The Burns-Porter Act: A California High Water Mark

Report prepared for
the
State Water Contractors

by

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ACKNOWLEDGEMENTS

This report was prepared to provide historical perspective on issues and problems associated with water resource development in California in the years before and following enactment of the Burns-Porter Act. The report's content is based on research by the authors and the records and recollections of key figures in the events that led to the Burns-Porter Act. Any errors in fact or in judgment in the report are those of the authors, and not of the many people who generously contributed.

Governor Edmund G. (Pat) Brown graciously gave his time and thoughts in an interview dealing with all of the issues. Several legislators and others, with major roles in the process of enacting the legislation, contributed their views. Staff leaders in the Department of Water Resources at the time provided information and viewpoints that have been invaluable. Records and files of Ralph Brody (now deceased), who was Deputy Director of the Department and Special Water Counsel to Governor Brown, were made available by his nephew, Jerry A. Brody.

And, finally, a sincere, admiring, and affectionate tribute is owed to Arthur D. Edmonston. As State Engineer of California, he had the foresight and wisdom that initiated planning for the State Water Project and for comprehensive Statewide water resources development in California. His death in 1957 prevented his seeing those visions move more fully into reality.

INTRODUCTION

Californians who remember the water issues and controversies of the 1950s and early 1960s, and the speed with which those issues and controversies came to a head, will remember also the 1959 Burns-Porter Act as the landmark legislation that made possible the State's far-reaching water program. The Burns-Porter Act was not a planning statute; it was the authorization for long-range plan implementation and provided for funding the construction of works immediately needed. From its enactment in 1959 and ratification by the voters in 1960, it charted the course California was to follow in managing and developing the State's water resources. It was the product of debates, studies, controversies, and planning activities that had dominated the California water horizon for decades, culminating in the California Water Plan which was accepted by the Legislature in 1959 (Chapter 2053) "...as the guide for the orderly and coordinated control, protection, conservation, development, and utilization of the water resources of the State."

THE BURNS–PORTER ACT WAS NOT A PLANNING STATUTE; IT WAS THE AUTHORIZATION FOR LONG–RANGE PLAN IMPLEMENTATION AND PROVIDED FOR FUNDING THE CON–STRUCTION OF WORKS IMMEDIATELY NEEDED.

Governor Edmund G. (Pat) Brown led the resolution of those long-standing controversies over California's water future through the political process to achieve passage of the Burns-Porter Act. He recognized, as had his predecessor, Governor Goodwin Knight, that water is a key to California's economic, environmental and social well-being. The State's planning process was brought to a focus under Governor Knight in The California Water Plan, published in May, 1957. Governor Brown then, working with key legislators and water interests from all parts of the State, dealt with the issues and controversies surrounding the conceptual framework of the Plan through formulation and enactment of the Burns-Porter Act which authorized, subject to approval by the voters, a bond issue of $1.75 billion to assist in statewide water development.

WATER IS A KEY TO CALIFORNIA'S ECONOMIC, ENVIRONMENTAL AND SOCIAL WELL–BEING.

The Governor and the Legislature, speaking through the Act, said, in effect:

We are dependent on water.

There are now serious water problems in many areas of the State, and other areas will experience problems as development progresses;

We have a sound, Statewide Plan that, carried out

progressively, will effectively meet water demands for all beneficial uses throughout the State as those demands and other water needs arise;

We do not now have answers to every question, but we have the means to get those answers as needed; and

The time has come for California to move the water program from planning to reality by providing funds for construction of works rather than continuing to argue about water rights or perpetuating regional divisiveness.

An important realization in all this is that, water has been a center of conflict since man's earliest history. In California, progress toward water and related resource management, conservation, development, control, and equitable allocation has been the focus of effort by many talented people over many years, with much understanding. Unfortunately, there has been and still is much misunderstanding on the part of many others. Taken all in all, the effort and the debates have been the threads in a strong, unbroken fabric. In this continuum, the Burns-Porter Act does not represent a beginning nor an end. Rather it is a key milestone in the continuing statewide water program with actions programmed in a timely manner to meet water demands and solve problems as they arise. It is a high water mark symbolizing the results of the collective efforts of people of many points of view to resolve their differences equitably through the political process and to move forward with a program of statewide benefit.

AN IMPORTANT REALIZATION IN ALL THIS IS THAT, WATER HAS BEEN A CENTER OF CONFLICT SINCE MAN'S EARLIEST HISTORY.

THE BURNS–PORTER ACT DOES NOT REPRESENT A BEGINNING NOR AN END. RATHER IT IS A KEY MILESTONE IN THE CONTINUING STATEWIDE WATER PROGRAM WITH ACTIONS PROGRAMMED IN A TIMELY MANNER TO MEET WATER DEMANDS AND SOLVE PROBLEMS AS THEY ARISE.

It was understood by most people at the time that the 1960 bond issue would provide funding for only the initial phase of development--those statewide facilities immediately needed. As California continued to grow and water demand increased beyond the amounts that could be provided by those facilities, additional works would have to be planned, funded and constructed under the continuing program envisioned.

PURPOSE OF THIS REPORT

This report was conceived and written because water continues to be important to California and controversial among Californians. The issues and controversies of today are not unlike the issues and controversies of the past. It is hoped that an understanding of the events, the intent, and the agreements reached a quarter century ago--and the process through which those agreements were reached--may help in finding accommodations among conflicting interests today and in reaching agreement on a sound statewide comprehensive water program for the future. Most of the concepts and policies in place at the time the Burns-Porter Act was approved in November 1960, are believed to be valid and relevant today.

THE ISSUES AND CONTROVERSIES OF TODAY ARE NOT UNLIKE THE ISSUES AND CONTROVERSIES OF THE PAST.

MOST OF THE CONCEPTS AND POLICIES IN PLACE AT THE TIME THE BURNS-PORTER ACT WAS APPROVED IN NOVEMBER 1960, ARE BELIEVED TO BE VALID AND RELEVANT TODAY.

An objective analysis of the history of the Act, its meaning and the intent of its authors and sponsors, and the causes and effects of its enactment, may be a significant contribution in addressing today's problems. In this report, the scope and level of detail with which topics are covered has been determined by the need to present the analysis with clarity. The body of the report includes:

The Burns-Porter Act--essential features, relevance to today's problems;

California water development issues--how resolved, relevance today;

Other major legislative actions--preceding and following the Burns-Porter Act, contents and relevance to this analysis;

Water planning milestones --State Central Valley Project Act, Bulletin 3 concepts and policy recommendations, State Water Project;

Implementation under the Burns-Porter Act; and

Appendices--references, excerpts from the Water Code and other relevant documents.

THE BURNS-PORTER ACT-- WHAT DID IT DO?

To place the problems and issues addressed in the Burns-Porter Act and their resolution into an understandable framework for action, let us briefly outline what the Act did in fact do. The Burns-Porter Act must be interpreted in conjunction with the several other statutes which are integral parts of the total legislative package which governs the water development program for which the initial funding was provided by the Act.

THE BURNS–PORTER ACT MUST BE INTERPRETED IN CONJUNCTION WITH THE SEVERAL OTHER STATUTES WHICH ARE INTEGRAL PARTS OF THE TOTAL LEGISLATIVE PACKAGE WHICH GOVERNS THE WATER DEVELOPMENT PROGRAM FOR WHICH THE INITIAL FUNDING WAS PROVIDED BY THE ACT.

The conflicts between the areas of origin in the north from which surplus water would be exported and the areas of water deficiency in the San Joaquin Valley and Southern California were long-standing, heated, and sensitive politically. In addition to these north vs. south conflicts, the Sacramento-San Joaquin Delta, long recognized as the "hub" for major transfers of surplus northern water to the south, had problems to be resolved. The Act met the basic conflicts of these divergent interests directly, and its provisions went to the heart of these regional concerns.

The principal points at issue in the <u>north</u> were:

1. That there be assurance of availability of water rights for future projects when required to meet local needs.

2. That the then existing statutes concerning water rights for areas of origin not be modified or changed by act of the Legislature.

3. That funds be included for construction of projects to serve the north.

4. That facilities to be built and funds made available therefor not be a "single-shot deal," and that funds be assured for the construction of additional major storage to augment supplies of water in the Delta for depletions due to increasing water uses in the north.

THAT FACILITIES TO BE BUILT AND FUNDS MADE AVAILABLE THEREFOR NOT BE A "SINGLE–SHOT DEAL," AND THAT FUNDS BE ASSURED FOR THE CONSTRUCTION OF ADDITIONAL MAJOR STORAGE TO AUGMENT SUPPLIES OF WATER IN THE DELTA FOR DEPLETIONS DUE TO INCREASING WATER USES IN THE NORTH.

The major points of interest to those in the <u>south</u> were:

1. That water service contracts between the State and local entities be based on firm water rights not subject to abrogation, interference, or future diminution

by act of the Legislature.

2. That the bond authorization be of sufficient amount to cover the entire sum necessary to complete facilities required to bring water to Southern California.

3. That the facilities for which the bond money was to be spent be specifically described in the legislation.

Of principal concern to Delta interests were:

1. That adequate water supplies of proper quality be assured.

2. That salinity control be provided to assure adequate quality for Delta uses.

3. That levee improvements be constructed to protect subsiding Delta islands against flooding.

4. That the fisheries and recreation be protected.

The Legislature clearly and succinctly stated the objective of the Burns-Porter Act:

> The object of this (Act) is to provide funds ($1.75 billion bond issue) to assist in the construction of a State Water Resources Development System for the State of California. Said System shall be comprised of the State Water Facilities defined (below) and such additional facilities as may now or hereafter be authorized by the Legislature as a part of (1) the (State) Central Valley Project or (2) The California Water Plan, and including such other additional facilities as the department (of Water Resources) deems necessary and desirable to meet local needs, including, but not restricted to, flood control, and to augment the supplies of water in the Sacramento-San Joaquin Delta and for which funds are appropriated pursuant to this (Act). The enactment of this (Act) shall not be construed as creating any right to water or the use thereof nor as affecting any existing legislation with respect to water or water rights, except as expressly provided herein, nor shall anything herein contained affect or be construed as affecting vested water rights. Any facilities heretofore or hereafter authorized as a part of the (State) Central Valley Project or facilities which are acquired or constructed as a part of the State Water Resources Development System with funds made available hereunder shall be acquired, constructed, operated, and maintained pursuant to the provisions of the code governing the (State) Central Valley Project, as said

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THE OBJECT OF THIS (ACT) IS TO PROVIDE FUNDS ($1.75 BILLION BOND ISSUE) TO ASSIST IN THE CONSTRUCTION OF A STATE WATER RESOURCES DEVELOPMENT SYSTEM FOR THE STATE OF CALIFORNIA.

> provisions may now or hereafter be amended. For the purposes of this (Act), the Sacramento-San Joaquin Delta shall be deemed to be within the watershed of the Sacramento River. (Emphasis supplied)

In effect, the Act established, and provided initial funding for works immediately needed, the comprehensive, multipurpose State Water Resources Development System to be implemented progressively in accordance with provisions of the State's existing Central Valley Project Act including the provisions for issuance of revenue bonds, and in conformance with the California Water Plan. The System was to be a continuing statewide program of comprehensive, multipurpose water resource management with actions taken and facilities added as increase in demands justified and problems became evident. The program envisioned financial participation by the State,

THE SYSTEM WAS TO BE A CONTINUING STATE WIDE PROGRAM OF COMPREHENSIVE, MULTIPURPOSE WATER RESOURCE MANAGEMENT WITH ACTIONS TAKEN AND FACILITIES ADDED AS INCREASE IN DEMANDS JUSTIFIED AND PROBLEMS BECAME EVIDENT.

where needed, with the United States in the construction of federal projects, and financial assistance by the State to local agencies for their projects, where justified in the statewide interest, to expand the scope and benefits of such projects, as well as construction and operation of works by the State itself.

In other words, the System is to encompass federal, State and local projects as envisioned under the California Water Plan.

THE SYSTEM IS TO EMCOMPASS FEDERAL, STATE AND LOCAL PROJECTS AS ENVISIONED UNDER THE CALIFORNIA WATER PLAN.

It was recognized at the time that the $1.75 billion bond issue plus the moneys available from the California Water Fund might not be sufficient to complete the State Water Facilities if construction costs increased significantly due to a high rate of inflation or if the flow of tideland oil revenues to the California Water Fund decreased. It might be necessary to issue revenue bonds under the authorization in the (State) Central

IT WAS RECOGNIZED AT THE TIME THAT THE $1.75 BILLION BOND ISSUE PLUS THE MONEYS AVAILABLE FROM THE CALIFORNIA WATER FUND MIGHT NOT BE SUFFICIENT TO COMPLETE THE STATE WATER FACILITIES IF CONSTRUCTION COSTS INCREASED SIGNIFICANTLY DUE TO A HIGH RATE OF INFLATION OR IF THE FLOW OF TIDELAND OIL REVENUES TO THE CALIFORNIA WATER FUND DECREASED.

Valley Project Act. This, in fact, was done in the late 1960s and 1970s. This did not alter the full repayment obligation of the water and

power purchasers.

The Act, in combination with ancillary legislation such as the County of Origin Act and Delta Protection Act, to be discussed later, did indeed explicitly spell out the resolution of major issues, and its language went a long way in lessening regionalized opposition to the bond issue.

Major works, the State Water Facilities, that were to be funded and constructed under the Act were specifically authorized as components of the State Water Resources Development System. Local projects were not individually identified in the Act but the legislative intent was clear that their proper development and funding were integral parts of the System. These major works included:

1. Oroville Dam and Reservoir, afterbay facilities, pumping-generating plants, fish hatchery, and related facilities, and five upstream dams and reservoirs.

MAJOR WORKS, THE STATE WATER FACILITIES, THAT WERE TO BE FUNDED AND CONSTRUCTED UNDER THE ACT WERE SPECIFICALLY AUTHORIZED AS COMPONENTS OF THE STATE WATER RESOURCES DEVELOPMENT SYSTEM.

2. A North Bay Aqueduct from the Delta to a terminal reservoir in Marin County.

3. Master levees, control structures, channel improvements, and appurtenant facilities for water conservation, water supply in the Delta, transfer of water across the Delta, flood and salinity control, and related functions.

4. The South Bay Aqueduct from the Delta to terminal reservoirs in Alameda and Santa Clara Counties.

5. The San Luis Dam and Reservoir, pumping-generating plant, San Luis Canal and associated facilities for off-stream storage and conveyance of unregulated surplus water pumped from the Delta, a federal-State joint-use project.

6. A giant conveyance system, now called the Governor Edmund G. Brown California Aqueduct, from the Delta to Southern California, with branches serving four major service areas: the Coastal Aqueduct, through Cholame Pass, to serve San Luis Obispo, Monterey, and Santa Barbara counties and portions of Kern County; the San Joaquin Valley portion of the California Aqueduct, to serve Fresno, Tulare and Kings counties and the western portion of Kern County; the West Branch to serve Ventura County and the Coastal Plain in Los Angeles and Orange counties; the East Branch to serve eastern Kern County, then continuing to Perris Reservoir in Riverside County to hook up with the Colorado River Aqueduct and the San Diego Aqueducts, and connection to serve the Whitewater-Coachella area.

7. Facilities for removal

of drainage water from the San Joaquin Valley.

8. Facilities for the generation and transmission of electrical energy.

9. Water development facilities for local areas.

These State Water Facilities, except for works in the Delta, the drainage facilities, the Coastal Aqueduct and some local projects, have been completed as the first components of what is now called the State Water Project.

$130 million was set aside from the overall amount of $1.75 billion for loans and grants to local public agencies to assist in the development of projects having a primarily local impact. This money was to be expended under provisions of the Davis-Grunsky Act, the State local projects assistance law. The 1959 Legislature extensively amended a 1957 law and appropriated $15 million to get this local assistance program started immediately. The amendments authorized the Department of Water Resources to make loans up to $4 million and grants up to $300,000 for local projects to be constructed by local agencies, as well as to participate in planning, financing, designing, construction, and operation of local projects where participation by the State was found necessary to maximize water development objectives at minimum cost. These funds have been largely expended.

How the financing and repayment of the costs of State direct participation in the planning, construction and operation, and in managing the sale of water from all of these projects of the System would be achieved was a concern not only of politicians and water interests, but of the man on the street who would have to vote approval of the bonds and live with the water program as it came on line. The repayment provisions and the prescribed commitments of revenues from the sales of water and power would be of major concern to bondholders. The Burns-Porter Act was designed to address these questions forthrightly to the extent possible, and to provide a flexible guide to answering those questions still open.

To protect the bondholders, the Burns-Porter Act, as approved by the voters, provides that:

1. Contracts entered into for the sale of water or power, or for other services and facilities made available by the System "... shall not be impaired by subsequent acts of the Legislature during the time when any of the bonds authorized ... are outstanding and the State may sue and be sued with respect to said contracts."

2. Such contracts shall be "... insofar as practicable and feasible for the full term of the life of general obligation bonds issued ... and each such contract shall recite (i) that it is entered into for the

direct benefit of the holders and owners of all general

CONTRACTS ENTERED INTO FOR THE SALE OF WATER OR POWER, OR FOR OTHER SERVICES AND FACILITIES MADE AVAILABLE BY THE SYSTEM "... SHALL NOT BE IMPAIRED BY SUBSEQUENT ACTS OF THE LEGISLATURE DURING THE TIME WHEN ANY OF THE BONDS AUTHORIZED ... ARE OUTSTANDING."

obligation bonds issued...and (ii) that the income and revenues derived from such contracts are pledged to the purposes and in the priority... set forth." After "...payment of the reasonable costs of the annual maintenance and operation of the State Water Resources Development System and the replacement of any parts thereof...", revenues are next pledged to the "...annual payment of the principal and interest of the bonds issued...."

In the opinion of bond counsel, these provisions were an adequate substitute for a specific constitutional amendment for protection of the bond holders.

While not explicitly stated in the Burns-Porter Act, the legislative history is clear that the Legislature intended that the revenues from the sale of water and power should be sufficient to repay all reimbursable costs with interest. This policy has been followed for the State Water Project.

There is still significant apprehension as to the

THE LEGISLATIVE HISTORY IS CLEAR THAT THE LEGISLATURE INTENDED THAT THE REVENUES FROM THE SALE OF WATER AND POWER SHOULD BE SUFFICIENT TO REPAY ALL REIMBURSABLE COSTS WITH INTEREST.

adequacy and permanence of the protection for the areas of origin. The Delta problems have not been solved and there is, at present, no consensus regarding a complete solution. The responsibility of Delta water users to reimburse the State and the United States for water quality benefits resulting from releases into the Delta from State and federal reservoirs upstream remains controversial. The question of the legal responsibility of the United States in operation of the Federal Central Valley Project with regard to quality control in the Delta is still not fully resolved.

It is important to understand the problems and issues facing the State at the time the Burns-Porter Act was conceived, drafted, and worked through the political process in 1959 to ultimate ratification by the State's voters on November 8, 1960. The conflicts were strong, the debates were intense, and misunderstanding among interest groups was deep and long-standing. Yet over a period of three years, the California Water Plan of 1957 moved from a book on the

library shelf to a legislatively approved reality. That process is significant as we look at issues today.

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WATER PROBLEMS AND ISSUES

From the perspective of the late 1950s, and still today, California has enough water resources available, if properly managed, developed and utilized, to meet its foreseeable needs for beneficial uses--economic, environmental, and social--throughout the State. The water resource, including surface water, ground water and California's share of water from the Colorado River, is, however, poorly distributed geographically and seasonally, as well as cyclically in relation to the distribution of population and economic development. It has long been clear that without water development to store, conserve and control the unregulated flow in streams, and to distribute the conserved water when and where needed, and at the same time protect and maintain quality, California would have a checkered economic future. Some parts of the State would face continuing problems of flooding, others acute water deficiencies and pollution, and others, as in the Delta, would have needs for both flood control and salinity control.

CALIFORNIA HAS ENOUGH WATER RESOURCES AVAILABLE, IF PROPERLY MANAGED, DEVELOPED AND UTILIZED, TO MEET ITS FORESEEABLE NEEDS FOR BENEFICIAL USES --- ECONOMIC, ENVIRONMENTAL, AND SOCIAL --- THROUGHOUT THE STATE.

Major water problems and issues in the State to be addressed through management and development of facilities of the State Water Resources Development System were resolved wholly or in part by provisions of the Burns-Porter Act. Linked in the minds of many Californians who were questioning the direct entry of the State into a comprehensive, large scale water development program were uncertainties as to the basis for urgency, concern over the large costs involved, sources of funding and repayment, and the means through which the long-standing conflicts and competition among regions, water users and uses could be accommodated in a statewide effort. These were legitimate concerns. The California Water Plan in Bulletin 3 provided factual answers to these questions and the Burns-Porter Act provided the legislative authorization to initiate their solution by providing funding. Other legislation provided policies and constraints in carrying out the program.

Since the California Water Plan was released in 1957, changes have occurred in the growth patterns of the economy and population of California. Population growth has not been as great as was then projected;

SINCE THE CALIFORNIA WATER PLAN WAS RELEASED IN 1957, CHANGES HAVE OCCURRED IN THE GROWTH PATTERNS OF THE ECONOMY AND POPULATION OF CALIFORNIA.

much greater emphasis is now given to environmental matters; conservation in use is more generally recognized as an essential part of water management; there have been major advances in water and water use technology; and energy costs are vastly greater. The concepts and policies of the California Water Plan,

MUCH GREATER EMPHASIS IS NOW GIVEN TO ENVIRONMENTAL MATTERS; CONSERVATION IN USE IS MORE GENERALLY RECOGNIZED AS AN ESSENTIAL PART OF WATER MANAGEMENT; THERE HAVE BEEN MAJOR ADVANCES IN WATER AND WATER USE TECHNOLOGY; AND ENERGY COSTS ARE VASTLY GREATER.

however, are still valid today. It has achieved its purpose as a flexible guide to meeting problems and providing a planning framework within which changes could be accommodated.

THE CONCEPTS AND POLICIES OF THE CALIFORNIA WATER PLAN, HOWEVER, ARE STILL VALID TODAY. IT HAS ACHIEVED ITS PURPOSE AS A FLEXIBLE GUIDE TO MEETING PROBLEMS AND PROVIDING A PLANNING FRAMEWORK WITHIN WHICH CHANGES COULD BE ACCOMMODATED.

Why Now?

Some of the urgent problems cited as justifying immediate action by the State were:

1. Need for flood control on the Feather River to lessen the possibility of a repetition of the Christmas 1955 disaster when four lives were lost and property damage exceeded $200 million.

2. Critical need for physical works in the Sacramento-San Joaquin Delta to solve the problem of salinity intrusion, to provide flood protection for the Delta islands and to assure an adequate water supply for agricultural, municipal and industrial development in and around the Delta.

3. Supplemental water in Alameda County to provide for industrial expansion and to prevent loss of the Niles Cone ground water basin from saline water intrusion.

4. Supplemental water in the Southern San Joaquin Valley by the mid-1960s to halt overdrafting and avoid ultimate exhaustion of its ground water resources and retrogression of its agricultural economy.

5. Water to Southern California, particularly San Diego County and the South Coastal Basin, as early as 1972--or earlier, it was projected, if the lawsuit between Arizona and California were decided in favor of Arizona (as it was). The only alternatives to the proposed transfer of water from the north to the south for providing supplemental water to meet municipal and industrial needs of Southern California were seen as conversion of sea water, or acquisition of agricultural water rights. Estimates, how-

ever, indicated that the sea water conversion alternative would be more expensive than importation from the north. Acquisition of agricultural water rights would have been very difficult institutionally. Further, a major program of sea water conversion would have required large amounts of very cheap energy which was not then nor is now available. Reduction of water for irrigated agriculture was not an attractive option. Wastewater reclamation and increased efficiency in the use of water were important but, by themselves, could not possibly meet the increasing need for additional water in the southern metropolitan and agricultural counties.

6. A drainage outlet to Suisun Bay if irrigated agriculture were to survive in the west side of the San Joaquin Valley and Kern County.

7. Other areas with severe water shortage: Sierra Valley, Big Valley in Modoc County, Ventura County, and certain desert areas.

The entire San Joaquin Valley was projected as having an urgent need for supplemental water. Serious problems were already occurring on its east side served in part by the Federal Central Valley Project, and in the Tule River watershed. On the west side of the Valley, water levels at some wells had dropped to the limits of economic pumping depth, and others were tapping poor quality waters. The Santa Clara Valley with its growing industrial complex, southern Alameda County emerging as a highly developed area, and San Benito County with little rainfall and surface runoff were other areas of projected deficiency.

Conflicts - Regions and Interests

North vs. South

Compounding the complex political ramifications of these urgent problems and needs throughout the State were controversies between regions--the North-South conflict especially--as well as competition among types of water uses and user interests. Concepts of storing water in times when surpluses were available to provide for periods of deficiency, and of transferring surpluses from one part of the State to another had been a part of all major California water plans since the latter part of the 19th century. The Water Plan of the 1920s contemplated moving water from areas of surplus in the Sacramento Valley to water deficient areas in the San Joaquin Valley. During the 20 years preceding the completion of the 1957 California Water Plan, a

CONCEPTS OF STORING WATER IN TIMES WHEN SURPLUSES WERE AVAILABLE TO PROVIDE FOR PERIODS OF DEFICIENCY, AND OF TRANSFERRING SURPLUSES FROM ONE PART OF THE STATE TO ANOTHER HAD BEEN A PART OF ALL MAJOR CALIFORNIA WATER PLANS SINCE THE LATTER PART OF THE 19th CENTURY.

portion of that proposal became a reality with construction of Shasta, Friant, and Folsom Dams and the associated canals by the U.S. Bureau of Reclamation as elements of the Federal Central Valley Project, first authorized by the Congress in 1937.

The 1957 California Water Plan envisioned transfer of additional surplus water from the Sacramento Valley and the Delta to the San Joaquin Valley, supplemental water delivered as far south as the Mexican Border, and, if and when necessary, tapping the huge supply in the north coastal area of the State on such streams as the Eel, the Mad, the Van Duzen, the Klamath, the Trinity, and others. At the same time, smaller projects to be constructed solely for purposes to be served within the areas of surplus were incorporated in the Plan.

The engineers' answer to the area of origin-area of deficiency, or the North vs. South water problem, was relatively straightforward: build projects when and where needed throughout the State. However, the Legislature, which had to authorize projects and provide for their financing, also had to consider political, legal, and financial matters.

THE LEGISLATURE, WHICH HAD TO AUTHORIZE PROJECTS AND PROVIDE FOR THEIR FINANCING, ALSO HAD TO CONSIDER POLITICAL, LEGAL, AND FINANCIAL MATTERS.

It was these additional considerations, all part of the interplay of interests in the political process, that fanned the heat of what was termed the North vs. South controversy and the apparent deadlock over Plan implementation.

Areas of Surplus vs. Areas of Deficiency

It would over-simplify the interregional conflict question to consider this solely as North vs. South. Conflicts either were open or implicit in such other interest areas as the mountain areas vs. valley agricultural interests and the urban areas, and metropolitan interests vs. agricultural areas.

Tied into concern over plans for diverting large quantities of water from one area to another was the fear, in the areas of origin or the areas of surplus, that adequate water would not be reserved for their future use. The Legislature in the middle 1920s attempted to protect the areas

TIED INTO CONCERN OVER PLANS FOR DIVERTING LARGE QUANTITIES OF WATER FROM ONE AREA TO ANOTHER WAS THE FEAR, IN THE AREAS OF ORIGIN OR THE AREAS OF SURPLUS, THAT ADEQUATE WATER WOULD NOT BE RESERVED FOR THEIR FUTURE USE.

of origin by enacting legislation which would reserve and dedicate for use, within the areas in which water originated, a percentage of the water developed. These efforts were

unsuccessful for one reason or another, and in 1931 the so-called County of Origin Law was enacted as a means of providing protection to the areas of origin for the water rights that would be needed in the future for water projects to meet their needs.

IN 1931 THE SO--CALLED COUNTY OF ORIGIN LAW WAS ENACTED AS A MEANS OF PROVIDING PROTECTION TO THE AREAS OF ORIGIN FOR THE WATER RIGHTS THAT WOULD BE NEEDED IN THE FUTURE FOR WATER PROJECTS TO MEET THEIR NEEDS.

This law, now part of the Water Code (Sections 10500-10505) and referred to as the "County of Origin Law," was a restriction on the State against assignment or release from priority of any water right application which had been filed by the State in furtherance of general or coordinated plans for development of the State's water supplies, the "State Filings," if such assignment or release would deprive the counties of origin of any water required for their future development.

This protection appeared to have four principal weaknesses from the standpoint of the areas of origin, in the context of the large transfers contemplated. First, it was only effective where applications had been filed by the State as part of a general or coordinated plan; second, it was dependent upon periodic legislative relief from the usual requirements of diligence prior to assignment which apply to other applications; third, it could be amended or repealed by the Legislature at any time; and finally, water rights reserved for the counties of origin could conceivably be acquired for the benefit of the importing areas through eminent domain proceedings. The first "State filings" were made in 1927. Subsequent filings have been made from time to time and now cover almost all the remaining unappropriated water in the State. Assignments, subject to reservations for the counties of origin, have been made for both the Federal Central Valley Project and the State Water Project. Thus, the objectives and principles of the County of Origin Law are embodied in water rights for these projects, probably immune to possible legislative action.

In the 1930s in connection with State authorization of the Central Valley Project, there was adopted what has been commonly referred to as the Watershed Protection Act (Sections 11460-11465, Water Code). This Act serves as a restriction on the operator of the Central Valley Project, whether the State or (presumptively) the Federal Government, and requires that no watershed in which water originates, or an immediately adjacent area that could be conveniently served with water therefrom, shall be deprived of water necessary for the area. This Watershed Protection Act, while more broad in one sense than

the County of Origin Law, is restrictive in its protection

THE WATERSHED PROTECTION ACT REQUIRES THAT NO WATERSHED IN WHICH WATER ORIGINATES, OR AN IMMEDIATELY ADJACENT AREA THAT COULD BE CONVENIENTLY SERVED WITH WATER THEREFROM, SHALL BE DEPRIVED OF WATER NECESSARY FOR THE AREA.

since it applies only to operators of the Central Valley Project. These two laws were in existence for over twenty years with no one apparently being greatly concerned as to their effectiveness. The areas of origin, in the North, believed they were amply protected and the areas of deficiency, in the South, believed that the sparsely populated, slow-growing areas of origin posed no threat to water supplies made available to the deficient areas from water projects.

In 1955, however, with the final legislative authorization of the Feather River and Delta Diversion Projects (now termed the State Water Project), the County of Origin Law and the Watershed Protection Act came under close scrutiny, principally because of two opinions of the Attorney General of California. These opinions stated that under these laws water could be withdrawn from export projects to develop local water projects at any time in the future for the benefit of areas of origin, thus presumably leaving the areas of deficiency that had been using or proposed to use project water without the water that had been developed to serve them. As a result of these opinions, there was an immediate effort by many people throughout the State to promote legislation or a constitutional amendment which would, on the one hand, give the counties of origin a better guarantee of ample water reserved to them for the future, and on the other hand, guarantee to the areas of deficiency that they would not have to worry in the future about having the faucet turned off.

In recognition of the problem, a Joint Legislative Subcommittee, headed by Assemblyman Patrick McGee from Los Angeles, held hearings throughout the State during 1956 in an effort to find an equitable solution for all areas. In January 1957, the subcommittee came up with a proposed draft of a constitutional amendment which it believed would solve the problem. In addition to this proposal, several other constitutional amendments were presented to the Legislature by proponents of different theories as to how the problem might be resolved.

In February 1957, Governor Knight appointed a Lawyers Committee, with fourteen of the most capable water lawyers in the State, to study the problem. Half of this Committee came from areas in Southern California, and the other half from areas in Northern California. Seven were legislators and seven non-legislators.

Seven were Republicans and seven Democrats. The Committee met frequently, often on weekends and at night, in an effort to come up with a solution to the problem. After three months of very hard work, the Committee recommended to the Legislature a constitutional amendment which it believed would solve the problem. This amendment was signed by a majority on the Committee, but was not unanimous. It was introduced into the Legislature during the closing days of the 1957 session, along with a number of other proposals, but the Legislature referred it, with several others, to a special interim committee for study. This Legislative Interim Committee, under the chairmanship of L.H. Lincoln, Speaker of the Assembly, was composed of eighteen members--nine assemblymen and nine senators with a more or less balanced representation north and south. The legislation establishing the Committee provided that whenever six members of each house reached an agreement, as to a constitutional amendment, the Governor would be requested to call a special session for its consideration by the entire Legislature. After almost a year this legislative Committee, while making substantial progress on an agreement, was unable to come up with a constitutional amendment that met the approval of a majority of the Committee.

However, its work, and the extensive discussions by the blue-ribbon Lawyers' Committee, coupled with changes in the composition of the Legislature resulting from the elections in 1958, led in that next year to the decision to proceed on the basis of legislative enactment, rather than constitutional amendment. With Governor Brown deeply involved, the legislative leadership went to the task of formulating legislation that would move California's water program forward. As Governor Brown saw the issue, it was time to concentrate on providing water supply wherever needed--north or south--

AFTER ALMOST A YEAR THIS LEGISLATIVE COMMITTEE, WHILE MAKING SUBSTANTIAL PROGRESS ON AN AGREEMENT, WAS UNABLE TO COME UP WITH A CONSTITUTIONAL AMENDMENT THAT MET THE APPROVAL OF A MAJORITY OF THE COMMITTEE.

AS GOVERNOR BROWN SAW THE ISSUE, IT WAS TIME TO CONCENTRATE ON PROVIDING WATER SUPPLY WHEREVER NEEDED --- NORTH OR SOUTH --- RATHER THAN EXPENDING TIME AND ENERGY IN CONTINUING OLD ARGUMENTS OVER WATER RIGHTS AND INTERESTS. THE BURNS--PORTER ACT, BEARING THE NAMES OF TWO KEY WATER LEADERS IN THE LEGISLATURE --- ASSEMBLYMAN CHARLEY PORTER AND SENATOR HUGH BURNS --- WAS THE RESULT OF THIS COLLECTIVE EFFORT.

rather than expending time and energy in continuing old arguments over water rights and interests. The Burns-Porter Act, bearing the names

of two key water leaders in the Legislature--Assemblyman Carley Porter and Senator Hugh Burns--was the result of this collective effort.

Uses and Users

Many uses of water can be mutually conflicting, though with planning need not necessarily be mutually exclusive. Operation of a reservoir for irrigation alone may preclude much of a power generation operation, and permit little flood control. Operation for water quality control may inhibit other uses. Operation for flood control alone produces little conservation.

MANY USES OF WATER CAN BE MUTUALLY CONFLICTING, THOUGH WITH PLANNING NEED NOT NECESSARILY BE MUTUALLY EXCLUSIVE.

Similarly, there may be competition between uses of water for agriculture, for municipal and industrial purposes, for fish and wildlife, and for recreation. The maintenance of stream flow for fish and for recreational activity often directly conflicts with the use of water for irrigation and municipal and industrial purposes.

And competition for use of land in good reservoir sites--a competition that is primarily economic--could limit or preclude their optimum multi-purpose development. Early water development works were built on many of the better and accessible, therefore cheaper, sites, thus leaving less accessible, more-costly locations for needed future developments. This fact is important, because the California Water Plan envisioned extensive storage to assure an adequate water supply. Unregulated stream flows cannot be depended on in California for firm water supplies to any extent.

UNREGULATED STREAM FLOWS CANNOT BE DEPENDED ON IN CALIFORNIA FOR FIRM WATER SUPPLIES TO ANY EXTENT.

In addition to geographic disparities in the occurrence of water, California's water problems are largely the consequence of the erratic nature of surface runoff, both seasonally and cyclically. Deficient water supplies and the competition between the uses of water were not the only problems. Protracted periodic droughts impose requirements of reservoir storage capacity adequate for storing large volumes of water in times of high runoff and water distribution in times of drought.

Periodic flooding throughout the State of the valleys and flood plains where most of the 14,000,000 people in California lived in 1957 resulted in major damage and loss of life. With the intensification and expansion of urban and industrial areas, flood problems were expected to become more severe unless remedial action was taken.

Damaging effects on the quality of natural water supplies had resulted from improper surface and ground water development, from lack of drainage, and from improper disposal of wastes. Quality problems are common to nearly all other water problems. In several locations in the South Coastal Plain and in the San Francisco Bay region, excessive overdraft had resulted in the intrusion of sea water into underground aquifers, impairing valuable sources of water supply. In parts of the San Joaquin Valley, continuing ground water overdraft threatened quality degradation of freshwater aquifers by upward movement of deep brines. In other areas, unfavorable salt balance was a practical certainty as the result of persistent overdraft conditions, unless additional water was imported and used.

THE CALIFORNIA WATER PLAN OF 1957 GAVE EXPLICIT RECOGNITION TO BENEFICIAL WATER USES THROUGHOUT THE STATE AND TO THOSE PROBLEMS WHICH IN AND OF THEMSELVES HAD BECOME POLITICAL ISSUES AND CAUSES OF CONTROVERSY AMONG REGIONS AND WATER INTERESTS.

The California Water Plan of 1957 gave explicit recognition to beneficial water uses throughout the State and to those problems which in and of themselves had become political issues and causes of controversy among regions and water interests.

The Plan's concepts, policies, and provisions for water resource management were intended to alleviate the adverse effects of the problems through a comprehensive, multipurpose program implemented statewide. An important corollary concept was the need to formulate a financing package for construction of the works required to alleviate the problems. The Legislature had accepted the Plan with "such amendments, supplements, and additions thereto as may be necesssary from time to time," as "the guide for the orderly and coordinated control, protection, conservation, development, and utilization of the water resources of the State." The Burns-Porter Act placed the Plan into action.

Why the State?

The California Water Plan, as presented in Bulletin 3 in 1957, had gone a long way toward making an understandable case for a comprehensive, multipurpose statewide program to provide water for all beneficial uses and solve other water problems through projects and programs initiated and executed when and where needed. When viewed from that angle, it seemed apparent that a coherent State water project construction program would be needed to supplement local and federal activities and efforts. When the Burns-Porter Act was sent to Governor Brown for signature, thus setting in motion the machinery for placing the bond authorization of $1.75 billion before the voters, some second

thoughts were expressed about the appropriateness of the State's taking on this commitment. Certainly even by today's standards it was a lot of money--in 1959, it was considered as almost astronomical. The proposal not only committed dollars, it also involved a lot of water.

The importance of water to the economy and growth anywhere in the West is self-evident. In California at that time, however, its importance was magnified many times by an unprecedented population growth. California's population was over 14 million--more than double over the twenty years before--and was increasing by approximately half a million people each year. By 1970, it was projected that the State's population would be 22 million; by 1985, 32 million; and by

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2020, 56 million--nearly four times the 1959 total. As it turned out, population growth continued but at a slower rate than forecast in the California Water Plan. The population in 1985 is now expected to be on the order of 25 million. However, the provision of water of good quality, available on a firm basis through the statewide program, has enabled the State to adopt increasingly stronger standards of environmental protection to minimize the unfavorable aspects of the growth that has occurred and still continues.

THE PROVISION OF WATER OF GOOD QUALITY, AVAILABLE ON A FIRM BASIS THROUGH THE STATEWIDE PROGRAM, HAS ENABLED THE STATE TO ADOPT INCREASINGLY STRONGER STANDARDS OF ENVIRONMENTAL PROTECTION TO MINIMIZE THE UNFAVORABLE ASPECTS OF THE GROWTH THAT HAS OCCURRED AND STILL CONTINUES.

State - Federal - Local

From a political standpoint, the new legislation in 1959 climaxed more than a decade of often bitter intersectional strife over how, when, by whom, and for whose benefit California's water resources were to be developed. From an engineering standpoint, the physical problems involved could be overcome--providing for water supplies, flood control, water quality control, management of salinity intrusion, hydropower generation, recreation, fish and wildlife, and the like. By constructing dams and reservoirs to conserve winter and wet year flows and by constructing aqueducts, pumping plants, and distribution systems to convey the water and to make it available for use when and where it was needed, this massive alteration of nature's scheme of things could be accomplished. But who was to accomplish it? The total

job was obviously beyond the interest and scope of local effort alone to accomplish on a multipurpose statewide basis, and it was unlikely that the Federal Government could or would undertake all of the major project construction needed.

Then, as now, there appeared little likelihood indeed that California could expect or rely upon the very substantial level of Congressional appropriation that would have been required for construction of even the relatively near-term projects the State needed. Further, the interests and authorized scope of activity of the federal agencies did not encompass all of the areas of the State nor all of the project functions required.

Thus, it appeared that the State must begin to participate much more fully in water resources management and development if the statewide needs were to be met in a timely, effective manner.

IT APPEARED THAT THE STATE MUST BEGIN TO PARTICIPATE MUCH MORE FULLY IN WATER RESOURCES MANAGEMENT AND DEVELOPMENT IF THE STATEWIDE NEEDS WERE TO BE MET IN A TIMELY, EFFECTIVE MANNER.

It was recognized that the State alone could not possibly undertake all the needed work. There would be ample room for federal and local action as well as State initiatives. Therefore, the proposal placed before the Legislature envisioned three areas for participation by the State in water development:

1. State financial participation in federal water projects to encourage the Congress to authorize projects and appropriate funds. The joint Federal-State San Luis Unit, built by the U.S. Bureau of Reclamation as an element of the Federal Central Valley Project, with the State contributing 55% of the cost during construction, is the first example of such federal-State participation. The State has the use of 55% of the reservoir and aqueduct capacities, and operates and maintains the works with the U.S. Bureau of Reclamation sharing those costs.

Conversely, it was expected that the United States, through the U.S. Army Corps of Engineers, would provide for the cost allocated to flood control for State projects. Federal funds amounting to about $67 million were contributed to the cost of Oroville Dam and Reservoir in the interest of flood control.

2. State financial participation in projects to be constructed by local agencies to expand the benefits to be achieved by such projects as envisioned in the Davis-Grunsky Act.

3. Where it was evident that needed multipurpose projects of widespread need and benefits could or would not be funded and constructed by the

federal or local agencies, the State itself would plan, fund, design, construct, and operate and maintain such projects.

Acreage Limitation

There were some in the Legislature and among those interested in water development, not solely farmers, who for one reason or another favored the federal programs because of the acreage limitation and subsidy provisions of the federal Reclamation Laws. Under the federal Reclamation Laws, interest was not charged on the costs of federal reclamation projects allocated to irrigation. Surplus revenues from the sales of project power and of water to municipal and industrial users were used to help repay project costs allocated to irrigation. Thus, the prices for water charged irrigators were greatly reduced. However, federal water could only be furnished to nonexcess lands, 160 acres maximum in a single ownership or 320 acres jointly owned by husband and wife, on a permanent basis. Holders of excess lands were required to sign recordable contracts requiring them to sell their excess lands within 10 years of first delivery at a price which did not reflect the increase in value due to the availability of project water. (The Reclamation Laws were significantly amended in 1982.)

THERE WAS LITTLE SENTIMENT IN THE LEGISLATURE FOR A STATE SUBSIDY TO IRRIGATION.

There was little sentiment in the Legislature for a State subsidy to irrigation. The State could not impose acreage limitation under its program because of the need for full repayment for System costs, including interest, allocated to water supply for irrigation as well as to municipal and industrial users.

THERE WERE MANY WHO FAVORED STATE FINANCING, CONSTRUCTION AND OPERATION WITH NO IMPOSITION OF ACREAGE LIMITATIONS EVEN THOUGH THEY REALIZED THAT THEIR WATER COSTS WOULD BE MUCH GREATER THAN UNDER THE FEDERAL RECLAMATION PROGRAM. IN THE END, THEIR VIEWS WERE ACCEPTED.

There were many farmers who favored State financing, construction and operation with no imposition of acreage limitations even though they realized that their water costs would be much greater than under the federal Reclamation Program. In the end, their views were accepted.

The Delta

Opportunities and Problems

The Sacramento-San Joaquin Delta, geographically the hub of the State's water resources, was recognized from early planning for its pivotal role in controlling surplus waters of the State for transfer and use throughout the State to the south and west. Problems within the Delta itself were

studied and solutions proposed. Governor Brown recognized the Delta as a key to the solution of the problem of surplus water distribution in his special water message in 1960 to the Legislature. He said:

> The core of our problem is distribution. We do not have enough water when and where we need it. We have too much water when and where we do not need it. Thus, it is obvious that we must build dams to capture water which would otherwise escape, and we must build canals and aqueducts to transport the water we have saved to the communities where it is needed.
>
> To accomplish these vital tasks, our state has a great natural advantage. The physical setting of the Delta of the Sacramento and San Joaquin rivers is a gift from nature that we have never fully appreciated.
>
> Above the Delta, we have both a supply of water and the sites to store it. Within the Delta, we have a natural point of convergence. When we wish to export water to an area of need lying to the south, the Delta can serve as the pool, or, if you please, as the tap from which the water can flow.
>
> In some, if not most years, there are millions of acre-feet of water in the Sacramento-San Joaquin Delta which are not being beneficially used. At present, the water goes wasting out to sea through the Golden Gate. We must build the facilities for offstream storage and move this water to areas where it is urgently needed. Unless we save this surplus water, we waste a precious natural resource and fail the people of our state.

THE SACRAMENTO–SAN JOAQUIN DELTA, THE HUB OF THE STATE GEOGRAPHICALLY AS REGARDS MUCH OF THE STATE'S WATER RESOURCES, WAS RECOGNIZED FROM EARLY PLANNING FOR ITS PIVOTAL ROLE IN CONTROLLING SURPLUS WATERS OF THE STATE FOR TRANSFER AND USE THROUGHOUT THE STATE TO THE SOUTH AND WEST.

Because of the importance of the Delta and this concept of the Delta Pool to both the State Water Resources Development System and the Federal Central Valley Project, and because of its continued place as a center of controversy, an exploration of Delta opportunities and problems is in order. What made this great Delta of the Sacramento and San Joaquin rivers so important in the whole picture of California water development? First, through the Delta, large quantities of water flowed annually to the ocean under natural conditions. Second, when the flows in the Sacramento

IN SOME, IF NOT MOST YEARS, THERE ARE MILLIONS OF ACRE-FEET OF WATER IN THE SACRAMENTO–SAN JOAQUIN DELTA WHICH ARE NOT BEING BENEFICIALLY USED.

and San Joaquin stream systems reach the Delta, they are below the last point where they may be used by areas of origin except for those relatively limited quantities required within and adjacent to the Delta, and those flows necessary to control salt water intrusion and for environmental purposes. Third, the Delta is low in elevation thereby facilitating water transfer facility development.

Serious problems confront Delta landowners and water users and uses, and the controversies, continuing today, surrounding efforts to solve these problems have not always been amicable. Summarized, Delta problems were and are:

Flooding and Drainage

Delta landowners have literally lost ground in the battle to reclaim and continue use of the rich Delta lands. With continuing land subsidence and associated increasing costs of flood protection and drainage control, it was readily apparent at the time the Delta Pool concept was formulated that significant portions of the Delta lands would be lost without a massive program of levee improvements. That construction has not, however, yet been undertaken.

IT WAS READILY APPARENT AT THE TIME THE DELTA POOL CONCEPT WAS FORMULATED THAT SIGNIFICANT PORTIONS OF THE DELTA LANDS WOULD BE LOST WITHOUT A MASSIVE PROGRAM OF LEVEE IMPROVEMENTS. THAT CONSTRUCTION HAS NOT, HOWEVER, YET BEEN UNDERTAKEN.

Salinity Intrusion

Intrusion of ocean salinity from Suisun Bay into the Delta during dry periods was a natural phenomenon as evidenced by the earliest written records. In 1931, a critically dry year, about 90% of the Delta was seriously affected by salinity intrusion. Since 1944, when Shasta Reservoir was placed in operation, most of the Delta has been protected against salinity intrusion to a high degree nearly all the time because of the fresh water inflows derived from releases from upstream reservoirs of the Federal Central Valley Project and State Water Project. Some of these regulated inflows necessarily flowed out of the Delta because of the hydraulic conditions resulting from the transfer of water across the Delta to the federal and State pumping plants at the southerly and westerly edges of the Delta, thus providing a degree of salinity control. Incidental to the transfer there has, at times, been deterioration in the quality of water reaching the pumping plants.

A matter of long-standing controversy was the federal responsibility for provision of salinity control in the Delta through operation of the Federal Central Valley Project. Until 1957 it had long been assumed at the State and local

levels, based on prior studies and reports, that salinity

A MATTER OF LONG--STANDING CONTROVERSY HAS BEEN THE FEDERAL RESPONSIBILITY FOR PROVISION OF SALINITY CONTROL IN THE DELTA THROUGH OPERATION OF THE FEDERAL CENTRAL VALLEY PROJECT.

control was to be provided by that Project. However, the 1937 authorization and subsequent authorizations for the Project by the Congress did not explicitly address the question of salinity control. By letter dated July 10, 1957, to the State Director of Water Resources and the (then) State Water Board, the Regional Director of the U.S. Bureau of Reclamation, Clyde Spencer, stated that the Federal Central Valley Project had no legal obligation to control salinity to any particular standard near Antioch and that:

> "... the obligations of the Central Valley Project are satisfied when a satisfactory quality of water is provided at the intakes to the Contra Costa and Tracy pumping plants."

and further:

> "... under present conditions of upstream development and diversions from the Delta, a computed outflow of approximately 1500 second feet will protect the intakes to the Tracy and Contra Costa pumping plants. At the same time this outflow will protect 95% of the land and water area of the Delta against incursion of highly saline water from Suisun Bay."

We now know from more recent experience that a much greater outflow would be required.

In September 1975, the then Regional Director of the U.S. Bureau of Reclamation, Billy E. Martin, formally stated that there was no legal obligation on the Federal Central Valley Project to provide water of suitable high quality for municipal and industrial use to the Contra Costa Water District through the Contra Costa Canal under the District's water service contract with the United States.

A high degree of salinity control has, in fact, been provided much of the time by virtue of annual agreements to coordinate operation of the federal and State projects. At times during the 1976-77 drought, the Bureau of Reclamation operated the Central Valley Project facilities to provide less water for quality control than required by standards set by the SWRCB. Serious controversies continued over:

> The relative responsibilities of the United States through operation of the Federal Central Valley Project, and the State in operation of the State Water Resources Development System, for providing salinity control;
>
> The provision of substi-

tute water supplies for the the western Delta by means of overland facilities, allowing more efficient salinity control;

The degree and extent of salinity control to be provided and the amount of water that should be committed; and

The responsibility of Delta water users to reimburse for the quality benefits accruing due to operation of the federal and State projects.

The relative responsibilities of the United States, the State, and the governing water quality objectives, may be resolved when the proposed Coordinated Operation Agreement between the Bureau and DWR is executed. The Delta Protection Act contemplated construction of overland facilities with no increase in cost to the users, but they have not been built.

Water Supply

As the Central Valley developed its irrigable lands and absorbed increasing population density, degradation of water quality in the Delta channels occurred. In addition, the export of water from tributary streams and from the Delta to the San Joaquin Valley, the San Francisco Bay region, and areas south of the Tehachapis complicated the problems of the Delta. This was because of continuing controversy over means to insure a water supply of proper quality to meet present and future Delta demands and the obligation of Delta water users to compensate the United States and the State for water supply benefits, principally quality maintenance, provided by releases into the Delta from storage in upstream federal and State reservoirs.

Recreation

Increased population throughout the State as well as in areas immediately adjacent to the Delta motivated a boom in recreational activities which imposed major stress on the recreational potential.

Fishery

The annual runs of anadromous fish--salmon and shad--returning to upstream spawning grounds, and the subsequent returns of fingerlings to the ocean, must pass through the Delta. The striped bass, while not indigenous to the Delta, is an important sport fishery. Diversions from the Sacramento River and other streams tributary to the Delta, for irrigation and other uses, including exports from the

THE ANNUAL RUNS OF ANADROMOUS FISH —- SALMON AND SHAD —- RETURNING TO UPSTREAM SPAWNING GROUNDS, AND THE SUBSEQUENT RETURNS OF FINGERLINGS TO THE OCEAN, MUST PASS THROUGH THE DELTA. THE STRIPED BASS, WHILE NOT INDIGENOUS TO THE DELTA, IS AN IMPORTANT SPORT FISHERY.

Mokelumne and Tuolumme rivers to provide water for the urban and industrial areas in the San Francisco Bay region, the long-standing diversion from the San Joaquin River at the "Sack Dam" near Mendota for irrigation, and later the construction of Friant Dam and Reservoir on the San Joaquin River, seriously depleted inflows to the Delta as well as blocking access to natural spawning areas--all detrimental to the fisheries. Releases of stored water from upstream Federal Central Valley Project reservoirs on the Sacramento and American rivers combined with import from the Trinity River, and releases from the State's Oroville reservoir on the Feather River, coupled with fish hatcheries, have, to a considerable degree, compensated for these particular detrimental effects except as regards the San Joaquin River. However, diversion from the south Delta by the Tracy Pumping Plant to the Delta-Mendota Canal of the Federal Central Valley Project, and by the Harvey O. Banks Delta Pumping Plant to the State's California Aqueduct, have other serious adverse effects. Eggs and larvae are lost even though fish screens have been installed. The pumping reverses the natural patterns of flow in the Delta channels confusing anadromous fish in their runs.

The Delta fishery problems have not yet been fully solved and have been mitigated only to a limited extent.

Associated Water Development Needs

Other problems related to water development in the Delta such as prevention of channel erosion, vehicular transportation and navigation have been the focus of regional planning as well as part of the planning for use of the Delta as a pool for the benefit of all parts of the State. Efforts at resolution of the problems have been marked by successes and failures, and they still remain to be solved for Delta protection and use.

Delta Pool Concept

The Delta's place in the State's long-term program for water management, conservation and storage, recovery, and redistribution was--as Governor Brown had put it--"a gift from nature." Taking advantage of that "gift," without exacerbating internal Delta problems, was and still is a challenge. The innovative approach conceived in 1959, and introduced by Governor Brown, was what became known as the "Delta Pool Concept." Under

THE DELTA'S PLACE IN THE STATE'S LONG-TERM PROGRAM FOR WATER MANAGEMENT, CONSERVATION AND STORAGE, RECOVERY, AND REDISTRIBUTION WAS -- AS GOVERNOR BROWN HAD PUT IT -- "A GIFT FROM NATURE." TAKING ADVANTAGE OF THAT "GIFT," WITHOUT EXACERBATING INTERNAL DELTA PROBLEMS, WAS AND STILL IS A CHALLENGE.

this concept, the advantages of the Delta as a pooling center would be realized by considering the Delta as the hypothetical point of concentration for all waters developed by State Water Resources Development System works, wherever located, and from which water would be diverted and supplied as needed throughout the State under the System. Construction requirements would include storage development both upstream of the Delta and offstream. Within the Delta, selected natural channels would be enlarged; new channels constructed where necessary; diversion structures with fish protection facilities provided; pumping plants and distribution systems installed; and levees improved. These facilities would assist in moving large quantities of high quality water to the south and west, and in meeting problems of water supply, flood control, fisheries, recreation, subsidence, and saline water intrusion within the Delta itself.

WITHIN THE DELTA, SELECTED NATURAL CHANNELS WOULD BE ENLARGED; NEW CHANNELS CONSTRUCTED WHERE NECESSARY; DIVERSION STRUCTURES WITH FISH PROTECTION FACILITIES PROVIDED; PUMPING PLANTS AND DISTRIBUTION SYSTEMS INSTALLED, AND LEVEES IMPROVED.

The Delta Pool Concept meant that much of the large unregulated surpluses flowing through the Delta to the ocean could be salvaged by direct diversion for offstream storage or immediate use. Then, as future demands for export grew, and as upstream uses decreased the volume of flows reaching the Delta, additional upstream storage capacity and other facilities could be built incrementally as and when needed to supplement water in the Delta for both Delta uses and export, and to satisfy local demands. Thus, there would be no inhibition on future uses of water in the areas of origin--their needs would be satisfied from upstream facilities constructed by local agencies, federal agencies or the State, all within the framework of the California Water Plan and the State Water Resources Development System. Ample water would always be available in the Delta to meet economic, environmental, and social demands there. Staged construction when justified either for increasing local demands or to meet export commitments, or both, minimizes funding requirements and avoids investment substantially before need.

THERE WOULD BE NO INHIBITION ON FUTURE USES OF WATER IN THE AREAS OF ORIGIN --- THEIR NEEDS WOULD BE SATISFIED FROM UPSTREAM FACILITIES CONSTRUCTED BY LOCAL AGENCIES, FEDERAL AGENCIES OR THE STATE, ALL WITHIN THE FRAMEWORK OF THE CALIFORNIA WATER PLAN AND THE STATE WATER RESOURCES DEVELOPMENT SYSTEM.

The Delta Pool Concept involved a significant and fundamental water policy change. It provided that areas receiving System water supplies would receive a contract right to water from the Delta Pool rather than a right to water from a specific source as had been the traditional case. In addition to the physical use of water reaching the Delta, the Delta Pool Concept defined financial considerations. Again to quote from Governor Brown's message:

THE DELTA POOL CONCEPT INVOLVED A SIGNIFICANT AND FUNDAMENTAL WATER POLICY CHANGE.

"Many of the principles now applicable to the operation of utilities should guide us in the development of our state water resources. Thus, we should recognize our obligation to insure that water will be available to meet the proper demands of every part of the State. As in the case of a utility, we should be able to enlarge our facilities to bring more water into the Delta Pool and recover the cost from the system as a whole. Moreover, just as the first man to get a telephone does not enjoy a lower rate, so those who are first served by state water projects should not have privileged status."

Here, in the Delta, is perhaps best illustrated how and to what extent the interregional conflicts, the financial concerns, the politics of the period, were all linked together. One of the fears, especially in the slowly developing areas, and to some extent in the San Joaquin Valley and Southern California as well, was that the first users of water out of the Delta might continue to have a lower water cost than subsequent users. As noted earlier, a key to the Delta Pool concept was the physical characterstics and strategic location of the Delta. These characteristics would make possible the staged and incremental construction of additional conservation storage on the Sacramento and other streams of potentially developable surplus. As this construction took place, the cost of water from the Delta would go up. Under traditional practices, users coming on line to be served by Delta export in, say, 1990 would pay not only the 1960 cost of Delta water but also the costs of construction of all additional storage facilities added in the interim while original users would continue to pay only the original cost. Actually, under the Delta Pool Concept, all users, no matter where located, served by diversion from the Delta Pool pay the same price, the Delta Water Charge, for water at any given point in

HERE, IN THE DELTA, IS PERHAPS BEST ILLUSTRATED HOW AND TO WHAT EXTENT THE INTERREGIONAL CONFLICTS, THE FINANCIAL CONCERNS, THE POLITICS OF THE PERIOD WERE ALL LINKED TOGETHER.

time, exclusive of conveyance costs.

UNDER THE DELTA POOL CONCEPT, ALL USERS, NO MATTER WHERE LOCATED, SERVED BY DIVERSION FROM THE DELTA POOL PAY THE SAME PRICE, THE DELTA WATER CHARGE, FOR WATER AT ANY GIVEN POINT IN TIME, EXCLUSIVE OF CONVEYANCE COSTS.

Certainly, the Delta Pool Concept was complex. All of the questions about its long-range implications could not be answered at the time. Questions were raised with regard to how it would function; how Delta landowners would themselves fare under its operation; how its operational costs would be equitably factored into water service contracts with water users to be served by Delta export; how the users of water from streams feeding into the Delta would be protected as subsequent development became necessary to supplement water in the Delta available for export. They were valid questions, and some could not be answered, but the assurance was that they would be legislatively addressed to assure equity. Ratification of the bond issue reflects the success achieved in explaining the complexities and gaining acceptance of the assurance of legislative remedy. With that acceptance, the Delta Pool Concept has been successfully embodied in water service contracts negotiated with water users under the State Water Project.

Delta Protection Act

The Delta Protection Act was enacted in 1959, as Chapter 1766, to resolve some of the controversies and problems of the Delta. The principal provisions of concern were:

THE DELTA PROTECTION ACT WAS ENACTED IN 1959 TO RESOLVE SOME OF THE CONTROVERSIES AND PROBLEMS OF THE DELTA.

1. The boundaries of the Delta were legally defined.

2. Salinity control is among the functions to be provided by the State Water Resources Development System ".. in coordination with the activities of the United States in providing salinity control for the Delta through operation of the Federal Central Valley Project...."

3. "An adequate water supply in the Delta sufficient to maintain and expand agriculture, industry, urban and recreation development in the Delta ... and to provide a common source of fresh water for export to areas of water deficiency ..." are among the functions of the System.

4. "If it is determined to be in the public interest to provide a substitute water supply (through overland facilities) to the users in the ... Delta in lieu of that which would be provided as a result of salinity control, no added financial burden shall be placed upon ... Delta water

users solely by virtue of such substitution."

5. No water is to be diverted and exported from channels of the Delta by the State, United States or others to which water users within the Delta are entitled.

NO WATER IS TO BE DIVERTED AND EXPORTED FROM CHANNELS OF THE DELTA BY THE STATE, UNITED STATES OR OTHERS TO WHICH WATER USERS WITHIN THE DELTA ARE ENTITLED.

6. "Operation and management of releases from storage into the Sacramento-San Joaquin Delta of water for use outside the area in which such water originates shall be integrated to the maximum extent possible in order to permit fulfillment of (these) objectives...." Note: Releases from storage into the Delta for export are made from both federal and State reservoirs.

The Act itself is not explicit as to the responsibility of Delta water users to reimburse the State or United States for the water quality improvement benefits resulting from operation of the State and federal projects. The legislative history seems clear that the Legislature intended that reimbursement be made. Furthermore, the Delta Protection Act incorporates the Watershed Protection Act which disclaims creation of any requirement that the State furnish water to protect areas without adequate compensation. In addition, the Burns-Porter Act incorporates the (State) Central Valley Project Act provisions that direct that charges be imposed for State Water Project water services. Except for certain of the Delta interests, there was in 1959, and still is, a general consensus that such reimbursement should be made.

In formulation of the Burns-Porter Act, Senator George Miller of Contra Costa County recommended that the capacity of the diversion from the Delta be specified at not less than 10,000 cubic feet per second in order to be able to take full advantage of heavy flows into the Delta when such occur. During periods of lower inflow, the rate of diversion could then be lower with less stress on the Delta.

IN FORMULATION OF THE BURNS–PORTER ACT, SENATOR GEORGE MILLER OF CONTRA COSTA COUNTY RECOMMENDED THAT THE CAPACITY OF THE DIVERSION FROM THE DELTA BE SPECIFIED AT NOT LESS THAN 10,000 CUBIC FEET PER SECOND IN ORDER TO BE ABLE TO TAKE FULL ADVANTAGE OF HEAVY FLOWS INTO THE DELTA WHEN SUCH OCCUR. DURING PERIODS OF LOWER INFLOW, THE RATE OF DIVERSION COULD THEN BE LOWER WITH LESS STRESS ON THE DELTA.

FINANCING AND REPAYMENT - PRINCIPLES AND PRACTICE

Close in priority of concern after the question of why the State should move so substantially into the business of water management and facilities construction was the ability of California to afford the costs involved, and the best and most equitable means of providing the necessary funds. The Department of Water Resources retained nationally recognized financial consultants to work with the Department, the Governor, and the Legislature to develop a feasible financing package. This would include $1.75 billion in bonds, moneys in the California Water Fund, and future oil revenues,

THE DEPARTMENT OF WATER RESOURCES RETAINED NATIONALLY RECOGNIZED FINANCIAL CONSULTANTS TO WORK WITH THE DEPARTMENT, THE GOVERNOR, AND THE LEGISLATURE TO DEVELOP A FEASIBLE FINANCING PACKAGE.

and would as a package provide required initial front-end capital, take care of the non-reimbursable costs of State water projects allocated to recreation and to enhancement of fish and wildlife, provide financial assistance to local agencies for local projects, and for needed financial cooperation in federal projects. A key element in that financing package was a realistic projection of the rate of annual expenditures that would be needed for water development.

In the political debate, the campaigning for and against ratification by the voters of the bonds authorized in the Burns-Porter Act, all features of the financing package were examined in exhaustive detail. The affirmative vote on the bonds, with a large voter turnout, as an indication of the strength of the political and water interest leadership that existed at that time.

The Act provided that all moneys in the California Water Fund and all accruals to that Fund in any fiscal year be spent for construction of State Water Facilities before bond money was used. To the extent that money from the California Water Fund was used, an equal amount of bond money was to be set aside and committed to construction of

TO THE EXTENT THAT MONEY FROM THE CALIFORNIA WATER FUND WAS USED, AN EQUAL AMOUNT OF BOND MONEY WAS TO BE SET ASIDE AND COMMITTED TO CONSTRUCTION OF ADDITIONAL FACILITIES ON THE NORTH COAST STREAMS OR IN THE SACRAMENTO RIVER WATERSHED AS NECESSARY TO MEET LOCAL NEEDS IN THE NORTH INCLUDING NEEDED FLOOD CONTROL AND TO AUGMENT SUPPLIES OF WATER IN THE DELTA FOR EXPORT. INCLUSION OF NORTH COAST STREAMS IN THIS FINANCING OPTION WAS BASED ON RECOMMENDATIONS OF LEGISLATORS FROM THE NORTH COAST.

additional facilities on the North Coast streams or in the Sacramento River watershed as

necessary to meet local needs in the north including needed flood control and to augment supplies of water in the Delta for export. Inclusion of North Coast streams in this financing option was based on recommendations of legislators from the North Coast. These "offset" bond funds have not yet been expended.

The California Water Fund was to be a revolving fund for future needed projects using revenues from sources dedicated by the Legislature and repayments by the water contractors with interest, of funds previously expended.

THE CALIFORNIA WATER FUND WAS TO BE A REVOLVING FUND FOR FUTURE NEEDED PROJECTS USING REVENUES FROM SOURCES DEDICATED BY THE LEGISLATURE AND REPAYMENTS BY THE WATER CONTRACTORS WITH INTEREST, OF FUNDS PREVIOUSLY EXPENDED. THUS, NO RESTRAINT WOULD BE PLACED ON WATER DEVELOPMENT AND USE IN THE AREAS OF ORIGIN, AND A WATER SUPPLY FOR THE DELTA WOULD BE ASSURED.

The effect of these provisions must be clearly understood because they have influenced other legislation, and have kept System financing in harmony with conceptual policies of the California Water Plan. If, as a result of increased use of water in areas of origin, the Sacramento and San Joaquin watersheds, the amount of surplus water available in the Delta for export to the south and west were to be reduced, funds would thus be automatically made available to provide for construction of additional storage works. A continuous supply of water in the Delta was thereby to be insured at all times to meet the State's contractual commitments under the System as well as Delta needs. Thus, no restraint would be placed on water development and use in the areas of origin, and a water supply for the Delta would be assured.

As mentioned earlier, the Burns-Porter Act and other legislation directed the State to enter into contracts for the sale, delivery, and use of System project services, water and power. All income and revenues derived from the sale of project services were pledged to payment of operation and maintenance costs, the annual payment of principal and interest on the bonds and repayment of the California Water Fund. With the revenues and contracts being thus committed to the payment of the bonds, the Legislature could not, under the California Constitution, take any action during the period that any of the bonds remain outstanding (estimated to be at least 75 years) to interfere with or abrogate the contracts entered into by the State with its public agencies.

The prototype contract was entered into with The Metropolitan Water District of Southern California on November 4, 1960, just prior to the vote of the $1.75 billion bond issue. This, as do all subsequent contracts, embodies all of the statutory provisions governing imple-

mentation of the State Water Resources Development System.

It was a fundamental concept of the 1933 Central Valley Project Act and the Burns-Porter Act that the areas which benefit from the water supplies made available and the power generated by System facilities should repay the full allocated costs, including interest, incurred in providing those services. The rate structures established in the water and power service contracts were designed to

IT WAS A FUNDAMENTAL CONCEPT OF THE 1933 CENTRAL VALLEY PROJECT ACT AND THE BURNS–PORTER ACT THAT THE AREAS WHICH BENEFIT FROM THE WATER SUPPLIES MADE AVAILABLE AND THE POWER GENERATED BY SYSTEM FACILITIES SHOULD REPAY THE FULL ALLOCATED COSTS, INCLUDING INTEREST, INCURRED IN PROVIDING THOSE SERVICES.

provide sufficient revenues from the sale of water and power at all times to pay (1) operating, maintenance and replacement costs, (2) meet the payments of principal and interest on the bonds issued, both general obligation and revenue, and (3) repay the California Water Fund with interest. The revenues used to repay the California Water Fund were intended to provide a source of financing for on-going construction programs. The Legislature has declared that System costs allocated to recreation and to the enhancement of fish and wildlife resources are not reimbursable. The federal contribution in the interest of flood control at Oroville is not reimbursable. Thus, except for these nonreimbursable items, minor in amount, the agencies purchasing water and power from System facilities will bear the cost. Those areas which will not be served with water under the System do not pay taxes to subsidize those which directly benefit from the water supplies made available by the System.

As discussed earlier, the Delta Pool Concept was developed to assure continuing equity in the water service charges among those who initially contracted for water from the System and those who need water at a later time as the System is expanded to meet overall demands. This was a significant departure from the traditional concept of considering each project separately when built.

THE DELTA POOL CONCEPT WAS DEVELOPED TO ASSURE CONTINUING EQUITY IN THE WATER SERVICE CHARGES AMONG THOSE WHO INITIALLY CONTRACTED FOR WATER FROM THE SYSTEM AND THOSE WHO NEED WATER AT A LATER TIME AS THE SYSTEM IS EXPANDED TO MEET OVER–ALL DEMANDS.

Two highly important policy guides to the successful financing of the water program are to be found in formulation of the Delta Pool Concept and Governor Brown's announcement on January 20, 1960, of "Contracting Principles for Water Contracts

Under The California Water Resources Development System." This document is included in its entirety, except for omission of one tabulation, in Appendix I because of its significance in the entire financing and repayment structure of the System.

The contract negotiated between The Metropolitan Water District of Southern California and the Department of Water Resources, executed November 4, 1960, was the prototype for all contracts for water executed in furtherance of the financing provisions of the Burns-Porter Act. In that light, the Metropolitan contract negotiations, and their successful conclusion, marked a clear path for subsequent water service contracts executed by the Department.

OTHER LEGISLATION: CONTROLLING AND GUIDING

Planning, financing, construction and operation of facilities of the State Water Resources Development System are subject to the provisions of a number of statutes as well as the Burns-Porter Act, now all codified in the Water Code. Some were enacted prior to passage of that Act and some enacted or amended subsequently. Those other provisions of the Water Code of concern in this report, and the subject matters, include (the section numbers in parentheses refer to the Water Code):

1. Water rights for the System, subject to:

A. County of Origin Act (Sections 10500-10505.5); and

B. Water quality objectives and control plans in accordance with terms and conditions imposed by the State Water Resources Control Board (Sections 1257, 1258 and 10505.5).

2. The basic authorities and powers of the Department of Water Resources to authorize, finance, construct and operate projects and certain governing policies are imbodied in the Central Valley Project Act of 1933 (Section 11000-11925).

A. Authorization of the State Water Project (Section 11260);

B. Watershed Protection Act (Section 11460-11463);

C. Powers of Department to authorize additional units (Sections 11260 and 11290); (see also Section 12931);

D. Issuance of revenue bonds (Section 11700-11784); and

E. Recreation and enhancement of fish and wildlife resources are among the purposes of State water projects; costs allocated to those purposes are nonreimbursable, Davis-Dolwig Act (Section 11900-11915).

3. Acceptance of the California Water Plan ...the guide for the orderly and coordinated control, protection, conservation, development, and utilization of the water resources of the State (Sections 10004-10007).

THE CALIFORNIA WATER PLAN ... THE GUIDE FOR THE ORDERLY AND COORDINATED CONTROL, PROTECTION, CONSERVATION, DEVELOPMENT, AND UTILIZATION OF THE WATER RESOURCES OF THE STATE.

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4. Delta Protection Act (Sections 12200-12220).

5. California Water Fund (Sections 12900-12915).

6. State Financial Assistance for Local Projects,

Davis-Grunsky Act (Sections 12880-12948.8).

7. State cooperation with the Federal Government on State water projects (Section 12895).

8. Adoption of State policy for water quality control; approved water quality control plans to become a part of the California Water Plan (Section 13141); State offices, departments and boards to comply with State policy for water quality control (Section 13146).

OTHER MILESTONES TO REMEMBER

A full and comprehensive chronology of the important events in California's water history could fill volumes. The Introduction to this report described the Burns-Porter Act as a part of a continuing effort by many talented and creative people to match the State's complex demands for water, its physical opportunities and problems, its institutional and political climate with its abundant water resources.

Without any pretense at providing such a comprehensive chronology, the following additional key milestones leading to that Act are noted to lend a flavor to this colorful history. Between and a part of these milestones were many formally published reports and internal documents that collectively have provided a remarkable documentation of the State's continuing interest and concern.

Noteworthy events have followed to the present. The contribution of individuals in this effort has been unique in the sense that it has combined over time pragmatic politics, hard-headed engineering and financing, imaginative planning, and social and environmental sensitivity. The result has been the progress to the present, and a vast reservoir of knowledge and thought from which to continue in the future.

1874 - U.S. House of Representatives - Ex. Doc. No. 290, Forty-third Congress, First Session

This report, titled "The Irrigation of the San Joaquin, Tulare, and Sacramento Valleys of the State of California," presented a hypothetical irrigation system for these rich agricultural lands.

1878-1889 - William Hammond Hall, State Engineer

Reports and notes were documented containing meteorological and streamflow data; and information on irrigation, drainage, and flood control. His reports were used extensively in subsequent planning activities.

1927 - *Bulletin No. 12 - Summary Report on the Water Resources of California and a Coordinated Plan for their Development

This report described areas of water surplus and existing or potential deficiences. It proposed to transport water from the North to areas of deficiency in the San Joaquin Valley and Southern California.

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*Bulletins are described in historic sequence. Numbering represents sequences of numbered documents by the several agencies involved and are not, therefore, in a numerical sequence corresponding to the historic sequence.

1930 - Bulletin No. 25 - Report to the 1931 Legislature on the State Water Plan

The Legislature was provided the Plan for redistributing water from the North to areas of deficiency in the South; identified storage and conveyance facilities, their costs and detail; and described plan purposes to be served in addition to water supply including hydroelectric power generation, salinity control, flood control, and improved navigation.

1957 - Bulletin No. 3 - The California Water Plan

Bulletin No. 3 described in detail: the problems to be solved by the water resource development program; a guide to storage and conveyance facility construction; the policies and concepts to stage and finance that construction; and an implementation framework. It was the basis for provisions of the Burns-Porter Act.

1957 - Bulletin No. 59 - Investigation of Upper Feather River Basin Development; Interim Report on Engineering, Economic, and Financial Feasibility of Initial Units

This report was one of a series dealing with the Feather River above Oroville Reservoir. The Feather River Project, now termed the State Water Project, was to become the first unit of the California Water Plan's coordinated System. Planning for the Project was long-standing and its facilities were authorized by the 1951 Legislature.

THE FEATHER RIVER PROJECT, NOW TERMED THE STATE WATER PROJECT, WAS TO BECOME THE FIRST UNIT OF THE CALIFORNIA WATER PLAN'S COORDINATED SYSTEM. PLANNING FOR THE PROJECT WAS LONG-STANDING AND ITS FACILITIES WERE AUTHORIZED BY THE 1951 LEGISLATURE.

1957 - Davis-Grunsky Act

Adopted by State Legislature to provide financial assistance to local agencies for local water projects.

1957 - Feather River Project Funds Appropriated

$673,000 was appropriated for more studies of the Feather River Project.

1957 - Bulletin No. 60 - Salinity Control Barrier Investigation

This report presented the Biemond Plan (Waterway Control Plan).

1957 - Abshire-Kelly Salinity Control Barrier Act of 1957

This Act authorized the Department of Water Resources to limit future salinity control barriers to the Biemond Plan described in Bulletin No. 60.

1957 - Bulletin No. 61 - Feather River Project - Investigation of Alternative Aqueduct Routes to San Diego County

This report presented alternate aqueduct routes including the San Diego Canal, Auld Valley Reservoir, and four pipeline routes to San Diego.

1957 - Proposed Constitutional Amendment

MWD Legal staff worked with the Areas of Origin Subcommitte of the Statewide Water Resources Committee, the State Chamber of Commerce and the State Attorney General's Committee of Water Lawyers on County of Origin Problems in preparation of a proposed constitutional amendment which was introduced at the 1957 regular session of State Legislature. The Legislature adjourned without submitting any constitutional amendment to the people.

1959 - Burns-Porter Act

The Legislature passed the Act, setting in motion the bond election to take place the following year.

1960 - A Banner Year

November 4, 1960 - the water service contract between the Metropolitan Water District and the California Department of Water Resources was executed.

November 8, 1960 - the voters of California ratified the $1.75 billion in bonds authorized by the Burns-Porter Act.