable than a federal project but was regarded by Arizona strategists as "an insurance policy." "We hope it won't be needed, but if it is, then we want the best insurance we can get," said the governor.

Secretary Udall thought there was a good chance that the "insurance" wouldn't be needed. Addressing the Phoenix Kiwanis Club during a visit to the state, he predicted congressional approval of CAP in time for Senator Hayden's 90th birthday October 20. Admitting he was "sticking my neck out," the secretary said: "We are going to have a Central Arizona Project. After 40 years, we are going to have it because Arizonans—Republican and Democrat alike—have been patient and have supported development of other parts of the West." It was going to be a "cliff-hanger," though, said Secy. Udall. And he commended Arizonans for being prepared to build CAP on their own if need be. Their "resourcefulness and guts" deserved praise, he said.

Secy. Udall saw three routes to more water for the Southwest in the years ahead: (1) Desalting the ocean—a technique in which there had been considerable progress. (2) Weather modification—"snow-making rather than rain-making"—that gave hope of increasing the water supply of the Colorado River Basin by 1.5 to 2 million acre-feet in the next 10 or 15 years. (3) Conservation. ("We have to become more sophisticated in recycling and reusing water.")

(A few days after Secy. Udall's speech, coincidentally, there was a symposium at Tucson at which a water conservationist declared that Arizona could have all the water it needed if it would spend on watershed management a small fraction of what it spent on highways. The symposium was held during a meeting of the American Association for the Advancement of Science and the speaker was Dr. Lloyd E. Myers, director of the U.S. Water Conservation Laboratory in Phoenix. Research, he explained, was learning how to manage nature so as to harvest more water for human use. Now, said Dr. Myers, Arizona was putting to use only 2 per cent of the 85 million acre-feet of water that fell on the state each year. But within a decade, if Arizonans were willing to pay for it, they could increase that amount considerably. It would be done by changing the vegetation cover of watersheds from trees to grass, to permit more runoff. Water thus produced would be more expensive than that yielded by the Central Arizona Project, but still it could be used economically for such high-value crops as lettuce, said Dr. Myers.)

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**Senate Hearings Begin**

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The CAP Senate hearings opened May 2 (there had been a one-day postponement) before the Subcommittee on Water and Power Resources of the Senate Committee on Interior and Insular Affairs. Presiding was Sen. Clinton P. Anderson (D-N. Mex.), chairman. Senator Hayden, up first, noted that this was the fourth time he had come before the subcommittee on the same mission—to obtain a Central Arizona Project. Arizona's bill this time was basically the same as its predecessors, he said. It was a bill to construct "this same ditch from the Colorado River." "Let's get on with the hearing," said the senator, "and not let ourselves be diverted by extraneous issues." The "principal business at hand," he said, was simply to "provide a way to bring Colorado River water into central Arizona."

Senator Hayden then submitted a statement which represented his views and those of Senator Fannin. He said the Arizona bill (S. 1004) represented for him "the culmination of more than 45 years of hope, hard work and frustration as Arizona has sought to secure and use its full share of Colorado River water." In 1966, he said, the Basin states tried for comprehensive, interregional legislation that would solve all or most of the water problems of the Southwest plus Kansas and Texas. But it got lost in a welter of controversy. Now "we have sought to present a more modest approach." "We recognize," said Senator Hayden, "that regional and interregional planning provides the only long-range or permanent answer to the water supply problems of the West. But we also recognize that such planning presupposes further delay and the completion of time-consuming studies and analyses. Further, it presupposes the resolution of political and territorial differences which may not yet be ripe for solution."

Senator Hayden said there were those who thought Arizona should oppose all other Western reclamation development "until our own urgent water needs" have been met. "But this is not the way our country developed and became a great nation," he said. "This is not the way our country's water projects—whether for navigation, flood control or badly-needed irrigation—have come into being. This is not the way our great national highways, our rivers and harbors and our air transportation system were developed. I have always cooperated with my colleagues from other parts of the nation in helping resolve these important problems and the needs of their particular states. I am confident that during the progress of this legislation—so critical to the needs of my state—I will, in turn, have their cooperation and good wishes. In the 55 years which I have served in the Congress, it has been my observation that regional and sectional controversies and disputes between individual states can be amicably and satisfactorily resolved only if each side is willing to 'give' just a little—and if each side is willing to select realistic goals which we may reach by cooperation and compromise. . . ."

Senators Hayden and Fannin also submitted a brief by the Arizona Interstate Stream Commission in answer to California's request for a 4.4-million-acre-foot priority. The Stream Commission, in its brief, reminded the Senate subcommittee of a promise made by Former Gov. Pat Brown that California "would not try to accomplish by obstruction what she failed to accomplish by litigation." "Arizona—with the Colorado River as its only water source—does not ask California for a priority," said Ozell M. Trask and Ralph E. Hunsaker, counsel for the Commission. "California—with its various alternative sources—should not, in good conscience, seek a priority from Arizona as a price for political support in the Congress. Arizona asks only that the matter of allocating water in times of shortage be left exactly as the Congress of the United States and the Supreme Court of the United States—in their wisdom—decided it should be left." To which Senators Hayden and Fannin, in their statement, added: "Our unwillingness (to support the California priority) is neither an arbitrary nor an unreasonable position. An unconditional priority to California in perpetuity has the potential of placing on Arizona—and the other so-called inland states—the entire burden of augmenting the water supply of the Colorado River in preparation for the years of short supply in the Colorado River Basin." If Congress gave California such a priority, said the senators, it would in effect be reversing the U.S. Supreme Court on the basic issue of the lawsuit.

### Issues Are Drawn

It wasn't long before the issues were drawn as between the stripped-down "build-a-ditch" approach championed by Senators Hayden, Fannin, Jackson of Washington and Cannon of Nevada and the "jumbo" regional approach, with dams and interbasin diversion study, championed by Senators Kuchel of California, Allott of Colorado and Moss of Utah. Senator Allott said that if there was not to be a regional approach, all seven Basin states "should wait until a program of sufficiently broad scope can be developed to assure them that some are not to have the water resource problems rectified at the expense of the others." Senator Moss said CAP simply wouldn't be feasible without "some means of augmenting the flow of the Colorado River." Interbasin transfer of water "has been transformed into some sort of scare word in some quarters," said Senator Moss. Yet it was not unique. "Colorado River water is now being transferred into the Missouri River Basin (and) into the Rio Grande River Basin," he said. He recalled that Northcutt Ely, speaking for California, had offered 2.5 million acre-feet from northern California "for the rescue of the entire Colorado River Basin." Mr. Ely's offer was "commendable and statesmanlike," said Senator Moss. "To discard this unity, so laboriously achieved, will not free the Central Arizona Project from controversy," he said. "Nothing could be more controversial than building a project for which there is not enough water."

"Mr. Chairman," concluded Senator Moss, "Arizona is in desperate need of its water. But rivers and streams do not respect political divisions and this river basin must be considered as an entity. The failure to meet our water needs on a regional basis will merely prolong a crisis that will be before the committee again and again. I am hopeful we can report a bill that will meet this problem by a comprehensive river basin plan. Let us provide a workable solution to this vexing problem, not further compound our dilemma."

Senator Fannin introduced a statement by Governor Williams into the record. In it the chief executive acknowledged that "Arizona has been accused of running off in all directions since last year and of having no one well-defined policy toward water development." He said this was not true. "Our policy is very clear indeed. We want and are diligently seeking congressional authorization of the Central Arizona Project." But a desperate Arizona could no longer follow any single approach, said Governor Williams, and felt constrained to have a state plan in readiness if the federal approach failed.

Senator Wallace F. Bennett (R-Utah), although not a member of the committee, testified in support of Utah's position, which had been outlined by Senator Moss and included the Dixie Project, augmentation studies and other features. He could not support the "bare-bones" administration bill, he said, because it abrogated "all the agreements that have been reached among the seven states of the Colorado River Basin and their regional plan of development . . ."

Statements by Sen. Warren G. Magnuson (D-Wash.) and Sen. Peter H. Dominick (R-Colo.) were submitted for the record, the former supporting CAP without importation studies, the latter pleading for augmentation and the five projects in Colorado. Senator Dominick, admitting that the word "importation" sent "shudders running through the hearts" of Northwestern senators, said he looked more to weather modification (cloud-seeding) to augment the Colorado. "Importation raises some terrific problems," he said, "and desalinization would seem to be somewhat curtailed by mileage limitations from salt water bodies."

#### Secretary Udall Testifies

Secy. Udall came next to the witness table, accompanied by Assistant Secretary Kenneth Holum, Reclamation Commissioner Floyd E. Dominy and Deputy Solicitor Edward Weinberg of the Interior Department. Secy. Udall advocated what he called "the administration approach embodied in Senator Hayden's bill, as well as in the National Water Commission bill." He suggested amendments to include the Marble Canyon addition to Grand Canyon National Park and also the addition of about 38,000 acres of the Kaibab National Forest. As to Hualapai Dam, he said, the administration had not endorsed it. (He explained that "the seven-state plan of last year was not the administration's

plan.") And the 4.4 priority for California was a matter for the states to iron out among themselves, said the secretary.

He then developed the administration's proposal for federal pre-payment of pumping power through construction of a thermal generating plant in association with Southwestern utilities. "This is a little bit tricky, but it can be done," said Secy. Udall. "It has been done several times in the utility industry already." The thermal plant envisioned by his department, he said, would be located near Page, adjacent to Lake Powell. It would burn coal obtained from the Black Mesa fields of the Navajo and Hopi Indian reservations.

Under such an arrangement, testified Secy. Udall, canalside water for irrigation would sell for \$10 per acre-foot and municipal and industrial water for \$50. He also suggested a property tax within the project of .6 mill per \$1 valuation. Without a tax, the municipal and industrial rate could be pegged at \$56 per acre-foot.

Finally, the secretary recommended inclusion in the bill of two of the five projects sought by Colorado—Animas-La Plata and Dolores.

#### Senator Kuchel Is Critical

Senator Kuchel questioned Secy. Udall closely and critically about the pre-payment plan for obtaining pumping water. The secretary explained that it would involve a congressional appropriation of \$92 million for government purchase—in advance—of electricity to be used for the 50-year payout period of the project. The plan was novel, he acknowledged, "but I am not afraid of doing novel things. I am for a novel, flexible, growing, dynamic reclamation program, not one that is stuck with one traditional method of doing business." Secy. Udall said he hated to see the Bureau of Reclamation "tied to one formula," especially in view of the fact that not many hydroelectric sites remained in the West. "It will work," he said firmly. "It is not controversial. It does not stir up the public-private power fight. The federal government would not own a single portion of a steam plant. . . I think when we look 50 years down the road, this may be one of the valuable tools the Bureau of Reclamation would have, in some instances."

Senator Kuchel wasn't so sure. "I suggest to the members of the committee," he said, "that when we authorize the purchase of electricity 50 years in advance, with a cash payment to a group of utilities, both public and private, it may or may not be entirely in the public interest. It certainly requires a most careful consideration. . ."

Senator Kuchel also expressed fear that the National Water Commission legislation was so broad that years would pass before it came to grips with the most serious water shortage in the U.S.—that of the Pacific Southwest. Secy. Udall, by way



of reply, likened it to a commission set up "to study the national health needs." "Obviously," he said, "such a commission would give attention to cancer, stroke and heart disease. So I think a broad charge to the Commission is the only sensible direction needed." But Senator Kuchel said he would "feel far more happy as a western American" if the Senate Interior Committee accepted Secy. Udall's own "assessment of where the greatest urgency lies"—in the Pacific Southwest—and wrote it into the water commission legislation.

The secretary defended his retreat from an earlier advocacy of Hualapai Dam. He said he didn't realize at the time how seriously the people of the Pacific Northwest objected "to an immediate march toward the Columbia River." Any large importation program required a large project to pay for it. Therefore the people of the Northwest—"and I think quite rightly"—regarded Hualapai Dam "as a gun pointed at the Columbia River," said Secy. Udall. Hence he felt it to be "the course of wisdom . . . to get a regional plan started" with a National Water Commission study.

In fact, said Secy. Udall, the Interior Department would oppose a bill with a dam in it. "We don't think a dam is needed," he said. "If the committee wants to set up a Basin account, and I think it should, the way to do it is to base it on a project that is half paid out—the Hoover-Parker-Davis complex. Go ahead and establish a Basin account with that as the initial base. Why do we have to inject controversy? The reason I support Senator Hayden's bill is that it tries to eliminate controversy. Let's not put controversy back in unless we absolutely need to, and we don't need to. . . Why, as a beginning step, would you want to go to the Columbia River and build a tremendous aqueduct and import \$65-per-acre-foot water when you can produce it through weather modification for \$1? You begin by doing the thing that is most economical, and ultimately, if you must do the things that are more costly and more controversial, well, you do them."

"You used the word 'Columbia.' I didn't," murmured Senator Kuchel.

"Senator," said Secy. Udall, "the word is in the room. I think we might as well be honest about it. That is the only way I know how to approach it."

Senator Kuchel, continuing to press the secretary about his shift in position, recalled that in 1965 the latter had advocated "major hydroelectric dams on the river committed to produce revenues for whatever the region needs in the future." Now, said the senator, he thought the committee would consider the kind of financing necessary for such development.

"And I think," he began, "that some legislation similar to what your good brother, who is sitting over there—"

"Don't do that to me," pleaded Secy. Udall.

"—sponsored in the House of Representatives last year could go to the President."

Secy. Udall disagreed. He doubted either that such a bill could pass the House or, passing, be signed by President Johnson.

"The thing that amazes me," continued the secretary, "is the attitude of some people, particularly the people in your state, concerning the one big dam in the region. Hoover Dam is not producing revenue for water. It never has been. Why not use it to establish a Basin account? Is it because the power users in southern California don't want to pay a little extra the way everybody else is for water? This dam is built. It is half paid out. It is there ready to go to work for the Basin, but no, we don't want to put it in the Basin account. We want to authorize Hualapai. Why? Because this is the down payment on the Columbia River. Now that is clear to me."

"You should be ashamed of that statement," said Senator Kuchel, "because you and I are friends, and I hope that the difficulties that we face in this legislation we can overcome. I think the history of Hoover Dam and how it was built and who paid for it might indeed be a subject of discussion, but I would prefer to look forward rather than backward, and I prefer to try to bind up wounds rather than to stick a knife in people."

### Colorado Senator Critical, Too

Senator Allott was likewise unhappy about the administration's position. In particular he didn't like the deletion of three of the five Colorado projects. Secy. Udall explained that that was a "decision" made by the Bureau of the Budget—that the three projects in question were "so marginal" that further study was indicated.

Senator Allott also objected to what he termed an abandonment by the administration of an interbasin-development concept "in favor of a concept which gives immediate relief to one state"—Arizona.

A little later he brought up the Goss proposal to build Hualapai Dam with a capacity for more than 5 million kilowatts of power rather than 1.5 million, as originally proposed by the Bureau of Reclamation. (See page 57.) Secy. Udall said the "biggest question" about the Goss plan, as he saw it, was whether there was a market for the power. "To authorize it now," he said, "probably would be premature by several years. It might endanger the repayment of the intertie between Hoover Dam and the Pacific Northwest. We have none of the related intertie power sold at the present time."

Senator Allott asked Commissioner Dominy if the Goss plan was practical from an engineering point of view. The latter said yes, although he estimated the cost at \$793 million rather than the \$728 million figure given by Mr. Goss. "The difference is too nebulous to discuss in detail," said Mr. Dominy.

"It is not really much more nebulous than the power plant at Page at this point, is it?" asked Senator Allott.

"I am afraid, Senator," Secy. Udall put in, "I would have to take serious disagreement with you on that point. The Page plant would undoubtedly be very similar to the Mohave plant and the latest plant in New Mexico in the Four Corners area. We are far along in the negotiations. The Goss plan, to be quite candid about it, was pulled out of a hat a few months ago at the time of the House hearings, and has not been thoroughly studied by anyone. In my judgment it is not the type of study that the Bureau of Reclamation takes pride in presenting when it comes before a committee.

"In conformity with your remarks that we have got to be visionary in this matter," pursued Senator Allott, "don't you think that it deserves the same study that the Page plant would?"

"Indeed I do think it deserves study," replied Secy. Udall. "This, to me, adds weight to the argument that development of the Hualapai site itself should be deferred at this time and should be studied further, in order to determine at some point in the future, after the National Water Commission's report is in, what the future of that site should be."

Mr. Udall added that the Goss plan also would stir up much new controversy, with regard to both conservation policy and power policy. He explained that it proposed for the government to build the dam and the utilities to build the lines and "take the power off at the busbar."

"It seems more designed to stir up controversy than quiet it," Secy. Udall surmised.

"Mr. Secretary," responded Senator Allott, "... I have found that you cannot get into the water business without getting into controversy. And so I think we need to ask ourselves what is best for the development of this region, not Arizona. . ."

Senator Allott next went after Secy. Udall's figure of \$1 per acre-foot as the cost of producing water through weather modification. Wasn't that extremely speculative? he asked.

Secy. Udall said no. The technology was available, and if Congress continued to support it, a program could be put into operation by 1975 in the Colorado River watershed to produce a 10 to 20 per cent increase in runoff at a cost of 50 cents to \$1.50 per acre-foot.

### Second Dam Near Hualapai

Senator Jackson, in questioning Secy. Udall and his aides, brought out some additional information about the Goss proposal. It would require, not one, but two dams, the second located about 7½ miles below Hualapai Dam and designed for the peaking capacity on which the Goss plan was based. The river would fluctuate "very widely" below Hualapai, said Mr.

Dominy, "and you also would have to have the afterbay capacity to store water to pump back during the off-peak time." This in turn would entail extensive excavation between Hualapai and the lower dam and moving of the spoil into a canyon on each side of the river. Also the reservoir below Hualapai would fluctuate about 140 feet, requiring that the reservoir be closed to "boaters and other vistors" and leaving a white water mark on the canyon walls. This, agreed Mr. Dominy, would create "some real aesthetic problems."

Senator Moss, when his turn came, questioned Secy. Udall about his aversion to an interbasin diversion because of the political factors involved. The senator asked him if he didn't realize that there was already considerable diversion out of the "water-short" Colorado River. Secy. Udall replied that those were diversions in which the states themselves "have been wise enough to put the politics together." But he thought that an interbasin diversion such as that proposed from the Columbia to the Colorado would prove "politically untenable" unless it were taken from the mouth of the river or unless the Pacific Northwest became convinced that the water otherwise would be wasted. "I think once you have developed a plan and you can show that there are benefits for both regions, then you are in business," said Secy. Udall. "I have been involved enough as a middleman in this Northwest-Southwest thing to think that it may be possible to have an interregional diversion program. But I think you have got to tailor it so that there are benefits for both regions, and it is not just a picture of one region reaching out and saying, 'We want your water.'"

What did he think of the offer by 11 northern California counties to export water to the Colorado?

"I think this is the very sort of thing that should be studied. Any time we find a group anywhere (and this is the only one I know of at the moment) that is saying, 'Look, we have surplus water; come and get it,' I think we ought to study it."

"If this group voluntarily says that," said Senator Moss, "it doesn't appear that we have to go to the Columbia to get water right away, does it?"

"In terms of priorities," responded Secy. Udall, "I predict that the first thing that will be done to augment the Colorado River Basin . . . will be, No. 1, the cheapest and, No. 2, the least controversial. It certainly would be much less controversial to go to northern California, because southern California would benefit, than to go to the Columbia."

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#### **'Doesn't Make Sense,' Says Senator**

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Just before the first day's session ended, Senator Allott again reproached Secy. Udall for refusing even to "look at" the possibility of an interbasin diversion. "Not to explore it, to say

that we don't want the Hualapai because it points a gun at the Columbia River, to say . . . that we have got to wait for a nebulous commission to meet doesn't make sense," said the Colorado senator. "If we are to be bound and crippled in this way, we will never solve the problem of the Colorado."

Secy. Udall replied that his department was not taking a "passive attitude," nor was it urging a study that might stretch out as long as 20 years. But he did not think the Colorado River shortage was so critical that a solution could not be delayed for five years, and in that period he thought there would be significant developments in weather modification, desalinization and conservation. "I think we can make much more intelligent decisions, keyed to the long-term conservation interests of the country, five years from now than we can today," said the secretary.

The second day of the hearings—Wednesday, May 3—opened with testimony by Rupert Parker, chairman of the Hualapai Tribe, urging the construction of Hualapai Dam as "the only hope we Hualapais have for bringing a decent standard of living to our reservation." But if Congress chose not to build the dam, he hoped it would leave the tribesmen free to build it themselves under license from the Federal Power Commission. Their attorney, Royal D. Marks, Phoenix, said it was economically feasible, could be financed through the sale of bonds by a Hualapai Power Authority and would pay out in about 50 years. As to the aesthetic issues raised by the conservationists: "When it comes to a clearcut choice between opening up new opportunities for my people and saving the wilderness for a select few, the Hualapai Tribe has only one way to go, and that is toward the end of advancing our people," said Mr. Parker.

Dr. Spencer M. Smith, Jr., secretary of the Citizens Committee on Natural Resources, testified in support of either the Jackson or Hayden bills, primarily because neither involved the building of a dam. If there had to be one dam, he said, his group would prefer Bridge.

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### California Presents Its Case

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It was California's turn next. William R. Gianelli, director of the California State Department of Water Resources, appeared for Governor Reagan and Northcutt Ely, special assistant attorney general, for the Colorado River Board of California. Mr. Gianelli, in his formal statement, presented California's case for "optimum development of the Hualapai site" (presumably the Goss plan), a 4.4-million-acre-foot priority for California's "existing projects" and augmentation studies. He called the administration and Hayden bills "a long step backward from the regional approach" which Secy. Udall "initiated" in 1963. "The piecemeal approach now proposed by the secretary avoids the fundamental water problem facing the entire West," said Mr. Gianelli. "The administration's proposal would add mate-

rially to the burden of demand on the river without attempting to solve the basic problem of an insufficient supply in the Colorado. California urges the subcommittee to reject the administration's proposal and to continue to seek a regional solution to what is truly a regional problem."

Mr. Ely, in his formal statement, said California's position was that any bill authorizing a Central Arizona Project must recognize and implement eight principles:

1. Protection of existing projects (the 4.4 priority for California).
2. Timely and meaningful importation study.
3. Development fund.
4. Protection for states of origin.
5. Hualapai Dam.
6. A Hoover-Glen Canyon operations compromise, i.e., "balancing the operation of Lake Mead behind Hoover Dam and Lake Powell behind Glen Canyon Dam, so that the benefits of the wet years and the burdens of the droughts are equitably distributed between those Lower and Upper Basin reservoirs."
7. Recognition of the Mexican Treaty burden as a national obligation.
8. Authorization of Colorado's five projects.

Mr. Ely said the administration and Hayden bills failed to recognize the water shortage problem and thus were all "take" and no "give".

By way of reply to Mr. Ely's "position paper," Senator Hayden read a position paper of his own. It addressed itself to the question of the 4.4 priority, which, he said, Arizona was willing at one time to grant for 25 years but would not grant in perpetuity. "Our unwillingness . . . is neither an arbitrary nor an unreasonable position," he said. "An unconditional priority for California in perpetuity has the potential of placing on Arizona—and the other so-called inland states—the entire burden of augmenting the water supply of the Colorado River in preparation for the years of short supply in the Colorado River Basin."

Senator Hayden said Arizona had to look solely to the Colorado River system for its water needs while southern California could look not only to the Colorado River but northern California and the Pacific Ocean as well. Some day, he said, California might find those alternate sources less expensive and more adequate than a program to augment the Colorado. If that happened, "they would have little, if any, interest in aiding the inland states with the obviously difficult and expensive task of supplementing the water supply of the Colorado River." Assuming Arizona had guaranteed California her 4.4 million,

CAP's water supply "would be progressively curtailed" to provide such permanent supply "notwithstanding the fact that the people of the California coastal plain may have solved their water problems by looking to alternate sources." This, said Senator Hayden, would be inequitable and would in effect reverse the decision of the Supreme Court. "The basic question in the litigation arose from California's assertion that the prior appropriation doctrine should apply to the Colorado River, thus conferring a priority for existing California projects over the Central Arizona Project yet to be built in Arizona," he continued. "The Supreme Court clearly held that the law of prior appropriation does not apply to the waters of the Colorado River below Lee Ferry. . . The Congress should unequivocally reject this California proposal to legislate away Arizona's hard-fought, precious victory."

Senator Kuchel said it was true that Arizona agreed to a "reduced guarantee" of 25 years. But he said that would "accomplish nothing"—25 years would come and go "with no need for such a guarantee."

### Wyoming Wants Importation

Joseph L. Budd, assistant Colorado River commissioner for Wyoming, testified to his state's position, which essentially was this: Any bill that did not include a water importation study would be "giving away water that is not yours to give." "A major portion of the water available for the Central Arizona Project is water that rightfully belongs to Wyoming and Utah and which, without importation of additional water, we can never expect to use," said Mr. Budd. He admitted that his statement was "blunt." But "we don't get practice in finesse out in the country," he said.

Senator Fannin took issue with Mr. Budd's assertion that "a major portion" of the water for CAP belonged to Wyoming and Utah. That simply was not in accordance with the Santa Fe Compact, he said.

"Senator," replied Mr. Budd, "it is probably not fair to the committee that I am testifying first. Wyoming, I think, will produce figures that will pretty much substantiate my position."

Utah, represented by Jay R. Bingham, executive director of the Utah Water and Power Board, speaking for Gov. Calvin L. Rampton, agreed with Wyoming that water used for CAP would be presently unused water belonging to the Upper Basin. Therefore Utah's support of the CAP bill would be conditioned on inclusion of a high Hualapai Dam and an importation study. Moreover, if Arizona granted the 4.4 priority to California, the language of that concession must clearly stipulate that it was a waiver by Arizona only and not a giveaway of water belonging to the Upper basin.

### Big-Dam Power Salable: Goss

Mr. Bingham was followed by Floyd Goss, author of the controversial Goss plan for a 5,100,000-kilowatt Hualapai Dam and hydroelectric plant. Addressing himself to the question raised by Secy. Udall, namely, that the dam would produce more power than could be sold, Mr. Goss said he and his people believed the peaking power from Hualapai "can be absorbed by the market within six years after the plant goes into service, commencing, say, in 1976." Senator Jackson also questioned the salability of such a quantity of power, pointing out that thus far the full 1,300,000-kilowatt capacity of Bonneville Dam had not been sold. He said a line to carry the power was being built from The Dalles, Ore., to Hoover Dam, for the Northwest-Southwest intertie, to provide peaking capacity to the Southwest in the summer and in the Northwest in the winter. "The information I have," said Senator Jackson, "is that thus far neither the Bureau (of Reclamation) nor Bonneville Power (Authority) have signed any contracts for use of the 1,300,000-kilowatt capacity. The best information I have is that the line will not be fully-loaded until 1980."

Mr. Goss said he thought the reason was that "it costs too much." The cost of Hualapai power, by contrast, would be low enough "so that the market is there, and it will be salable," he contended.

Yet, countered Senator Jackson, there was a firm commitment for only 20 per cent of the peaking power, and that commitment was by Mr. Goss' agency, the Los Angeles Department of Water and Power. "If this is a real good project, why don't you have commitments from the other utilities?" he asked.

Mr. Goss said the Southern California Edison Co. was "very interested," and, in fact, "they said to me only the day before yesterday that if this project is authorized, they would expect to sit down with the Secretary (of the Interior) to try to work out satisfactory agreements for participation."

### Senator Sees No 'Hazard'

Senator Kuchel took up the questioning. He commended Mr. Goss and his department for their "vision" in planning to meet the power needs of the city of Los Angeles as much as 40 years ahead. And he noted that this presented utilities—both public and investor-owned—with an opportunity to "participate to an enormous extent in lessening the burden on the federal treasury." He also made the point that the Hualapai "super-dam" would not be undertaken until firm contracts were in hand for the sale of electricity, as was done with Hoover Dam. Thus the project would be "free of any hazard."

Senator Kuchel then elicited from Mr. Goss information to the effect that Secy. Udall had written a letter to Chairman



Aspinall of the House Interior Committee in which he questioned the project "on a number of points." But accompanying that letter, said Mr. Goss, was another from the Bureau of Reclamation declaring the big dam to be feasible both economically and from an engineering standpoint. Furthermore, said Mr. Goss, "they find that the market for this peaking power is slightly greater than I thought it was."

Senator Jackson brought out that this was an "analysis," not a "feasibility study." Senator Kuchel asked the chairman to request a feasibility report from the Bureau, but Senator Jackson said that would take legislation. Mr. Goss therefore suggested that the committee consider authorizing the project subject to a feasibility study and the negotiation of suitable contracts. "That would save a lot of time," he said helpfully, and Senator Kuchel agreed.

"I appreciate the modesty of your request," said Senator Jackson drily. "In other words, this big project is to be authorized conditionally. As you know, it is hard enough to get projects through which require a feasibility study. With all due respect, I now understand why Los Angeles is as big as it is!"

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#### **Arizona 'Interest' Claimed**

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In response to questioning by Senator Fannin, Mr. Goss said the Arizona Power Authority had sat in on meetings called to discuss the "super-dam."

"They evidently do not have much hope for this program, from what I have been informed about it," the senator commented.

"I can't answer to that, sir," said Mr. Goss. "They were very interested, and their comments to me would not indicate that they found any difficulties with the project."

Senator Fannin also suggested that the introduction of a new project into the Colorado River situation would cause delays, and "Arizona is starving for water, as you well know." But Mr. Goss said he did not think there would be any delay. In fact, he said, "I would think that probably this is the way in which a basin project bill can be best expedited."

And what about the opposition of the conservationists, or "the so-called conservationists"? asked Senator Fannin. Mr. Goss replied that a "reach of the river" would be opened up for recreation "to literally hundreds of thousands of people," and he did not believe the conservationists would oppose it. The pumping forebay would be closed to recreation, he admitted, "and people would have to be—for their own safety—excluded from it." But that stretch was already "quite inaccessible" except by "a very special kind of boat," he said, and it carried "a lot of debris."

## New Mexico Sides with Arizona

On the third day of the hearings—Thursday, May 4—Mrs. Ruth Weiner testified for the Colorado Open Space Coordinating Council, which she said represented 19,000 Colorado conservationists. They opposed both dams, she told the subcommittee, and also the five Colorado projects and Hooker Dam. They supported a "bare-bones" CAP but only in conjunction with legislation to make all the remaining free river in the Grand Canyon—278 miles of it—into a national park.

U.S. Sen. Joseph M. Montoya (D-N. Mex.) laid the groundwork for New Mexico's indorsement of CAP and its request once again for inclusion of Hooker Dam on the Gila, which he said had "a long and tedious legislative history." "Water resources development as provided for in the Central Arizona Project represents an important investment in the future of the Southwest states and I urge your favorable consideration of authorizing legislation," he said.

He was followed by S. E. Reynolds, secretary of the New Mexico Interstate Stream Commission, who said his state would accept an increase of only 18,000 acre-feet of consumptive use if Congress found it necessary to exclude a Northwest import study. But if such a study were included, New Mexico wanted 30,000 more acre-feet or the full 48,000 a.f. "contemplated by the Arizona-New Mexico agreement."

Mr. Reynolds said New Mexico also supported the Animas-La Plata project, which would irrigate some lands in New Mexico and supply water for several of its communities.

Senator Kuchel exacted from Mr. Reynolds an admission that New Mexico had favored augmentation and the dams the year before but backed away from them now because of the "controversies" they engendered. "I think it is most important that we not stop all progress until those controversies have been resolved," said Mr. Reynolds. "And it does appear that we could proceed with the Central Arizona Project without necessarily resolving those controversies."

"Don't we have to be realistic and say there is always going to be opposition?" asked Senator Kuchel.

"Yes, I think there probably will be," agreed Mr. Reynolds.

Alvin Franks, Silver City, N. Mex., president of the Hooker Dam Association, testified in support of that project and F. F. Montoya, La Plata, N. Mex., chairman of the La Plata Conservancy District, indorsed the Animas-La Plata Project.

It was Wyoming's turn. Her spokesman was State Engineer Floyd A. Bishop, appearing in behalf of Governor Hathaway. He said Wyoming would oppose CAP legislation unless it contained provision for importing enough water into the Colorado to meet the Mexican Treaty obligation plus a study of further range augmentation plus the two dams to pay for all of it.

Without such safeguards, said Mr. Bishop, the legislation posed "a serious jeopardy to Wyoming's future."

### Sierrans Ask Larger Park Area

David Brower of the Sierra Club came before the committee and once again put the club on record as opposed to the dams. The group's objective, he said, was to bring the entire Grand Canyon within the national park system. The Sierrans therefore indorsed the administration bill for an upstream extension to Lee Ferry to include Marble Gorge. They also supported a downstream extension to Grand Wash Cliffs which would include Bridge Canyon. (A bill was introduced in the Senate that day by Sen. Clifford Case (R-N. J.) to bring the entire 280-mile-long Grand Canyon within the national park system. His objective, he told the Senate, was to protect the whole canyon from commercial exploitation. "Its highest and best use," he said, "is to keep it as it is—undammed, undemeaned and undiminished . . . Until all of the canyon is reliably protected, all of it will remain in jeopardy.")

Mr. Brower said the Sierra Club favored the administration's proposal for prepayment for power to be generated by a thermal plant. It was, he said, "an imaginative approach."

Noting that the administration had reversed its position on the dams, Senator Kuchel observed that the Sierra Club "has a little muscle." Senator Allott went after the club's support of a thermal plant, commenting a bit sarcastically, "You wouldn't think of desecrating the beautiful desert of northeastern Arizona with strip mining, would you?" Mr. Brower replied that it was the "lesser of two evils" and that in any case that desert was not a "world-famous desert in the sense that the Grand Canyon is a world-famous canyon."

Brower and a colleague, Jeffrey Ingram, Albuquerque, Southwest representative of the Sierra Club, submitted a proposal to help finance CAP with money borrowed from Hoover, Parker and Davis Dam revenues after they paid out. Hoover would pay out in 1991, he said, and Parker and Davis in 2004. By the year 2047, testified Mr. Ingram, a Basin development fund containing revenues from those three dams would have in it "something like \$1.1 or \$1.2 billion as compared with \$2 billion if Hualapai were built." Added to it, he said, would be money from the pre-paid thermal plant. He explained that the amount of water being pumped in the Central Arizona Project would decline, and power which the government already had bought would be available for commercial sale.

Senator Kuchel suggested that the Sierra Club proposal be analyzed "very carefully" by the staff of the Senate Interior Committee.

The California senator also asked Mr. Brower about a conflict in points of view as between the Sierra Club, which

opposed both dams, and another conservation group, the National Wildlife Federation, which supported Hualapai but not Marble. Mr. Brower replied that he thought "most of the national conservation organizations" would disagree with the stand of the Wildlife Federation.

"Is the National Wildlife Federation in your opinion a respected conservation group?" asked Senator Kuchel.

"The situation here," replied Mr. Brower, "is like asking a Senator if his colleague is respected. We work together a great deal and we respect each other, and we sometimes must disagree, and this is one place where we must."

There followed a lengthy and acrimonious colloquy between Senator Allott and Mr. Brower, culminating with a statement by the senator that, because of information put out by the club, people were led "to believe that the entire Grand Canyon was going to be filled with water."

"They were not led, sir, by us to that conclusion," retorted Mr. Brower. "I think they were led to that conclusion by the constant and repeated denial of statements we never made."

"They constantly quoted Sierra Club material and I can only judge by that," Senator Allott shot back.

#### **Nevada Asks Augmentation**

A statement by Gov. Paul Laxalt of Nevada was placed in the record by Sen. Alan Bible (D-Nev.). It favored augmentation studies and Hualapai Dam, the latter with a provision for studies to determine the justification for a storage peaking plant (the Goss plan).

Gov. John A. Love of Colorado appeared in behalf of his state and went on record as opposing CAP unless the legislation included:

1. "Continuing water resource development" in the Upper Basin.
2. An "immediate start" toward augmentation.
3. Operation of Glen Canyon Reservoir so as not to impair Upper Basin water uses.
4. Reimbursement to Upper Basin states for money spent from the Upper Basin fund to compensate for "computer power deficiencies" at Hoover Dam.

Governor Love said Colorado agreed to elimination of Marble Canyon Dam "in an attempt to compromise with conflicting views." But it had to insist on Hualapai.

Inclusion of the five Colorado projects "would perhaps" lessen his state's opposition, he said in reply to questioning by Senator Anderson. But it still would insist on the four "approaches" which he had enumerated.

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### A Blast by Ed Johnson

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Following Governor Love came Colorado's former governor and U.S. senator, Ed C. Johnson, member of the Upper Colorado River Commission for the state of Colorado. He delivered a bristling statement that charged Arizona's three House members with fostering a "lousy and facetious scheme" to build the CAP "on disappearing water." Their bill, he said, would take water which otherwise ultimately would belong to the Upper Basin. Having omitted any provision for interbasin transfer, said Mr. Johnson, the three congressmen proposed to build CAP on the basis of "flimsy feasibility." "That type of high finance in the business world would mean the jailhouse," he averred.

The Coloradan acknowledged that Arizona, like his own state, was "thirsty." Indeed, he said, both states "are threatened now with an internal water crisis." But both were going after the same water, "and I am convinced that unless both these states, who are big, see big and act big and work closely together in this great crisis, both will succumb to dismal failure."

Mr. Johnson was critical of Secretary Udall. He said there were more than a dozen proposals in Congress to bring water to the Southwestern desert, "but the administration, misrepresented as it is (and that is my opinion only) by the present Secretary of the Interior, declines to look beyond the bankrupt Upper Colorado River for the precious water we must have. Actually there is an abundance of unused water in this Western region, but most unfortunately there is also a total dearth of reasonableness, good will and cooperation with respect to surplus water. The wicked dog-in-the-manger policy sits at the throttle in Washington, D. C., like a child at play. . . The Columbia River is dumping over 100 million acre-feet of water annually in the Pacific Ocean. Northern California, with a reported 5 million acre-feet of surplus, has not been asked by the administration to surrender its surplus nuisance water." (By "nuisance" he meant flood water, explained Mr. Johnson.)

The Coloradan described the situation as "unique and pitiful" and said it must "come to an end." He added: "The deserts of the Southwest ask for only 7 per cent of the Northwest's waste water, but Secretary Udall would even deny them the privilege of an engineering study to determine the feasibility and the out-of-pocket cost of such a diversion."

Mr. Johnson objected likewise to the fact that the Mexican Treaty obligation was being borne solely by the seven Basin states when, he said, it should be the burden of all 50.

He contended that Arizona misread the Supreme Court's 1963 decree when it claimed an entitlement of 2.8 million acre-feet per year. That amount was apportioned to Arizona, he said, only if there was 7.5 million acre-feet of water available to the Lower Basin. And it would not be available when the Upper

Basin consumed all the water apportioned to it under the Santa Fe Compact. "I am convinced beyond any question," said Mr. Johnson, "that if Congress would employ an impartial, non-biased group of competent, highly-rated engineers and assign them to make a study of the supply of water in the Colorado River, they would (conclude) that there is not enough water available to operate the Central Arizona Project." What the committee and Congress itself should be doing, he added, was "increase that water until there is enough to operate" the Arizona project.

"I am not opposed to central Arizona," Mr. Johnson concluded. "What I oppose is the failure to provide any water for central Arizona. With apologies to the three congressmen, I think such a policy is cowardly and dishonest."

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### **Northwest Has 'Misgivings'**

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Senator Jackson complimented Mr. Johnson on his "forthright statement," but he said the Northwest had "serious misgivings" about an interbasin transfer. "For example, they started out to ask for just a tiny bit—2.5 million acre-feet," he said. "(But) after they got to decorating the Christmas tree over in the House, they were up to a little over 30 million acre-feet. This is one of the problems."

Senator Jackson said the Northwest also wanted the diversion study made by an "objective jury" in the form of a National Water Commission. What it feared, he said, was "a directed verdict." "Frankly this study could have been on the way a long time ago if so many people didn't find so many spooks in the National Water Commission," added the senator.

Senator Allott commented a few minutes later that he had introduced an amendment to the National Water Commission bill to give first priority to a study of the Colorado River Basin. He said Senator Jackson "was among those who voted against the inclusion of that amendment."

Senator Fannin remarked, just before Mr. Johnson left the witness table, that he was pleased "with part of your statement" but "concerned about the other part." And he agreed with the Colorado witness that the Mexican Treaty burden should be a "national obligation."

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### **3 Arizonans Oppose Dams**

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Mr. Johnson was followed by several other Colorado witnesses supporting the various Colorado projects which had been contained in the 1966 legislation. Then came the first of three Arizonans opposing the dams. He was Dr. Paul S. Martin, associate professor of geochronology at the University of Arizona and chairman of the Grand Canyon Study Committee of the Arizona Academy of Sciences. He told of the Academy's opposition to

the dams, which, it contended, would cause four types of damage to the canyon. It would (1) obliterate a few small prehistoric archeological sites; (2) seriously disrupt and perhaps extinguish a small, poorly known, presumably highly endemic fast water aquatic fauna; (3) drown extensive parts of the natural river terrace and riparian vegetation, the smallest and most vulnerable of the canyon vegetation zones, and (4) inundate significant Precambrian outcrops, lava dam remnants, travertine springs, dry caves and rock shelters likely to contain mummified plant and animal remains of interest to the Pleistocene studies of both the river and the present vegetation zones.

"There is no adequate, up-to-date biological or geological survey of this region," said Dr. Martin. "For this reason, it is not possible to anticipate the ecological and geological consequences of impoundment, much less to know just how serious would be the damage to the Grand Canyon as a natural laboratory. Pending results of a careful survey, essential to any scientific evaluation of the effect of impoundment, we recommend a moratorium on dam construction."

Dr. Martin added that he came to Washington to testify at his own expense.

#### An 'Urban Eastern' Point of View

Gary A. Soucie, assistant to the executive director of the Sierra Club of New York City, presented what he termed a "minority point of view"—that of the urban East. That part of the country, he said, was reaping the "melancholy harvest" of a past in which "the conservation ethic played too minor a role." Its air was unfit to breathe, its waters unfit to drink and "our elbow room (is) limited to the proximity of our neighbor's ribcage." "Perhaps because we have so little left," said Mr. Soucie, "we are beginning to understand the value of each little open spot of green amid the asphalt and steel."

So, he said, it was not surprising that the Sierra Club's Grand Canyon ads in the *New York Times* and *Washington Post* brought a response. Typical Eastern reaction to the proposal to put dams in the canyon to finance an Arizona water project, said Mr. Soucie, was "a mixture of disbelief, outrage and anger—disbelief that anyone could seriously make such a proposal, outrage over the preposterousness of the idea and finally outright anger that one or two or even seven states think they have a special right to spoil one of the greatest natural and scenic resources in the country and indeed in the world."

Mr. Soucie said the Sierra Club was fighting "the good fight" on Eastern "fronts"—to prevent a pumped-storage plant in the Hudson Gorge, to preserve New Jersey's Great Swamp as wilderness, and so forth. But the "Big One" was the threat to the Grand Canyon. Americans everywhere, he said, "don't want that one dammed—for water or for power or for revenue or for anything else. After all, it's our Grand Canyon, too."

The New Yorker admitted that most Easterners—he included—had never seen the Grand Canyon. "But we know it and value it in the same way we cherish so many other things we haven't seen: the Mona Lisa, the Matterhorn, the North Cascades, the redwoods of California or the Sistine Chapel."

Easterners appreciated the water problems of Arizona and the Southwest, said Mr. Soucie. But "we don't think things have come to a point where the Grand Canyon must be sacrificed, especially when the impounded water would be used, not to slake the thirst of Arizona's hoped-for millions, but to satisfy an outmoded formula for financing reclamation."

#### **Arizonan Backs California 4.4 Plea**

The second Arizona witness against the dams was Carl Chafin, chairman of the Grand Canyon subcommittee of Tucson's Sierra Club. He said the two dams would not flood the canyon but would make access difficult to some of the most beautiful spots and flood side canyons "where much of the hiking now takes place." He said he was aware that the Goss plan would triple the power output of Hualapai Dam. But the "true significance" of the Goss plan, he said, was the use of its technology to triple the output of Hoover and Glen Canyon Dams and thus make it unnecessary ever to build Hualapai. "Surely," said Mr. Chafin, "existing structures can be modified or converted more cheaply than a new dam can be constructed."

The witness also supported California on the 4.4 issue. He considered it "water statesmanship" for Northcutt Ely to offer Arizona "the hand of friendship," proposing that California receive the 4.4 guarantee in exchange for "shortage sharing."

"I think this proposal should be seriously considered," said Mr. Chafin. "In the past Arizona has always held out for all or nothing and ended up with nothing. I think it is time we took a realistic look at the water available in the river—at what California is actually using now. . . We have somehow got to solve this problem (of) the Colorado River Basin."

Senator Fannin angrily accused Mr. Chafin of being willing to "sacrifice" Tucson and Pima county. The witness replied that with only 600,000 or 700,000 acre-feet from the Central Arizona Project, the cities "would have a supply against a rainy day, or perhaps I should say the lack of a rainy day."

"I certainly do not think that you are a loyal Tucsonian or Arizonian to come back and make this statement as you have in support of a 4.4 priority to California," snapped Senator Fannin.

"That is entirely your opinion, sir," was the witness' rejoinder.

Paul Hamilton, field secretary of the Columbia Basin Commission of the state of Washington, made a statement in behalf



of that state's governor, Daniel J. Evans. He said Washington opposed any legislation that "would condition the creation . . . or scope of study" by a national water commission to "any specific project." Therefore it opposed bills for Colorado River development which included a national water commission and favored only the separate water commission legislation passed earlier in the session by the Senate. This, he said, "provides the means to supply answers to many questions and give needed direction and impetus" to the solution of various water problems. Also, he said, it would be "less susceptible (to) agency influence," meaning presumably the Bureau of Reclamation.

### **Engineer Sees Low Benefit-Cost Ratio**

Laurence I. Moss, nuclear engineer employed by Atomics International, a division of North American Aviation, testified as a private citizen in opposition to Hualapai Dam on the grounds that it was not economically justified. He submitted elaborate figures to establish that it had a benefit-cost ratio of substantially less than 1 to 1. The Los Angeles Department of Water and Power, he said, had not presented sufficient data for a careful study of the Goss proposal, which, he added, also presented political problems. "There is at present an uneasy peace," said Mr. Moss. "Investor-owned utilities do not oppose federal hydro projects, and the Department of the Interior provides needed cooling water, transmission line rights-of way and access to coal deposits on Indian lands. A federal move into pumped storage, which is not physically limited by river flow, might cause considerable controversy. It would appear to be significant that not a single investor-owned utility has yet joined the LADWP in advocating the Goss proposal."

Senator Allott elicited information from Mr. Moss that he was a member of the Sierra Club and had discussed his testimony with Sierra Club members. Did he pay his own way to Washington? asked the Senator. "I used my credit card," said Mr. Moss, adding, "I know that if I ask the Sierra Club to pay for my travel expenses, they would pay it. I have not yet decided whether to ask."

Senator Jackson said he couldn't see the "relevance" of such questioning, to which Senator Allott replied, "It has a lot of relevance and I am sure that the chairman recognizes it as well as anybody else."

"But I haven't gone around and asked whether some of these people have talked to utility executives or others," said Senator Jackson.

Senator Fannin then asked if Mr. Moss' expenses were paid when he testified in House hearings on the Colorado River in 1966 or 1967. The witness said they were paid in 1967. "In 1966 I obtained my own airline ticket," he explained, "but then I found out later that one had been obtained for me, so I accepted

the ticket obtained by the Sierra Club and gave them a \$300 donation to help cover that cost."

Senator Jackson demanded that every witness be asked to tell who paid his expenses. "We have never gone into these things before," he said. "I make that request. I think it is a reasonable one."

"Mr. Chairman," responded Senator Allott, "I have no objections to this but I want to make the record clear. This young man is very obviously unqualified to make such broad sweeping conclusions about matters which affect such a great area of the country. . . I felt from his testimony that he was not impelled just by the statement that he made and that he had other reasons. I inquired about these things. I think they are wholly pertinent. I hope one of these days we will have an opportunity to inquire about the Sierra Club and its lobbying activities which have become so great in this country."

Senator Kuchel asked that Mr. Moss' testimony be made available to the Bureau of Reclamation and Mr. Goss of LAWRD, to give each an opportunity for rebuttal. The Bureau submitted such a rebuttal, which was placed in the record. It contended that Mr. Moss' testimony contained errors, unsupported statements and "glaring inconsistencies."

#### Oregon Against Augmentation, Too

John D. Davis, member of the Oregon State Water Resources Board, appeared in behalf of Oregon's governor, Tom McCall, and joined other Northwesterners in opposing any plans for augmenting the Colorado River with Columbia River water. He said such talk was premature and told the subcommittee that Oregon was making a study of its future requirements, as were Idaho and Washington. Montana had appropriated funds for a similar study. Such studies should be completed, he said, before any consideration was given to exporting water from the Columbia Basin.

Mr. Davis contended that the Western states should use their water more efficiently before thinking of taking water from the Northwest. "We commend the Secretary of the Interior and water users in the Southwest for their efforts to date to achieve reductions in losses from evaporation, phreatophytes and inefficient transmission," said Mr. Davis. "We hope Congress will look favorably on proposals to expand research and accelerate programs to further reduce water losses."

Senator Kuchel observed that the power intertie worked well—that Northwest and Southwest were able to get together on that, resulting in "a good deal of benefit" to the entire Pacific coast. Mightn't they do likewise with water? But Mr. Davis said the two were not comparable, that power ran both ways and could be switched off when it wasn't needed while water, once it started flowing, could never be cut off. "I don't

think you can ever establish rights in the states of origin which would permit that," he said. "This would be contrary to any good national policy to treat people in this fashion."

Senator Allott came into the discussion, commenting that "Arizona does need the Central Arizona Project." "If we take the position you have taken," he said, "we are not even going to be permitted to study (an interbasin transfer) for the purpose of finding out two or three or five years down the line whether or not it is feasible. It seems to me that no one can support the position of saying, well, you just don't even have a right to take a look at it. And that is all we are asking for."

Stephen Raushenbush, consulting economist to the National Parks Association, indorsed CAP without the dams and urged passage of the park enlargement bill so the Grand Canyon controversy would not "explode into flames once again." He also opposed Hooker Dam as an intrusion on "the Gila wilderness" and supported the separate National Water Commission legislation.

### Tucson Doctor Objects to Dams

The third of three Arizona witnesses opposing the dams was Dr. Robert D. Rawson, a Tucson surgeon representing Arizonans for Water Without Waste. He supported the Hayden-Fannin-administration approach to CAP and a national water commission not "dominated by agencies responsible for construction of water works nor by the direct beneficiaries of these works."

Under questioning from Senator Fannin, Dr. Rawson said his was a "young organization," formed the previous fall. Meetings in private homes attracted "up to 30 people," he said, although AWWW has had "several public meetings, advertised by word of mouth, where up to 60 have appeared." And "we have a mailing list of people we feel are interested in our opinions, which is over a thousand at this time."

"But when you say you are speaking for this group, then you are not necessarily representing them as far as their voice is concerned, because they do not have a voice, do they?" asked Senator Fannin.

"I feel I represent a considerable body of informed Arizona opinion on this subject," said Dr. Rawson. "I cannot give you a numerical figure."

"In other words, you do not have meetings, you do not pass resolutions, you do not carry on business. It is just an ad hoc group," continued Senator Fannin.

"I think this describes it," said Dr. Rawson. "I make no apology for this, and I must emphasize that we come here to support your position in this matter."

Subsequently there was introduced into the record a letter to Senator Anderson, chairman of the subcommittee, from Juel Rodack, chairman of AWWW, describing its membership. He said the organization was only eight months old and, starting with a "handful of dedicated and loyal Arizonans," had grown to a point "where our following is fairly impressive." "Having no formal membership, it is hard to estimate the exact size of this following," wrote Mr. Rodack. But he pointed out that a petition opposing the dams had collected more than 600 signatures before it was abandoned at the time that the 1966 Colorado River development bill died. Expenses to send witnesses to both the House and Senate hearings were met in full by "some 242 Arizonans" living in 22 different communities, said Mr. Rodack.

Senator Fannin then introduced documents containing rebuttals of the attack on CAP by Drs. Young and Martin of the University of Arizona. (See page 60.) Following came the final witness, Stewart M. Brandborg, executive director of the Wilderness Society, with headquarters in Washington. He supported CAP without the Colorado River dams or Hooker Dam but with an alternate to Hooker Dam at the "Connor site" 26 miles downstream from Hooker. Conner Dam, he said, would provide flood control and downstream irrigation without intruding upon the Gila Wilderness Area.

#### **Senator Hayden Hopeful**

With that the hearings ended. Shortly afterward Senator Hayden issued a statement in which he said the four-day session "produced some very interesting testimony . . . but nothing really new or startling." "New Mexico stayed with Arizona all the way and we appreciate their support," said the senator. "Some of the other Basin states have stated their problems in connection with Central Arizona Project authorization, but none of them are so great as to be impossible of solution, in my opinion." Senator Hayden expressed appreciation to Subcommittee Chairman Anderson and Committee Chairman Jackson and said he was hopeful of passing CAP before the close of the session.

If the senator's optimism was confined to prospects for passage of the "bare-bones" CAP bill in the Senate alone, it probably was justified. But there was little optimism generally insofar as the long-range prospects for the project were concerned. Bill Werley of the *Phoenix Gazette* said bluntly in an article that it was time Arizona "called a spade a spade." If it did, he said, it would have to face up to the very real possibility that it might never get CAP, "either as a federal or a state project. Alternatives should already be in the works—if not an aqueduct, then how about a pipeline? How could it be constructed, and how much would it cost? Arizona is gambling its entire future on water; it should at least shuffle the deck every now and then."

The *Tucson Daily Citizen* was pessimistic, too. "That Colorado River water looks farther away from Tucson than ever," said a *Citizen* editorial. It conceded that Senator Hayden used "irrefutable logic" in arguing against the 4.4 guarantee to California, "but his decision to speak out at all came a session too late."

With the abandonment of a regional approach, there was "open warfare" over the Colorado River, said the *Citizen*, and that "virtually eliminates any federal action, even on a one-state project." Arizona might thus have to face up to the fact that a "state-financed program" was the only course left. (That such a course could be expensive was acknowledged a few days later by another Tucsonan, Evo DeConcini, member of the Arizona Interstate Stream Commission. He appeared before the Pima County Board of Supervisors to request a \$10,000 county fund for support of efforts to obtain a federally-financed CAP. "Getting federal assistance . . . is obviously better and cheaper," said Mr. DeConcini, pointing out that a state-financed CAP would cost Arizona taxpayers between \$10 and \$32 million a year for 50 years.)

In Washington, Secretary Udall let it be known that he still had hopes for federal action and thought Congress would act affirmatively either in 1967 or 1968. He said CAP was of prime concern to the Interior Department and that the elements for compromise were present, although he didn't spell out how such a compromise might come about.

### California Stands Pat

From Los Angeles came word that the Colorado River Board of that state had voted unanimously to oppose the administration-Hayden-Fannin CAP bill. It would stand pat, it said, for the Kuchel bill, with a "super-dam" at Bridge Canyon, an augmentation study and protection for the Metropolitan Water District aqueduct. "Construction of the Central Arizona Project," said the board's resolution, "will in time result in water shortages for existing projects."

In his constituency newsletter, Congressman Rhodes reported in May that CAP legislation was somewhat ahead of where it had been at the same time the previous year. But there was a considerable distance yet to go. The "bones in the throat" remaining, said Mr. Rhodes, were the 4.4 California priority and Bridge Canyon Dam. The fight over the priority was mainly between Arizona and California, but "other states have chosen up sides—apparently as part of the deals they have made with each other." If the CAP bill could get to the floor of the House, it would pass overwhelmingly, the congressman said. But "the gates to legislative action are manned by such interested personages as Representative Wayne Aspinall and Senator Henry Jackson," he reported. And two of the 15 House Rules Committee members were from California. So the road was closed at the

moment. The Arizona delegation, said Congressman Rhodes, was "becoming more and more convinced that much further delay in authorizing this project would be so unconscionable as to require a complete reappraisal of our relationship with our sister states of the West."

On June 1 Chairman Aspinall announced that the National Water Commission bill passed by the Senate would be considered separately by the House Irrigation Subcommittee instead of being tied into the CAP bill. Mr. Aspinall said he could see no reason to hold up the commission legislation any longer. "We have already lost 18 months," he said. "If we continue to tie it to Colorado River development, we could lose another 18 months, or a large portion of the five years estimated to be required for the commission's study of the nation's water problems."

A week later the subcommittee approved the bill. It was a victory for the Pacific Northwest, and Congressman Foley of Washington said it offered hope of breaking a "logjam of dispute" over the CAP bill. The action also meant, of course, that the Northwesterners would look more kindly on the Colorado River legislation.

The subcommittee amended the bill in two particulars—to delete a requirement for Senate confirmation of the seven members of the commission and require any interim reports to go to Congress as well as to the President.

On June 14 the parent committee reported out the National Water Commission bill, having rejected by a vote of 12-5 a motion to make four of the seven commissioners members of Congress. Congressman Edmondson of Oklahoma proposed the amendment and Congressman Steiger of Arizona supported it, arguing that the commission was a "political animal" and therefore it would be "politically realistic" to have congressmen on it. Congressman Foley opposed the amendment. He said congressmen were committed to regional interests and their presence on the commission would weaken its reputation for objectivity. "If the commission reports back in five years in favor of transferring water from the Pacific Northwest to the Southwest—and that's a very real possibility—I don't think (Northwestern) congressmen should be in a position to cast aspersions on the decisions," said Representative Foley. Mr. Aspinall and Mr. Saylor joined in opposing the Edmondson amendment.

#### Sen. Jackson Hails 'Progress'

The logjam did indeed seem to have been broken. On the day that the House Interior Committee reported out the water commission bill, Senator Jackson announced that "good progress" was being made with the CAP bill in his committee and he thought it had "a better chance of passing this year than ever before." He anticipated that it would be ready for Senate action late in June or "at the latest" after the July 4 recess.

On June 20 Ben Avery of the *Arizona Republic* reported from Washington that Arizona was "dangling between the proverbial rock and hard place." On the one hand was Congressman Aspinall with his insistence on a dam at Bridge Canyon ("until we have the Northwest's agreement on a dam, my people will have no protection"). On the other was Senator Jackson, who, with his Northwestern colleagues, was, in Mr. Avery's words, "fighting any proposal that would provide money, even in the far distant future, for studying the feasibility of transferring water from the Columbia to the Colorado." That, of course, meant the dam at Bridge.

The Senate Interior Committee was ready to start "marking up" the CAP bill, but the censure debate involving Sen. Thomas J. Dodd (D-Conn.) delayed it. When the Dodd matter was disposed of, the CAP bill would begin to move, and this is how the CAPA's office in Washington thought things would shape up, as reported by the Associated Press: "The House Interior Committee, waiting to see what the Senate committee will do, probably will approve a bill which will provide for construction of the giant Hualapai Dam in Arizona and five smaller dams in Colorado. The Senate committee likely will approve a bill without these dams but with authorization for a giant steam plant to generate electricity for pumping Colorado River water into the proposed new canals and aqueducts. The real fight would come in a Senate-House conference to work out differences in the conflicting bills, presuming they are passed."

### An Ultimatum from Rep. Udall

On June 23 Congressman Udall got something off his chest. It was in essence an ultimatum that Arizona's congressional delegation would oppose authorization of new California projects until CAP was approved.

The ultimatum was issued during a meeting of the House Interior Subcommittee on Irrigation and Reclamation, which had under consideration a proposed \$92.3-million San Felipe addition to California's Central Valley Project. Its sponsor was Rep. Burt I. Talcott (R-Calif.), and as he testified in its support, Congressman Udall asked if he thought it was fair for his bill to be taken up while the CAP bill languished. Congressman Talcott replied that the committee set the schedule and he was merely adhering to it. Mr. Udall said angrily that while Arizonans had supported reclamation projects in other states on their merits, "we are told we have to slay dragons, move mountains, build controversial dams and solve the problems of the whole West for 50 years to get our project." He said he considered the San Felipe project a good one, needed in the San Francisco Bay area, but "the most desperate need in the whole West is in central Arizona." The same California congressmen plumping for the San Felipe project, noted Mr. Udall, were obstructing CAP. "We've reached the place," he said, "where John Rhodes and Sam Steiger and I can no longer go home and

defend our votes in favor of California projects. . . First things ought to be first." He said he was particularly angry at seeing an editorial in the *Los Angeles Times* criticizing Arizona for attempting to build CAP with "other people's water." "If there is a state that ought not make such a statement as that, it is California," continued Mr. Udall. "She's been using water for years that belongs to Arizona."

Congressman Hosmer observed that Mr. Udall sounded like the Egyptian president, Gamal Nasser, before he closed the Gulf of Aqaba, which struck the spark for the six-day Israel-Arab war in 1967. Did Mr. Udall's statement constitute "a declaration of war or a preemptive strike?" asked Mr. Hosmer. Congressman Udall replied that Arizonans "feel like the Jews, surrounded on all sides, and everyone nibbles away at us."

One reason for the CAP delay, Mr. Hosmer said, was that agreements reached among representatives of the various states had never been entered into by Arizona's two senators.

Congressman Johnson of California, chairman of the subcommittee, said he was sorry he had let Mr. Udall start his statement. "I made the sad mistake of letting it get into the record," he lamented. Congressman Steiger insisted it was germane, but Mr. Johnson insisted that it related to the San Felipe project only in "serving notice that nothing will happen in California except over his dead body."

### An 'Unfortunate Cutback'

The subject of CAP came up before another House subcommittee at about the same time. It was the House Public Works Appropriations Subcommittee, which had under study the financial requests of the Bureau of Reclamation. Commissioner Dominy testified under questioning from Congressman Rhodes that a \$700,000 item for continued planning for CAP was \$265,000 short of enough to keep the planning staff intact and get the project ready for construction. It was an "unfortunate cutback," said Mr. Dominy, "but the circumstances of a tight project plus a failure of authorization (of CAP) led to a budget of this order."

With the Dodd censure matter disposed of, the Senate Interior Committee in late June went to work on the CAP bill. Its first two major decisions were:

- (1) To provide for a Lower Basin account to receive income from Parker, Davis and Hoover dams after their payout and also to receive post-payout revenues from CAP itself and from the Northwest-Southwest power intertie after 2050.
- (2) To lock up the Hualapai damsite with a no-limit moratorium on FPC licensing between Lake Mead and Grand Canyon National Park.



Senator Fannin said that with the projected Basin account, Arizona would lack only \$76 million of paying out CAP from its own operation plus Arizona's share of hydro dam revenues after 1987, the Hoover payout year. With an expected \$100 million coming to Arizona after 2050 as its share of intertie revenue, the \$76 million CAP deficit would be more than covered. Thus there would be no need for an ad valorem tax in Maricopa, Pima and Pinal counties. The tax authority remained in the bill, however, Senator Fannin explaining that he and Senator Hayden decided not to submit an amendment to delete it because the Basin account provision rendered it moot.

The Basin account amendment was adopted by a vote of 14-3. The three dissenting votes were cast by Senators Kuchel, Allott and Hansen.

A third amendment was adopted to provide that the size of the Hooker Dam project would not affect the pledge of 18,000 acre-feet of CAP water to New Mexico.

### Kuchel Amendments Beaten

A few days later the committee went back to work on the bill, voting down three crippling amendments by Senator Kuchel. One would have struck out the proviso for federal prepayment for steam-generated power. In its place would have gone a provision authorizing the Secretary of the Interior to buy electricity from non-federal suppliers. Senator Hayden said the Kuchel amendment would essentially "gut" the bill since it would increase costs enormously.

The second Kuchel amendment rejected by the committee would have limited the size of the CAP aqueduct to 2,500 cubic feet per second instead of 3,000 feet. The third amendment would have imposed a narrow limitation on acreage to be brought under cultivation with CAP water.

The committee also rejected an amendment allowing a majority of the governors of Lower Basin states and the Upper Colorado River Basin Commission to veto operating criteria for CAP.

One Kuchel amendment went through. It prohibited delivery of CAP water for crops that were in surplus. And Senator Allott won approval of an amendment requiring that Colorado River water used by the proposed steam plant at Page be charged to Arizona's allocation.

The next day Senator Kuchel tried to limit the cost of the project to \$278 million, a figure based on 1963 costs. But Senators Hayden and Fannin proposed that the limit be set at \$768 million, and the committee sided with them. Senators Kuchel and Allott submitted two more amendments which likewise failed. One would have required the Secretary of the Interior to have in hand contracts for CAP water before starting construction. The other would have limited to 50 years the time

for which the secretary could make a water contract with CAP users.

Senator Allott emerged from that day's committee session to denounce what he called the "ruthless tactics" of some of his colleagues. He said the Democrats on the committee "reportedly" were prepared to "offer us an obvious sop" in the form of two Colorado projects—Animas-La Plata and Dolores. But he said he and Senator Kuchel would support the bill only if it contained five Colorado projects, Hualapai Dam and a water importation study. Senator Jackson, he said, "seems determined in his effort to put us in an untenable position." But, avowed Senator Allott, "we will continue our fight to the finish."

### CAP Given 'Do Pass'

The "finish" came the next day, June 29—just one day before the close of the fiscal year which this report covers. Senators Kuchel and Allott, to make a record of their position, offered a substitute bill similar to the omnibus bill which cleared the House Interior Committee the previous year. It contained a \$529 million authorization for Hualapai Dam and provision for a water import study. It was voted down overwhelmingly. The committee did, however, make concessions to California and the Upper Basin in the hope of winning crucial support, especially in the House. One was to include all five projects desired by Colorado. Another was to give California its 4.4-million guarantee, although for no more than 27 years. A third would provide \$26 million in assistance to the Dixie Project in Utah.

That done, and the price tag on the whole package raised to \$1.2-billion, the committee voted 13-3 to send the bill to the floor with a "do pass" recommendation. The "nay" votes came from Senators Kuchel, Allott and Hansen.

In its final form, the bill contained the following:

—The Central Arizona Project, costing \$768 million, plus \$100 million for drainage and distribution lines. The CAP aqueduct would be built with a capacity of 3,000 cubic feet per second.

—Five Upper Basin projects for Colorado.

—A Basin fund to receive power revenues from Hoover, Parker and Davis Dams and the Northwest-Southwest power intertie after they paid out.

—A 4.4-million-acre-foot guarantee to California for 27 years—the time remaining for the Metropolitan Water District aqueduct to pay for itself.

—A steam plant to supply power for CAP pumping, with the government prepaying its cost to the extent of \$82 million. The 30,000 acre-feet of water needed to operate the plant would be charged to Arizona's 2.8-million-acre-foot share of Colorado River water.

—A Yuma priority over CAP to protect that area if the river flow ran below CAP requirements.

—Designation of 18,000 acre-feet of CAP water per year for New Mexico through exchange.

—Assistance for the Dixie project to the extent of about \$26 million.

—A moratorium on dam-building between Lake Mead and the Grand Canyon, which, in effect, reserved the Bridge Canyon damsite until or unless Congress authorized construction of Hualapai or permitted the FPC to license a private dam.

The statements of the principal parties involved were predictable. Northcutt Ely called the bill "a complete sellout by Arizona to the Northwest and the conservationists." Senator Allott said it was a "throwback to an era when the interest of one state overrode the national interest." Senator Kuchel called it "hypocrisy" and a "breach of faith by the Johnson administration."

Senator Hayden said the committee "worked hard to resolve differences of opinion among states in the region. The demands of our neighboring states have been recognized as well as our own needs." And Senator Fannin was optimistic that "passage will come this session."

## Engineering and Other Activities

Fiscal year 1967 was one in which the engineering activities of the Commission were intensified and diversified. Basically the engineering activities fell into six special categories:

1. Efforts to secure federal authorization of a Central Arizona Project.
2. Efforts to develop a state-financed Central Arizona Project.
3. Participation in the activities of the Pacific Southwest Inter-Agency Committee designed to lead to completion of Type I Framework Studies for the Pacific Southwest.
4. Supervision of contracts with the Bureau of Reclamation and the Ralph M. Parsons Company.
5. Water pollution control.
6. Routine office work and other activities.

Throughout the course of the efforts to secure passage of H. R. 4671 in the 89th Congress, engineers from the Stream Commission staff were on duty virtually without interruption to answer questions and furnish data as requested by the Arizona Congressional Delegation.

In the 90th Congress bills were introduced in both the House and Senate in January. The task force office in Washington was reactivated and the State Water Engineer served in that office on virtually a full-time basis.

On March 13, 14 and 16 and 17 hearings were held before the Subcommittee on Irrigation and Reclamation of the Committee on Interior and Insular Affairs. Numerous studies of water supply and economics of the Central Arizona Project were prepared by the State Water Engineer and introduced into the record by Arizona Congressional representatives. The State Water Engineer attended all of the hearings and furnished analyses of the testimony to the Congressmen as requested.

Further hearings were held before the Subcommittee on Water and Power Resources before the Committee on Interior and Insular Affairs of the United States Senate on May 2-5 inclusive. Here again the State Water Engineer furnished technical information for presentation by the Arizona Senators and drafted numerous memoranda to be used as a basis for questioning and debate by the Arizona Senators.

On June 9-19 and June 22-29, the Senate Committee on Interior and Insular Affairs held executive sessions at which the bill was debated. The State Water Engineer assisted the Senatorial delegation in preparation of amendments and the analyses of the effect thereof.

On June 29, the Committee ordered S. 1004 favorably reported to the Senate. The vote of the Committee on the bill was 14 to 3. Throughout this entire period, the State Water Engineer worked closely with the Senate Committee staff on activities prerequisite to the preparation of a Committee Report. At the end of the fiscal year that report was under preparation.

### **Efforts to develop a state-financed Central Arizona Project**

When the 89th Congress adjourned without action upon a bill to authorize a Central Arizona Project, it was concluded that consideration should be given to the construction of the Central Arizona Project with state financing. The State Water Engineer was requested to conduct studies to determine the revenue requirements for a state-financed Central Arizona Project. The objective of this study was to determine the cost of water delivered at canalside expressed in terms of dollars per acre-foot. Studies were prepared and a memorandum report setting forth the results of the findings was presented to the Stream Commission under date of November 5, 1966. As a result of those studies, further questions were raised and a supplement to the original memorandum was prepared by the State Water Engineer and furnished to the Stream Commission under date of November 28, 1966. A third and final memorandum on the same subject was forwarded to the Commission under date of December 10, 1966.

In the aggregate, these studies indicated that a state-financed project, although more costly to the water users of the state than a federal project, was nonetheless economically and financially feasible. The Commission felt that this material should be studied in greater detail and the Ralph M. Parsons Company was employed to prepare an independent analysis of the economics of the state-financed Central Arizona Project.

The findings of the Ralph M. Parsons Company agreed with those of the State Water Engineer.

During the first session of the 28th Arizona State Legislature in 1967, a bill to authorize a State Water and Power Plan was introduced in the Legislature and, after full and complete hearings in both Houses, was passed and signed into law.

Subsequent to the enactment of this law, specifications were prepared by the engineering staff of the Commission and a contract was let to the Ralph M. Parsons Company for preparation of a report setting forth the requirements prerequisite to the issuance of bonds for a state-financed Central Arizona Project.

### **Participation in the Activities of the Pacific Southwest Inter-Agency Committee**

The engineering staff of the Commission has for many years represented the State of Arizona on the Pacific Southwest Inter-Agency Committee. The activities of the Committee were greatly accelerated during fiscal 1966. This came as a result of a Congressional Act creating a national Water Resources

Council. That Act provided, among other things, for the establishment of river basin commissions vested with authority to plan for development of the water resources for the appropriate river basin. This Act became law in 1965 and the national Water Resources Council was activated, consisting of the Secretaries of the various departments of government with an interest in water resource development, as members.

The Act creating the Water Resources Council provides that River Basin Commissions shall be created only upon agreement of a majority of the states concerned. The federal representatives to the Pacific Southwest Inter-Agency Committee have, since passage of the Water Resources Act of 1965, endeavored to persuade the states of the Basin to create a Pacific Southwest River Basin Commission. A majority of the states have opposed this suggestion. As a substitute for a River Basin Commission, there was created a Coordinated Planning Subcommittee of the Pacific Southwest Inter-Agency Committee. For some time, the Coordinated Planning Subcommittee was relatively inactive. However, during 1966, the activities of the Subcommittee were greatly escalated. As the situation now stands, the Coordinated Planning Subcommittee of the Pacific Southwest Inter-Agency Committee is, for all practical purposes, performing the functions which would otherwise be those of a Pacific Southwest River Basin Commission.

The first task of any basin commission is the preparation of a "Type I Comprehensive Framework Study." Basically, such studies are an inventory of the available water and related land resources and a development of the needs of the area. When the Coordinated Planning Subcommittee undertook to prepare this Type I Framework Study, it was necessary to employ a full-time staff and to draw upon the information available to all state and federal agencies in an effort to prepare a comprehensive, coordinated study. To this end, 16 work groups were formed in the Lower Colorado Region for the purpose of preparing the necessary appendices that will formulate the Lower Colorado Regional report. Each group was directed to concern itself with one specific phase of water resource development such as flood control, recreation features, and wildlife. Each work group was directed to proceed with the preparation of an appendix for the report which would cover its particular field of expertise. This activity has thrown a greatly increased load upon the engineering staff of the Stream Commission and one which, in fact, could not be completely met without augmentation.

The Commission staff solicited and received help from other agencies and subdivisions of the State of Arizona in participation in the work groups. Personnel were made available by the University of Arizona, Arizona State University, Salt River Project, State Health Department, Arizona State Parks Board, and State Fish & Game Department. The Assistant State Water Engineer devoted virtually all of his time during the year to the activities of the Coordinated Planning Subcommittee. The State Water Engineer remained as a member of the Pacific Southwest Inter-Agency Committee.

## **Supervision of Contracts with the Bureau of Reclamation and the Ralph M. Parsons Company**

Numerous contracts were in force during the fiscal year and the engineering staff of the Commission supervised the engineering phases of those contracts. At the beginning of the current fiscal year, there was in being a contract with the Ralph M. Parsons Company whereby that organization was preparing an economic analysis of nuclear vs. hydroelectric power generation as a source of energy for a Central Arizona Project. This study was necessary because the Arizona Congressional Delegation needed engineering data with which to rebut allegations by opponents of the Central Arizona Project that nuclear energy would better serve the needs of the Colorado River Basin Project as set forth in H. R. 4671, 89th Congress, than would hydroelectric power developments. The report was published on July 20, 1966. It indicated that the hydroelectric energy at Hualapai and Marble dams would accumulate funds into a basin account more rapidly and in a significantly greater amount than nuclear alternates as integral parts of the Colorado River Basin Project. The report further concluded that in the foreseeable future hydroelectric dams will be in demand as a most economical source of peaking power.

A second contract was let to the Ralph M. Parsons Company to analyze the economics of a state-financed project. This contract was executed on October 20, 1966, and on January 20, 1967, the Ralph M. Parsons Company submitted its final report titled "Economic Study — Non-Federal Financing of an Aqueduct System from the Colorado River to Central Arizona." Throughout the course of the preparation of this document the engineering staff of the Stream Commission worked with the Parsons Company and assisted in making available to that organization the requisite basic data. The report indicated that the State of Arizona has the financial and economic potential within the current financial structure of the state to support an aqueduct system for the transportation of water from the Colorado River to central Arizona. The study also indicated that revenues generated from the sale of water would not be adequate for the project to be self-liquidating. It was suggested that the State of Arizona determine the most appropriate method of financing the deficit within the economic structure of the State. It was this study that formed a basis for the authorization of the water phase of the Central Arizona Project by the Arizona State Legislature.

Through the fiscal year the State of Arizona had in force a contract for personal services with the Ralph M. Parsons Company whereby the Commission was able to draw upon the personnel of the Parsons Company as necessary to provide technical knowledge in highly specialized fields or at times when the workload was beyond the limit of the Commission staff. This contract for personal services was exercised in May, 1967, in connection with the activities of the Pacific Southwest Inter-Agency Committee's Coordinated Planning Subcommittee when the national Water Resources Council requested a

"National Assessment" report be prepared by each region within 30 days for the availability of use to Congress until the Type I studies were completed. This report evaluated existing inter-regional water supplies and projected future possible economic cutbacks based on these conditions.

One additional contract was let during the fiscal year under date of May 14, 1967. This contract provides for the preparation by the Ralph M. Company of a report designed to outline the steps prerequisite to the sale of bonds to finance a state-financed Central Arizona Project. The contract further provides that the report prepared pursuant thereto should contain recommendations as to staffing and work execution and probable costs of the various steps essential to the sale of bonds, all with a view to providing a suitable organization within the State to carry forward the construction of a Central Arizona Project. This contract was in force at the end of the fiscal year and work was proceeding thereunder.

As described in the 19th Annual Report, another major category of engineering activity is that which was carried forward in contracts between the Arizona Interstate Stream Commission and the Bureau of Reclamation. Beginning on April 18, 1960, the Stream Commission has executed a series of contracts with the Bureau of Reclamation and the United States Geological Survey providing for investigations in various parts of the State of Arizona. Actually six such contracts were executed with the Bureau. In addition, two contracts were executed with the U. S. Geological Survey. All of these contracts were interrelated in that they served to initiate a vigorous planning program of investigation and planning by the Bureau of Reclamation. The funds expended, advanced by the State of Arizona, represented only about five per cent of the total cost of the investigations which resulted from these contracts. These state contributions served to "prime the pump" for a much larger investigative program.

As previously indicated, the first of these contracts was executed on April 18, 1960 and provided \$100,000 which was appropriated for that purpose by the State Legislature in 1960 to initiate cooperative investigations with the Bureau of Reclamation.

In 1961 the State Legislature appropriated \$150,000 which was broken into two portions: one in the amount of \$100,000 for investigation of the Central Arizona Project and one in the amount of \$50,000 for investigation in areas outside the Central Arizona Project service zone. Contracts for these sums were executed under date of April 24, 1961, and November 20, 1961, respectively.

In late 1961, the Bureau of Reclamation requested a contribution from the Arizona Interstate Stream Commission to fund studies of drainage and groundwater in the Yuma area. The Commission advanced \$10,000 for that purpose.

In 1963, the State Legislature appropriated \$50,000 for investigations of potentials for water utilization outside of the



Central Arizona Project service area, and a contract in that amount was executed on November 12, 1963.

In 1964, \$75,000 was appropriated to the Stream Commission for a contract with the Bureau of Reclamation. The contract, executed on October 20, 1964, provided for continuation of the work conducted under the contract of November 12, 1963.

In 1965 the State Legislature appropriated an additional \$50,000 for essentially the same purposes as that for which appropriations were made in 1963 and 1964. In 1965, however, the Legislature gave greater latitude to the Stream Commission in that the Commission was authorized to utilize these monies for contracts with the Bureau of Reclamation and "other federal agencies". By virtue of this change in the appropriation, the Stream Commission was able to obtain greater benefit for the State of Arizona by making two contracts, one in the amount of \$25,400 with the Bureau of Reclamation and the other in the amount of \$24,600 to the U. S. Geological Survey. Prior to this time the Bureau of Reclamation had been making contributions to the U. S. Geological Survey to conduct hydrographic studies prerequisite to plan formulation throughout the State. When the Bureau of Reclamation contributed funds to the U. S. Geological Survey, the Geological Survey was not permitted to match these funds even though the original source of the funds was from the State of Arizona. However, when the State contracted directly with the Geological Survey, it was then legally permissible for the Geological Survey to provide matching funds. The contract for \$24,600 thereby reduced a need for the Bureau of Reclamation to contribute \$49,200.

In 1966, the State Legislature appropriated \$25,000 to the Stream Commission and this sum was used in its entirety for contracts with the Geological Survey, thereby relieving the Bureau from the necessity of contributing \$50,000 of its funds to the Geological Survey, since the State funds were eligible for matching whereas Bureau of Reclamation funds were not.

In 1967 the State Legislature appropriated an additional \$25,000 to the State Land Department in lieu of appropriating it to the Stream Commission because the State Land Department handles the basic contracts for cooperative state monies with the Geological Survey. As of the end of the fiscal year, the State Land Department had not executed the \$25,000 contract with the U. S. Geological Survey.

Insofar as the contracts between the Stream Commission and the U. S. Geological Survey are concerned, these are two in number. The first bears the date of July 1, 1965, and provides for the contribution of \$24,600 by the Stream Commission, with a like amount to be furnished by the U. S. Geological Survey. The second contract bears the date of July 1, 1966, and provides for a contribution of \$25,000 by the Geological Survey. Neither contract bears a contract number. The work carried forward pursuant to these two contracts is indicated on the following table.

# INTERSTATE STREAM COMMISSION GAGING PROGRAM<sup>1</sup>

Station Name — Location	Date Constructed	Watershed	Annual Cost to State FY 1966	FY 1967	
Cherry Creek near Young	1963	Salt	1,200	1,200	
Black Creek near Lupton	1963	L. Colorado	4,000	4,000	Includes sedi- ment sampling
Chinle Wash near Mexican Water	1963	San Juan	1,200	1,300	
Kanab Creek near Fredonia	1963	Colorado	1,300	1,300	
Verde River near Paulden	1963	Verde	1,200	1,200	
Hell Canyon near Williams	1965	Verde	1,200	1,200	
Black River, N.F., E.F., near Alpine	1965	Salt	1,400	1,400	
Williamson Valley Wash near Paulden	1965	Verde	1,300	1,300	
Verde River near Clarkdale	1965	Verde	1,400	1,400	
Volunteer Canyon near Bellemont	1965	Verde	1,300	1,300	
White River, N.F., near Greer	1965	Salt	1,300	1,300	
Cataract Creek near Williams	1965	Colorado	3,200	1,200	
Aravaipa Creek near Mammoth	1966	San Pedro		1,100	
San Pedro River near Benson	1966 <sup>2</sup>	San Pedro		4,400	Includes con- struction. Construction only.
St. David Ditch near Intake	1966 <sup>2</sup>	San Pedro		700	Construction only.
Pomerene Ditch near Intake	1966 <sup>2</sup>	San Pedro		700	Construction only.
TOTAL			24,600	25,000	

1. Cooperative contract with U.S. Geological Survey; matching funds provided by the Survey.
2. To be constructed in 1966.

Investigations which are carried forward under the contracts with the Bureau of Reclamation are described in some detail in the 19th Annual Report of the Stream Commission. The most recent contract with the Bureau of Reclamation was executed on January 27, 1966. As therein pointed out, work under all but one of the contracts with the Bureau of Reclamation was completed prior to June 30, 1966.

The sole remaining contract under which work was carried forward during the 1966-1967 fiscal year was the contract No. 14-06-300-1757 dated January 27, 1966, whereby \$25,400 was provided for continuation of planning and feasible investigations in the counties of Apache, Coconino, Gila, Graham, Greenlee, Mohave and Yavapai and for work looking to the development of additional plans for water conservation and control in the Santa Cruz River Basin and elsewhere in the State of Arizona.

Actually the contribution by the State of Arizona for this program represented but a very small fraction of the total expenditures under the program. The Stream Commission contribution was all utilized during FY 1966. The program is now continuing, financed in its entirety by federal funds and progress reports are furnished periodically to the Stream Commission. The Bureau of Reclamation has indicated that these progress reports will be furnished annually until all of the studies now in progress are completed. Progress under this contract during FY 1966-1967 is as follows:

The Kingman Project investigations progressed with completion of topographic mapping for the Colorado River pipeline system from Lake Mohave. Tentative layout of this pipeline system and design data collection was completed and forwarded to the Chief Engineer's office in Denver for review. A population projection study of Kingman was being made by Northern Arizona University. Studies were initiated on alternative water supply systems utilizing Sacramento and/or Hualapai Valleys' groundwater storage. Feasibility studies are scheduled for completion in FY 1969.

Project investigations for the potential multi-purpose Flagstaff-Williams and Winslow-Holbrook Projects were combined to better coordinate and integrate the limited water supplies. These two projects will be studied as diversions under the Mogollon Mesa Project.

The Flagstaff-Williams Division investigation progressed with completion of detailed topographic mapping for the Wilkins Dam axis and reservoir area on East Clear Creek. Geologic mapping at the Wilkins Dam and Reservoir site was also completed and a report on water-holding capability of the reservoir prepared. Foundation exploratory drilling at the site was initiated in June, 1967. Selection of a tentative axis for a double curvature thin-arch concrete dam has been made. A water-right application was submitted for Wilkins Reservoir.

Population projections for Flagstaff and Ash Fork were being made by Northern Arizona University. The projection for Williams was completed.

Two exploratory groundwater wells were drilled and tested by the Bureau in the Inner Basin of the San Francisco Mountains.

Flagstaff-Williams feasibility investigations are scheduled to be completed by FY 1970. Similar investigations are scheduled to be initiated in FY 1969 for the Winslow-Holbrook Division.

The preliminary plans for the Black River-Springerville-St. Johns Project are being reexamined in the investigation now in progress. This study is scheduled for completion in FY 1972.

The following report covers investigation activities during FY 1967 in the Santa Cruz River Basin (San Pedro-Santa Cruz Project):

The Bureau of Reclamation, in cooperation with the Geological Survey, City of Tucson, and University of Arizona on investigation of the groundwater, is studying the capability and characteristics of the Tucson groundwater basin. Reclamation drill crews drilled, logged, and sampled four exploratory holes to a depth of 4,200 feet. The holes were completed as multi-aquifer observation wells. Funds were transferred to the USGS for groundwater studies and to the Corps of Engineers for study of flood control problems of the Santa Cruz River Basin in the Tucson area. The Pedro-Santa Cruz Project investigations are scheduled for completion in FY 1971.

#### **Water Quality Act of 1965**

Under date of October 2, 1965, the Federal Government enacted the Water Quality Act of 1965. Among other things this Act provides that on or before June 30, 1967, each state shall adopt water quality criteria applicable to interstate waters or portions thereof within such state, and develop a plan for implementation and enforcement of the water quality criteria adopted. The Act further provides that if the Secretary of the Interior determines that such state criteria and plan are satisfactory, the suggested criteria and plan shall be the water quality standards applicable to the interstate waters for which they are developed.

In addition, the Act provides that if each state does not take the prescribed steps as set forth in the Act, the Secretary of the Interior will promulgate the standards and plans for implementation unilaterally.

Initially this responsibility was placed in the hands of the State Department of Health. Subsequently that Department asked the State Attorney General for an opinion as to its authority to carry forward the activities prescribed. The State Attorney General replied to the effect that the State Department of Health did not have adequate authority.

In the meantime, meetings were held by representatives from the various states of the Colorado River Basin in an effort to develop guidelines for formulating water quality standards

for interstate waters of the Colorado River system. At first, the State of Arizona was represented at these meetings by the Arizona State Department of Health. However, when it became apparent that the Arizona State Department of Health lacked the legal authority to act for the State of Arizona pursuant to the Water Quality Act of 1965, the representation at the interstate meetings was broadened. In order to meet this problem the Arizona Water Quality Control Act was passed by the Legislature on March 16, 1967.

This Act broadened the authority of the Arizona State Department of Health with respect to water pollution control and establishing a 13-member Water Quality Control Council to adopt a program of water pollution control and supervise the administration and enforcement of water quality standards. The law provided that seven of the Council members would be appointed by the Governor and that six would be statutory members who might be members of the administrative staffs of their agencies.

Among the agencies thus indicated was the Arizona Interstate Stream Commission. Commissioner John S. Hoopes was designated as the representative of the Commission and the engineering staff of the Commission was requested by Mr. Hoopes to furnish technical assistance.

The first meeting of the Water Quality Control Council was held on April 25, 1967. At this time, the Council elected officers and considered the amount of work to be done in the short time remaining before the June 30, 1967, deadline specified in the Water Quality Control Act of 1965.

The Council retained the services of Mr. J. Harlan Glenn, as consultant to prepare standards in cooperation with all water agencies and interests in the State. Mr. Glenn was assisted in gathering and preparation of data and in the development of policy guidelines by the State Water Engineer and the Assistant State Water Engineer, among others.

As a result of the efforts of the Council and its staff, a report titled "Water Quality Standards for Streams in Arizona," dated June, 1967, was produced. This report consisted of three parts. Section 1 pertained to the Colorado River system in Arizona with the exception of the Gila River Basin. Section 2 pertained to the Gila River system. Public hearings were held in Yuma and Kingman with reference to standards for the Colorado River system and in Phoenix with reference to the Gila River system. Section 3 contained 22 exhibits relevant to the matters of the report. All of the hearings were completed for these two major stream systems and the combined water quality program was adopted by the Council on June 20, 1967. The report was transmitted to the Secretary of the Interior for his review and consideration.

#### **Routine and Other Activities**

Throughout the year the engineering staff of the Commission continued to represent the State of Arizona as members of

the Association of Western State Engineers, the Colorado River Water Users' Association, the National Rivers and Harbors Congress and the newly organized Western States' Water Council.

During the latter part of 1966, the engineering staff of the Stream Commission began compiling data for the purpose of developing a water resources report for the State of Arizona. Work toward this effort was continued in progress, as time permitted, throughout the remainder of the fiscal year at which time the publication date of October, 1967, was established.

In December, 1966, the State Water Engineer was elected president of the Association of Western State Engineers which post he assumed with the approval of the Commission and served in that capacity from that date forward. During the fiscal year, the State Water Engineer completed his term as a member of the Executive Committee of the Pacific Southwest Inter-Agency Committee, a post to which he had been named during FY 1966.

Respectfully submitted

ARIZONA INTERSTATE STREAM COMMISSION

By .....

Douglas J. Wall, Chairman

By .....

Rich Johnson, Executive Director

# APPENDIX



## Enabling Act, Arizona Interstate Stream Commission

### AN ACT

RELATING TO INTERSTATE STREAMS; CREATING THE ARIZONA INTERSTATE STREAM COMMISSION; PRESCRIBING ITS POWERS AND DUTIES; MAKING AN APPROPRIATION, AND REPEALING CHAPTER 4, LAWS OF 1945, FIRST SPECIAL SESSION, AND SUBSECTION 63, CHAPTER 142, LAWS OF 1947, REGULAR SESSION, AND CHAPTER 10, LAW OF 1947, SECOND SPECIAL SESSION, AND DECLARING AN EMERGENCY.

Be it Enacted by the Legislature of the State of Arizona:

Section 1. **Definitions.** In this Act, unless the context otherwise requires:

"commission" means the Arizona interstate stream commission.

"interstate stream" includes any stream constituting or flowing along the exterior borders of the State of Arizona, together with any tributaries originating in another state or foreign country and flowing into or through Arizona.

Sec. 2. **Arizona interstate stream commission.** The Arizona interstate stream commission is created as a body corporate, with the right to sue and be sued in its own capacity, and with all corporate rights and privileges of general bodies corporate except as otherwise provided by this Act. It shall have power, jurisdiction and authority to:

1. Prosecute and defend all rights, claims and privileges of the state respecting interstate streams.

2. Formulate plans and development programs for the practical and economical development, control and use of the water of interstate streams.

3. Initiate and participate in conferences, conventions, or hearings, including congressional hearings, dealing with matters pertaining to interstate streams, and delegate representatives and witnesses to attend the same.

4. Apply for and hold permit and licenses from the United States or any agency thereof for reservoirs, dam sites and right of ways.

5. Attend and participate in proceedings before any court, commission or other competent judicial or quasijudicial department, agency or organization.

6. Negotiate and cooperate with agencies of the United States, or any state or government concerning matters within its jurisdiction, subject if required to Federal consent.

7. Investigate works, plans or proposals pertaining to interstate streams, and acquire, preserve, publish and disseminate information relating thereto which the commission may deem advisable.

8. Recommend to the governor and the legislature action to be taken on proposed contracts or agreements with other states, governments or representatives thereof.

**Sec. 3 Limitation of powers.** No agreement entered into between the commission and the United States or any state or government involving a sovereign right or claim of Arizona shall be of any force or effect unless approved by the legislature and, if necessary, by the congress. The commission shall have no control or jurisdiction over any intrastate water.

**Sec. 4 Public property.** All property acquired by the commission shall be deemed to be public property and shall enjoy the tax exemptions, rights and privileges now or hereafter granted to municipalities, public agencies and other public bodies.

**Sec. 5 Commission members.** (a) The Arizona interstate stream commission shall consist of seven members represented by and through bona fide residency not less than six separate counties of the state, who shall be appointed by the governor with the advice and consent of the Senate, and who shall be subject to removal for cause by the governor. The terms of the first members of the commission shall expire as follows: one on the third Monday of January, 1949, two on the third Monday of January, 1951, two on the third Monday of January, 1953, and two on the third Monday of January, 1955. The governor shall in his appointment designate the terms of the first members of the commission. Thereafter, the term of each member shall be six years. No member shall serve on the commission after the expiration of his term of office unless reappointed by the governor with the advice and consent of the Senate. Appointment to fill a vacancy created otherwise than by expiration of term shall be for the unexpired portion of said term, and shall be subject to Senate confirmation at the next following regular or special session of the legislature.

(b) No person shall be appointed as a member of the commission unless he is a qualified elector of the state, nor shall any person be appointed who has an interest in any business which conflicts with the public interest in any matter involving the duties or actions of the commission.

(c) Each member of the commission shall qualify by taking and subscribing an official oath of office, and executing a bond in the sum of five thousand dollars conditioned for the faithful performance of the duties of his office. They shall attend all meetings of the commission unless excused for good and sufficient reason, and shall devote to the affairs of the commission such time and attention as may be necessary to execute the powers, perform the duties and effectuate the purposes of this Act. Absence of a member, otherwise than on official business, from three meetings of the commission in succession, shall automatically terminate his membership on the commission and the governor, on due notification of such absences, shall appoint a successor.

(d) Members of the commission shall each receive fifteen dollars per diem for time actually spent in the service of the

commission, not to exceed three thousand dollars in any calendar year, and necessary travel and subsistence expenses within or without the state, as provided by law.

**Sec. 6. Organization and procedure.** (a) Upon call of the governor, not less than ten days prior after the confirmation of all members, the commission shall meet and organize. It shall elect from among its members a chairman and a vice-chairman, who shall hold office until the third Monday in January next succeeding. Thereafter such officers shall be elected for a term of two years.

(b) The powers and authority vested in and the duties imposed upon the members of the commission shall be exercised by a majority of the members then in office, but not less than five members shall constitute a quorum for the transaction of business.

(c) The commission shall: 1. maintain its principal offices in Phoenix; 2. determine the operational plan of its organization and methods of procedure not in conflict with the provisions of this Act; 3. adopt an official seal for the authentication of its records, orders and resolutions; 4. keep the minutes of its meetings, and all records, reports, information and records relating to its work and programs, in permanent form, indexed and systematically filed, and, 5. designate the person or persons who shall execute all documents and instruments on behalf of the commission: It shall: 6. manifest and record its actions by motion, resolution, order or other appropriate means; 7. adopt or rescind its rules, regulations and forms, and 8. publish as much of the minutes of its meetings that is of public interest and benefit.

**Sec. 7. Annual report.** Annually, on or before December 1, the commission shall submit to the governor and the members of the legislature a report containing a complete account of its transactions and proceedings, for the preceding fiscal year, together with such other information, suggestions and recommendations as it may consider of value to the people of the state.

**Sec. 8. Members ex officio.** The state land commissioner, acting in his capacity as state water commissioner, or such other person as may be exercising the powers and performing the executive duties prescribed by the state water code, and the chairman of the Arizona power authority commission shall be members ex-officio of the commission without a vote. If employed on a regular salary basis, they shall receive no additional compensation, but shall be paid travel and subsistence expenses, within or without the state, as provided by law, while engaged in the discharge of their duties as members ex-officio of the commission.

**Sec. 9. Employment of personnel.** (a) The commission is empowered to employ and define the duties, prescribe the terms and conditions of employment, and fix the compensation of secretarial, stenographic, clerical and accounting personnel, engineering and other assistants, and, notwithstanding the provisions of section 4-503, Arizona Code of 1939, such legal counsel as it may deem advisable.

(b) The commission may make use of the services of accounting, legal or engineering personnel made available by any department or agency of the state, which personnel shall serve without additional compensation, but shall be entitled to reimbursement for necessary travel and subsistence expenses within or without the state, as provided by law.

**Sec. 10. Transfer of records.** Upon this Act becoming effective, all files, records, papers and documents in the custody of the state land commissioner, and other state agencies, transferred from the Colorado River Commission pursuant to the provisions of chapter 14, Laws of 1945, first special session, shall be transferred to the Arizona interstate stream commission.

**Sec. 11. Appropriation.** The sum of one hundred seventy-five thousand dollars is appropriated to the use of the Arizona interstate stream commission, seventy-five thousand dollars during the thirty-sixth fiscal year, and one hundred thousand dollars during the thirty-seventh fiscal year, for the purpose of carrying out the provisions of this Act. The funds appropriated by this act shall not become available for use by the commission until all of the first members appointed by the governor shall have been confirmed by the Senate. All funds shall be disbursed in conformity with the provisions of the budget and financial administration Act of 1943, except that the fiscal year of the commission shall not be divided into fiscal quarters, nor shall there be quarterly allotments of funds.

**Sec. 12. Provisions of water code and power authority Act not affected.** Nothing in this Act shall be construed to affect the provisions of sections 75-101 to 75-114 inclusive, Arizona Code of 1939, as amended, or the provisions of the Arizona Power Authority Act of 1944, chapter 32, Laws of 1944, second special session, as amended.

**Sec. 13. Repeal.** Chapter 4, Laws of 1945, first special session, subsection 63 of chapter 142, Laws of 1947, regular session, and chapter 10, Laws of 1947, second special session, are repealed, effective ten days after the confirmation of all of the first members of the Arizona interstate stream commission. This section does not negative an implied repeal of any statute which conflicts with this Act.

**Sec. 14. Severability.** If any provisions of this Act be held invalid, such invalidity shall not affect other provisions which can be given effect without the invalid provisions, and to this end the provisions of this Act are declared to be severable.

**Sec. 15. Emergency.** To preserve the public peace, health, and safety it is necessary that this Act become immediately operative. It is therefore declared to be an emergency measure to take effect as provided by law.

Approved by the Governor—January 31, 1948.

Filed in the Office of Secretary of State—January 31, 1948.

# Annual Financial Report of Arizona Interstate Stream Commission

## Regular Appropriation

For Fiscal Year July 1, 1966, to June 30, 1967

### PERSONAL SERVICES:

Salaries & Wages .....\$ 57,723.33

### PROFESSIONAL SERVICES:

Services rendered on Fee Basis ..... 130,611.14

TRAVEL—State ..... 3,525.41

TRAVEL—Out of State ..... 12,318.94

SUBSCRIPTIONS & DUES ..... 11,822.69

### OTHER CURRENT FIXED CHARGES:

Rent, Offices & Equipment .....\$17,262.00

Bonds of Officials ..... 124.50      17,386.50

### OTHER CURRENT EXPENDITURES:

Telephone & Telegraph ..... 10,362.93

Maintenance, Office Equipment ..... 292.66

Office Supplies ..... 1,634.77

Postage ..... 868.70

Other Contractual Services — Publications & Printing of Reports ..... 6,837.85

Miscellaneous ..... 680.70

Contract Investigations ..... 30,890.00      51,567.61

### CAPITAL OUTLAY:

Office Equipment ..... 553.28      553.28

TOTAL EXPENDITURES .....\$285,508.90

### Unexpended Funds for Fiscal Year

ending June 30, 1967 ..... 78,650.64

Total Appropriated Funds .....\$364,159.54

## Act Conferring Additional Powers and Duties on the Commission

State of Arizona

House of Representatives

Twenty-fifth Legislature

Second Regular Session

### AN ACT

RELATING TO THE ARIZONA INTERSTATE STREAM COMMISSION; CONFERRING ADDITIONAL POWERS AND DUTIES UPON THE ARIZONA INTERSTATE STREAM COMMISSION; PROVIDING FOR THE EMPLOYMENT OF A STATE WATER ENGINEER BY THE ARIZONA INTERSTATE STREAM COMMISSION, AND AMENDING TITLE 45, CHAPTER 2, ARTICLE 1, ARIZONA REVISED STATUTES, BY ADDING SECTIONS 45-512 AND 45-513.

Be it enacted by the Legislature of the State of Arizona:

Section 1. Title 45, chapter 2, article 1, Arizona Revised Statutes, is amended by adding sections 45-512 and 45-513, to read:

#### 45-512. Additional powers

A. The Arizona Interstate Stream Commission is hereby duly authorized, for and on behalf of the state of Arizona, to consult, advise and cooperate with the secretary of the interior of the United States, as follows:

1. In the exercise of any authority conferred upon the secretary of the interior under the provisions of sections 4, 5 and 14 of the act commonly known as the Boulder Canyon project act (43 U.S.C. sec. 617-617t), as contemplated and provided in section 16 of the Boulder Canyon project act.

2. In respect to the authority of the secretary of the interior to contract for the delivery of water of the main stream of the Colorado river for use within the state of Arizona.

3. In respect to all powers and duties of the secretary of the interior under the provisions of that certain contract between the United States of America, acting by Harold L. Ickes, secretary of the interior, and the state of Arizona, acting by the Colorado river commission, entered into on the 9th day of February, 1944, pursuant to chapter 46 of the 1939 session laws of Arizona, and approved by chapter 4 of the 1944 session laws of Arizona.

4. In respect to the exercise by the secretary of the interior of any authority relative to the water of the Colorado river conferred upon the secretary of the interior by the provisions of any legislation enacted by the congress of the United States of America.

B. The powers and duties herein given the Arizona interstate stream commission shall be limited and restricted to only that quantity of water which may be available for use in the state of Arizona, after the satisfaction of all existing contracts between the secretary of the interior and users in the state of Arizona for the delivery of water of the main stream of the Colorado river, and shall not extend to any such contracts, any amendments or supplements thereto, or to any federal statute enacted before the effective date of this section pertaining to any federal reclamation project within the state of Arizona constructed and using water of the main stream of the Colorado river before the effective date of this section. Nothing shall be done hereunder which will impair existing rights in the state of Arizona for the diversion and use of Colorado river water.

C. The privilege and right of individuals, irrigation districts, corporations or political subdivisions of the state of Arizona to negotiate and directly contract with the secretary of the interior for the delivery of water of the main stream of the Colorado river for use within the state of Arizona and all rights under such contracts shall not be affected by the provisions of this section.

#### 45-513. State water engineer

The Arizona interstate stream commission is further authorized and directed to retain the services and fix the compensation of a registered professional engineer experienced and competent in the field of hydrology, which engineer shall be known as the "State Water Engineer" and shall perform such duties, consistent with the powers and duties of the Arizona interstate stream commission, as may be prescribed by the Arizona interstate stream commission.

Approved by the Governor—March 23, 1962

Filed in the Office of the Secretary of State—March 23, 1962

Pursuant to the foregoing, on June 29, 1962, the Commission, by unanimous action, appointed William S. Gookin as State Water Engineer.

**Bureau of Reclamation Planning  
Appropriation Act**

State of Arizona  
Senate  
Twenty-sixth Legislature  
Second Regular Session

**CHAPTER 119  
SENATE BILL No. 253**

**AN ACT**

**MAKING AN APPROPRIATION TO THE INTERSTATE  
STREAM COMMISSION TO CARRY OUT THE BUREAU  
OF RECLAMATION'S PLANNING PROGRAM FOR CER-  
TAIN COUNTIES.**

Be it enacted by the Legislature of the State of Arizona:

**Section 1. Appropriation; purpose**

The sum of seventy-five thousand dollars is appropriated to the Arizona interstate stream commission which shall be used under contract with the bureau of reclamation for the following purposes:

1. To carry out the bureau of reclamation's planning program for the counties of Apache, Coconino, Gila, Graham, Greenlee, Mohave, Navajo and Yavapai.

2. To provide for detailed feasibility studies of potential developments, on behalf of the eight counties specified in paragraph 1, to study either direction diversion or replacement and exchange which shall not be limited to waters of the Little Colorado river, but shall also secure intra-water supplies based upon the exchange and replacement principle.

**Sec. 2. Exemption**

The appropriation made under the terms of section 1 is exempt from the provisions of sections 35-173 and 35-190, Arizona Revised Statutes, relating to quarterly allotments and lapsing appropriations.

**Sec. 3. Emergency**

To preserve the public peace, health and safety it is necessary that this act become immediately operative. It is therefore declared to be an emergency measure, to take effect as provided by law.

Approved by the Governor—April 10, 1964  
Filed in the Office of the Secretary of State—April 10, 1964



# Bureau of Reclamation Planning Program Financial Report

For Fiscal Year Ending June 30, 1967

(Making an appropriation to the Interstate Stream Commission for contracts with the Bureau of Reclamation and other federal agencies for continuance of investigations for certain counties.)

## EXPENDITURES:

Payments on Contract to the United States Geological Survey .....	\$25,000.00
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**Text of Law Authorizing  
State-Financed Central Arizona Project**

State of Arizona  
Senate  
Twenty-eighth Legislature  
First Regular Session

**CHAPTER 57**

**SENATE BILL No. 204**

**AN ACT**

RELATING TO WATER AND POWER; ESTABLISHING A STATE WATER AND POWER PLAN; PROVIDING FOR THE EFFECTUATION THEREOF; INCLUDING THE ACQUISITION, CONSTRUCTION, FINANCING AND OPERATION OF THE PROJECTS INCLUDED THEREIN; GRANTING CERTAIN POWERS IN CONNECTION THEREWITH TO THE INTERSTATE STREAM COMMISSION, THE ARIZONA POWER AUTHORITY AND PURCHASERS OF THE OUTPUT THEREOF; ESTABLISHING IN THE STATE TREASURY A STATE WATER AND POWER DEVELOPMENT FUND FOR THE DEPOSIT OF NET REVENUES AND OTHER AVAILABLE FUNDS, AND AMENDING TITLE 45, ARIZONA REVISED STATUTES, BY ADDING CHAPTER 12.

Be it enacted by the Legislature of the State of Arizona:

Section 1. Title 45, Arizona Revised Statutes, is amended by adding chapter 12, article 1, sections 45-2501 to 45-2521, inclusive, to read:

**CHAPTER 12**

**STATE WATER AND POWER PLAN**

**ARTICLE 1. IN GENERAL**

**45-2501. Declaration of purpose and policy**

The legislature declares and finds:

1. That the development of an adequate supply of water for agriculture, municipal, industrial and fish and wildlife uses within the state of Arizona is vital for the well being, health and prosperity of the people of the state.

2. That the state's right and obligation to receive two million eight hundred thousand acre feet of main stream Colorado river water annually having been confirmed by the United States supreme court in **Arizona v. California**, 376 U.S. 340 (1964), it is essential to the continued well-being, health and prosperity of the people of the state that the state proceed promptly to establish, develop and execute an appropriate program for the development and utilization of such water.

3. That the development of the state's power resources is an essential and integral part of the effectuation of such program, including the financing thereof.

4. That such power resources and the use of the energy therefrom must be developed in order to provide effective support for and implementation of the state's water program and to promote the general welfare, health, safety and prosperity of the people of the state.

#### **45-2502. Definitions**

In this article, unless the context otherwise requires:

1. "Authority" means the Arizona power authority created pursuant to chapter 1 of title 30.

2. "Bonds" and "notes" means bonds and notes, respectively, of the authority issued pursuant to this article.

3. "Commission" means the Arizona interstate stream commission created pursuant to chapter 2 of title 45.

4. "District" means any irrigation district, power district, electrical district, agricultural improvement district or water users association now or hereafter organized under the laws of this state which is directly engaged in the sale, distribution or delivery of municipal, industrial or irrigation water or in the sale, distribution or use of electric power or energy.

5. "Municipality" means any incorporated city or town or other corporation organized for municipal purposes.

6. "Power" means electric power or electric energy or both.

7. "Project" or "work" means any of the projects or works authorized by this article or hereafter authorized, including each and every facility or improvement necessary or incidental thereto and all rights of way, lands or interests in lands, the use or occupancy of which are necessary or appropriate in the construction, reconstruction, replacement, extension, betterment, development, improvement or operation and maintenance of such facilities and improvements.

8. "Public utility" means any person, corporation, district, public agency or political subdivision of the state that provides electrical service to the public by means of electric facilities or provides water for municipal, industrial, irrigation and fish and wildlife purposes to the public.

9. "Real property" means lands, rights in lands, interests in land, including lands under water, appurtenances, improvements and any and all other things and rights usually included within the term and includes also any and all interests in such property less than full title, such as easements, permanent or temporary rights-of-way, uses, leases, licenses and other such incorporal hereditaments.

10. "Retail" means sales to persons, corporations, firms, partnerships or other entities for their use and not for resale.

11. "State" means the state of Arizona.

12. "State water and power plan" means the plan established pursuant to section 45-2503.

13. "State water and power development fund" means the fund by that name established in section 45-2511.

14. "Wholesale" means sales to municipalities, districts or public utilities for resale or distribution.

#### **45-2503. State water and power plan**

A. A water and power plan for the state is established, consisting of the following works and facilities:

1. Central Arizona project, including:

(a) Granite Reef aqueduct to extend from Lake Havasu to a point in central Arizona on the Salt river near the city of Phoenix, together with pumping plants therefor.

(b) Orme dam reservoir and power pumping plant to be located in central Arizona at or near the Salt river Indian reservation.

(c) The Salt-Gila aqueduct to extend from the terminus of the Granite Reef aqueduct in central Arizona to the Tucson aqueduct, Colorado source, in the vicinity of Picacho reservoir, together with pumping plants therefor.

(d) Charleston dam and reservoir to be located on the San Pedro river southeast of the city of Tucson.

(e) Tucson aqueduct, Colorado source, to extend from the vicinity of Picacho reservoir to the city of Tucson, together with pumping plants therefor, and

(f) Tucson aqueduct, San Pedro source, to extend from the Charleston reservoir to the city of Tucson.

2. Hualapai (Bridge Canyon) hydroelectric project to be located at the headwaters of Lake Mead on the Colorado river.

3. Marble canyon hydroelectric project to be located on the Colorado river approximately twelve miles upstream from the boundary of the Grand Canyon national park.

4. Montezuma pumped storage power project to be located approximately twenty-five miles south of the city of Phoenix.

5. Havasu pumped storage power project to be located in the vicinity of the southern end of Lake Havasu. In each case the project shall include any improvements thereto and any incidental buildings, structures, transmission lines or mains, and all other appurtenances and facilities necessary or appropriate thereto.

B. The state water and power plan may also include such further water and power projects, either in addition to or in substitution of the projects set forth above, or any portion thereof, as the Arizona legislature may from time to time authorize;

provided however that in no event may such further power projects include thermal generating plants or interests therein, except that, the authority may enter into an agreement with other electric power interests proposing to construct a thermal generating power plant whereby the state shall acquire the right to such portion of the capacity of such plant, including delivery of power and energy over appurtenant transmission facilities to mutually agreed upon delivery points as is required to provide central Arizona project pumping. Power and energy acquired thereunder may be disposed of intermittently by the authority when not required in connection with the central Arizona project.

C. Nothing in this act shall authorize the inclusion in the state water and power plan of the power and energy under the Hoover energy contract 1-1r-1455 dated November 23, 1945 and the rights to deliver such power and energy under the 1964 Wheeling contract 14-06-0300-1444 dated January 1, 1965 which power and energy and Wheeling rights shall continue to be administered under chapter 1 of title 30.

#### **45-2504. Construction, acquisition and operation**

A. The commission is authorized to plan, construct, operate and maintain the central Arizona project, or any portion thereof, and any other water projects hereafter included in the state water and power plan, to acquire all real property required therefor in the name of the state, and to take such actions and proceedings as may be necessary or desirable in connection therewith. The authority is authorized to plan, construct, operate and maintain the Bridge canyon hydroelectric project, the Marble canyon hydroelectric project, the Montezuma pumped storage power project, and the Havasu pumped storage power project, or any portion of any such project, and any other power projects hereafter included in the state water and power plan, to acquire all real property required therefor in the name of the state, and to take such actions and proceedings as may be necessary or desirable in connection therewith. In carrying out their functions hereunder, the commission and the authority shall consult with each other and with appropriate state officials and shall coordinate their activities so that the development of the state water and power plan shall proceed with all reasonable dispatch and efficiency.

B. Before either the commission or the authority undertakes the financing or construction of any portion of the central Arizona project, the commission or authority shall file with the president of the senate and the speaker of the house, at least thirty calendar days prior to the scheduled adjournment of the legislature's regular session or within five days following the convening of a special session called for that purpose, a feasibility report on such project. Such feasibility report shall set forth estimated costs, the financing steps contemplated, and the anticipated means and schedule of debt payment. Upon approval in whole or in part of such feasibility report by the legislature, the commission or the authority shall thereupon be authorized to proceed in accordance with the approval granted

by the legislature and the provisions of this article. Such authorization to proceed shall not be granted prior to December 15, 1967.

C. The state consents to the use and occupation of any real property now or hereafter owned by it, and not dedicated to public use, necessary for the construction, operation or maintenance of any project or projects included in the state water and power plan subject, however, to such payment as lawfully may be required.

**45-2505. Construction of works across public or private property**

The commission or authority may construct facilities or works pursuant to this article across any stream of water, water-course, street, avenue, highway, railway, canal, ditch, flume or private property. If the commission or authority and the persons, firms, corporations, municipalities, federal or state agencies, state trust lands, or political subdivisions of the state owning or controlling any property or installation to be used or crossed cannot agree upon the amount to be paid for the taking, use or privilege thereof, such amount shall be ascertained and determined in the manner provided by law for the taking of land for public uses.

**45-2506. Right of eminent domain**

A. Condemnation proceedings may be brought by the commission or authority and all laws of the state relating to the exercise of the right of eminent domain and the taking of private property for public use and obtaining immediate possession thereof shall apply to the proceedings. The use of property which is condemned, taken or appropriated under the provisions of this article is declared to be a public use subject to regulation and control by the state in the manner provided by law.

B. When real property has been appropriated to public use by any person, firm or corporation, the taking of the property for the construction and operation of the state water and power plan by the commission or authority shall be deemed a more necessary public use than the use of the property by such person, firm or corporation.

C. Notwithstanding any other provision of this act the commission or authority shall have no authority to condemn, take or destroy the whole or any part of property belonging to any district, public utility or municipality unless and until the commission or authority has provided and substituted for the property to be taken, condemned or destroyed new property of like character and at least equal in usefulness with suitable adjustment for any increase or decrease in the costs of operating and maintaining thereof, or unless and until the taking, condemnation or destruction has been permitted by agreement executed between the commission or authority and such district, public utility or municipality. Nothing contained herein shall grant the authority or commission the authority to condemn,

take or use the generating, transmission or distribution facilities or other real or personal property of any type whatsoever of a public utility except for the purpose of procuring rights of way across real property of the public utility.

D. In the event any property is to be acquired hereunder pursuant to a license granted by the federal power commission, such property may be acquired through the exercise of the right of eminent domain as provided in section 21 of the federal power act, as amended.

#### **45-2507. Issuance of bonds and notes**

##### **A. The authority:**

1. Shall have the power and is authorized from time to time to issue its negotiable bonds and notes in such principal amount as, in the opinion of the authority, shall be necessary to provide sufficient monies for the construction, reconstruction and improvement of the projects included in the state water and power plan or any portion thereof, together with suitable facilities and appurtenances, the cost of acquisition of all real property, the expense of maintenance and operation, interest on bonds and notes during construction and for a reasonable period thereafter, establishment of reserves to secure bonds or notes, and all other expenditures of the authority incident to and necessary or convenient to carry out the aforesaid purpose. Notwithstanding any other provision herein, the commission shall determine whether bonds or notes shall be offered for public or private sale for the central Arizona project or any part thereof, or any future water projects, the time of the offering, the amount, and the terms and conditions thereof. When such determination has been made, the authority shall proceed to offer the bonds or notes, or cause the same to be offered for sale in accordance with the determination of the commission. In the event the authority fails to do so, the commission may proceed to issue the bonds or notes for the water features of the state water and power plan. In such event the commission shall have all of the rights and powers invested in the authority under the terms of this act to issue such bonds or notes.

2. Shall have power from time to time to issue renewal notes, to issue bonds to pay notes, and whenever it deems refunding expedient, to refund any bonds by the issuing of new bonds, whether the bonds to be refunded have or have not matured, and may issue bonds partly to refund bonds then outstanding and partly for any other purpose. Whether or not the bonds or notes are of such form and character as to be negotiable instruments under the terms of the negotiable instruments law, constituting chapter 4, title 44, the bonds or notes shall be and are hereby made negotiable instruments within the meaning of and for all the purposes of the negotiable instrument law, subject only to the provisions of the bonds for registration.

B. The bonds and notes shall be authorized by resolutions of the authority, shall bear such date or dates and mature at

such time or times, in the case of notes and any renewals thereof within five years after their respective dates and in the case of bonds not exceeding sixty years from their respective dates, as such resolution or resolutions may provide. The bonds and notes shall bear interest at such rate or rates, be in such denominations, be in such form, either coupon or registered, carry such registration privileges, be executed in such manner, be payable in such medium of payment, at such place or places, and be subject to such terms of redemption as such resolution or resolutions may provide. The bonds and notes shall be sold at public or private sale at such price and on such terms as the authority may determine, provided that bonds or notes to fund or refund other bonds or notes may be exchanged with the holders of such bonds or notes being funded or refunded on such terms as the authority may determine.

C. Any resolution or resolutions or trust indenture or indentures authorizing or securing any bonds or notes or any issue thereof may contain provisions, which shall be a part of the contract with the holders thereof, as to:

1. Pledging all or any part of the fees, charges, gifts, grants, rents, revenues or other monies received or to be received by the authority or the commission from or in connection with the ownership or operation of the projects included in the state water and power plan and leases or agreements to secure the payment of the bonds or notes or of any issue thereof, including any amounts deposited in the state water and power development fund, subject to such agreements with bondholders or noteholders as may then exist.

2. The rates of the fees, charges or rents to be established for the projects included in the state water and power plan, and the amounts to be raised in each year thereby and the use and disposition of the fees, charges, gifts, grants, rents, revenues or other monies received or to be received therefrom.

3. The setting aside of reserves or sinking funds, and the regulation and disposition thereof.

4. Notwithstanding the provisions of section 30-203, the custody, collection, securing, investment and payment of any monies held pursuant to any such resolution or trust indenture in trust or otherwise for the payment of bonds or notes or in any way to secure bonds or notes. Such monies and the deposits thereof may be secured in the same manner as monies of the authority, and all banks and trust companies are authorized to give such a security for such deposits.

5. Limitations on the purpose to which the proceeds of sale of any issue of bonds or notes then or thereafter to be issued may be applied and pledging such proceeds to secure the payment of the bonds or notes or of any issue thereof.

6. Limitations on the issuance of additional bonds or notes, the terms upon which additional bonds or notes may be issued and secured, the refunding of outstanding or other bonds or notes.



7. The procedure, if any, by which the terms of any contract with bondholders or noteholders may be amended or abrogated, the amount of bonds or notes the holders of which must consent thereto, and the manner in which such consent may be given.

8. Limitations on the amount of monies to be expended for operating, administrative or other expenses with respect to the projects included in the state water and power plan.

9. Vesting in a trustee or trustees such property, rights, powers and duties in trust as the authority may determine which may include any or all of the rights, powers and duties of the trustee appointed by the bondholders pursuant to this article, and limiting or abrogating the right of the bondholders to appoint a trustee under this article or limiting the rights, duties and powers of such trustee.

10. Any other matters, of like or different character, which in any way affect the security or protection of the bonds or notes.

D. It is the intention in the enactment of this article:

1. That any pledge made pursuant to this article of all or any part of the fees, charges, gifts, grants, rents, revenues or other monies received or to be received by the authority or the commission from or in connection with the ownership or operation of the projects included in the state water and power plan shall be valid and binding from the time when the pledge is made.

2. That the monies so pledged and thereafter received by the authority or the commission shall immediately be subject to the lien of such pledge without any physical delivery thereof or further act, and that the lien of any such pledge shall be valid and binding as against all parties having claims of any kind in tort, contract or otherwise against the authority or the commission irrespective of whether such parties have notice thereof. Neither the resolution nor trust indenture nor any other instrument by which a pledge is created need be recorded.

E. Neither the members of the authority nor any person executing the bonds or notes shall be liable personally on the bonds or notes or be subject to any personal liability or accountability by reason of the issuance thereof. In case any one or more of the officers who shall have signed manually or by facsimile or sealed any of the bonds or notes shall cease to be such officer before the bonds or notes so signed and sealed shall have been delivered, such bonds or notes may, nevertheless, be issued as if the persons who signed or sealed such bonds or notes had not ceased to hold such offices. Any bonds or notes may be signed and sealed on behalf of the authority by such persons as at the actual time of the execution of such bonds or notes shall be duly authorized or hold the proper office in the authority, although at the date of such bonds or notes such persons may not have been so authorized or held such office.

F. The authority shall have power out of any funds available therefor to purchase bonds or notes, which shall thereupon be cancelled, at a price not exceeding either of the following:

1. If the bonds or notes are then redeemable, the redemption price then applicable plus accrued interest to the next interest payment date thereon.

2. If the bonds or notes are not then redeemable, the redemption price applicable on the first date after such purchase upon which the bonds or notes become subject to redemption plus accrued interest to such date.

#### 45-2508. Contracts

A. The commission shall have power and is authorized to enter into and carry out contracts with water users for the delivery of Colorado river water through the facilities of the central Arizona project and for the sale and delivery of water from other sources included in the central Arizona project or other water projects, if any, hereafter included in the state water and power plan. The commission shall provide in all contracts executed for the delivery of water from the central Arizona project that such contracts shall be subordinate to the satisfaction of all existing contracts between the United States secretary of the interior and users in Arizona heretofore made pursuant to the Boulder canyon project act. It may be required as a condition in any contract under which water is provided from the central Arizona project that the contractor agree to accept main stream water of the Colorado river in exchange for or in replacement of existing supplies from sources other than the main stream. Water which has been developed, stored or appropriated shall be sold only at wholesale rates which will not be unreasonably discriminatory for the same.

B. The authority shall have power and is authorized to enter into and carry out contracts for the sale and transmission of power from power projects included in the state water and power plan. Notwithstanding the provisions of articles 2, 3 and 4 of chapter 1 of title 30, the power from such power projects included in the state water and power plan shall be sold at wholesale only to such power purchasers, located within or without the state, in such manner and upon such terms and conditions, as shall be determined by the authority to be necessary or advisable to effectuate the purposes of this article.

C. The net revenues derived by the commission from the central Arizona project and such other water projects and by the authority from such power projects shall be paid into the state water and power development fund in the amounts and in the manner and at the times specified in an agreement which shall be entered into by the authority and the commission prior to the issuance of any bonds or notes. Such agreement may also provide for reasonable limitations on the amounts of the necessary operation and maintenance expense for the projects included in the state water and power plan, and it may contain such other terms, conditions and provisions consistent with

the provision of this article as may be necessary or desirable to effectuate the state water and power plan. It is recognized that such agreement will provide additional security for the bonds and notes of the authority and that the same may be pledged by the authority for such purpose.

D. The commission or authority may enter into any obligation or contract with the United States necessary or required in carrying out or accomplishing any of the purposes or power authorized or permitted by this article and may conform to such requirements, rules or regulations not otherwise inconsistent with the laws of this state as may be prescribed by the United States in accordance with the acts of congress applicable thereto now in effect or which may hereafter be adopted and the rules and regulations promulgated thereunder. Contracts or agreements entered into with the United States may contain such terms, conditions, covenants and restrictions for the security of the United States or any subsequent holders of bonds issued to evidence such loans, grants or advances of money. The commission or authority may do any and all acts and things considered necessary or advisable by the United States and the commission or authority in connection with or additionally to secure any such loans, grants or advances of money or issuance or sale of bonds provided for in the contract or agreement with the United States.

#### **45-2509. General powers**

The commission and the authority, are, respectively, authorized:

1. To cooperate with the appropriate agencies or officials of the federal government and of the state and political subdivisions thereof to the end that the purposes of this article shall be realized.

2. To apply to the appropriate agencies or officials of the state and of the federal government, including the federal power commission and the department of the interior, for such licenses, permits, easements and such other approvals or authorizations as may be necessary or advisable and to accept the same upon such terms and conditions as may be deemed appropriate.

3. To accept any gifts or any grant or advance of funds or property from the federal government or from the state or any other federal or state public body or political subdivision or any other person and to comply with the terms and conditions thereof.

4. To fix and establish the prices, rates, rents and charges for water and power delivered or produced by the projects herein authorized.

5. To retain and employ engineering, accounting, legal, financial and other private consultants on a contract basis for rendering professional and technical assistance and advice.

6. To promote, foster and encourage the use of water and power and the development, protection and conservation thereof.

7. To institute and maintain actions and proceedings necessary to enforce, maintain, protect or preserve all rights, privileges or immunities created or granted by this article or otherwise in pursuance thereof, and in all courts, actions and proceedings the commission or authority may sue, appear and defend in person in their respective names.

8. To enter into contracts and agreements and do all things which are necessary or convenient for the effectuation of the state water and power plan.

9. To exercise all the powers necessary or convenient to carry out and effectuate the purposes and provisions of this article, and as incidental thereto to own, lease, construct, operate, maintain and dispose of real and personal property of every kind and character, to acquire real and personal property and any or every interest therein for its lawful purposes by purchase, lease, condemnation or otherwise, and generally to do any and everything necessary or convenient to carry out the purposes of this article, provided that the authority shall have no power at any time to pledge the credit of the state nor shall any of its obligations or securities be deemed to be obligations of the state.

10. To be specifically charged with the responsibility to begin immediate studies and to continue them in an effort to determine alternate ways and means to finance and fund the construction of the central Arizona project and to bring those studies to the legislature so that this water project may be constructed at the earliest possible time.

**45-2510. Powers of municipalities, districts  
and other public bodies and officers**

Notwithstanding any provision of law to the contrary, all municipalities, districts and other public bodies, are authorized and empowered to enter into contracts with the commission or the authority as provided in section 45-2508 for the sale or delivery of water or the sale or transmission of power, on such terms and conditions as shall be determined by the parties, and to carry out their obligations thereunder. Such municipalities, districts and other public bodies, the officials thereof, and all state agencies and officials, may do such acts and make such additional agreements not inconsistent with law as may be necessary or desirable in connection with the construction, operation, maintenance and financing of any project or projects included in the state water and power plan.

**45-2511. State water and power development fund**

There is created in the treasury of the state a state water and power development fund. The resolution or trust indenture of the authority securing the bonds or notes shall fix the amount and the provisions of the application of a bond reserve to be held by the state treasurer in such development fund. The net

revenues from the projects included in the state water and power plan shall be promptly paid to the state treasurer for deposit in the fund in accordance with the agreement between the commission and the authority referred to in section 45-2508, together with any other funds which may be made available for the purposes of this article, including funds from the state or federal government. Amounts in such development fund in excess of the bond reserve therein shall be paid by the state treasurer in such manner and at such times as shall be specified in the bond resolution or trust indenture securing such bonds or notes to the trustee appointed by the authority thereunder. The bond reserve in such development fund shall be applied by the state treasurer as provided in such resolution or trust indenture.

#### **45-2512. Agreement of state**

The state of Arizona does pledge to and agree with the holders of the bonds and notes that the state will not limit or alter the rights hereby vested in the commission and the authority to maintain, reconstruct and operate the projects included in the state water and power plan, and to establish and collect such charges, fees and rentals as may be convenient or necessary to produce sufficient revenue to meet the expense of maintenance and operation and to fulfill the terms of any agreement made with the holders of the bonds and notes, or in any way impair the rights and remedies of the bondholders or noteholders until the bonds and notes, together with interest thereon, with interest on any unpaid installments of interests, and all costs and expenses in connection with any action or proceedings by or on behalf of the bondholders and noteholders, are fully met and discharged. The authority as agent for the state is hereby authorized to include this pledge and undertaking by the state in its resolutions and indentures securing the bonds and notes.

#### **45-2513. Exemption from taxation**

The commission and the authority shall be regarded as performing a governmental function in undertaking and carrying out the state water and power plan and shall be required to pay no taxes or assessments on any of the property thereof or upon their activities in the operation and maintenance thereof or upon the revenues therefrom. The bonds and notes, their transfer and the income therefrom shall at all times be free from taxation within the state.

#### **45-2514. Remedies of bondholders and noteholders**

A. In the event the authority defaults in the payment of principal of or interest on any issue of bonds or notes after the same shall become due, whether at maturity or upon call for redemption, and such default shall continue for a period of thirty days, or in the event the authority shall fail or refuse to comply with the provisions of this article, or shall default in any agreement made with the holders of any issue of bonds or notes, the holders of twenty-five per centum in aggregate principal amount of the bonds or notes of such issue then outstand-

ing, by instrument or instruments filed in the office of the clerk of the county of Maricopa and proved or acknowledged in the same manner as a deed to be recorded, may appoint a trustee to represent the holders of such bonds or notes for the purposes in this article.

B. Such trustee may, and upon written request of the holders of twenty-five per centum in principal amount of such bonds or notes then outstanding shall, in his or its own name:

1. By mandamus or other suit, action or proceeding at law or in equity enforce all rights of the bondholders or noteholders, including the right to require the authority to collect fees, rentals and charges adequate to carry out any agreements with the holders of such bonds or notes and to perform its duties under this title.

2. Bring suit upon such bonds or notes.

3. By action or suit in equity, require the authority to account as if it were the trustee of an express trust for the holders of such bonds or notes.

4. By action or suit in equity, enjoin any acts or things which may be unlawful or in violation of the rights of the holders of such bonds or notes.

5. Declare all such bonds or notes due and payable, and if all defaults shall be made good then with the consent of the holders of twenty-five per centum of the principal amount of such bonds or notes then outstanding, to annul such declaration and its consequence.

C. Such trustee, whether or not the issue of bonds or notes represented by such trustee has been declared due and payable, shall be entitled as of right to the appointment of a receiver of any project or projects included in the state water and power plan or any part thereof, the fees, rentals, charges or other revenues of which are pledged for the security of the bonds or notes of such issue and such receiver may enter and take possession of such project or projects and, subject to any pledge or agreement with bondholders, shall take possession of all monies and other property derived from or applicable to the construction, operation, maintenance and reconstruction of such project or projects, and proceed with any construction thereon which the commission or the authority is under obligation to do and shall operate, maintain and reconstruct such project or projects, and collect and receive all fees, rentals, charges and other revenues thereafter arising therefrom subject to any pledge thereof or agreement with bondholders or noteholders relating thereto and perform the public duties and carry out the agreements and obligations of the commission and the authority under the direction of the court. In any suit, action or proceeding by the trustee the fees, counsel fees and expenses of the trustee and of the receiver, if any, shall constitute taxable disbursements and all costs and disbursements allowed by the court shall be a first charge on any fees, rentals and other revenues derived from such project or projects.

D. Such trustee shall in addition to the foregoing have and possess all of the powers necessary or appropriate for the exercise of any functions specifically set forth herein or incident to the general representation of bondholders or noteholders in the enforcement and protection of their rights.

E. The superior court shall have jurisdiction of any suit, action or proceeding by the trustee on behalf of such bondholders or noteholders. The venue of any such suit, action or proceeding shall be laid in the county of Maricopa.

#### **45-2515. Certification of bonds by attorney general**

The authority may submit to the attorney general of the state of Arizona any bonds to be issued under this article after all proceedings for the authorization of such bonds have been taken. Upon the submission of such proceedings to the attorney general, it shall be the duty of the attorney general to examine into and pass upon the validity of such bonds and the regularity of all proceedings in connection therewith. If such proceedings conform to the provisions of this article, and such bonds when delivered and paid for will constitute binding and legal obligations of the authority enforceable according to the terms thereof, the attorney general shall certify in substance upon the back of each of such bonds that it is issued in accordance with the constitution and laws of the state of Arizona.

#### **45-2516. State not liable on bonds and notes**

Neither the state nor any political subdivision thereof shall be liable on the bonds or notes of the authority and such bonds and notes shall not constitute a debt or liability of the state or of any such political subdivision.

#### **45-2517. Bonds and notes legal investments**

The bonds and notes are hereby made securities in which all public officers and bodies of the state and all municipalities and political subdivisions, all insurance companies and associations and other persons carrying on an insurance business, all banks, bankers, trust companies, savings banks and savings associations, including savings and loan associations, building and loan associations, investment companies and other persons carrying on a banking business, all administrators, guardians, executors, trustees and other fiduciaries and all other persons whatsoever who are now or may hereafter be authorized to invest in bonds or other obligations of the state, may properly and legally invest funds including capital in their control or belonging to them. The bonds and notes are also hereby made securities which may be deposited with and may be received by all public officers and bodies of the state and all municipalities and political subdivisions for any purpose for which the deposit of bonds or other obligations of the state is now or may hereafter be authorized.

#### **45-2518. Water rights**

Nothing contained in this article shall be construed as affecting or be intended to affect or to in any way interfere

with the laws of the state or the United States relating to the control, appropriation, use or distribution of water used in Arizona, or to any contract or vested right acquired therefor, and the powers and duties herein set forth shall be limited and restricted to only that quantity of water which may be available for use in the state of Arizona, after the satisfaction of all existing contracts between the secretary of the interior and users in the state of Arizona for the delivery of water of the main stream of the Colorado river, and shall not extend to any such contracts, any amendments or supplement thereto, or to any federal statute enacted before the effective date of this article pertaining to any federal reclamation project within the state of Arizona constructed and using water of the main stream of the Colorado river before the effective date of this article.

#### **45-2519. Reversion of projects to state**

When all bonds and notes issued under the provisions of this article to finance the state water and power plan and the interest thereon shall have been paid or a sufficient amount for the payment of all such bonds and notes and the interest thereon to the maturity thereof shall have been set aside in trust for the benefit of the holders of such bonds and notes, all projects then included in the state water and power plan shall thereafter be operated and maintained by the commission and the authority, and water and power rates shall be reduced accordingly unless the legislature shall provide that the revenues therefrom shall be deposited in the general fund of the state, in the state water and power development fund or as the legislature may otherwise direct.

#### **45-2520. No jurisdiction of Arizona corporation commission**

The rates, services and practices relating to the generation, transmission, distribution and sale of power or to the distribution and sale of water pursuant to this chapter shall not be subject to regulation by or the jurisdiction of the Arizona corporation commission or any successor agency or department.

#### **45-2521. Exclusive law**

The powers conferred by this article shall be in addition to and supplemental to the powers conferred by any other law, general or special. This article shall, without reference to chapter 1 of title 30 or chapter 2 of title 45, or to any other law, general or special, be deemed full authority for the construction, acquisition, reconstruction, improvement, operation and maintenance of the projects herein provided for and contracts in connection therewith, and for the authorization, issuance and sale of the bonds and notes pursuant to this chapter and without regard to the procedure required by any other such law. Except as otherwise provided in this article, the provisions of chapter 1 of title 30 and chapter 2 of title 45, insofar as they relate to the matters herein contained, are superseded, it being the legislative intent that this article shall constitute the exclusive law on such matters.



**Sec. 2. Emergency**

To preserve the public peace, health and safety it is necessary that this act become immediately operative. It is therefore declared to be an emergency measure, to take effect as provided by law.

Approved by the Governor—March 14, 1967.

Filed in the Office of the Secretary of State—March 14, 1967

1867 — 1965

## Historical Chronology

### Colorado River Interstate and International

—1867—

Swilling Ditch Company organized.

—1896—

California Development Company organized; immediately acquired riparian rights along Colorado River 2 miles above International Boundary.

—1902—

Reclamation Act passed by Congress.

—1903—

February 9 Salt River Water Users' Association organized.

—1904—

Bill authorizing California Development Company to divert Colorado River water to full extent of state appropriation and allowing 10 years for development.

—1911—

February 11 Roosevelt Dam completed.

March 18 Roosevelt Dam dedicated by President Theodore Roosevelt.

—1912—

February 14 Arizona admitted to the Union, and George W. P. Hunt elected first Governor.

—1915—

Governor George W. P. Hunt elected for second term.

—1916—

U.S. Geological Survey issues Water Supply Paper 395 by E. C. LaRue which includes complete chronology of early explorations of Colorado River.

—1917—

Initial vote count declares Campbell (R) elected Governor. Vote contested and carried to Supreme Court, which decided in favor of Hunt (D). Hence

—136—

Campbell served as de facto governor to December 24, 1917, at which time Hunt took over for third term.

—1919—

- January 18-21 "League of the Southwest" to promote the development of the Colorado River organized at Salt Lake City by representatives of 7 Basin States.
- March 4 66th Congress convened.
- March 26 State Water Code Act became law, Ch. 164, Laws of Arizona, 4th Legislature. Created office of State Water Commissioner. W. S. Norviel appointed on June 28, 1919, by Gov. Hunt.

—1920—

- April 1-3 Second meeting of the "League of the Southwest" at Los Angeles.
- May 18 Kinkaid Act of May 18, 1920, directed study of Colorado River problems leading to Fall-Davis Report.
- August 25-27 Denver meeting of the "League of the Southwest". Officials of the Reclamation Service and representatives of the Imperial Valley and of Arizona pressed the necessity of immediate measures for flood control with incidental development of power and irrigation. It was agreed that the compact method would be used to settle interstate water rights on the Colorado River.

—1921—

Gov. Campbell (R)

- March 4 67th Congress convened.
- August 19 Colorado River Compact authorized by Act of Congress.
- December 8-10 "League of the Southwest" meeting at Riverside, California.

—1922—

- January 26 Colorado River Commission (compact) organized at Washington, D. C., with meetings extending to January 30. Herbert Hoover elected Chairman.
- February 4 Fall-Davis Report on "**Development of Imperial Valley**" submitted by Director A. P. Davis of the Reclamation Service to the Secretary of Interior. This report was printed later as Senate Document 142, 67th Congress, 2nd Session. It is commonly referred to as the Fall-Davis Report on the Colorado River.
- Public Hearings** at various points in the West were held by the **Colorado River Commission**, as noted below:

- March  
15-17 Phoenix, Arizona  
20 Los Angeles, California  
27-28 Salt Lake City  
29 Grand Junction, Colorado
- March 31  
April 1 Denver, Colorado  
2 Cheyenne, Wyoming
- April 25 1st **Swing-Johnson Bill**, to authorize construction of **Boulder Canyon Dam**, introduced in Congress.
- August 15 The Arizona Engineering Commission, created by State Water Commissioner W. S. Norviel, Chapter 42, Section 43, Special Sess. of the 5th Ariz. Legislature. Appointments: E. C. LaRue, Chairman, Porter Preston and H. E. Turner.
- November 9-24 **Colorado River Compact negotiations** at Santa Fe N.M. Compact signed by 7 Commissioners and Chairman Herbert Hoover Nov. 24.
- November 27 **La Plata River Compact** between Colorado and New Mexico negotiated and signed at Santa Fe, N. M. Approved by Congress January 25, 1925. Effective January 29, 1925.

## —1923—

Governor Hunt (D)

- March 4 68th Congress convened.
- July 5 Report—Arizona Land Irrigable from the Colorado River by Arizona Engineering Commission.
- December 10 2nd **Swing-Johnson Bill** introduced in Congress.
- December 20 **Reconnaissance Report of Arizona Land Irrigable from Colorado River** submitted to Governor by the Arizona Engineering Commission. It was a 72-page report with maps of irrigable lands and canal profiles.
- January-April **All States** (except Arizona) approve **Colorado River Compact** by legislative acts.

## —1925—

Governor Hunt (D)

- February 10 Bulletin No. 100 **Colorado River Problems** by G.E.P. Smith issued by University of Arizona.
- March 4 69th Congress convened.
- August 17 Phoenix Conference on **Lower Colorado River Water Supply and Power**, involving California, Nevada and Arizona.

December 1 **California and Nevada Committees submit proposal to Arizona for a 3-State Compact** to divide the waters of the Lower Colorado River Basin.

December 14 **Arizona Committee submits a counter-proposal on the Allocation of Benefits of the Lower Colorado River** to the California and Nevada Committees.

Water Supply Paper 556 on **Water Power and Flood Control, Colorado River below Green River, Utah**, by E. C. La Rue, issued by the U.S. Geological Survey.

—1926—

February 27 **3rd Swing-Johnson Bill, Boulder Canyon Project Act**, introduced in Congress by California.

December 19-29 Several meetings held at Los Angeles re **Lower Colorado River** by Arizona, California and Nevada.

—1927—

January 19-26 Conferences by Arizona, California and Nevada Committees held in Los Angeles in an attempt to reach a Tri-State agreement on **Division of Lower Colorado River Water**.

February 7-11

March 4 70th Congress convenes.

May 17 California legislative act provides for a **California-Colorado River Commission**.

May 30 Mexico announces appointment of a **Mexican Water Commission** — Engineers Gustav P. Serrano, Frederick Ramos, Javier Sanches Mejorada—for treaty re the **Equitable Distribution of Waters of the Rio Grande and Colorado River**.

August 22-September 1 **Governors' Conference with Commissioners and Advisors of the seven Colorado River Basin States** held at Denver. An attempt by the Governors of the four

September 19-Oct. 4 Upper Basin States to arbitrate a settlement of division of Lower Basin Water Supply among the three States of the Lower Colorado River Basin.

**Governors' Recommendation**

to California	4,200,000	acre-feet
to Arizona	3,000,000	acre-feet
to Nevada	300,000	acre-feet
apportionment to		
Lower Colorado		
River Basin, main		
stream water 7,500,000		
acre-feet		

—1928—

December 5-6 **Boulder Canyon Project** bill authorizing construction of Boulder Canyon Dam introduced in Congress: 4th Swing-Johnson bill.

- December 18 **Amended Boulder Canyon Project** bill passes Congress.
- December 21 **President Coolidge approves the Boulder Canyon Project Act.**

## —1929—

Governor Phillips (R)

Colorado River Commission of Arizona (3 members) created by Session Laws of 1929, Ch. 3, 9th Ariz. Legis.

- March 4 71st Congress convenes.
- February-April California, Colorado, Nevada, New Mexico, Utah and Wyoming legislatures **approve a Six-State Colorado River Compact.**
- February 14-March 5 **Tri-State Conference** by three **Lower Colorado River Basin States** at Santa Fe, N.M. Representatives of Upper Basin States present as interested observers.
- March 4 California legislature passes the "**California Limitation Act.**"
- March 6-8 Continuation of Santa Fe meeting at Albuquerque. N.M. Col. W. J. Donovan, representative of the Federal Government, served as Chairman.
- May 28-June 16 Washington Conference of **Lower Basin States Colorado River** with representatives of the Upper Basin States present.
- June 25 President Hoover issues proclamation making **Boulder Canyon Project Act effective.**
- August 16 Pamphlet on **Arizona's Rights in the Colorado River:** Proposals of Arizona and counter proposals of California by Senator A. H. Favour of Arizona.
- August 28 **7-State Conference Salt Lake City** re power and granting of power permits.
- October 21 **Allocation of Boulder Canyon power announced** by Secretary of Interior.  
Water Supply Paper 617 issued by U. S. Geological Survey, **Upper Colorado River and its Utilization**, by Engineer Robert Follansbee.

## —1930—

- January 20-31 **Lower Basin States Commissions confer at Reno, Nevada.** Upper Basin representatives attend. Meeting called at suggestion of Secretary of Interior. Senator Carl Hayden of Arizona is adviser for Arizona.
- February 6-9 Conference at Phoenix. This was an extension of the Reno meeting.

April 18 **Report of the American Section of the International Water Commission United States and Mexico. Information on International Boundary and International Rights on the Colorado, Rio Grande and Tia Juana. House Doc. 359, 71-2nd, 492 pp.**

## —1931—

Gov. Hunt (D)

March 4 72nd Congress convenes.

August 18 California seven-party agreement signed:  
 (1) Palo Verde Irrigation District  
 (2) Imperial Irrigation District  
 (3) Coachella Valley County Water District  
 (4) Metropolitan Water District of So. Calif.  
 (5) City of Los Angeles  
 (6) City of San Diego  
 (7) County of San Diego

## —1932—

December 1 **California Contracts for Colorado River Water with Secretary of Interior.**

	Acre-feet per annum
Palo Verde Irrigation District, Yuma Project, and Imperial Irrigation District, combined total .....	3,850,000
Metropolitan Water District of Southern California .....	550,000
	4,400,000

**From Surplus Water**

Metropolitan Water District of Southern California .....	550,000
City of San Diego .....	112,000
Imperial Irrigation District, Coachella Valley, and Palo Verde Irrigation District	
	962,000

## —1933—

February 6 "Lame Duck" amendment adopted, providing that the terms of the President and Vice President shall end quadrennially on January 20 and Congress convene annually on January 3. These provisions to take effect October 15, 1933.

February 10 **Contract entered into between the United States and the Metropolitan Water District of Southern California for Construction of Parker Dam on Colorado River, diversion point for the proposed Los Angeles aqueduct.**

March 4 73rd Congress convenes.

## —1934—

February 14 **Arizona v. California Et al** (292 U.S. 341 (1934)). Arizona moves for leave to file its original bill of complaint to perpetuate testimony in actions arising out of the Boulder Canyon Project Act. Leave to file bill denied on May 21, 1934.

## —1935—

Gov. Moeur (D)

January 3 74th Congress convenes.

January 14 **United States v. Arizona** (295 U.S. 174 (1935)). The United States files a bill in equity to perpetually enjoin interference by Arizona with construction of Parker Dam on the Colorado River on which work was commenced on September 10, 1934. Bill dismissed on April 29, 1935.

March 1 **Boulder Dam and Power Plant completed.** Reservoir capacity 32,359,000 acre-feet. Storage commenced on February 1, 1935.

October **Arizona v. California Et al** (298 U.S. (1936)). Arizona petitions for leave to file a bill of complaint against California and several other states, seeking a judicial apportionment among the States in the Colorado River Basin of the unapportioned water of the river; California to be limited to 4,400,000 acre-feet annually and any increase of water to which Mexico may be entitled shall be supplied from amount apportioned to California; also that Arizona's quantum be fixed by the Court and title be quieted against adverse claims of other States. Petition denied on May 25, 1936.

## —1937—

Gov. Stanford (D)

January 3 75th Congress convenes.

June 21 Gila Reclamation Project finding of feasibility approved by President Roosevelt.

July 1 California enacts legislation providing for the "**Colorado River Board of California.**"

December 31 Consulting Engineers **Joseph Jacobs and J. C. Stevens** submit to the Secretary of the Interior a report on "**Surplus Waters of the Colorado River System,**" a very complete report on Water Supply of the Colorado River, indicating water available for Mexico.

## —1938—

June 22-23 Conference of Colorado River Basin States at Phoenix. Origin of conference: a letter of Governor Stan-



ford of Arizona to Secretary of State Hull re the international situation on the Colorado River; no treaty with Mexico. A 7-States Committee of Fourteen appointed to consider a comprehensive plan for development of the Colorado River.

- July 1 **Parker Dam completed on Colorado River** and storage commences in Lake Havasu, capacity 697,000 acre-feet. Lake Havasu is the diversion point of the Los Angeles aqueduct.
- July **A Fact Finding Committee of the Upper Colorado River Basin States** submits a report to the Governors of Colorado, New Mexico, Utah and Wyoming.
- October 6-7 **Conference of Colorado River Basin States** at Salt Lake City. Organization of Committee of Fourteen considers application of Arizona to Federal Power Commission for a preliminary permit for the Bridge Canyon Project on the Colorado River.
- December 18 **Conference of Committee of Fourteen** of Colorado River Basin States at Phoenix. Discussion of Bridge Canyon Project. Action on a preliminary permit deferred.

—1939—

- January 8 76th Congress convenes.
- March 9 **Colorado River Commission of Arizona organized.**
- March 15-16 **Conference of Committee of Sixteen of Colorado River Basin States** at Denver to consider draft of Boulder Canyon Project adjustment act. Also conference of Committee of Fourteen re Bridge Canyon Project.
- June 7 **Conference of Committee of Fourteen** of Colorado River Basin States at Los Angeles. Discussion of International Problem, Bridge Canyon Project, Colorado River Investigations and Boulder Canyon Project Act.
- November 17-18 **Conference of Committee of Fourteen** at Denver considered Bridge Canyon Project application, Arizona's application for contract for Colorado River water from Lake Mead, and reviewed the Jacobs-Stevens Report of the Colorado River.

First year **Metropolitan Water District** diverts water from the Colorado River at Lake Havasu to Los Angeles. Pumping commenced January 7, 1939.

Bureau of Reclamation began investigations of potential water utilization projects in the Lower Colorado River Basin.

## —1940—

- July 19 **Boulder Canyon Project adjustment act enacted by Congress.** The provisions stabilize power rates, provide for annual payments of \$300,000 to Arizona, \$300,000 to Nevada, and \$500,000 yearly to a Colorado River Development Fund. Interest rates reduced.
- November 16 **Conferences of Committees of Fourteen and Sixteen at Boulder City, Nevada.**
- Bureau of Reclamation began work on report on Lower Colorado River Basin which culminated in "Blue Book."

## —1941—

- January 3 77th Congress convenes.
- May 29 **Boulder Canyon Project Adjustment Act declared in effect by Secretary of Interior.**
- October 22-23 **Conferences of Committees of Fourteen and Sixteen at Los Angeles.**

## —1942—

- January Consulting Engineer Donald E. Scott submits a **Preliminary Report on the Bridge Canyon Project and its Relation to the Glen Canyon River Control Project** to the Colorado River Commission of Arizona.
- March 30 **Nevada enters into a contract with the Secretary of the Interior for delivery of 100,000 acre-feet annually from the Colorado River.**
- June 17-20 Conference of **Committee of Fourteen at El Paso** re legal and engineering reports on the International situation on the Colorado River.
- July 27 **A Memorandum on Behalf of the Committee of Fourteen of the Colorado River Basin States Relating to an Apportionment of the Waters of the Colorado River to Mexico.**
- October 17 **Conference of Committees of Fourteen and Sixteen and Power Allottees of the Colorado River Basin, Denver, re International Phases of the Colorado River.**
- November 16-18 **Conferences of the Committees of Fourteen and Sixteen and Power Allottees re a treaty with Mexico on Colorado River Waters.**

## —1943—

- January 3 78th Congress convenes.

- April 14-16 **Conferences of the Committees of Fourteen and Sixteen and Power Allottees** of the Colorado River Basin States, Santa Fe, to consider a Proposal of the Department of State for allocation of Colorado River Waters to Mexico.
- May 3-5 **Conference of Committee of Fourteen, Phoenix**, re Legislative authorization of Arizona to negotiate a contract for Colorado River Water with the Secretary of Interior.
- May 26-27 **Conference of Committee of Fourteen** at Denver re Water Contract for Arizona from Colorado River.
- October 30 **Conference of Committee of Fourteen** at Denver to consider a draft of a Water Contract for Arizona from Colorado River.
- November 10-11 **Conference of Committees of Fourteen and Sixteen and Power Allottees** at Denver, to consider a Report on a Comprehensive Plan of Development of the Colorado River.

## —1944—

- January 3 **Nevada** executes a contract with the Secretary of the Interior for the **delivery of 200,000 acre-feet per year** from the Colorado River.
- February 3 **United States and Mexico representatives sign a Treaty Relating to the Rio Grande and Colorado and Tia Juana Rivers.** 1,500,000 acre-feet of water per year allotted to Mexico from the Colorado River.
- February 9 **Arizona** enters into a contract with the Secretary of the Interior for **delivery of 2,800,000 acre-feet annually** from storage of Colorado River Water in Lake Mead.
- February 24 **Arizona appropriates \$200,000 for a co-operative investigation** by the Bureau of Reclamation for utilization of the Colorado River in Arizona.
- Colorado River Compact (1922) ratified by the Legislature of Arizona.
- March 27 The Arizona Power Authority established by Legislature, Ch. 32, Laws of 1944, 2nd Special Session.
- July 31 **Arizona and the Bureau of Reclamation make a contract for the expenditure of \$400,000 for a co-operative investigation of the utilization of waters of the Colorado River.**

## —1945—

- January 3 79th Congress convenes.
- February 22 Colorado River Commission abolished; Ch. 4, Laws of 1945, 1st Special Session.

- September 29 Colorado River matters placed in hands of Governor; Ch. 4, Session Laws of 1945.
- October 3 Powers of administration transferred to State Land Commissioner; Ch. 14, Session Laws of 1945, effective Oct. 3, 1945, and electric power responsibility to Arizona Power Authority.
- November 27 Presidential proclamation on United States-Mexican Water Treaty declares it effective on Nov. 8, 1945.

## —1946—

## Governor Osborn (D)

- March 22 "The Colorado River Report", by the Bureau of Reclamation, submitted to the Commissioner of Reclamation, outlines development of the water resources of the Colorado River Basin. 285 pages on status of development as of 1943 and projects for future development.
- July 22 Governor's meeting at Cheyenne, Wyoming, setting up the Upper Colorado River Basin Compact Commission.
- July 29-30 Conference of the Colorado River Basin States at Salt Lake City. California members of committees of Fourteen and Sixteen resign (by letter); conference then continued as Colorado River Basin States Committee considers the Colorado River Report by the Bureau of Reclamation.
- July 31 First meeting of the Upper Colorado River Basin Compact Commission, Salt Lake City, Utah.
- September 17-18 2nd meeting of Upper Colorado River Basin Compact Commission at Santa Fe, New Mexico.
- October 28, 30-31 & November 2 Public Hearings held by Upper Colorado River Basin Compact Commission in Rock Springs, Wyoming; Grand Junction, Colorado; Price, Utah; and Farmington, New Mexico.

## —1947—

## Governor Osborn (D)

- January 3 80th Congress convenes.
- April Gila Project Re-authorization bill amended by Senate Subcommittee on Irrigation and Reclamation.
- April 28 S. 1175, Bridge Canyon Project, introduced by Senator Ernest McFarland.
- June 23 to July 3 Senate Hearings on S. 1175 (Bridge Canyon Project), later called Central Arizona Project, held before a subcommittee on Public Lands.

- July 3 McCarran-Downey Resolution, S.J.R. 145, granting leave to bring suit in the U.S. Supreme Court to adjudicate Colorado River water.
- July 14 House Public Lands Committee reports on re-authorization of the Gila Project and recommends litigation to settle dispute. (See Hearings Report No. 910 on H.R. 1597.)
- July 30 Gila re-authorization bill passes. (61 Stat. 628)
- September 8 4th meeting of Upper Colorado River Basin Compact Commission at Cheyenne, Wyoming.
- October 1-2 Colorado River Basin States Committee at Salt Lake City. Consideration of Colorado River Development Fund, the Henshaw Bill and Senate Joint Resolution 145.
- November 20-21 Colorado River Basin States Committee at Salt Lake City. Considered status of plans, investigations, projects authorizations and construction in the Colorado River Basin, Colorado Trans-Mountain Diversion Projects, Lower Colorado River Basin Projects, Indian Office Projects, Colorado River Development Fund.
- December 1-4 5th Meeting of the Upper Colorado River Basin Compact Commission at Denver, Colorado.
- December 19 Report on Central Arizona Project submitted to the Secretary of the Interior by the Commissioner of Reclamation.

## —1948—

- January 31 Arizona Interstate Stream Commission authorized by legislative act.
- February 5 Central Arizona Project Report approved by Secretary of Interior Krug.
- February 17-21 6th Meeting of Upper Colorado River Basin Compact Commission at Denver, Colorado.
- March 16 Conference of Colorado River Basin States Committee at Washington, D. C.
- May House Hearings on H.R. 225, 226, 227, 236, and 4097 McCarran-Downey bills providing for interstate litigation on the Colorado River.
- May 11 Conference of Colorado River Basin States Committee at Washington, D. C.
- May 25 Governor Osborn passed away; succeeded by Governor Garvey (D).
- July 7-21 7th Meeting of Upper Colorado River Basin Compact Commission at Vernal, Utah.

- September 16 The Secretary's Report and Findings on the Central Arizona Project are submitted to Congress. Published in House Doc. 156.
- October 11 Upper Colorado River Basin Compact entered into by Arizona, Colorado, New Mexico, Utah and Wyoming on October 11, 1948, at Santa Fe. The Compact apportions 7,500,000 acre-feet per year of Upper Basin Water among the five states.
- November 29-30 9th Meeting of the Upper Colorado River Compact Commission at Denver, Colorado.

—1949—

Gov. Garvey (D)

- January 3 81st Congress convenes.
- January 21 Colorado River Compact ratified; Sec. 1, Ch. 4, Arizona Laws of 1949, A.R.S. 45-581.
- February 17-18 10th meeting of Upper Colorado River Basin Compact Commission at Salt Lake City, Utah.
- March-June House Hearings on H.R. 934, 935, a bill authorizing construction of the Central Arizona Project.
- March-May Hearings on legal phases of the water rights of the Central Arizona Project by a Judiciary Committee of the House.
- April 9 U. S. Congress ratified Upper Colorado River Basin Compact.
- August 3 A favorable report is made on S. 175, Central Arizona Project, by the Senate Committee. Estimated cost: \$708,780,000.
- August 5 11th meeting and sine die session of Upper Colorado River Basin Compact Commission, Salt Lake City, Utah.

—1950—

Gov. Garvey (D)

- January 4 President Truman appoints a Water Resources Policy commission of 7 members to make a report by December 1.
- February 21 The Central Arizona Project Bill (S. 75) passes the Senate by a vote of 55 to 28; California amendments lose.
- October 2 Time of opening of Legislature changed to annually on 2nd Monday of January; changed from biennial sessions commencing 2nd Monday after election of members.
- December 15 Central Arizona Project Bill (H.R. 934, 935), which had earlier passed the U.S. Senate 55-28, dies in the

House of Representatives when the Public Lands Committee refuses to consider it prior to the end of the Second session of the 81st Congress.

## —1951—

Gov. Pyle (R)

- January 3 82nd Congress convenes.
- January 30 Senate Committee on Interior and Insular Affairs approves, without hearings, S. 75, the reintroduced **Central Arizona Project Bill**, by a vote of 8 to 2.
- February 27- April 18 Hearings before the House Committee on Interior and Insular Affairs on H.R. 1500 and H.R. 1501, identical companion bills authorizing the **Central Arizona Project**.
- April 18 Action on the **Central Arizona Project** was indefinitely postponed by the House Committee on Interior and Insular Affairs.
- June 5 U. S. Senate passes the **Central Arizona Project** bill by a vote of 50 to 28.
- June 15 Yuma County Water Users' Ass'n. contract with Secretary of the Interior for water.

## —1952—

- January 12 *Bristor v. Cheatum*, 73 Ariz. 228, 240 P 2d 185, Held that underground waters are presumed to be percolating until proved otherwise; that percolating waters found on U.S. public lands are appropriable; and that, since such was the effect of the Desert Land Act, the Arizona Legislature could do nothing about it. Rehearing March 14, 1953 (see that date in chronology).
- March 4 Wellton-Mohawk contract for water with Secretary of Interior.
- Application for right of way for **Granite Reef Aqueduct** from Colorado over federal lands filed with U. S. Land Office; granted on July 18.
- August 13 **Arizona vs. California**: Arizona files interstate suit against California over division of Colorado River Waters.
- December 31 U. S. Justice Department files a formal request with the U. S. Supreme Court to intervene in proposed suit by **Arizona against California**.
- December 22 Yuma Auxiliary Project, Yuma County Water Users Ass'n., Unit B contracts with Secretary. (Unit B and Auxiliary are same thing.)

—1953—

Gov. Pyle (R)

- January 3 83rd Congress convenes.
- January 19 U. S. Supreme Court grants Arizona's motion to file her complaint against California over use of Colorado River water: also authorizes the U. S. to intervene.
- February 10 Sidney Kartus, et al., files a motion to intervene in **Arizona v. California.**
- March 4 Arizona files an objection to the **Kartus motion.**
- March 14 *Bristor v. Cheatum* 75 Ariz. 227, 225 P 2d 173, Held that "groundwater" means "natural percolating water"; that such water is not subject to appropriation; and that the owner of lands overlying groundwater may freely use it for the purpose of putting the land from which the water is taken to a beneficial use, subject only to the condition that his use thereof shall be reasonable.
- March 16 The U. S. Supreme Court denies the **Kartus motion.**
- May 12 North Gila Valley Irrigation District authorized.
- May 19 California files its answer to **bill of complaint** and 399 pages of appendices with 7 maps.
- May 20 **Colter Water Project Association**, incorporated, files a motion for leave to file brief amicus curiae.
- June 1 **Colter Water Project Association** leave denied.
- August 17 California files in office of Attorney General a "Memorandum re: Issues Affecting the Federal Government."
- August 28 Arizona files its **reply** to the California **answer.**
- October 7 California files a **rejoinder** to Arizona's **reply** to the California **answer.**
- November 2 United States files petition of intervention; **recalled.**
- December 8 United States files petition of intervention in **Arizona v. California.**
- December 17 Nevada files motion to intervene in **Arizona v. California** and petition of intervention.

—1954—

- February 5 Arizona files **response** to Nevada's motion for leave to intervene.
- February 11 Arizona files **answer** to United States intervention.



April 5 California files **answer** to United States intervention.  
 April 5 California files **answer** to Nevada's motion to intervene.  
 May 13 U. S. files **memo** requesting **pre-trial conference**.  
 May 26 Arizona files **response** to U. S. memo requesting **pre-trial conference**.  
 May 28 California files **reply** to U. S. memo requesting pre-trial conference.  
 June 1 U. S. Supreme Court grants **motion of Nevada to intervene**.  
 June 1 U. S. Supreme Court appoints **George I. Haight** as Special Master.  
 June 1 Nevada files reply to answer of California to **petition of intervention** by Nevada.  
 June 17 Nevada files memo in reply to memo of U. S. requesting **pre-trial conference**.  
 July 14 Arizona files answer to **petition of intervention** by Nevada.  
 July 15 California files motion to join, as parties, **Colorado, New Mexico, Utah and Wyoming**.  
 July 15 California files motion for leave to file an **amended answer** to the Arizona bill of complaint.  
 July 29 Nevada files **answer** to petition of intervention by the United States.  
 August 13 Arizona files **response** to California's motion to join, as parties, the states of Colorado, New Mexico, Utah and Wyoming.  
 August 27 Nevada files **reply** to answer of State of Arizona to petition of intervention of Nevada.  
 October 7 California files **brief** in support of motion to join the states of Colorado, New Mexico, Utah and Wyoming.  
 December 27 Colorado and Wyoming file **brief** opposing motion of California to join Colorado and Wyoming as parties to Arizona vs. California.  
 December 27 New Mexico files **brief** opposing motion of California to join Colorado, New Mexico, Utah and Wyoming.  
 December 27 Utah files **brief** opposing motion of California to join Utah.

## —1955—

January 8 84th Congress convenes.  
 January 10 The U. S. Supreme Court grants California 30 days to answer **pleadings** of Upper Basin states.

- February 7 Nevada files **brief** re motion of California to join Colorado, New Mexico, Utah and Wyoming. Nevada submitted that Utah and New Mexico were necessary parties.
- February 9 California files **reply brief** in support of motion to join Colorado, New Mexico, Utah and Wyoming.
- February 28 The U. S. Supreme Court refers the matter of joining the states of Colorado, New Mexico, Utah and Wyoming to Special Master Haight.
- February 28 The U. S. Supreme Court grants California's motion for leave to file an **amended answer** to Arizona's bill of complaint.
- February 28 The U. S. Supreme Court asks Special Master Haight to report with convenient speed his opinion and recommendation re the **California motion** to join the Upper Colorado River Basin States of Colorado, New Mexico, Utah and Wyoming.
- April 12-15 Hearing in Phoenix by Special Master Haight re California's motion to **extend its legal fight** with Arizona to include the four Upper Basin States.
- April 17 **Field trip** over Arizona projects, Colorado and Gila Rivers, by Master, attorneys and engineers.
- July 15-21 **Field trip** by Special Master Haight over California projects on Colorado River; accompanied by attorneys and engineers of Arizona, California and Nevada.
- July 18 Special Master Haight submits his **report to the U. S. Supreme Court** on California's motion to join as parties the states of New Mexico, Utah, Colorado and Wyoming.
- Findings and Recommendations:** The motion should be denied as to the four Upper Basin states. The motion should be allowed as to New Mexico and Utah in their capacities as Lower Basin states.
- September 30 Death of Special Master George I. Haight forces postponement of pre-trial conference and portends delay in final adjudication of Colorado River case.
- October 10 Simon H. Rifkind, New York attorney and former federal judge for the southern district of New York, appointed by U. S. Supreme Court as special master in the Arizona-California water suit to succeed Mr. Haight.
- October 14 Nevada files **exceptions** to Report and Recommendations of Special Master concerning California's motion to join Colorado, New Mexico, Utah and Wyoming.
- October 20 United States files **motion** for determination of questions of law presented by pleadings in the cause of the Special Master's report.

- October 20 California defendants file **exceptions** to Report and Recommendations of Special Master respecting joinder motion and brief in support of exceptions.
- October 21 California defendants file **memorandum** in reply to motion of the United States for determination of questions of law presented by pleadings and report of the Special Master.
- November 1 Arizona files **memorandum** in reply to motion of United States for determination of questions of law and reply to exceptions of California and Nevada to Master's Report on joinder question.
- November 4 California defendants file **reply** to Arizona's memorandum directed to Special Master's report.
- November 4 Colorado, Wyoming, Utah and New Mexico file response to motion of United States for determination of questions of law on joinder motion.
- November 7 **Order** setting joinder motion for argument on Exceptions and Order denying motion of the United States for Determination of legal points: 350 U.S. 880.
- December 8 **Oral argument** before U. S. Supreme Court on California motion to join Upper Basin States.
- December 12 Court sustains Master's **recommendations**, denying California motion to join Upper Basin States, joining only New Mexico and Utah as Lower Basin States.

—1956—

- January 3 California petitions for **rehearing** of decision denying motion to join Lower Basin States.
- January 23 Court **reaffirms** decision.
- January 30 **Meeting** held with Special Master Rifkind in New York City to re-schedule pre-trial conference.
- February 13 Utah files **complaint and answer** in intervention.
- February 22 New Mexico files **appearance** and statement.
- February 28 California files **answer** to complaint and answer by Utah.
- February 29 Utah files **informal statement**.
- February 29 **Statement of position** filed by Arizona.
- February 29 **Statement** filed on behalf of California defendants.

February 29 **Response** filed by Arizona to appearance and statement of New Mexico.

February 29 **Response** filed by Arizona to complaint and answer of Utah.

March 2 **Statement** of issues filed by the United States.

March 2 New Mexico files appearance and statement of its claim of interest in and to Lower Basin waters.

March 12 **Statement** filed by Nevada.

March 12 Nevada files **answer** to complaint and answer of Utah.

March 14 California defendants file **answer** to appearance and statement of New Mexico concerning its interest in and to Lower Basin waters and address interrogatories to New Mexico.

March 15 Arizona files **response** to complaint and answer by Utah.

March 15 Arizona files **response** to appearance and statement of New Mexico.

March 19 Nevada files **answer** to appearance and statement of New Mexico.

April 9 **Pre-Trial conference** opens in San Francisco.

April 19 Ch. 150, S.B. 195, appropriating \$350,000 for investigations to the Arizona Interstate Stream Commission.

June 11 **Order** fixing **compensation** of George I. Haight, as Special Master awarded to Kathleen Haight, Executrix of the Estate of George I. Haight, Deceased. 351 U.S. 977.

June 14 **Trial** opens in San Francisco.

August 13 **Notice of motion** and **motion** of the California defendants to strike certain exhibits introduced by Arizona.

August 22 **Notice of supplemental motion** and **supplemental motion** of the California defendants to strike certain exhibits introduced by Arizona.

August 27 **Opening statement** on behalf of California.

December 26 **Request** of California defendants for admissions.

—1957—

Gov. McFarland (D)

January 3 85th Congress convenes.

January 5 **Answer** and **objections** by Arizona to request for admissions and notice.

January 30 California files **tentative outline of witnesses**, Feb. 11-22.

May 4 Arizona files **motion** for order to permit inspection and copying or photographing of documents and records and notice.

May 6 California files **memorandum** re admissability of recitals fact in ancient documents or statements of deceased persons.

May 8 **Tentative outline of witnesses** filed for Metropolitan Water District of Southern California.

May 14 Arizona files **memorandum** re competency of ancient document recitals.

May 15 Arizona files general **memorandum** re reserved powers of United States in navigable waters.

May 17 California files **notice of motion** and **motion** for production of documents by United States.

May 17 California files **notice of motion** and **motion** for production of documents by Arizona.

June 4 Arizona **response** to motion of California for production of documents.

June 17 **Order fixing Payment on Account** of the Fees to be awarded by Compensation for the Services of Simon H. Rifkind, Special Master, and approving Expense Funds. 354 U.S. 918.

July 1 Court **resumed** before Special Master at San Francisco.

July 1 **Opening statement** on behalf of Yuma Project in California.

July 5 **Opening statement** by Metropolitan Water District.

July 18 Court **recessed**.

August 5 Court **resumed** before Special Master at San Francisco.

August 5 Arizona submitted **Amended and Supplemental Statement of Position**.

August 12 **Opening statement** by the United States.

August 22 California filed **motion** to require Arizona to amend original pleadings.

August 23 Court **recessed**.

December 20 Joint contract entered into by Stream Commission and Arizona Power Authority with Harza Engineering Co. to investigate potentiality of water resources to serve cities on plateau.

—1958—

Gov. McFarland (D)

- January 6 Court **resumed** before Special Master at San Francisco.
- January 17 Court **recessed**.
- February 15 Arizona filed **memorandum** on its request for admissions as to non-compliance in Imperial Irrigation District with excess land provisions of federal reclamation laws.
- February 17 to March 11 New Mexico **depositions**, special session, Silver City, N. Mex.
- April 15 Stream Commission employed Mr. Carl Anderson to make survey, study and estimate of cost of a state-wide water resources inventory. A report was made after one and one-half years of study.
- May 2 Court **resumed** before Special Master at San Francisco.
- May 5 **Opening statement** on behalf of State of Nevada.
- May 14 State of New Mexico opened its case.
- May 19 State of Utah opened its case.
- May 19 Court **recessed**.
- June 9 **Order** fixing **Payment on Account** of the Fee to be awarded as Compensation for the Services of Simon H. Rifkind, Special Master. 357 U.S. 902.
- July 1 Court **resumed** before Special Master at San Francisco. Arizona opens **rebuttal**.
- July 15 Court **recessed**.
- July 17 Joint contract between Stream Commission and USGS to make topographical maps of northern counties.
- August 4 Additional Gila River **deposition hearings** open at Silver City and Reserve, N. Mex.
- August 11 Court **resumed**. United States opens **rebuttal**.
- August 12 California opens **rebuttal**.
- August 13 Arizona files motion for **leave to file** amended pleadings.
- August 13 Arizona files **amended bill of complaint**.
- August 13 Arizona files **amended reply** to California defendants' answer.
- August 13 Arizona files **amended answer** to Petition of Intervention on behalf of the State of Nevada.

- August 13 Arizona files **amended response** to appearance and statement of New Mexico.
- August 13 Arizona files **amended response** to the complaint and answer in intervention by the State of Utah.
- August 14 California opens **surrebuttal**.
- August 22 California files **reply** to Arizona's motion for leave to file amended pleadings.
- August 28 Arizona conducts **surrebuttal**. All parties rest and trial ends. Court adjourns sine die.

—1959—

Gov. Fannin (R)

- January 3 86th Congress convenes.
- April 1 Arizona files **proposed findings of fact and conclusions of law** and opening brief in support thereof.
- April 1 California defendants file **proposed findings of fact and conclusions of law** and briefs in support thereof.
- April 1 Nevada files **proposed findings of fact and conclusions of law** and brief in support thereof.
- April 1 New Mexico files **requested findings of fact and conclusions of law** and brief in support thereof.
- April 1 United States files **proposed findings of fact and conclusions of law** and brief in support thereof.
- April 1 Utah files **proposed findings of fact and conclusions of law**.
- June 1 Arizona files **objections** to findings of fact and conclusions of law proposed by other parties and answering brief in support thereof.
- June 1 Arizona files **Special Appendix** as basis for Arizona's objections to New Mexico's proposed findings and conclusions relating to "present uses" and "future uses."
- June 1 California defendants file **response** to findings, conclusions and briefs proposed by other parties April 1, 1959, with supplemental and alternative proposed findings and conclusions and supplementary brief on behalf of Metropolitan Water District of Southern California.
- June 1 Nevada files **answering** brief.
- June 1 New Mexico files **objections** to certain requested findings and conclusions of Arizona, California, Nevada and the United States.
- June 1 Utah files **reply** brief to findings and conclusions proposed by other parties.

June 4 United States files **reply** brief.  
 June 30 California defendants file **rebuttal** brief.  
 June 30 California defendant, Imperial Irrigation District,  
 files **supplemental** rebuttal brief.  
 June 30 Nevada files **reply** brief.  
 June 30 New Mexico files **rebuttal** brief.  
 June 30 United States files **rebuttal** brief.  
 June 30 Utah files **rebuttal** brief.  
 November 12 City of Yuma Water Contract signed.

## —1960—

Gov. Fannin (R)

April 18 Stream Commission executed contract with Bureau  
 of Reclamation for Cooperative Basic Data Program  
 financed with \$100,000 from State and \$100,000  
 from Bureau. (No. 14-06-300-1008)  
 June 6-10 All parties file comments on Decree.  
 August 31 California files motion to reopen trial for evidence  
 of water depletion.  
 September 9-23 Comments filed by all parties to motion to reopen  
 trial for evidence of water depletion.

## —1961—

Gov. Fannin (R)

January 3 87th Congress convenes.  
 February 20 Nevada files exceptions to final report and recom-  
 mended decree.  
 February 27 Arizona files motion for adoption, with exceptions,  
 of final report and recommended decree.  
 February 27 California defendants file exceptions to final report.  
 February 27 Imperial and Palo Verde Irrigation Districts file  
 additional objections and exceptions to final report  
 and recommended decree.  
 February 27 Metropolitan Water District files exceptions.  
 February 27 New Mexico files exceptions.  
 February 27 United States files exceptions.  
 February 27 Utah files statement announcing that it would not  
 file any comments on the final report.



- April 24 Contract with Bureau of Reclamation for re-evaluation of the Central Arizona Project report of 1947. (\$100,000)
- May 15 Nevada files opening brief.
- May 22 Arizona, California and the United States file opening briefs. (Note: New Mexico and Utah did not file opening briefs.)
- August 14 Arizona, California, Nevada and the United States file answering briefs.
- October 2 Arizona, California, Nevada and the United States file reply briefs. Imperial Irrigation District files closing brief.
- November 6 U. S. Supreme Court sets oral arguments for January 8, 9, 10 and 11, 1962.
- November 20 Contract with Bureau of Reclamation for investigations involving water utilization outside the Central Arizona Project area. (\$50,000)
- December 19 Contract with Bureau of Reclamation for investigation of Yuma Valley drainage problem. (\$10,000)

## — 1962 —

Gov. Fannin (R)

- January 8 Oral arguments open in *Arizona v. California et al.*
- January 11 Oral arguments close.
- January 23 Governor signs HB 207 authorizing Arizona Interstate Stream Commission to consult, advise and cooperate with U. S. Secretary of Interior re Colorado River contracts and appoint State Water Engineer.
- June 4 Supreme Court orders *Arizona v. California et al* restored to the calendar for reargument October 8, 1962.
- July New concept in river planning devised by Bureau of Reclamation to draw all states of the Lower Basin together for legislation to implement development as soon as *Arizona v. California* settled.
- July 2 Court resets rearguments for November 13, 1962.
- September 10 Federal Power Commission hearing. Examiner recommends issuance of license to Arizona Power Authority for Marble Canyon Dam.
- September 15 Navajo Dam dedication. Secretary Udall tells Stream Commissioners that regional plan is only route: "Don't worry about Marble. When you know what I have in mind, you'll all be for it."

## —1963—

Gov. Fannin (R)

- January 3 88th Congress convenes.
- January 18 Aspinall letter to Secretary requesting report on water and power needs of Pacific Southwest and outlining study of proposed Lower Colorado River Project.
- January 22 Secretary Udall announces the start of studies leading to regional plan.
- January 24 Senator Hayden introduces S. 502 to withdraw River from jurisdiction of Federal Power Commission.
- April 8 Ch. 97, Laws of Arizona, Regular Session, 1963, appropriates \$50,000 to be used by Bureau of Reclamation for studies in five northern counties.
- June 3 Court hands down opinion. Arizona victory climaxes litigation lasting more than a decade.
- June 4 Bills to authorize the Central Arizona Project introduced in Congress: Senate: S.B. 1658. House: H.R. 6798, H.R. 6797 and H.R. 6796 by entire Arizona Congressional delegation.
- June 17 Court gives California until September 16 to petition for reconsideration.
- August 27 Hearings before Senate Subcommittee on Irrigation and Reclamation on S. 1658.
- September 16 California files motion for re-hearing in *Arizona v. California*.
- September 28 Aspinall speech to State Reclamation Association in Phoenix outlines need for unity and desirability of regional approach.
- October 1 Hearings before Senate Sub-committee on Irrigation and Reclamation on S. 1658.
- October 21 Court denies California motion for re-hearing.
- November 21 Contract with Bureau of Reclamation for investigation of water potentiality of five northern counties (\$50,000).

## —1964—

Governor Fannin (R)

- January 27 Congressman Rhodes introduces H.R. 9752 to withdraw River from Federal Power Commission jurisdiction until December 31, 1965.
- February 14 Pacific Southwest Water Plan Report submitted to Federal Power Commission. Deadline for comments

set at March 15, 1964. Arizona Power Authority comments in opposition filed March 12.

- February 24 Senator Hayden writes to Senator Moss, Chairman of the Subcommittee on Irrigation and Reclamation of the Senate Interior and Insular Affairs Committee, objecting to Auburn-Folsom South Project.
- March 4 The Subcommittee on Irrigation and Reclamation of the Senate Interior and Insular Affairs Committee reports on S. 502 with "do pass" recommendation.
- March 9 Supreme Court hands down decree in *Arizona v. California*.
- March 9 Subcommittee on Irrigation and Reclamation of the Senate Interior and Insular Affairs Committee opens hearings on PSWP.
- March 16 Climax of dispute between Arizona Power Authority and Arizona Interstate Stream Commission ends in passage of memorial to Congress favoring S. 502 and H.R. 9752. Vote in Senate, unanimous; in the House: 53, for; 13, against; 11, not voting.
- April 9 Hearings on S. 1658, Part 2, opened before Subcommittee on Irrigation and Reclamation of the Senate.
- April 22 Senator Kuchel of California introduces S. 2760, his version of a regional plan.
- May 8 Senators Hayden and Goldwater file statements with Senate Interior and Insular Affairs Committee asking for immediate start of Central Arizona Project.
- June 23 S. 502, introduced by Senator Hayden to declare moratorium on Colorado River development, is passed by Senate.
- June 30 H.R. 9752, introduced by Congressman Rhodes, declaring moratorium on river, is approved by Interstate and Foreign Commerce Committee.
- July 2 H.R. 9752 passed by House.
- July 27 Senate Subcommittee on Irrigation and Reclamation approves S. 1668, the Moss substitute for the original Hayden-Goldwater bill.
- July 31 Senate Committee on Interior and Insular Affairs reports Moss bill out with recommendation of "do pass as amended."
- August 11 Senators Kuchel and Salinger of California introduce bill providing for study of water needs in Colorado River Basin. Bill stipulates that California's court-allotted 4.4 million acre-feet of water be "protected" forever against Central Arizona Project.
- August 14 S. 502, Colorado River moratorium bill, passed by Senate, goes to White House.

- August 20 House Irrigation and Reclamation Subcommittee announces plans for hearing in Phoenix November 9 and 10 and on-site study of Central Arizona Project.
- September 17 Senator Kuchel files dissent to report by Senate Committee on Interior and Insular Affairs approving Moss bill.
- November 9 House Irrigation and Reclamation Subcommittee holds hearing in Phoenix.
- November 10 Members of subcommittee tour CAP damsites and proposed waterway and view agricultural lands abandoned for lack of water.

## —1965—

Gov. Goddard (D.)

- January 3 89th Congress convenes.
- January 6 Senators Hayden and Fannin re-introduce CAP-regional-development bill—S. 75.
- January 6 Senators Kuchel and Murphy introduce S. 294, California version of the regional development plan, proposing guarantee to California of 4.4 million acre-feet per year until additional 2.5 million acre-feet are imported to Colorado River from outside sources.
- January 11 Representative Hosmer of California introduces H.R. 2264, companion to Kuchel-Murphy bill.
- February 1 Moving to break Arizona-California impasse, Senator Hayden accepts Kuchel amendment guaranteeing 4.4 million acre-feet to California until at least 2.5 million acre-feet are imported from outside sources, if first passed by House.
- February 1 S. 935 introduced by Senator Allott of Colorado to authorize the appropriation of receipts of Colorado River Development Fund for allowances to Hoover Dam power plant for deficiencies in firm energy generation.
- February 8 Senator Kuchel introduces S. 1019, incorporating terms of compromise. Similar legislation introduced in House by 34 California representatives. (Representative Johnson becomes the 35th California co-sponsor several months later.) Secretary Udall hails compromise as "great breakthrough."
- February 9 H.R. 4671, H.R. 4676 and H.R. 4677 are introduced by Congressmen Udall, Rhodes and Senner respectively to authorize Lower Colorado River Project and for other purposes.
- February 17 S. 1167 introduced by Senator Hayden to authorize construction, operation, etc., of Buttes Dam Reservoir.

- February 25 Senate passes S. 21, a bill to provide for development of the nation's natural resources through the coordinated planning of water and related land resources, through the establishment of a water resources council and river basin commissions, and by providing financial assistance to the States in order to increase State participation in such planning.
- March 24 Governors and U.S. senators of Arizona and California meet with President Johnson, assure him that the two states are now in accord and will work together to solve Southwestern water problems.
- March 25 Senate passes S. 22 with committee amendments, to promote a more adequate national program of water research.
- May 10 Bureau of the Budget releases report on Pacific Southwest Regional Plan, approving development along lines of Arizona-California compromise but recommending deferral of Bridge Canyon Dam.
- May 17 Interior Department report indorses H. R. 4671.
- June 12 Meeting at Portland, Ore., Western governors set up Western states water council to seek regional solution of water problems and thus avoid interstate conflict.
- July 22 S. 21, Water Resources Planning Act, signed by President Johnson.
- August 4 Western States Water Council formed to plan integrated development of West's water resources. Governor Goddard appoints Evo DeConcini, vice chairman of the Arizona Interstate Stream Commission, and W. S. Gookin, state water engineer, to represent Arizona on the council.
- August 4 Subcommittee on Irrigation and Reclamation of House Committee on Interior and Insular Affairs schedules four days of hearings on Lower Colorado Basin Project, H. R. 4671, starting August 23.
- August 20 Upper and Lower Basin states reach agreement on Colorado River legislation, H. R. 4671.
- August 23 House Interior Subcommittee on Irrigation and Reclamation opens hearings on H. R. 4671.
- September 2 Subcommittee hearings end.
- September 24 Tentative plan developed to expand H. R. 4671 legislation to cover all seven states of the Colorado River basin.

- October 2 S. 4, Water Quality Act of 1965, a bill to amend the Federal Water Pollution Control Act to establish a Federal Water Pollution Control Administration to provide grants for research and development, to increase grants for construction of sewage treatment works, to require establishment of water quality criteria, and for other purposes, signed by President.
- October 30 Secretary of the Interior Stewart Udall indorses seven-state program in address to Arizona State Reclamation Association.

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Gov. Goddard (D.)

- January 26-27 Seven-state meeting held at Los Angeles to seek agreement to expand provisions of H. R. 4671.
- February 10 Seven members of House of Representatives visit Arizona to inspect water-short areas and proposed damsites.
- February 23 Upper Colorado River Commission approves expanded H. R. 4671 by vote of 4-to-1. New Mexico votes "no" and Wyoming indorses it with reservations.
- March 16 U.S. Department of the Interior approves more than \$250 million worth of western Colorado projects to be included in H. R. 4671.
- April 4 Bill introduced in House by opponents of Bridge and Marble Canyon dams to enlarge boundaries of Grand Canyon National Park so as to encompass all of Grand Canyon National Monument and thus block construction of dams.
- April 22 Subcommittee on Irrigation and Reclamation of House Committee on Interior and Insular Affairs schedules hearings on enlarged H.R. 4671, the Colorado River Basin Project, for week of May 9.
- May 5 U.S. Bureau of the Budget approves two of five Colorado projects added to H.R. 4671, recommends deferment of three others pending national water study.
- May 9 Hearings on expanded H.R. 4671 open before House Subcommittee on Irrigation and Reclamation.
- May 12 Arizona and New Mexico reach accord on H.R. 4671.
- May 18 House subcommittee hearings end.
- June 28 House Subcommittee on Irrigation and Reclamation approves H. R. 4671, sending bill to Committee on Interior and Insular Affairs.

- July 28 H. R. 4671 approved by House Committee on Interior and Insular Affairs by vote of 22-10.
- August 11 H. R. 4671 reported favorably by Committee on Interior and Insular Affairs and sent to Rules Committee of the House.
- August 25 Secretary Udall sees little prospect of getting H. R. 4671 through present session of Congress. Rich Johnson, Executive Director, Interstate Stream Commission, blames California for failure of Rules Committee to act.
- September 7 Governor Goddard authorizes Stream Commission and Arizona Power Authority to make a feasibility study of a state-financed Central Arizona Project.
- September 9 Joint statement by Reps. John J. Rhodes and Morris K. Udall regarding Rules Committee delay of H.R. 4671.
- October 25 89th Congress adjourned. H.R. 4671 dies in House Rules Committee.
- November 3 S. 2947, Clean Water Restoration Act of 1966, a bill to amend the Federal Water Pollution Control Act in order to improve and make more effective certain programs pursuant to such Act, signed by President.
- November 16 Stream Commission announces that all commitments to other states made in connection with H. R. 4671 are revoked and that a license will be sought from the Federal Power Commission to build Marble Canyon Dam.
- December 6 Arizona Congressional delegation announces new strategy of introducing two concurrent bills in the Congress, one for each House, while the State goes forward with a state-financed project.
- December 15 Symposium conducted by Interstate Stream Commission and Arizona Power Authority in Phoenix outlining plan for state-financed Central Arizona Project.

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Gov. Williams (R.)

- January 3 90th Congress convenes.
- January 11 H.R. 9, a bill to authorize the construction of the Colorado River Basin Project, introduced by Congressman Udall.
- January 12 H.R. 722, H.R. 744, H.R. 1179, H.R. 1271, bills to authorize construction of the Colorado River Basin Project, introduced by Congressmen Hosmer (Calif.), Johnson (Calif.), Rhodes (Ariz.) and Steiger (Ariz.) respectively.

- January 12 H.R. 1272, a bill to preserve the jurisdiction of the Congress over construction of hydroelectric projects on the Colorado River below Glen Canyon Dam, introduced by Congressman John Saylor (Pa.).
- January 12 H.R. 1305, a bill to enlarge boundaries of Grand Canyon National Park, introduced by Congressman John Saylor (Pa.).
- January 12 S. 207, a bill to authorize the construction of Buttes Dam and Reservoir, introduced by Senator Carl Hayden.
- January 23 H.R. 3300, a bill to authorize the construction of the Colorado River Basin Project, introduced by Congressman Wayne Aspinall (Colo.).
- February 2 S. 20, a bill authorizing a National Water Commission, introduced by Senator Henry M. Jackson.
- February 13 Memorial to Congress passed by Arizona Senate requesting boundaries of Grand Canyon National Park to exclude Marble Canyon damsite; memorial requesting Federal Power Commission approval of Arizona Power Authority application for licensing of Marble Canyon dam.
- February 13 S. 204, a bill authorizing a State Water and Power Plan, introduced in Arizona Legislature.
- February 16 H. R. 5625, a bill to authorize the construction of the Colorado River Basin Project by Robert Leggett (Calif.).
- February 16 S. 1004, a bill to authorize the construction of the Central Arizona Project, introduced by Senators Carl Hayden and Paul Fannin.
- February 17 S. 1013, a bill to authorize the construction of the Central Arizona Project (Administration bill), introduced by Senator Henry M. Jackson (Wash.).
- February 27 H. R. 6130, a bill to authorize the construction of the Colorado River Basin Project, introduced by Congressman Bob Wilson (Calif.).
- February 27 H. R. 6132, a bill to revise the boundaries of the Grand Canyon National Park, introduced by Congressman Wayne Aspinall.
- February 28 H. R. 6271, a bill to authorize the construction of the Colorado River Basin Project, introduced by Congressman Craig Hosmer.
- March 3 S. 861, a bill to authorize the construction of the Colorado River Basin Project, introduced by Senator Kuchel (Calif.).



- March 6 H.R. 6603, a bill to authorize the construction of the Colorado River Basin Project, introduced by Cong. Richard Hanna (Calif.).
- March 10 State Legislature passes S. 204, the State Water and Power Plan.
- March 14 Governor Williams signs S. 204, the State Water and Power Plan.
- March 13 Hearings conducted on H. R. 3300 and S. 20 before the Senate and House Subcommittees on Irrigation and Reclamation.
- March 15 S. 1300, a bill to revise the boundaries of the Grand Canyon National Park, introduced by Senator Henry M. Jackson.
- March 17 Hearings on H.R. 3300 before the House Subcommittee on Irrigation and Reclamation end.
- April 12 Arizona Town Hall endorses state-financed CAP if Congress fails to act.
- April 28 S. 1242, a bill to authorize the construction of the Colorado River Basin Project, introduced by Senator Allott (Colo.).
- May 2 Hearings on S. 1004 begin before Senate Subcommittee on Water and Power Resources.
- May 4 S. 1686, a bill to enlarge boundaries of Grand Canyon National Park, introduced by Senator Clifford P. Case (N.J.).
- May 5 Hearings on S. 1004 end.
- May 19 President Johnson signs H.R. 207, a bill authorizing construction of Bolsa Island (Calif.) Nuclear Power and Desalting Plant.
- May 24 International Water for Peace Conference convened in Washington, D. C.
- June 14 House Committee on Interior and Insular Affairs favorably reports S. 20.
- June 22 Senate Committee on Interior and Insular Affairs begins executive sessions to consider S. 1004.
- June 29 Senate Committee on Interior and Insular Affairs orders favorable report on S. 1004 for Senate floor debate.
- August 7 Senate passes S. 1004, defeating amendment proposed by Senator Allott, 12-to-70.