STATE OF CALIFORNIA

The Resources Agency

Department of Water Resources

BULLETIN No. 132-73

THE CALIFORNIA STATE WATER PROJECT IN 1973

JUNE 1973

NORMAN B. LIVERMORE, JR.
Secretary f r Resources
The Resources Agency

RONALD REAGAN
Governor
State of California

WILLIAM R. GIANELLI
Director
Department of Water Resources

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FOREWORD

On May 18, 1973, during the preparation of this report, completion of the initial State Water Project facilities was formally commemorated at Perris Dam, in Riverside County.

The basic framework of the Project is now a physical reality -- stretching from Frenchman Dam, in Plumas County, to Perris Dam. However, the Project is by no means complete. Construction, while on a less spectacular scale than that required since the early 1960s, must continue during the years immediately ahead to keep abreast of the Project's growing water delivery obligations. Furthermore, continuing long-term construction will be required since the Project is but the initial works of the State Water Resources Development System -- a dynamic System conceived by the California Legislature to supplement federal and local developments so that all future water needs of the State will be supplied.

California now has another valuable addition to its many physical assets which will provide benefits for generations to come. Even while the initial facilities were being constructed, the Project delivered more than 3 million acre-feet of water; supported more than 10 million recreation days of use at project reservoirs; produced over 11 billion kilowatt-hours of smog-free electric energy in project powerplants; and provided substantial flood and salinity control benefits.

During 1972, the basic facilities helped alleviate the effects of one of the most severe droughts on record while fulfilling contractual obligations. Furthermore, the Project is satisfying needs not originally envisioned when Californians approved its construction by popular vote in 1960. For instance, the Project helped clean up a salinity problem in the Delta resulting from the Andrus Island Levee failure, provided recreational opportunities and outstanding fishing in areas formerly devoid of such possibilities, and pioneered a new and unique recreation use -- bikeways -- on aqueduct maintenance roads.

William R. Gianelli

William R. Gianelli, Director
Department of Water Resources
The Resources Agency
State of California
June 12, 1973

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ABSTRACT

Bulletin 132-73, "The California State Water Project in 1973", is the eleventh in a series of comprehensive annual reports on the Project: it documents management actions and summarizes construction and operations progress during 1972; it updates the Project's long-range financial projections as of the beginning of 1973; and it provides data and computations in support of charges to be assessed water supply contractors during 1974.

An outstanding highlight of 1972 was the sale of Devil Canyon-Castaic Revenue Bonds. The $127 million in new construction funds provided by the sale, together with other available income, guarantees sufficient financing until at least the late 1970s and avoids a funding deficit once projected to be in the order of up to $300 million through 1972.

Project construction continues on schedule. At the end of 1972, only about $2.1 million in three relatively minor contracts were yet to be awarded for completion of the initial project facilities. Water was being served from all except the most southerly facility -- Lake Perris, 444 aqueduct-miles south of the Sacramento-San Joaquin Delta.

Operations during 1972 included 1,102,403 acre-feet of water delivered from project facilities; 1,971,200 recreation days of use supported by project recreation developments; and 1,867,000,000 kilowatt-hours of electric energy generated at project powerplants.

As of the end of 1972, about $2,150 million in construction expenditures had been incurred for project facilities since originally authorized by the Legislature in 1952. Estimates are that such expenditures will approach $3 billion through 1997 with completion of required additional conservation facilities. These estimates exclude future construction costs of the eventual replacement of the interim Gorman Creek Improvement on the West Branch and the San Joaquin Drainage Facilities. Based on the assumptions as to the future construction program which are described in the report, $37.5 million of supplemental construction funds would be needed by 1979 to complete the Project.

CHAPTER I. CONTINUING HISTORY OF THE PROJECT

This continues, for calendar year 1972, the record of actions affecting the progress of the State Water Project.

The end-of-year status of the Project is concisely described in the following extract from the California Water Commission's November 1972 report on its annual progress review (required by California Water Code Section 165) of project construction and operations:

"The commission's inspection showed that the State Water Project is achieving or surpassing its goals in diverse fields of accomplishment:

"It is conserving and delivering water from Plumas County to Los Angeles County for Californians' use in their homes, farms, and factories.

"It is starting its second decade of water service in the San Francisco Bay Area.

"It is readily meeting 1972's sharply increased water needs, caused by the near-drought conditions this year.

"It is providing family recreation and sport fishing in northern, central, and southern California.

"Its smog-free generation of electric power is helping to meet increasing energy requirements.

"It is providing flood control and water quality control.

- "It is maintaining its construction schedule as it nears completion of its first phase.

"It is proceeding as a fiscally-sound utility, financed by the beneficiaries.

"This year, in addition to its orderly progress according to plan, the Project met and passed a test of its ability to counter the unexpected:

- "It demonstrated its capability to assist in water quality improvement in the Sacramento-San Joaquin Delta in the emergency that followed a levee break.

"Our 1972 inspection made it plain that the State Water Project is environmentally beneficial, operationally effective, engineeringly efficient and fiscally sound."

As 1972 drew to a close, construction of the "1973 Project facilities"—the facilities required for initiating service to all agencies who contracted for water deliveries prior to 1980—was substantially complete in accordance with schedules established in the early 1960s. Water was being served from all except the most southerly facility—Lake Perris, 444 aqueduct-miles south of the Sacramento-San Joaquin Delta.

During 1972, project management actions centered on (1) providing funds for financing the construction of future facilities needed beyond the 1973 Project facilities in anticipation of growing demands for full project services; (2) defining the plan and schedule of these future facilities; and (3) investigating and implementing ways of expanding the benefits to be realized from completed project facilities for purposes not originally envisioned. In addition, proceedings were pending as of the end of 1972 which may affect future management of the Project.

Providing Funds for Future Construction

On March 28, 1972, the State Treasurer sold $40,000,000 (Series S) of State Water Resources Development Bonds (herein called Water Bonds) at an interest cost of 5.468 percent. Of the total sale, about $24,000,000 represented the last such bonds available for financing construction of the 1973 Project facilities. With that sale, a total of $1,540,000,000 of Water Bonds had been sold of the $1,750,000,000 authorized by Californians in 1960 when they voted approval of the Burns-Porter Act. The remaining $210,000,000 of authorized Water Bonds can be used only for local projects under the Davis-Grunsky Act Program (about $43,000,000) or for additional water conservation facilities (about $167,000,000).

The $1,540,000,000 of Water Bonds were sold over a period of 10 years, averaging about $154,000,000 annually, ranging from a peak 12-month sale of $400,000,000 between late 1966 and late 1967 to zero sales during 1969 and 1970 when prevailing interest rates grew beyond the then-statutory ceiling of 5 percent (see page 1, Bulletin 132-70).

Water Bonds are general obligations of the State. An original concern in 1960 was the impact of the necessary heavy annual Water Bond sales, in addition to California's other bonding requirements, on the State's credit rating.

In October 1972, the State Treasurer announced that California's general obligation bonds had received a AAA rating by Moody's Investor's Service—one of the two principal credit rating services in the nation. (The other, Standard & Poor's, has rated California AAA for many years.) Since prior to 1960, California's obligations have been rated AA by Moody's. The improvement in credit rating is reported to be partially due to the realization, by analysts, of the integrity of Water Bonds—that the Bonds are, in fact, self-liquidating and not a call on the State's General Fund—through careful management of project funds.

With the successful completion of the bond marketing program for the 1973 Project facilities, which includes $244,995,000 of Central Valley Project Reve-

nue Bonds, Oroville Division (herein called Oroville Revenue Bonds), attention centered in 1972 on obtaining supplemental funds for financing the continued construction of required facilities on schedule. On the basis of estimated construction expenditures as shown in last year's analysis, then-available funds would not be sufficient commencing in about mid-1973 (see page 65, Bulletin 132-72). Last year's report also pointed out that the Department was then pursuing two sets of negotiations to provide a basis for issuance of additional revenue bonds. The first set of these negotiations was successfully concluded in 1972. These additional bonds do not involve construction of any facilities not already authorized and, in this regard, are analogous to Oroville Revenue Bonds (see pages 19-20, Bulletin 132-68).

Sale of Devil Canyon-Castaic Revenue Bonds

On August 8, 1972, the State Treasurer sold $139,165,000 Central Valley Project Revenue Bonds, Devil Canyon and Castaic Facilities (herein called Devil Canyon-Castaic Revenue Bonds) at a net interest cost of 5.445 percent. The issue was rated AA by the two principal rating services and comprised $27,800,000 of serial bonds maturing from 1983 through 2000; $43,295,000 of term bonds maturing in 2012; and $68,070,000 of term bonds maturing in 2022.

The Devil Canyon Facilities consist of Cedar Springs Dam, Silverwood Lake, San Bernardino Tunnel, and Devil Canyon Powerplant. The Castaic Facilities are designated as the portion of the Castaic Cooperative Development to be financed by the Department under the September 2, 1966 Contract between the Department and the City of Los Angeles Department of Water and Power (see page 12, Bulletin 132-67), including Angeles Tunnel and Pyramid Dam and Lake.

The successful sale of Devil Canyon-Castaic Revenue Bonds provided $127,062,618 in new construction funds for the Project. The remainder of the issue was applied to interest and operating expenses for one year after completion of the Devil Canyon and Castaic Facilities and to bond financing expenses all as required under the Central Valley Project Act. Of the new construction funds, $98,944,000 reimbursed funds expended on construction of the Facilities prior to delivery of the Bonds, with the remaining $28,118,618 available for completing such construction. The latter amount includes $1,541,593 interest earnings prior to delivery of proceeds to the Department.

Devil Canyon-Castaic Contract

The sale of Devil Canyon-Castaic Revenue Bonds was secured by the Devil Canyon-Castaic Contract, entered into on June 23, 1972, between the Department and the following six agencies—all of the Project's water supply contractors located below the Devil Canyon and Castaic Facilities: The Metropolitan Water District of Southern California, San Bernardino Valley Municipal Water District, San Gabriel Valley Municipal Water District, Castaic Lake Water Agency, San Gorgonio Pass Water Agency, and Ventura County Flood Control District.

The Contract became effective on the issue and delivery of Devil Canyon-Castaic Bonds on September 13, 1972 and continues in effect until the Bonds have been paid. The agencies agree to pay the Department the amount required by the Department to pay annual debt service on Bonds, together with the annual costs of operation and maintenance of the Facilities apportioned to power production.

If an agency fails or is unable to raise sufficient funds by other means to make payments due the Department under the Contract, it must levy upon all property in such agency not exempt from taxation a tax or assessment sufficient to provide for all payments under the Contract.

The Contract contains a determination by the Director that the costs of the Devil Canyon and Castaic Facilities apportioned to power are not costs to be paid by the agencies under their water supply contracts—i.e., the agencies shall not be required to pay such costs both under the Devil Canyon-Castaic Contract and their water supply contracts.

All power produced by the Devil Canyon Facilities and all power to which the Department is entitled under the Castaic Cooperative Development Agreement with the City of Los Angeles Department of Water and Power shall be used by the Department in the operation of the Project, or disposed of, for the benefit of the agencies. The value of the power will be credited against water supply contract charges to the agencies for pumping power costs up-aqueduct from the Facilities.

Approval of Additional Reimbursements for Recreation Expenditures

In view of the statewide interests involved, the Davis-Dolwig Act (California Water Code Sections 11900-11925) provides a procedure through which the Department will be reimbursed for such recreation and fish and wildlife enhancement expenditures that are financed by project funds. The Department is to report annually such expenditures to the Legislature. If the Legislature approves the reported costs, a like amount of the State's tideland gas and oil revenues will be released to the Department under a continuing $5,000,000 annual appropriation (see pages 11 and 12, Bulletin 132-66).

As of December 31, 1972, $35,000,000 had been reimbursed to the Department for tideland revenues ($10,000,000—two fiscal-year appropriations—were received during 1972). Estimates are that if future appropriations continue at the rate of $5,000,000 annually, it will be 2031 before recreation and fish and wildlife enhancement costs will be fully reimbursed,

with interest. These reimbursements will be available for financing future construction, within the constraints of timing.

Recreation and fish and wildlife enhancement costs previously reported for the Project through 1970 were approved in the amount of $38,448,302 (see page 1, Bulletin 132-72). By Appendix D, "Costs of Recreation and Fish and Wildlife Enhancement", Bulletin 132-72, March 1972, the Department reported an additional expenditure of $1,730,879 through 1971. The total amount—$40,179,181—was approved by enactment of SB 1235 (California Statutes of 1972, Chapter 1197).

The reported costs cover land acquisition expenditures for specific recreation developments at all project facilities and for the multiple-purpose construction costs allocated to recreation and fish and wildlife enhancement for Frenchman and Antelope Lakes; Lakes Davis and Oroville; San Luis and Los Banos Reservoirs; and San Luis Forebay. Estimates are that total reported costs will grow to exceed $147,000,000 in the future—including the allocated costs for Lakes Del Valle and Perris; Castaic, Silverwood, and Pyramid Lakes; the Delta Facilities; and Abbey Bridge and Dixie Refuge Reservoirs.

Defining the Plan and Schedule of Future Facilities

As of the end of 1972, construction of the 1973 Project facilities, listed below and shown on Figure 1, was virtually complete:

Frenchman, Antelope, and Grizzly Valley Dam and Grizzly Valley Pipeline, for recreation and initial project water service to the Upper Feather Area.

Oroville-Thermalito Facilities, the key source of project water supply, also for power generation, flood control, and recreation.

Phase I of the North Bay Aqueduct, for delivery of an interim, supplemental water supply to the north San Francisco Bay area.

The South Bay Aqueduct, for recreation, flood control, and project water service to the South San Francisco Bay area.

The main line of the California Aqueduct, extending 444 miles from the Sacramento-San Joaquin Delta to Lake Perris, for recreation, power generation, and initial project water service to the western San Joaquin Valley and the high desert and southern coastal plain of Southern California.

The West Branch of the California Aqueduct, including the interim Gorman Creek Improvement, for recreation, power generation, and initial project water service to the northern coastal plain of Southern California.

Phase I of the Coastal Branch of the California Aqueduct for initial project water service to the Antelope Plain on the central-western periphery of the San Joaquin Valley.

Future construction beyond the 1973 Project facilities includes the following, also shown on Figure 1:

Abbey Bridge and Dixie Refuge Dams in the Upper Feather Area, for satisfaction of the growth in future demands for recreation.

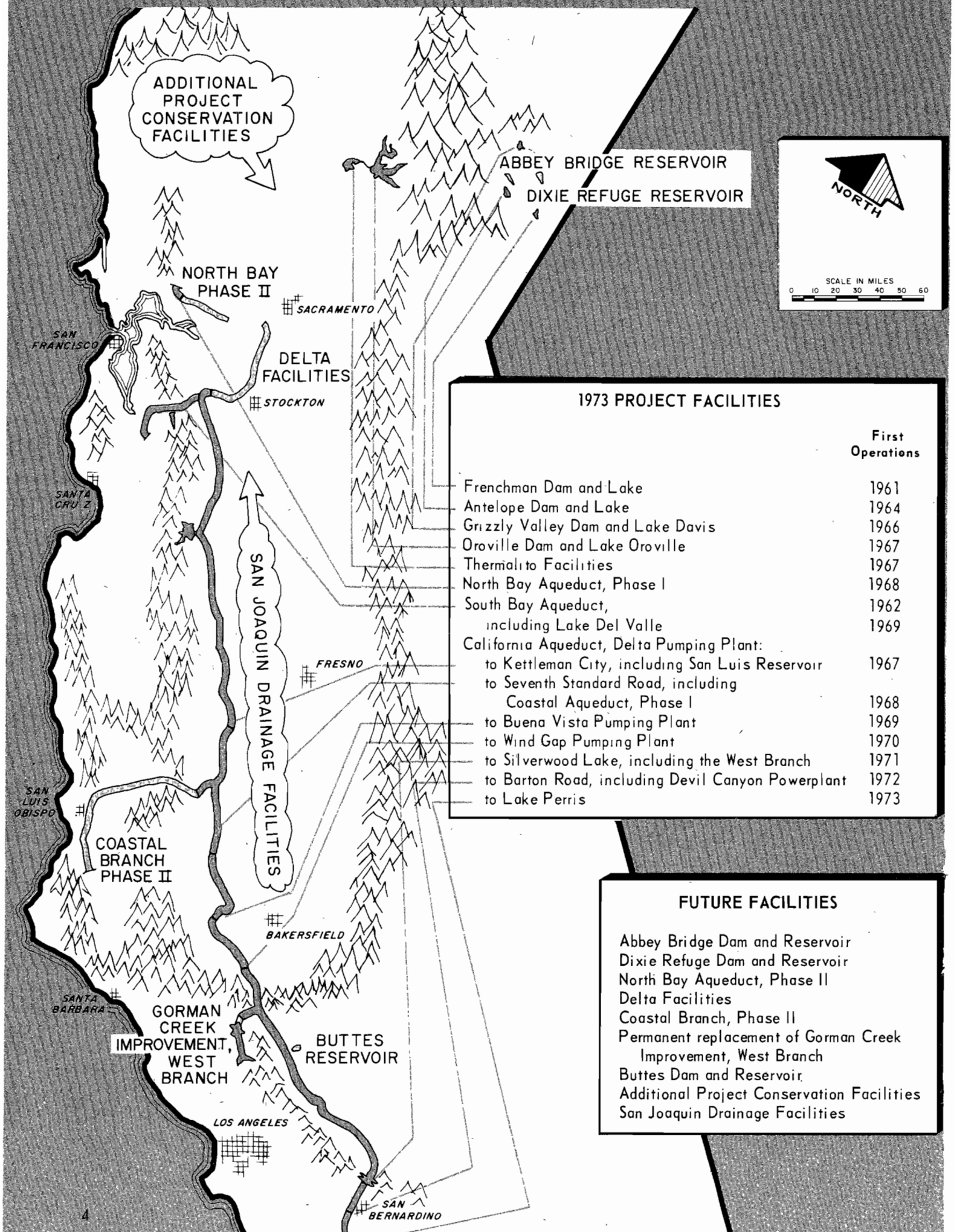
Phase II of the North Bay Aqueduct, for delivery of a project water supply from the Sacramento-San Joaquin Delta to the north San Francisco Bay area.

- The Peripheral Canal, for protection of the Delta environment (particularly the striped bass and salmon fishery) and for more efficient transfer of project water across the Delta to the California Aqueduct.
- Additional Conservation Facilities for maintenance of the Project's water yield as local demands increase upstream from the Delta.
- Supplements to the main line capacity of the California Aqueduct, for accommodation of the build-up in annual water deliveries, including additional pump units (in Delta, A. D. Edmonston, and Pearblossom Pumping Plants), an additional power recovery unit (in Devil Canyon Powerplant, San Luis Canal modifications, and Buttes Dam.
- A permanent replacement of the interim Gorman Creek Improvement, for control of energy and generation of electric power from large flows dropping through the West Branch of the California Aqueduct.
- Phase II of the Coastal Branch of the California Aqueduct, for transportation of a project water supply to the Central Coastal Area.
- The San Joaquin Drainage Facilities, for disposal or reclamation of agricultural waste waters accumulating in the San Joaquin Valley.

During 1972, the following actions were taken regarding the plan and schedule of future project facilities:

- Additional studies for Abbey Bridge Dam were initiated at the request of the Plumas County Board of Supervisors, including an evaluation of the facility's physical and economic impact on the local area and Plumas County in general—and of possible flood control for Indian Valley. The results of the studies will supplement those of previous advance planning studies published in 1966 as the Department's Bulletin 139 (see page 14, Bulletin 132-67).

Figure 1: THE CALIFORNIA STATE WATER PROJECT



1973 PROJECT FACILITIES

	First Operations
Frenchman Dam and Lake	1961
Antelope Dam and Lake	1964
Grizzly Valley Dam and Lake Davis	1966
Oroville Dam and Lake Oroville	1967
Thermalito Facilities	1967
North Bay Aqueduct, Phase I	1968
South Bay Aqueduct,	1962
including Lake Del Valle	1969
California Aqueduct, Delta Pumping Plant:	
to Kettleman City, including San Luis Reservoir	1967
to Seventh Standard Road, including Coastal Aqueduct, Phase I	1968
to Buena Vista Pumping Plant	1969
to Wind Gap Pumping Plant	1970
to Silverwood Lake, including the West Branch	1971
to Barton Road, including Devil Canyon Powerplant	1972
to Lake Perris	1973

FUTURE FACILITIES

Abbey Bridge Dam and Reservoir
Dixie Refuge Dam and Reservoir
North Bay Aqueduct, Phase II
Delta Facilities
Coastal Branch, Phase II
Permanent replacement of Gorman Creek Improvement, West Branch
Buttes Dam and Reservoir
Additional Project Conservation Facilities
San Joaquin Drainage Facilities

Initial land parcels for Phase II of the North Bay Aqueduct were acquired in the vicinity of Cordelia, where land values are expected to escalate significantly prior to start of construction.

Preconstruction engineering was initiated for a state-only Peripheral Canal, with provision for later expansion to accommodate federal use as discussed in a following section.

Orders were placed for the final generator unit at Devil Canyon Powerplant and for the final two pump units at Pearblossom Pumping Plant.

- Concerning the Piru Creek Project as a possible alternative replacement of the Gorman Creek Improvement, work neared completion of the initial geologic investigations; environmental studies; preliminary design of the dam, waterways, powerplants, access roads and other pertinent features; cost estimates; and preparation of the preliminary design report (see pages 6 - 8, Bulletin 132-72).

A proposal for development of a large-scale prototype desalter which would permit the deferral of certain reaches of Phase II Coastal Branch construction was described in a joint Department-Office of Saline Water Report, "Diablo Canyon Desalter Project", February 1972. The proposed desalter, to be located on the coast south of Morro Bay, could provide an interim supply to San Luis Obispo and Santa Barbara Counties. As of the end of 1972, however, federal support for the large-scale research project was lacking.

The San Joaquin Valley Drainage Monitoring Program was continued in order to provide background data on quality and quantity of agricultural waste waters (see page 9, Bulletin 132-70). At the Inter-agency Agricultural Waste Water Treatment Center near Firebaugh, a cooperative Department-Bureau of Reclamation-State Water Resources Control Board study neared completion on nitrogen-removal treatment of waste water through a combined algal-bacterial (symbiotic) process—indicating that nitrogen can be removed to the same low degree achieved through other processes previously studied. The Department also continued studies initiated in 1971 of waste water reclamation by desalting. In addition to studying a tubular membrane-type reverse osmosis unit provided by the University of California at Los Angeles, the Department entered into a cooperative agreement with the Office of Saline Water, in June 1972, for an 18-month evaluation program of three reverse osmosis units possessing different membrane configurations. During 1972, the Department released two reports on bio-engineering aspects of agricultural drainage, San Joaquin Valley: Bulletin 174-6, "Nutrients from Tile Drain Systems", and Bulletin 174-9, "Removal of Nitrogen from Tile Drainage".

Of future facilities essential for a viable State Water Project, the two most significant are the Delta Facilities and the Additional Conservation Facilities. Planning for these facilities has been complicated by environmental concerns of recent years.

Delta Facilities

Previous Bulletins 132 have pointed out that the Department has authority to construct the Peripheral Canal as part of the State Water Project. However, the Bureau of Reclamation is not presently authorized to participate in construction of the proposed joint-use facility as an addition to the federal Central Valley Project. The Bureau's feasibility report on the Peripheral Canal, while approved by the Secretary of the Interior and favorably commented on by the State, has not been submitted to the Congress. Under the National Environmental Policy Act of 1969, an environmental impact statement must also be prepared. As of the end of 1972, preparation by the Bureau of the environmental impact statement was under way.

The Director's presentation before the hearing of the Assembly Committee on Water, November 9 and 10, 1972, included the following statements of the Department's position regarding the construction of the Peripheral Canal:

> "It is our current estimate that the Peripheral Canal will be needed in 1980 to protect the water supply and quality functions of the State Water Project and federal Central Valley Project aqueducts to the south and west of the Delta.
>
> * * * *
>
> "If federal participation is not forthcoming within the required time schedule, the State must proceed with construction of a water conveyance facility in the Delta to meet the needs of the State Water Project. This facility should be a Peripheral Canal, since studies over the past ten years have shown that any other alternative would be unacceptably disruptive to the Delta environment.
>
> "Preconstruction engineering work for this facility is in progress now by our Department. Considering the time necessary to complete such a facility by 1980, the decision to proceed with construction will probably have to be made early in 1975. As this work proceeds, there will be full opportunity for review, particularly in the phases of the work which involve permits, selection of final alignments, and the report on environmental impact considerations.

* * * *

"If the State proceeds without federal participation, the Canal should be conceptually developed as a 'staged joint facility', which would be readily adaptable to meet the joint needs of the state and federal projects. A feasible state course of action would be to construct a full-sized, full-length, gravity canal from the Sacramento River at Hood to Clifton Court Forebay with full size channel release facilities. With the later addition of a pumping plant and other deferred features, the capacity of such a first stage facility could be increased to meet the combined needs of the State Water Project, the Delta, and the federal Central Valley Project. With this approach, federal participation would be feasible at any time, making it possible to derive the full benefits from the Peripheral Canal.

"Proceeding on this basis would present two basic, but not insurmountable, problems. First, financing of the first stage would probably require advancing funds that would exceed the State's 50 percent share of the joint canal. Second, it would be necessary to negotiate an agreement with the United States for adding the second-stage features and wheeling Central Valley Project water through the Canal.

"If provisions were not included to provide capacity for the federal Central Valley Project, many of the basic fishery benefits of the Canal would be lost."

Upper Eel River Development

During the 1950s, the Department's basic planning for the State Water Project recognized that initial conservation reservoirs (Oroville and San Luis) would be unable to maintain the required project yield on a long-term basis.

In 1957, the Department's Bulletin 3, "The California Water Plan", identified the North Coast as the only remaining source of substantial surplus water supplies to meet future requirements in the State.

In 1960, the voter-approved Burns-Porter Act included provisions for financing the costs of such additional conservation facilities as would be needed to meet long-term water contract commitments.

In 1964, the Department's Bulletin 136, "North Coastal Area Investigation", recommended that the first additional conservation facility of the State Water Project be located on the Middle Fork Eel River. This recommendation was implemented in 1964 by the Director's order authorizing the Upper Eel River Development as such additional facilities and studies were begun to identify the specific features which would be constructed (see pages 42 and 43, Bulletin 132-64).

In August 1967, the Department released Bulletin 171, "Upper Eel River Development, Investigation of Alternative Conveyance Routes" which recommended that future planning be concentrated on a dam at the Dos Rios site, that further studies be conducted of reservoir sizing, and that the Glenn (easterly) Route is superior to the Clear Lake (southerly) Route as a means for diverting surplus Eel River water to the Sacramento River Basin (see pages 41 and 42, Bulletin 132-68). Concurrently, the Corps of Engineers concluded that a large Dos Rios Reservoir (which would inundate Round Valley) should be the initial Eel River Basin development to provide flood control, water supply, and recreation.

In October 1967, the Department entered into a memorandum of understanding with the Corps of Engineers under which the Corps would design, construct, and operate the Dos Rios Dam and Reservoir. The Department would contract for conservation storage under the Water Supply Act of 1958 and would construct conveyance facilities to the Sacramento Valley (see pages 41-44, Bulletin 132-68). The Chief of Engineers subsequently transmitted his final Dos Rios Project report for official state review in July 1968.

The proposed Dos Rios Project became the subject of widespread interest and controversy. The Assembly Committee on Water and the Senate Committee on Water Resources held two public hearings and prepared reports on the Project. In May 1969, Governor Reagan expressed his concern about the Project because it would flood Round Valley and displace the Indian community. He requested the Department to work with the Corps of Engineers to make further analyses of possible water development plans and alternatives within the Eel River watershed which would not involve flooding Round Valley. Furthermore, in a major water policy address in November 1969, Governor Reagan stated that he had asked the Corps of Engineers to withhold further action on Eel River development until the State determines which major projects should proceed to meet the needs of all Californians—including consideration of large-scale desalination plants and waste water reclamation (see pages 7-9, Bulletin 132-70).

In December 1969, the Department released Bulletin 172, "Eel River Development Alternatives", in response to the Governor's request in specific regard to the Eel. The report described 16 alternative projects analyzed by the Department and identified six principal alternatives to the large Dos Rios Project.

In 1972, additional planning studies were both completed and initiated regarding the Eel. However, the most significant event in 1972 was the enactment of SB 107 (California Statutes of 1972, Chapter 1259) as a result of environmental concerns which, while authorizing planning studies on the Eel, pre-

cludes construction of an Eel River Development unless specifically authorized by future legislation. These 1972 events are further described below.

Eel River Routing Study. Questions were raised concerning the Department's recommendation of the Glenn Route over the Clear Lake Route as set forth in Bulletin 171. As a result, additional study began in 1968 as to local water needs and the potential effects of Eel River diversions on Clear Lake water quality, recreation, and fish and wildlife (see pages 44 and 45, Bulletin 132-68). The results of this study were considered for publication in 1972 as Bulletin 175, "Additional Study of Alternative Eel River Projects and Conveyance Routes" (see page 9, Bulletin 132-72). Highlights of the proposed report were presented to the California Water Commission at its August 1972 meeting. The draft, which presented neither recommendations nor conclusions, included the following general findings:

> "The entire issue of Eel River development and diversion routings is exceedingly complex. No ideal solution exists . . .
>
> "Substantial additional study will be required to fully evaluate the environmental effects of any of the alternative developments"

It was subsequently decided not to publish the report as a formal bulletin. The information contained in the draft will contribute toward a broader report, scheduled for 1974, to cover all alternative sources of additional supplies for the State Water Project. The broad report will extend to Sacramento Valley developmental proposals, sea-water conversion, geothermal sources, waste water reclamation, and others.

Eel River Environmental Studies. The following additional studies were initiated in 1972 with the objectives of evaluating the environmental impact and enhancement opportunities of the proposed Upper Eel River Development:

- A determination of the conditions needed for salmon and steelhead fishery enhancement and an outline of possibilities for such enhancement both with and without multiple-purpose water development.
- An analysis of fishery preservation problems and an outline of preservation measures.
- Studies to provide a basis for estimating post-project channel conditions on the Eel River—involving sediment transport calculations, geologic mapping of landslides, and establishment and monitoring of 30 river cross-sections.
- Collection and analysis of water temperature, nutrient, and benthos data and projections of post-project water quality conditions.
- A survey to determine the type, extent, and location of present recreation use.
- Development of operational procedures for improving downstream conditions.

The first two items above will be undertaken by the Department of Fish and Game. A progress report is scheduled for June 1974.

SB 107. Enactment of SB 107 created the California Wild and Scenic Rivers System, including portions of the Smith, Trinity, Klamath, Eel, and American Rivers and various tributaries. The Resources Agency is required to administer the System and to prepare plans for approval by the Legislature.

Construction of dams, reservoirs, or other water impoundment works on the rivers of the System is prohibited. However, with respect to the Eel River and its tributaries, the new law declares the Legislature's intent "that after an initial period of 12 years following the effective date of this chapter, the Department of Water Resources shall report to the Legislature as to the need for water supply and flood control projects". The Legislature would then hold public hearings to determine whether legislation should be enacted to delete all or any segment of the Eel from the System.

The law also authorizes geologic, hydrologic, economic or any other technical studies deemed necessary or desirable by the Department in order to determine the feasibility of alternative sites for dams on the Eel River and its tributaries.

In signing the bill, comments by Governor Reagan included the following (from News Release No. 666, Office of the Governor, December 20, 1972):

> "I want to make it clear that California will meet its contracted obligations for the supply of water, and that flood control will continue to be one of the top priorities of this administration.
>
> * * *
>
> "In 1969, I asked that alternative sources of water from the Eel River and other streams be studied. These studies are in progress. They include reclamation of waste water and desalting of sea water. I am sure that when the Legislature makes the review in 12 years, as called for in the legislation, it will have sufficient information to properly decide if major development on the Eel River is in the public interest."

Davis-Grunsky Act Program

Extending through the construction program for the 1973 Project facilities and into that for future project facilities are disbursements of loans and grants for local projects under the Davis-Grunsky Act. This state financial assistance program is associated with the State Water Project through $130,000,000 provided specifically therefor by the Burns-Porter Act.

As of December 31, 1972, the Department and the California Water Commission had approved a total of $93,270,543 in grant and loan applications for 65 local agencies under the Davis-Grunsky Act Program (including $1,260,000 from funds provided prior to the Burns-Porter Act). A total of $5,361,800 was approved in 1972 as listed below. The location of local projects for which Davis-Grunsky Act loans and grants have been authorized are shown by circles in Figure 2. The solid circles indicate those for which loans and grants were authorized in 1972; the open circles indicate those for which loans and grants were authorized in previous years.

- $3,947,400 grant to the San Bernardino Valley Municipal Water District, San Bernardino County (Yucaipa Project).
- $1,349,400 grant to the County of San Bernardino (Prado Regional Park Project).
- $61,000 construction loan to the Del Norte County Water District, Subzone W-1, Del Norte County.
- $4,000 feasibility report loan to the Westwood Community Services District, Lassen County.

Of the total approved applications as of December 31, 1972, $28,670,488 (31 percent) were for loans and the remaining $64,600,055 (69 percent) were for grants.

Expanding the Benefits to be Realized from Completed Facilities

With nearing completion of initial 1973 Project facilities, increased attention was given to ways of extending the potential benefits of the Project beyond those purposes and uses originally contemplated during the basic planning of the 1950s—to maximize the return on California's investment. Actions on some of these ways were taken during the year and are described in the following paragraphs. However, additional ways to expand project benefits are being considered, including a flood control intertie between the Kern River and the California Aqueduct and operation of ground water reservoirs in conjunction with project facilities, particularly during the next few years when the California Aqueduct will not be used to full capacity.

California Aqueduct Bikeway

In 1972, a new, but compatible, use was conceived and implemented for the Project. This concerns the growing popularity with Californians of light-weight, multiple-speed bicycles and of long-distance bicycle touring—a recreational activity practically nonexistent in California of the 1950s.

Aqueduct service roads are surfaced, essentially flat in grade with less than one-half foot change of elevation per mile, and generally wind through a rural setting removed from exhaust fumes and traffic noise. No vehicular traffic is permitted on these roads other than project operations and maintenance vehicles. Rest areas are available at fishing access sites and at recreation developments along the aqueduct —more are planned.

At the April 1972 meeting of the California Water Commission, the Director announced plans for a pilot program which eventually could result in an inter-connected bicycle trail system on aqueduct service roads hundreds of miles long.

The Department extended invitations to 56 bicycle clubs within the San Francisco Bay and Central Valley areas to participate in an experimental trial of the 67 miles of service road between Bethany Reservoir and San Luis Forebay—held the weekend of July 8 and 9. Over 100 bicyclists from various clubs participated in the trial and expressed considerable enthusiasm for the program. As a result, the Department proceeded to work with various bicycling organizations in drawing up procedures and safety rules, and in making provisions for various amenities—such as additional rest facilities, parking and staging areas, and sanitary facilities.

On October 28, 1972, the California Aqueduct Bikeway from Bethany Reservoir to San Luis Forebay was officially dedicated. Senator Howard Way, Chairman of the Senate Committee on Agriculture and Water Resources, was the guest of honor. This portion of the Bikeway is fully open to bicyclists and hikers every day during daylight hours.

On October 22, 1972, a trial run was held on 25 miles of service road along the East Branch of the California Aqueduct in the vicinity of Pearblossom. Considerable local interest was evidenced by the 225 riders who participated in the trial. More than 100 miles of service road are available on this reach of the Aqueduct. As of the end of 1972, plans were under way to open this portion of the Bikeway on a permanent basis.

Cross-Valley Canal

A joint Department-Bureau of Reclamation study was initiated in 1972 to determine the feasibility of constructing a canal from the California Aqueduct, across the southern San Joaquin Valley, to serve the east side of the Valley until the proposed East Side Canal of the federal Central Valley Project is constructed. Such a canal could permit water exchanges between the federal and state projects for the mutual benefit of both projects.

The canal would be a separate facility or an enlargement of the Cross Valley Project proposed by the Kern County Water Agency for distribution of state water among four of its member units. On September 12, the voters of the urban Bakersfield area overwhelmingly approved a $17.5 million bond issue to finance their share of the Cross Valley Project, thus clearing the way for design and construction. The Agency's schedule calls for construction to be completed by late 1974 so that water deliveries can be made from the California Aqueduct, near Tupman, to the Bakersfield area in January 1975.

Southern California Recreation Developments

Recreation and fish and wildlife enhancement were authorized as purposes of the State Water Project in 1961 with passage of the Davis-Dolwig Act (California Water Code Section 11900-11925). The major benefits from these purposes will be realized from project facilities located near the heavily urbanized areas in Southern California. The benefits from these facilities began to be realized in 1972.

Silverwood and Castaic Lakes were opened to recreationists in May and June, respectively. The Lakes, stocked with trout and other game fish, were opened to angling on July 1 with very successful results—good trout fishing continued well into the fall. First recreation use involved interim facilities and water surfaces that will expand greatly as the reservoirs fill. Permanent recreation facilities are under construction at both sites.

Plans for future recreation developments were released by the Department in 1972 for three additional sites:

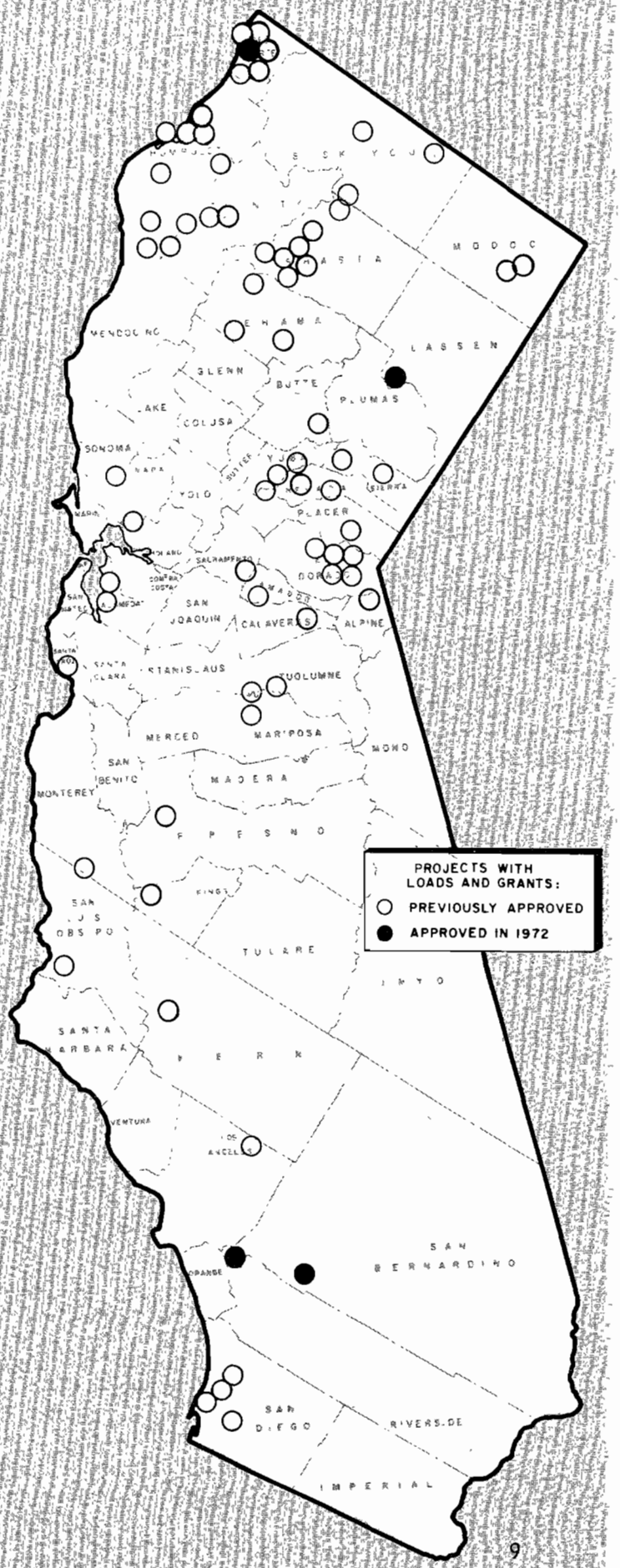
Bulletin 117-1, "Lake Perris Recreation Development Plan".

Bulletin 117-13, "Pyramid Lake: Recreation Development Plan - Initial Facilities".

Bulletin 117-15, "Peace Valley Aquatic Recreation Area: Recreation Development Plan".

The Project's major recreation development is planned for Lake Perris. Over $17,300,000 will be spent by the Department of Parks and Recreation, the Department of Navigation and Ocean Development, and the Department of Fish and Game. These funds will be provided from the State Recreation and Fish and Wildlife Enhancement Fund established

Figure 2: LOCAL PROJECTS UNDER THE DAVIS-GRUNSKY ACT PROGRAM



with voter-approval of Proposition 20 in November 1970 (see pages 3 and 4, Bulletin 132-71). Construction of the recreation development, including a beach, boat ramp, car parking area, and water supply and sanitary facilities, is scheduled to begin in January 1973 with completion in about three years.

Concessionaires are expected to provide additional developments at Lake Perris, including an equestrian center, boat marina, boat repair and boat storage facilities, boat rentals, bait and tackle shops, a restaurant, and overnight accommodations.

The planned initial recreation developments at Pyramid Lake consist of a boat launching ramp, picnic units, water and sanitary facilities, swimming beach, boat-in areas, and landscaping. These developments will make water skiing, high-speed boating, sail boating, fishing, picnicking, and swimming available to the public. Construction costs are estimated at $1,100,000 with completion expected in 1974.

The Peace Valley Aquatic Recreation Area will be located in the northwestern corner of Los Angeles County at the intersection of Interstate 5 and State Highway 138. Recreation developments will include a 29-acre lake to be formed by an earthfill dam constructed across a tributary of Gorman Creek. The 346-acre recreation site will provide for picnicking, camping, sight-seeing, fishing, horseback riding, hiking, and swimming. Construction costs are estimated at $4,700,000, including $2,000,000 which is expected to be provided by concessionaires. The Department will construct the dam and water supply line at a cost of $600,000—financed one-half from the Federal Land and Conservation Fund and one-half from the California Environmental Protection Fund Program (personalized license plates fund).

Pending Actions

The following proceedings were pending as of the end of 1972:

Federal Power Commission License for the California Aqueduct

Last year's report (see page 6, Bulletin 132-72) included a reference to the Department's application filed in 1965 for a license from the Federal Power Commission (FPC) under Part I of the Federal Power Act for construction, operation, and maintenance of the California Aqueduct, exclusive of the San Luis joint-use facilities (FPC Project No. 2426). There were a number of intervenors in this proceeding, five of whom operated oil, gas, electric, or telephone lines on federal lands in the Pyramid Lake area and were resisting the necessary relocation of such lines except at the expense of the Department. A hearing was held on these and other issues in 1969 before Presiding Examiner Ernest O. Eisenberg. In 1971, the Department filed with the FPC an environmental impact statement on Project No. 2426.

The Presiding Examiner's Initial Decision on the application was issued on January 14, 1972. The Decision ordered, subject to review by the Commission on an appeal, that a license be issued. The findings made by the Presiding Examiner included the following: (1) the California Aqueduct is a power project over which the FPC has licensing jurisdiction; (2) the rights-of-way of the oil and gas pipelines across federal lands in the Pyramid Lake area are subject to prior withdrawal for power development; and (3) with certain exceptions, the pipeline intervenors are obligated at their own expense to remove the facilities from the prior withdrawn federal lands to the extent required. The Presiding Examiner also made the finding on the Department's environmental impact statement that, on the balance, the benefits of the California Aqueduct are far greater than its adverse effects.

In February 1972, the pipeline intervenors appealed to the FPC the Initial Decision insofar as it related to the Department's obligation to compensate them for relocation of their facilities. Furthermore, on February 29, 1972, Congressman Jerome R. Waldie of Contra Costa County wrote the Chairman of the Commission and asked authorization for late filing of a petition to intervene in the proceeding—which was subsequently granted on March 23, 1972. His participation was limited to oral argument, if any, and to applying for a rehearing of any final order of the FPC, all in relation to his expressed concern for the effect of the export of water on the ecosystem of the Sacramento-San Joaquin Delta and San Francisco Bay, and his view that FPC procedures had not met the requirements of the National Environmental Policy Act of 1969.

As of December 31, 1972, there had been no action by the FPC on the appeal.

Bowker v. Morton

This lawsuit, initiated in 1970, seeks a determination that the Federal Reclamation Laws, including the 160-acre limitation, are applicable to the State Water Project and that the National Environmental Policy Act of 1969 applies to ongoing federal participation in the Project (see pages 3 and 4, Bulletin 132-72).

There was no change in the status of this case during 1972.

Sierra Club v. Morton

This lawsuit, initiated in 1971, seeks an injunction restraining the construction or operation of the Delta Pumping Plant, the Peripheral Canal, the San Luis

Drain, the East Side Canal, and the Tracy Pumping Plant until certain federal approvals and authorizations have been obtained (see page 4, Bulletin 132-72).

During 1972, the defendants produced documents for inspection by plaintiffs, and made copies available to them as requested, pursuant to court order of February 4, 1972. At the end of 1972, defendants were preparing answers to plaintiffs' first interrogatories.

Environmental Defense Fund, Inc. v. Morton

This lawsuit, initiated in 1971, seeks to prevent the Bureau of Reclamation from entering into the proposed agreement with the State of California for the coordinated operation of the federal Central Valley Project and the State Water Project (see page 4, Bulletin 132-72). The principal basis of the action is that the defendants have not filed an environmental impact statement under the National Environmental Policy Act of 1969.

There was no change in the status of this case during 1972.

As of December 31, 1972, the Bureau was still in the process of preparing the environmental impact statement with assistance from the Department. Meanwhile, the Bureau and the Department are coordinating the operation of the respective projects under interim arrangements without a formal long-term agreement.

Suits Concerning Decision 1379

During 1971, the State Water Resources Control Board issued Decision 1379 relative to the rights to appropriate water in the Sacramento-San Joaquin Delta for operation of the State Water Project and the federal Central Valley Project. Two lawsuits were filed in the Superior Court of Sacramento County both seeking an order to set aside the Decision—Central Valley East Side Project Association v. State Water Resources Control Board, filed October 12, 1971, and Kern County Water Agency v. State Water Resources Control Board, filed October 15, 1971 (see page 4, Bulletin 132-72). These suits were consolidated and the Sierra Club and a number of Delta agencies and organizations were allowed to intervene.

When the suits were filed, the Court issued an order staying the operation of Decision 1379. After briefing and oral argument, this order has been continued in effect.

After several preliminary rulings, the Contra Costa Water Agency, which had been allowed to intervene, filed, in April 1972, a cross-complaint against the Bureau of Reclamation and the Department. It asked the Court to determine that the Bureau of Reclamation was subject to the jurisdiction of the State Water Resources Control Board and that salinity control is a nonreimbursable function of both the federal Central Valley Project and the State Water Project.

In September 1972, both cases were removed to the Federal District Court in Sacramento by the United States. The Contra Costa Water Agency filed a motion for remand to the State Court, which was briefed and argued but had not been decided at year's end. (For additional information, see the section "Water Rights Management", Chapter III)

In November 1972, the Contra Costa County Water Agency undertook to reactivate its suit filed in the Superior Court of Contra Costa County almost five years ago challenging the Board's earlier Decision 1275 which determined that permits should be granted to the State Water Project (see page 64, Bulletin 132-68). The Attorney General filed a motion asking that a judge from outside Contra Costa County be appointed to hear the case and another asking that the case be dismissed because it has lain dormant such a long time. (The Court has discretion to dismiss any case if it is not brought to trial within two years.)

San Bernardino Valley Municipal Water District v. Department of Water Resources and The Metropolitan Water District of Southern California

On November 12, 1972, an action was filed by the San Bernardino Valley Municipal Water District in the Superior Court of Sacramento County against the Department and The Metropolitan Water District of Southern California. The action seeks declaratory relief and damages for alleged breach of San Bernardino's water supply contract by the Department and unlawful interference with such contract by Metropolitan.

The complaint alleges that, by execution of Amendment 12 to Metropolitan's water supply contract, the Department breached its contract with San Bernardino. The complaint seeks to have Amendment 12 declared invalid and asks for $10,000 actual damages plus $1,000,000 exemplary damages. The exemplary damages are sought from Metropolitan only.

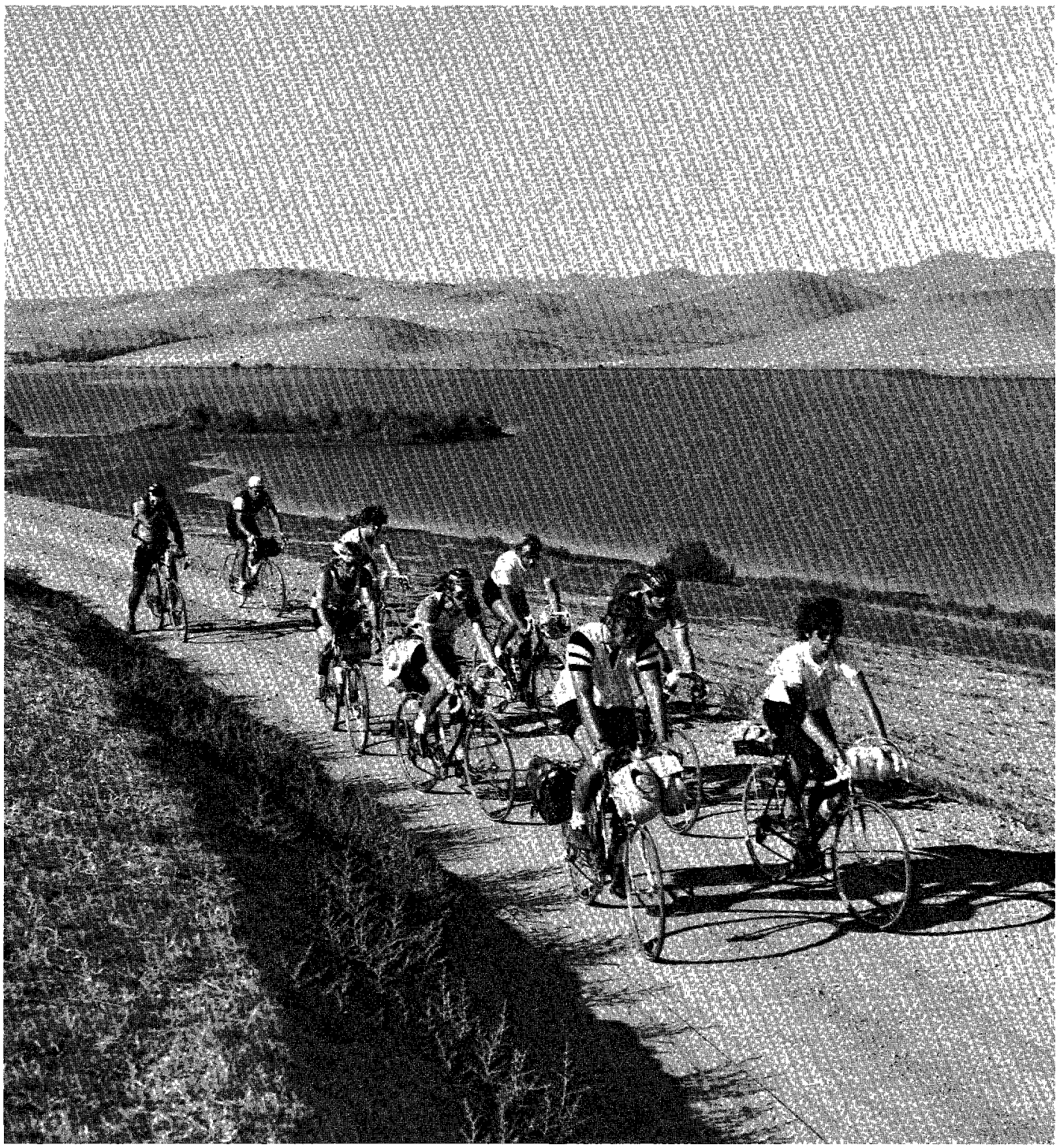
Amendment 12 to Metropolitan's contract, executed on April 25, 1972, adds a provision that the Department will neither supply state project water to any agency other than Metropolitan for use within Metropolitan's boundaries nor authorize any other state water contractor to supply state water for use outside of such other contractor's boundaries and within Metropolitan's boundaries without the consent of Metropolitan.

The complaint alleges that Metropolitan's Amendment 12 violates the provision in San Bernardino's contract that all long-term water contracts executed by the Department must be substantially uniform with respect to basic terms and conditions. The complaint also alleges that, although San Bernardino's

contract prohibits sales of state water by San Bernardino outside of its district boundaries without the consent of the State, giving a veto power to Metropolitan against such sales is a breach of San Bernardino's contract.

The Department believes that the provisions of Metropolitan's Amendment 12 do not violate the terms of San Bernardino's contract but merely express the established policy of the Department against allowing one state contractor to sell or dispose of its state water within the boundaries of a second contractor without such second contractor's approval. Six of the State's long-term contractors in Northern California already have similar provisions in their contracts and a similar amendment was offered to San Bernardino.

No court proceedings had taken place in this case as of December 31, 1972.



California Aqueduct Bikeway
DWR 4252-38

CHAPTER II. PROJECT CONSTRUCTION

By the end of 1972, approximately 99.9 percent of the initial 1973 Project facilities were either completed or under construction—project facilities were in use from Frenchman Dam, in Plumas County, to the Santa Ana Valley Pipeline, in Riverside County. Only Perris and Pyramid Dams remained to be placed in operation, and these facilities were rapidly nearing completion. Thus, the 1973 Project facilities construction program, which began in 1957 with the start of road relocations around what is now Lake Oroville, is rapidly drawing to a successful conclusion. However, 1972 also saw the beginning of an on-going construction program which, though considerably less spectacular, will extend many years beyond completion of the initial facilities in order that Californians eventually will realize the full potential benefits of the State Water Project.

Special Events

As completion of the initial facilities came closer to reality, 1972 was marked by official dedications and by the "topping-out" of the embankment for the most southerly facility—Perris Dam.

The Pearblossom Pumping Plant, the last pumping plant left on the main line of the California Aqueduct, was dedicated on January 21, 1972. At the ceremony, the Director pointed out that "From here on it is downhill—literally—all the rest of the way for project water."

Cedar Springs Dam and Silverwood Lake were dedicated May 25, 1972. Interim recreation facilities were opened the next day to permit public use of the northern portion of the Lake while permanent facilities are being constructed by the Department of Parks and Recreation.

Builders placed the final load of earthfill on the 20-million-cubic-yard Perris Dam embankment on October 4, 1972, a full six months ahead of schedule.

The formal opening of the Pearblossom Operation and Maintenance Subcenter for the East Branch of the California Aqueduct was held on October 27, 1972. Dr. Francis Bourne of the Palmdale Irrigation District took this occasion to dedicate the Carley V. Porter tree at the Pumping Plant.

The Devil Canyon Powerplant, last major facility to begin operation in 1972, was dedicated and officially opened for service December 7. The dedication ceremonies were part of a "Water Day" celebration for that area being sponsored by the Upper Santa Ana River Coordinating Council.

Plans and Specifications

During 1972, the Department completed plans and specifications for 33 construction and procurement contracts, 30 of which were awarded by the year's end. Some of the more significant plans and specifications completed were those for:

Devil Canyon Powerplant - Turbine, Governor, and Valve, Second Contract.

Multipath Acoustical Velocity Flowmeters.

- Pearblossom Pumping Plant, Centrifugal Pumps - Phase II.
- Devil Canyon Powerplant, Generator - Second Contract.

All of these contracts are part of the construction program continuing beyond the 1973 Project facilities.

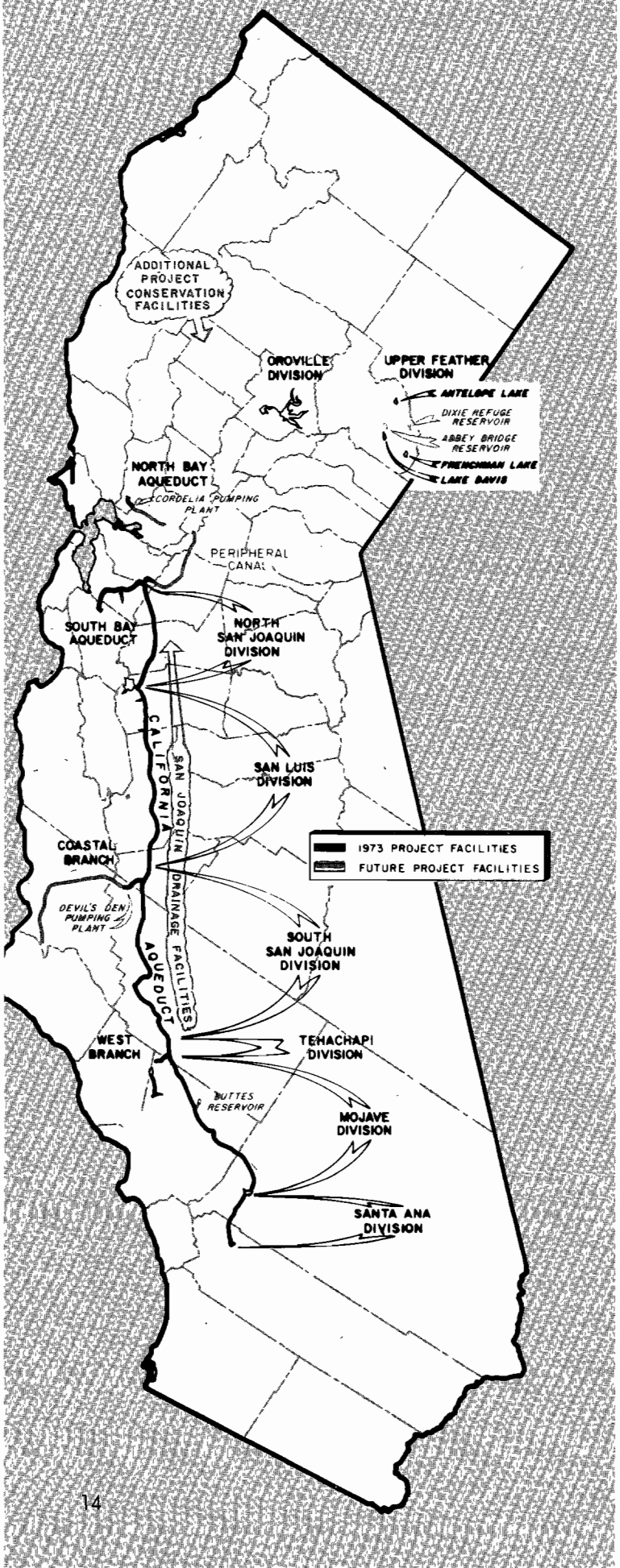
Land Acquisitions

The current land acquisitiion program includes land and right-of-way required for the 1973 Project facilities, together with that required for (1) portions of Phase II of the North Bay Aqueduct (to avoid paying for excessive escalation of land prices), (2) certain reaches of the Delta Facilities (to realize joint savings where canal excavation can be used in constructing a nearby portion of Interstate 5), and (3) recreation developments associated with the 1973 Project facilities.

During 1972, approximately $0.5 million was expended for land acquisitions in excess of credits for sales of surplus property and returns of condemnation security deposits. This brings the total net expenditures through 1972 to $106.8 million—approximately 96 percent of the $111.9 million estimated total under the current program.

Title was taken to 117 parcels (1,267.93 acres) during 1972. To obtain land required for project construction, the Department presented to the

Figure 3: PROJECT FACILITIES AND CONSTRUCTION DIVISIONS



California Water Commission two condemnation resolutions covering 21 individual ownerships. In addition, condemnation proceedings were concluded on 14 parcels (946.84 acres). One hundred twenty-seven parcels (1,044.85 acres) were sold, bringing the total of such excess lands sold through 1972 to 181 parcels (2,500.85 acres). The total number of land parcels required under the current land acquisition program is shown for each facility or construction division of the Project in the tabulation below, together with the total number of parcels acquired through 1972. Construction divisions are delineated on Figure 3.

The Department executed 27 agreements covering eight relocations during the past year. These and previous agreements involved capital outlay of $1.2 million and raised the total outlay under all such agreements through 1972 to $39.3 million—approximately 89 percent of the $44.7 million estimated total relocation cost under the current program. In addition, 63 land exchange agreements were concluded during the past year.

Facility or Construction Division	Current Acquisition Program: Total Parcels Required	Parcels Acquired in 1972	Total Parcels Acquired
Feather River Facilities			
Upper Feather Division	29	0	22
Oroville Division	943	3	921
Delta Facilities	38	3	12
North Bay Aqueduct			
Phase I	12	1	12
Phase II	64	1	1
South Bay Aqueduct	201	0	199
California Aqueduct:			
North San Joaquin Division	209	2	202
San Luis Division	22	1	22
South San Joaquin Division	568	5	556
Tehachapi Division	1	0	1
Mojave Division	1,632	31	1,595
Santa Ana Division	688	25	611
West Branch	294	45	244
Coastal Branch (Phase I)	48	0	48
Total	4,749	117	4,446

Construction Contracts

Construction of the 1973 Project facilities requires about 451 contracts; the total state payment under those contracts is estimated to be $1,621 million. As of December 31, 1972:

$1,474 million had been expended under 417 contracts with final progress payments completed, whether or not settlements of contractor claims are pending.

$145 million had been either expended or committed under 31 contracts then in progress.

Required contracts include those administered by the Bureau of Reclamation for the federal-state San Luis Division. State payments constitute a 55 percent share of the Bureau's contract costs.

Included in the 30 construction contract awards during 1972 were five contracts for the 1973 Project facilities; the more significant two being Romero Overlook, Phase II, and Operating Roads and Slope Protection, Mojave and West Branch, First Contract. As of December 31, 1972, only about $2.1 million in the following three contracts were yet to be awarded for completion of the 1973 Project facilities:

- Operating Roads and Slope Protection - Tehachapi, Mojave, and West Branch, Second Contract.
- Castaic Dam Completion.
- Perris Dam Completion.

Construction status as of December 31, 1972, for each major facility or construction division of the 1973 Project facilities, is shown in the tabulation below. Construction plans for the immediate future are

1973 Project Facilities [a]	Status as of December 31, 1972			
	Actual Cost of Contracts Completed	Estimated Cost of Contracts in Progress	Estimated Cost of Future Contracts [b]	Estimated Total Cost of All Contracts [c]
	(in thousands)			
Feather River Facilities:				
Upper Feather Division	$ 8,228	$ 0	$ 0	$ 8,228
Oroville Division	358,881	0	0	358,881
North Bay Aqueduct	1,562	0	0	1,562
South Bay Aqueduct	43,998	0	0	43,998
California Aqueduct:				
North San Joaquin Division	107,314	0	0	107,314
San Luis Division [d]	169,928	0	0	169,928
South San Joaquin Division	145,099	34,317	0	179,416
Tehachapi Division	174,344	40,375	0	214,719
Mojave Division	109,132	6,971	0	116,103
Santa Ana Division	113,574	10,838	300	124,712
West Branch	217,490	49,628	500	267,618
Coastal Branch	8,274	0	0	8,274
General Contracts	16,139	2,934	1,250	20,323
TOTAL	$1,473,963	$145,063	$2,050	$1,621,076

a) Excludes additional conservation facilities, Abbey Bridge and Dixie Refuge Dams, Delta Facilities, Phase II of the North Bay Aqueduct and Coastal Branch, local projects (Davis-Grunsky), permanent replacement of Gorman Creek Improvement, San Joaquin Drainage Facilities, and supplements to the California Aqueduct main line.

b) Includes allowance for future construction price escalation of 5% per annum for 1973 and 1974.

c) Does not include additional capital costs for planning, design, right-of-way acquisition, construction supervision, or initial operations during the construction period. For complete estimates of capital costs of these facilities, and for construction beyond the 1973 Project facilities, see Table 7.

d) Represents 55% of total cost of features jointly used by the State Water Project and the federal Central Valley Project.

outlined on Figure 4—for the remainder of the 1973 Project facilities and for scheduled construction under the future program.

Contract awards during 1972 included those for the future construction program beyond the 1973 Project facilities. The two most notable of those contracts were for Devil Canyon Powerplant-Turbine, Governor, and Valve, Second Contract; and Pearblossom Pumping Plant, Pumps, Second Contract.

Construction Progress

During 1972, the main thrust of construction activity was aimed at completing electrical-mechanical installations, the Santa Ana Valley Pipeline, and Perris and Pyramid Dams of the 1973 Project facilities.

Feather River Facilities

During 1972, there was no construction activity by the Department in the Upper Feather Division. Work continued on the Oroville-Thermalito Control System, and relatively small contracts for modification work in the Oroville Division were completed.

North Bay Aqueduct

Phase I of the North Bay Aqueduct is complete and operational.

South Bay Aqueduct

All of the South Bay Aqueduct is complete and operational.

California Aqueduct

During 1972, construction was completed on the California Aqueduct Control System through A. D. Edmonston Pumping Plant, and continued on the remainder of the System to Lake Perris and Castaic Lake.

North San Joaquin Division. The 1973 Project facilities portion of this division, including seven of the 11 units of the Delta Pumping Plant, is complete and operational.

San Luis Division. All features in this division are operational. Contracts for construction of the Coalinga Operations and Maintenance Subcenter and Romero Overlook (Phase II) at San Luis Reservoir were completed late in 1972. Modifications to the three variable flow units at Dos Amigos Pumping Plant also were completed in 1972.

South San Joaquin Division. By the end of 1972, all ten units were operational at Buena Vista Pumping Plant; four units were operational at Wheeler Ridge Pumping Plant, with the remaining five scheduled to be operational in 1973; and four units were operational at Wind Gap Pumping Plant, with the remaining five scheduled to be operational in 1973.

Testing of installed units at Buena Vista, Wheeler Ridge, and Wind Gap Pumping Plants disclosed either uplift or downthrust problems. As a result of studies made to determine the causes for these problems, modified operating procedures were developed together with some additional equipment. Units so modified have tested satisfactorily.

Units at Buena Vista Pumping Plant had, in addition to uplift, lower than acceptable performance efficiency and cavitation problems. Reworking of the impellers by the manufacturer is under way as project operations permit. Reworking has resulted in acceptable operating units. Units at Wheeler Ridge and Wind Gap Pumping Plants are also undergoing similar reworking.

Tehachapi Division. Five units were operational at A. D. Edmonston Pumping Plant by the year's end, with the remaining six included under the 1973 Project facilities scheduled to be on the line by late 1973.

Modifications to units in the West Wing have solved a downthrust problem. Units in the East Wing tested extremely well upon completion of construction. The impellers of the West Wing units have also been reworked to eliminate a cavitation problem. The reworked units are still somewhat noisy and will be monitored to assure the problem has been solved. The manufacturer's position is that the units operate satisfactorily and are capable of regular operation.

Mojave Division. All construction in this division is completed under the 1973 Project facilities program except the control system for Pearblossom Pumping Plant. A contract for Pearblossom Pumping Plant, Furnish and Install Pumps, Second Contract, was awarded October 6, 1972 and work is in progress. A second contract for operating roads and slope protection will be awarded in 1973. All remaining contracts will be awarded by February 1975.

Testing of units installed in Pearblossom Pumping Plant also indicated uplift and downthrust problems. Corrective actions are being taken.

Santa Ana Division. Major first stage construction in this division was finished during 1972. Completion of the Perris Dam Inlet and Outlet Works will occur by May 1973. A final construction contract for Perris Dam will be awarded early in 1973, with completion scheduled for December 1973. The contract for Devil Canyon Powerplant - Furnish and Install Turbine, Governor, and Valve, Second Contract, was awarded July 6, 1972 and work was in progress at the end of 1972.

West Branch. During 1972, construction was completed on Oso Pumping Plant and Angeles Tunnel. Construction continued on contracts for Pyramid Dam, Angeles Tunnel Intake and Pyramid Dam Outlet Works, and Castaic Dam Outlet works. Construc-

Figure 4: GENERALIZED CONSTRUCTION SCHEDULE

FACILITY, CONSTRUCTION DIVISION OR FEATURE	CALENDAR YEAR 1973 – 1979
UPPER FEATHER DIVISION	
FRENCHMAN DAM AND LAKE, ANTELOPE DAM AND LAKE, GRIZZLY VALLEY DAM AND LAKE DAVIS AND GRIZZLY VALLEY PIPELINE	(COMPLETED)
ABBEY BRIDGE AND DIXIE REFUGE DAMS AND RESERVOIRS	(NOT YET SCHEDULED)
OROVILLE DIVISION	(COMPLETED)
DELTA FACILITIES	(SCHEDULED FOR COMPLETION BY 1980)
ADDITIONAL PROJECT CONSERVATION FACILITIES	(NOT YET SCHEDULED)
NORTH BAY AQUEDUCT	
(PHASE I) NAPA PIPELINE AND INTERIM FACILITIES	(COMPLETED)
(PHASE II) LINDSEY SLOUGH THRU CORDELIA PUMPING PLANT	(SCHEDULED FOR COMPLETION BY 1980)
SOUTH BAY AQUEDUCT	(COMPLETED)
NORTH SAN JOAQUIN DIVISION	
AQUEDUCT	(COMPLETED)
DELTA PUMPING PLANT, 7 UNITS	(COMPLETED)
UNITS 8 & 9	(SCHEDULED FOR COMPLETION IN 1980)
UNITS 10 & 11 (FINAL)	(SCHEDULED FOR COMPLETION IN 1985)
SAN LUIS DIVISION	(COMPLETED - POSSIBLE AUGMENTATION SCHEDULED FOR 1986)
SOUTH SAN JOAQUIN DIVISION	
AQUEDUCT	(COMPLETED)
BUENA VISTA PUMPING PLANT, ALL 10 UNITS	(COMPLETED)
WHEELER RIDGE PUMPING PLANT, ALL 9 UNITS	
WIND GAP PUMPING PLANT, ALL 9 UNITS	
TEHACHAPI DIVISION	
A. D. EDMONSTON PUMPING PLANT, 11 UNITS	
UNITS 10, 12, & 14 (FINAL)	(SCHEDULED FOR COMPLETION BY 1985)
TUNNELS AND SIPHONS	(COMPLETED)
MOJAVE DIVISION	
AQUEDUCT	(COMPLETED)
BUTTES DAM AND RESERVOIR	(NOT YET SCHEDULED)
PEARBLOSSOM PUMPING PLANT, 4 UNITS	(COMPLETED)
UNITS 1 & 2 (FINAL)	
CEDAR SPRINGS DAM AND SILVERWOOD LAKE	(COMPLETED)
SANTA ANA DIVISION	
AQUEDUCT	
DEVIL CANYON POWERPLANT, UNIT 1	(COMPLETED)
UNIT 2	
PERRIS DAM AND LAKE PERRIS	
WEST BRANCH	
AQUEDUCT	(COMPLETED)
OSO PUMPING PLANT, ALL UNITS	(COMPLETED)
REPLACEMENT OF GORMAN CREEK IMPROVEMENT	(NOT YET SCHEDULED)
PYRAMID DAM AND LAKE	
CASTAIC DAM AND LAKE	(COMPLETED)
COASTAL BRANCH	
AQUEDUCT, CALIFORNIA AQUEDUCT TO DEVIL'S DEN PUMPING PLANT	(COMPLETED)
LAS PERILLAS AND BADGER HILL PUMPING PLANTS, 3 UNITS EACH	(COMPLETED)
UNIT 4, EACH PLANT	(COMPLETED* - TO BE PURCHASED OR REPLACED BY 1982)
UNIT 5, EACH PLANT	(COMPLETED* - TO BE PURCHASED IN 1977)
UNIT 6, EACH PLANT	(COMPLETED* - TO BE PURCHASED IN 1985)
DEVIL'S DEN PUMPING PLANT THRU SANTA MARIA TERMINUS	(SCHEDULED FOR COMPLETION BY 1980)
SAN JOAQUIN DRAINAGE FACILITIES	(NOT YET SCHEDULED)

REMAINING CONSTRUCTION FOR THE "1973 PROJECT FACILITIES"

FUTURE SCHEDULED CONSTRUCTION

* INITIAL INSTALLATION BY BERRENDA MESA WATER DISTRICT

tion of the Ballast Fills for Interstate 5, initiated early in 1972, will be completed by May 1973. A final contract for Castaic Dam will be awarded in April 1973.

In January 1972, the City of Los Angeles Department of Water and Power completed construction of the small 50-megawatt generator in Castaic Powerplant and initiated power generation with water releases through Angeles Tunnel into Castaic Lake. The first of six 200-megawatt generators, Unit No. 1., is scheduled to be operational by July 1973.

Coastal Branch. The 1973 Project facilities portion of the Branch is complete and operational.

Pyramid Dam
DWR 12558

CHAPTER III. PROJECT UTILITY MANAGEMENT

This is a progress report on management of the Project's water and power utility during 1972, covering arrangements for (1) securing water rights and low-cost pumping power and (2) marketing developed water supplies and high-priced power generation. The overall management objectives are to (1) maximize the water supply benefits realized from the Project and (2) minimize unit water charges assessed by the Project, since such charges include repayments for pumping power costs in excess of power generation credits.

Water Rights Management

During 1972, water rights management activities by the Department included determination of the possible long-term effects of Decision 1379 of the State Water Resources Control Board on the demand for project water in the Delta and on the contractual agreements with western Delta municipal, industrial, and agricultural water users—if the Decision were to apply as a permanent standard beyond 1978.

Decision 1379

Decision 1379 sets strong interim criteria to be met by state and federal projects exporting water from the Delta (by either reducing the level of exports or increasing the amount of releases to the Delta from upstream storage reservoirs), orders an extensive water quality monitoring program for the Delta, and declares the Board's intent to reconsider the standards by July 1, 1978, based on experience to be gained from working with the interim decision. However, the terms and conditions of the Decision have been stayed by court order (see the section entitled "Pending Actions", Chapter I).

During the hearing on SB 2212 by the Assembly Committee on Water, November 9 and 10, 1972, the Director stated that the cost per acre-foot of developing an incremental quantity of water to meet the criteria of Decision 1379 would be far greater than for the incremental quantity of new water required to meet originally assumed outflow requirements and to maintain contract deliveries. Other statements by the Director included the following:

> "Without additional water conservation facilities the State Water Project would be short by about 700,000 acre-feet per year during a dry period, and under average conditions by about 250,000 acre-feet per year, even without Decision 1379. With the additional requirements of Decision 1379, the total potential deficiency in State Water Project water service to its contractors, under full demand, could be about 1,350,000 acre-feet per year during a dry period. The average deficiency would probably be around 550,000 acre-feet per year. Only in the wet years could the State Water Project be assured of sufficient water to meet all demands."

Also during 1972, the United States Department of Interior stated its belief, concurred in by the United States Department of Justice, that no state agency can regulate a federal project authorized by the Congress.

The statement of policy on water resources arose from New Melones litigation and was sent to the Court by Assistant Interior Secretary James R. Smith. It rejected the authority of the State to interfere with congressionally authorized functions of the federal system supplying water to the Central Valley. However, it recognized that water releases from the federal Central Valley Project provide significant water quality benefits to the Delta. Nonetheless, the statement asserted that any attempt by the State Water Resources Control Board to impose conditions on the Federal Government which require releases of stored water from federal reservoirs would violate the acts of the Congress which authorize such projects.

Decision 1379 specifies 32 monitoring stations to be strategically located throughout the Delta and Suisun Bay, at which some or all of 23 parameters would be measured periodically—together with continuous recorders capable of monitoring from six to nine parameters.

On November 22, 1971, the Department informed the Board that it intended to implement the monitoring program even though the Decision is not final and is being contested in the Courts. (None of the plaintiffs challenged the need for, or propriety of, the monitoring portion of the Decision.) On March 21, 1972, the Director approved the scope and level of funding for implementing the first two phases of a four-phase program. The Department plans to petition the Board to modify the required monitoring included in the last two phases after resolution of current court action. Both the Department and the Bureau of Reclamation are continuing pre-Decision 1379 Delta monitoring while the expanded program is being implemented.

Water Quality Control Standards For the Delta and San Francisco Bay

Last year's report included a reference to supplemental salinity objectives for the Delta and San Francisco Bay in addition to those already proposed to the

federal Administrator of the Environmental Protection Agency (see pages 17 and 18, Bulletin 132-72).

On December 20, 1972, the State Water Resources Control Board held a public hearing on proposed supplemental salinity objectives identical to criteria in Decision 1379 for the protection of striped bass and industrial and municipal uses in the Delta. The Department made a presentation requesting that the objectives include allowances for operational testing with regard to the fishery and for relaxations during dry and critical years. In addition, the Department asked that any criteria adopted be subject to review by July 1, 1978, similar to the interim nature of Decision 1379.

Several other agencies, including The Metropolitan Water District of Southern California, made presentations—none suggesting outright rejection of the proposed objectives. The East Side Project Association and Contra Costa County Water Agency did object on the grounds that adopting the proposed objectives would be tantamount to enacting at least a portion of Decision 1379, thus circumventing the Courts.

Feather River

During 1972, negotiations were completed and agreements executed with five riparian water users concerning Feather River water right entitlements. Negotiations continued with four appropriative water users and 28 riparian water users along the Feather River. (These totals are subject to change as water users initiate or discontinue diversions from the River.)

Sacramento-San Joaquin Delta

Previous reports have referred to the administration of completed agreements with municipal water users in the western Delta—the Contra Costa County Water District and the City of Antioch. Both agencies had a below-average water supply during the 1972 water year as defined in the contracts. The District had a deficiency of 82 days, and the City had a deficiency of eight days. These deficiencies were offset by credits accumulated in previous years.

No formal negotiation meetings were held during 1972 among the Delta Water Agency, the Bureau of Reclamation, and the Department. Throughout most of the year, the Agency was attempting to formulate its proposed water quality criteria for the Delta.

California Statutes of 1971, Resolution Chapter 140 (SCR 30), directs the Department to file within 60 days, and not later than the fifth calendar day of each regular session of the Legislature thereafter, a written report on the progress of negotiations with the Delta Water Agency. The Department's second report was transmitted by the Director on January 26, 1972.

The water quality to be maintained in the western Delta channels specified under Decision 1379 during the interim period deemphasizes the need for overland facilities, except possibly on the most westerly portion of Sherman Island. The Department and the Bureau have been working to establish a common position on the need for, and the economics and physical nature of, the overland facilities.

Negotiations with the industrial water users in the western Delta have been delayed pending development of a basis acceptable to the Bureau. The Department is interested in reaching agreement with the industries to provide them with a replacement water supply (via the Contra Costa Canal) to compensate for any possible loss of offshore water of adequate quality due to joint operation of the State Water Project and the federal Central Valley Project. The Bureau has been reluctant to agree to any responsibility due to the operation of the federal project. This has been the major obstruction to negotiations since the industries desire a total solution to the reduced offshore water supply problem.

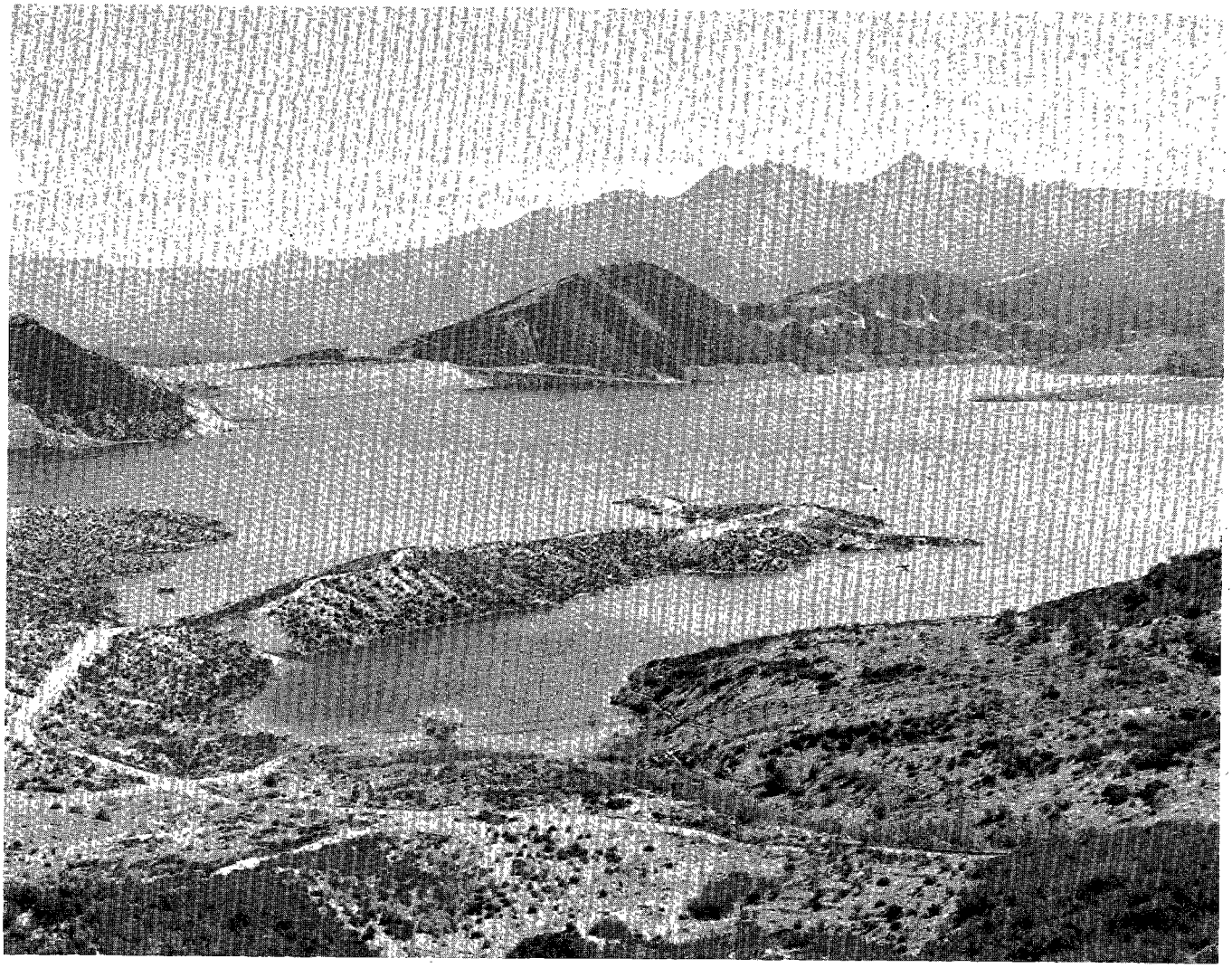
Suisun Marsh

Decision 1379 includes a requirement, stated in terms of soil salinity concentrations, concerning the preservation of environmental conditions in the Suisun Marsh.

Under an interagency agreement among the Departments of Water Resources and Fish and Game and the Bureaus of Reclamation and Sport Fisheries and Wildlife, a study to develop an environmental management plan for the Marsh is in progress. The purposes of the study are to (1) supplement present knowledge of the relationship between wildlife of the Marsh and the water supply required, (2) develop a water management plan to meet the requirements of the Marsh, and (3) evaluate the need and, if required, develop plans for an alternative water supply for the Marsh. This study is under the direction of the Bureau of Reclamation with input from the Soil Conservation Service and the other three members of the interagency agreement.

Aqueduct Reservoirs Principles were proposed by the Department as a result of a meeting between local interests and the Director on December 27, 1972, concerning possible arrangements by which certain Castaic Creek flood flows would be conserved in Castaic Lake storage for downstream use.

On November 14, 1972, the first release of water from Lake Silverwood was made to satisfy downstream water rights on the West Fork of the Mojave River.



Silverwood Lake
DWR 12196

Water Contracts Management

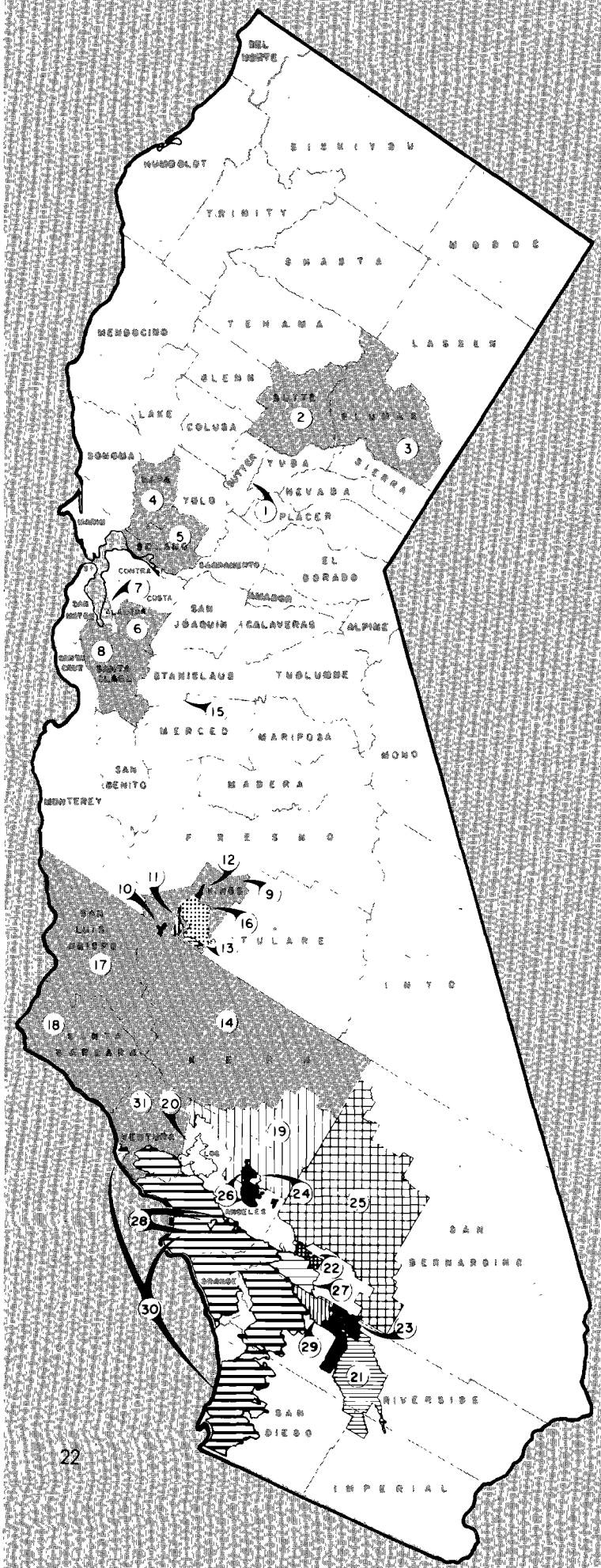
Thirty-one agencies have contracted for a long-term water supply from the State Water Project. Compared with the total State, these agencies include about one-quarter of the land area, over two-thirds of the population, and about 70 percent of the assessed valuation. The names and locations of these agencies are shown on Figure 5, together with selective information.

The basic provisions of all 31 water supply contracts are substantially uniform. The term of each contract is for 75 years or until all Water Bonds have been repaid—whichever period is longer. Each contract estimates the year of initial water delivery and sets a schedule of annual water amounts the agency is entitled to receive. These scheduled amounts generally increase yearly until the "maximum annual entitlement" is reached—in about 1990. The combined maximum annual entitlements of all agencies are limited to 4,230,000 acre-feet.

Table 1 (Columns 1 through 7) presents a summary of annual entitlements of agencies within each major project service area. Table B-4, Appendix B, shows the respective schedules for all agencies. These schedules generally reflect project water needs as estimated in the early 1960s when the contracts were originally signed. With declining rates of population growth, as became evident in the late 1960s, current projections indicate that project water needs of certain Southern California agencies will be deferred as compared with their schedules of annual entitlements. Current projections for all agencies are also summarized in Table 1 (Column 8) and are shown for respective agencies in Table B-5, Appendix B. However, current revised projections indicate a more accelerated rate of need as compared with projections shown in Bulletin 132-72—a trend prevailing with each annual revision since 1970.

For agencies using project water primarily for agricultural purposes, however, current projections of

Figure 5: LONG-TERM WATER SUPPLY



Location No.	Contracting Agency	Total Deliveries through Dec. 31, 1972 (acre-feet)	Maximum Annual Entitlement (acre-feet)
	UPPER FEATHER AREA		
1	City of Yuba City	0	9,600
2	County of Butte	378	27,500
3	Plumas County Flood Control and Water Conservation District	639	2,700
	Subtotal	1,017	39,800
	NORTH BAY AREA		
4	Napa County Flood Control and Water Conservation District	13,687	25,000
5	Solano County Flood Control and Water Conservation District	0	42,000
	Subtotal	13,687	67,000
	SOUTH BAY AREA		
6	Alameda County Flood Control and Water Conservation District, Zone 7	68,403	46,000
7	Alameda County Water District	174,397	42,000
8	Santa Clara County Flood Control and Water District	489,205	100,000
	Subtotal	732,005	188,000
	SAN JOAQUIN VALLEY AREA		
9	County of Kings	6,100	4,000
10	Devil's Den Water District	55,486	12,700
11	Dudley Ridge Water District	181,638	57,700
12	Empire West Side Irrigation District	17,761	3,000
13	Hacienda Water District	24,930	8,500
14	Kern County Water Agency	1,324,215	1,153,400
15	Oak Flat Water District	27,389	5,700
16	Tulare Lake Basin Water Storage District	400,549	110,000
	Subtotal	2,038,068	1,355,000
	CENTRAL COASTAL AREA		
17	San Luis Obispo County Flood Control and Water Conservation District	0	25,000
18	Santa Barbara County Flood Control and Water Conservation District	0	57,700
	Subtotal	0	82,700
	SOUTHERN CALIFORNIA AREA		
19	Antelope Valley-East Kern Water Agency	53	138,400
20	Castaic Lake Water Agency	0	41,500
21	Coachella Valley County Water District	0	23,100
22	Crestline-Lake Arrowhead Water Agency	464	5,800
23	Desert Water Agency	0	38,100
24	Littlerock Creek Irrigation District	338	2,300
25	Mojave Water Agency	55	50,800
26	Palmdale Irrigation District	0	17,300
27	San Bernardino Valley Municipal Water District	1,275	102,600
28	San Gabriel Valley Municipal Water District	0	28,800
29	San Gorgonio Pass Water Agency	0	17,300
30	The Metropolitan Water District of Southern California	71,938	2,011,500
31	Ventura County Flood Control District	0	20,000
	Subtotal	74,123	2,497,500
	TOTAL STATE WATER PROJECT	2,858,900 (g	4,230,000
	NET AREA TOTAL, STATE WATER PROJECT	2,858,900	4,230,000
	TOTAL, STATE OF CALIFORNIA		
	PERCENT, STATE WATER PROJECT OF TOTAL		

a) Total for Plumas County, including Last Chance Creek Water District.
b) Total for Kings County, including Dudley Ridge Water District, Empire West Side Irrigation District, Hacienda Water District, most of Tulare Lake Basin Water Storage District, and about 40% of Devil's Den Water District.
c) Total for Kern County, including about 60% of Devil's Den Water District, and about 50% of Antelope Valley-East Kern Water Agency.
d) Total for Antelope Valley-East Kern Water Agency includes California City which was reannexed in June, 1972.
e) Includes duplicate values for overalpping agency areas.

Total Payments through Dec. 31, 1972 (dollars)	Gross Area as of July 1, 1972 (acres)	Assessed Valuation 1972-73 (dollars)	Estimated Population (July 1, 1972)	Location No.
0	2,500	35,312,100	15,400	1
15,600	1,067,600	284,291,600	107,400	2
60,000	1,644,000 (a	109,767,400 (a	12,700 (a	3
75,600	2,714,100	429,371,100	135,500	
1,239,200	508,000	233,840,700	84,400	4
0	528,400	413,114,700	182,400	5
1,239,200	1,036,400	646,955,400	266,800	
3,560,600	272,000	292,000,000	90,000	6
4,678,000	61,500	435,910,000	157,000	7
17,964,200	832,300	3,769,839,900	1,140,000	8
26,202,800	1,165,800	4,497,749,900	1,387,000	
101,300	893,000	153,245,000 (b	68,200	9
794,300	8,500	1,257,600	50	10
1,422,400	29,900	6,528,100	50	11
160,100	7,500	757,200	50	12
184,800	15.300	106,000	50	13
22,363,100	5,057,200 (c	1,117,431,500 (c	341,900 (c	14
162,100	4,000	275,000	50	15
3,631,900	193,000	11,000,000	50	16
28,820,000	6,208,400	1,290,600,400	410,400	
640,100	2,131,300	359,301,100	110,100	17
1,511,000	1,756,900	758,730,400	269,600	18
2,151,100	3,888,200	1,118,031,500	379,700	
7,586,800	1,524,900	499,087,000 (d	89,300	19
3,158,300	125,000	192,638,900	49,100	20
1,857,500	620,500	236,670,900	65,300	21
534,800	53,700	54,078,600	10,800	22
3,067,500	209,300	191,483,000	37,800	23
142,200	43,300	4,771,000	1,400	24
3,694,600	3,160,400	308,840,600	68,800	25
1,009,900	73,700	34,369,000	22,800	26
10,718,200	208,900	639,112,400	331,700	27
2,787,800	16,200	355,726,500	150,000	28
1,676,800	140,600	59,043,900	28,300	29
225,316,000	3,092,300	31,011,520,600	10,600,000	30
1,436,300	1,179,500 (f	1,293,600,300	410,900	31
262,986,700	10,448,300	34,880,942,700	11,866,200	
321,475,400	25,461,200 (e	42,863,651,000 (e	14,445,600 (e	
321,475,400	24,134,700 (h	41,929,715,700 (h	14,175,600 (h	
	100,314,000	59,615,654,700	20,524,000	
	24.1	70.3	69.1	

f) Total for Ventura County, including about 8,400 acres in Antelope Valley-East Kern Water Agency, 209,500 acres in The Metropolitan Water District of Southern California, and about 8,400 acres in Castaic Lake Water Agency.
g) Excludes 4,256 acre-feet delivered to Mustang Water District, and 124,370 acre-feet delivered to Last Chance Water District under one-year contracts. Also excludes 60,146 acre-feet of deliveries for repayment of water that was borrowed for aqueduct preconsolidation.
h) Excludes all overlapping areas.

project water needs generally exceed their schedules of annual entitlements. These agencies contemplate use of surplus water to (1) reduce overall water costs during early years of development and (2) help recharge depleted ground water basins.

If there is an annual project water supply in excess of the annual entitlements of all agencies, the agencies may purchase such surplus water for agricultural and ground water replenishment use at a price equal to the costs of delivery. If the 31 agencies do not take all such surplus water, the balance is available for annual sales to other customers—commonly referred to as "noncontractors".

Table 1 (Column 9) summarizes the past and projected deliveries of surplus water, together with other miscellaneous types of water deliveries, including:

- "Bureau water" purchased from the federal Central Valley Project and delivered to agencies in the South San Francisco Bay area prior to initial operation of the Delta Pumping Plant in 1967.
- "Local water" derived from local sources and delivered from project facilities under special arrangements.
- "Repayment water" derived from project water supplies for compensation of local water used by the Project during aqueduct construction to preconsolidate foundation soils.

In addition to total water deliveries (Column 10), Table 1 also shows the past and projected water requirements associated with the aqueduct system for initial raising of water surfaces to operational levels (Column 11), replacing evaporation and seepage losses (Column 12), and providing water consumed in project recreation developments (Column 13).

Water Deliveries in 1972

A total of 1,102,403 acre-feet of water was delivered to 24 State Water Project customers in 1972—up 58 percent over 1971 deliveries. The deliveries included:

- 611,801 acre-feet of entitlement water to 19 long-term contractors.
- 423,964 acre-feet of surplus water to 10 long-term contractors and one noncontractor (Mustang Water District).
- 21,846 acre-feet of local water to two long-term contractors and one noncontractor (Last Chance Creek Water District).
- 44,792 acre-feet of repayment water to the two noncontractors having agreements for this form of compensation (Buena Vista Farms, Incorporated, and Buena Vista Water Storage District).

These deliveries are summarized in Table 2, by month, for each agency.

TABLE 1: ANNUAL
(in acre-

Calendar Year	Annual Entitlements Under Long-Term Water Supply Contracts						
	Feather River Area	North Bay Area	South Bay Area	San Joaquin Valley Area	Central Coastal Area	Southern California Area	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1962	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0
1967	0	0	11,538	0	0	0	11,538
1968	550	0	109,900	81,050	0	0	191,500
1969	620	0	98,700	168,075	0	0	267,395
1970	700	0	114,200	207,700	0	0	322,600
1971	890	0	116,200	258,500	0	0	375,590
1972	970	0	118,300	420,766	0	201,723	741,759
Subtotal actual for 11 years 1962-1972	3,730	0	568,838	1,136,091	0	201,723	1,910,382
1973	1,100	0	120,400	390,800	0	472,400	984,700
1974	1,230	0	122,400	434,800	0	588,220	1,146,650
1975	1,610	0	124,500	480,900	0	704,250	1,311,260
3 years, 1973-1975	3,940	0	367,300	1,306,500	0	1,764,870	3,442,610
1976	1,990	0	126,500	535,600	0	824,780	1,488,870
1977	2,420	0	128,600	594,100	0	942,201	1,667,321
1978	2,850	0	130,700	651,600	0	1,060,722	1,845,872
1979	3,280	0	132,700	707,700	0	1,177,873	2,021,553
1980	4,710	19,250	134,800	765,000	2,200	1,304,914	2,230,874
1981	10,390	21,750	137,000	828,500	3,300	1,425,865	2,426,805
1982	12,270	24,400	139,200	889,200	6,600	1,546,806	2,618,476
1983	14,200	27,050	141,400	955,500	9,900	1,668,557	2,816,607
1984	16,130	29,600	143,600	1,017,900	14,900	1,790,398	3,012,528
1985	19,060	32,750	145,800	1,079,100	24,800	1,912,549	3,214,059
10 years, 1976-1985	87,300	154,800	1,360,300	8,024,200	61,700	13,654,665	23,342,965
10 years, 1986-1995	340,420	587,500	1,650,200	13,032,300	688,000	23,869,646	40,168,066
10 years, 1996-2005	386,460	670,000	1,878,000	13,550,000	827,000	24,975,000	42,286,460
10 years, 2006,2015	393,170	670,000	1,880,000	13,550,000	827,000	24,975,000	42,295,170
10 years, 2016-2025	398,000	670,000	1,880,000	13,550,000	827,000	24,975,000	42,300,000
10 years, 2026-2035	398,000	670,000	1,880,000	13,550,000	827,000	24,975,000	42,300,000

a) Includes regulated releases of local supply (170,874 acre-feet, 1962-1972), transportation of nonproject water (190,313 acre-feet, 1962-1972), surplus water (1,046,938 acre-feet, 1968-1972), and repayment of preconsolidation

WATER REQUIREMENTS

feet)

Estimated Annual Water Demands							
Deliveries to Contracting Agencies							
Entitlement Water	Surplus and Non-project Water (a	Total	Initial Fill	Operational Losses and Storage Changes	Recreation Water	Total	Calendar Year
(8)	(9)	(10)	(11)	(12)	(13)	(14)	
0	18,289	18,289	9	272	0	18,570	1962
0	22,456	22,456	71	185	0	22,712	1963
0	32,507	32,507	171	152	0	32,830	1964
0	44,105	44,105	93	729	0	44,927	1965
0	67,928	67,928	0	1,746	0	69,674	1966
11,538	53,605	65,143	8,328	4,212	0	77,683	1967
171,709	136,311	308,020	498,926	117,906	0	924,852	1968
193,020	91,226	284,246	510,614	72,196	0	867,056	1969
233,993	171,104	405,097	23,947	2,435	0	431,479	1970
357,340	340,138	697,478	7,853	5,806	14	711,151	1971
611,801	490,602	1,102,403	106,749	53,061	15	1,262,228	1972
1,579,401	1,468,271	3,047,672	1,156,761	258,700	29	4,463,162	11 years, 1962-1972
851,945	643,104	1,495,049	235,744	239,609	10,600	1,981,002	1973
1,059,575	674,293	1,733,868	360,589	83,559	16,800	2,194,816	1974
1,283,915	779,844	2,063,759	51,957	162,868	23,325	2,301,909	1975
3,195,435	2,097,241	5,292,676	648,290	486,036	50,725	6,477,727	3 years, 1973-1975
1,459,955	767,765	2,227,720	13,739	130,942	27,525	2,399,926	1976
1,576,936	743,125	2,320,061	5,224	212,426	27,725	2,565,436	1977
1,683,017	732,080	2,415,097	4,360	58,168	27,925	2,505,550	1978
1,791,478	669,299	2,460,777	2,330	169,542	28,115	2,660,764	1979
1,940,634	601,200	2,541,834	0	216,683	44,305	2,802,822	1980
2,077,855	574,300	2,652,155	0	72,595	44,415	2,769,165	1981
2,209,216	537,341	2,746,557	0	216,981	44,525	3,008,063	1982
2,346,197	500,601	2,846,798	0	49,389	44,645	2,940,832	1983
2,476,408	468,500	2,944,908	0	278,204	44,755	3,267,867	1984
2,608,629	436,500	3,045,129	0	104,831	44,875	3,194,835	1985
20,170,325	6,030,711	26,201,036	25,653	1,509,761	378,810	28,115,260	10 years, 1976-1985
33,659,346	0	33,659,346	0	1,844,038	453,650	35,957,034	10 years, 1986-1995
38,054,101	0	38,054,101	0	1,651,463	455,000	40,160,564	10 years, 1996-2005
40,254,070	0	40,254,070	0	1,823,183	455,000	42,532,253	10 years, 2006-2015
42,051,260	0	42,051,260	0	1,871,346	455,000	44,377,606	10 years, 2016-2025
42,300,000	0	42,300,000	0	1,865,780	455,000	44,620,780	10 years, 2026-2035

water (60,146 acre-feet, 1962-1972). The amounts shown for 1973 thru 1985 are based on studies as to the availability and cost of surplus water.

TABLE 2: WATER

(in acre-

Line No.	Contracting Agency and Type of Service	Month						
		Jan	Feb	Mar	Apr	May	Jun	Jul
	FEATHER RIVER SERVICE AREA							
	County of Butte:							
1.	Entitlement Water	4	8	25	4	4	7	6
	Last Chance Creek Water District:							
2.	Regulated Delivery of Local Supply	0	0	0	692	2,642	3,664	4,629
	Plumas County Flood Control & Water Cons. District:							
3.	Entitlement Water	0	0	23	17	5	51	77
4.	AREA TOTAL	4	8	48	713	2,651	3,722	4,712
	NORTH BAY SERVICE AREA							
	Napa County Flood Control & Water Conservation District:							
5.	Regulated Delivery of Local Supply	629	551	457	97	3	0	72
	SOUTH BAY SERVICE AREA							
	Alameda County Flood Control & Water Cons. Dist., Zone 7:							
6.	Entitlement Water	0	526	721	860	954	1,158	2,032
7.	Regulated Delivery of Local Supply	982	284	215	389	625	464	0
8.	Agency Total	982	810	936	1,249	1,579	1,622	2,032
	Alameda County Water District:							
9.	Entitlement Water	1,037	1,042	3,257	669	1,870	1,870	1,870
10.	Surplus Water	0	0	0	2,375	1,135	1,471	1,512
11.	Regulated Delivery of Local Supply	0	0	0	0	0	0	115
12.	Agency Total	1,037	1,042	3,257	3,044	3,005	3,341	3,497
	Santa Clara County Flood Control & Water District:							
13.	Entitlement Water	5,648	4,438	6,605	5,200	8,500	9,246	10,224
14.	Surplus Water	0	0	0	3,147	1,698	0	0
15.	Agency Total	5,648	4,438	6,605	8,347	10,198	9,246	10,224
16.	AREA TOTAL	7,667	6,290	10,798	12,640	14,782	14,209	15,753
	SAN JOAQUIN VALLEY SERVICE AREA							
	Buena Vista Farms, Inc.:							
17.	Repayment of Preconsolidation Water	0	0	0	490	1,342	2,863	6,351
	Buena Vista Water Storage District:							
18.	Repayment of Preconsolidation Water	0	0	1,283	524	881	5,449	6,409
	County of Kings:							
19.	Entitlement Water	165	165	80	0	0	165	165
	Devil's Den Water District:							
20.	Entitlement Water	825	415	925	458	556	825	990
21.	Surplus Water	546	343	391	739	677	681	647
22.	Agency Total	1,371	758	1,316	1,197	1,233	1,506	1,637
	Dudley Ridge Water District:							
23.	Entitlement Water	997	1,000	1,300	2,500	2,500	3,300	3,300
24.	Surplus Water	0	36	2,445	1,214	810	2,845	4,254
25.	Agency Total	997	1,036	3,745	3,714	3,310	6,145	7,554
	Empire West Side Irrigation District:							
26.	Entitlement Water	300	400	400	331	0	300	360
27.	Surplus Water	151	144	327	0	129	644	626
28.	Agency Total	451	544	727	331	129	944	986
	Hacienda Water District:							
29.	Entitlement Water	0	200	200	200	0	400	450
30.	Surplus Water	0	764	811	619	0	34	621
31.	Agency Total	0	964	1,011	819	0	434	1,071
	Kern County Water Agency:							
32.	Entitlement Water	7,657	17,998	17,064	17,612	24,716	52,286	57,139
33.	Surplus Water	1,013	22,536	30,734	11,542	19,379	22,160	47,598
34.	Agency Total	8,670	40,534	47,798	29,154	44,095	74,446	104,737
	Mustang Water District:							
35.	Surplus Water	0	0	0	148	376	120	439
	Oak Flat Water District:							
36.	Entitlement Water	0	78	863	701	733	900	900
37.	Surplus Water	0	0	250	500	350	501	767
38.	Agency Total	0	78	1,113	1,201	1,083	1,401	1,667
	Tulare Lake Basin Water Storage District:							
39.	Entitlement Water	5,800	2,100	2,000	300	0	13,000	19,400
40.	Surplus Water	8,751	9,642	18,728	6,947	784	9,574	16,446
41.	Agency Total	14,551	11,742	20,728	7,247	784	22,574	35,846
42.	AREA TOTAL	26,205	55,821	77,801	44,825	53,233	116,047	166,862
	SOUTHERN CALIFORNIA SERVICE AREA							
	Antelope Valley-East Kern Water Agency:							
43.	Entitlement Water	0	0	25	0	0	0	0
44.	Castaic Lake Water Agency	0	0	0	0	0	0	0
45.	Coachella Valley County Water District	0	0	0	0	0	0	0
	Crestline-Lake Arrowhead Water Agency:							
46.	Entitlement Water	0	0	0	0	4	8	62
47.	Desert Water Agency	0	0	0	0	0	0	0
	Littlerock Creek Irrigation District:							
48.	Entitlement Water	0	0	0	0	0	0	0
49.	Surplus Water	0	0	0	0	0	0	0
50.	Agency Total	0	0	0	0	0	0	0
	Mojave Water Agency:							
51.	Entitlement Water	0	0	0	0	0	0	0
52.	Palmdale Irrigation District	0	0	0	0	0	0	0
	San Bernardino Valley Municipal Water District:							
53.	Entitlement Water	0	0	0	0	0	0	0
54.	San Gabriel Valley Municipal Water District	0	0	0	0	0	0	0
	The Metropolitan Water District of Southern California:							
55.	Entitlement Water	0	0	0	1,907	6,213	6,144	10,217
56.	AREA TOTAL	0	0	25	1,907	6,217	6,152	10,279
	ALL AGENCIES:							
57.	Entitlement Water	22,433	28,370	33,488	30,759	46,055	89,660	107,192
58.	Surplus Water	10,461	33,465	53,686	27,231	25,338	38,030	72,910
59.	Total--Project Water	32,894	61,835	87,174	57,990	71,393	127,690	180,102
60.	Regulated Delivery of Local Supply	1,611	835	672	1,178	3,270	4,128	4,816
61.	Repayment of Preconsolidation Water	0	0	1,283	1,014	2,223	8,312	12,760
62.	TOTAL WATER	34,505	62,670	89,129	60,182	76,886	140,130	197,678

1/ Preconsolidation repayment water.

DELIVERIES IN 1972

feet)

Month						1972 Contract Entitlement	1972 Entitlement Not Delivered	Net Cumulative Entitlement Not Delivered thru		Net Entitlement Credits Under "Wet Weather" Provisions as of January 1, 1973		Line No.
Aug	Sep	Oct	Nov	Dec	Total			1971	1972	Deferred Delivery	Future Reductions	
7	5	3	35	78	186	500	314	1,308	1,622	-	-	1.
2,005	478	322	0	0	14,432	-	-	-	-	-	-	2.
99	105	37	41	50	505	470	0	1,126	1,091	-	-	3.
2,111	588	362	76	128	15,123	970	314	2,434	2,713	-	-	4.
11	90	553	546	638	3,647	-	-	-	-	-	-	5.
1,570	1,261	820	356	231	10,489	12,400	1,911	9,266	11,177	9,881	0	6.
0	0	0	210	483	3,652							7.
1,570	1,261	820	566	714	14,141							8.
1,870	1,870	1,565	836	144	17,900	17,900	0	42,109	42,109	26,990	0	9.
2,128	1,150	0	0	0	9,771							10.
0	0	0	0	0	115							11.
3,998	3,020	1,565	836	144	27,786							12.
10,274	10,300	8,100	5,400	4,065	88,000	88,000	0	38,714	38,714	8,470	0	13.
0	155	1,622	1,422	4,222	12,266							14.
10,274	10,455	9,722	6,822	8,287	100,266							15.
15,842	14,736	12,107	8,224	9,145	142,193	118,300	1,911	90,089	92,000	45,341	0	16.
8,680	5,077	739	0	0	25,542	-	-	-	-	98,945 1/	-	17.
4,704	0	0	0	0	19,250	-	-	-	-	80,509 1/	-	18.
165	165	165	0	165	1,400	1,400	0	0	0	0	0	19.
990	275	394	147	900	7,700	7,700	0	0	0	0	0	20.
775	824	0	0	582	6,205							21.
1,765	1,099	394	147	1,482	13,905							22.
2,503	2,000	400	200	0	20,000	20,000	0	0	0	0	0	23.
4,105	2,076	2,779	985	894	22,443							24.
6,608	4,076	3,179	1,185	894	42,443							25.
339	492	78	0	0	3,000	3,000	0	0	0	0	0	26.
774	0	0	0	0	2,795							27.
1,113	492	78	0	0	5,795							28.
450	700	0	0	0	2,600	2,600	0	0	0	0	0	29.
393	9	0	0	0	3,251							30.
843	709	0	0	0	5,851							31.
60,178	9,976	4,369	1,083	622	270,700	270,700	0	0	0	0	0	32.
23,958	15,275	11,247	8,761	5,878	220,081							33.
84,136	25,251	15,616	9,844	6,500	490,781							34.
524	35	0	0	0	1,642	-	-	-	-	-	-	35.
795	348	0	48	0	5,366	5,366	0	0	0	0	2,466	36.
432	0	0	0	0	2,800							37.
1,227	348	0	48	0	8,166							38.
19,400	17,400	16,000	9,000	5,600	110,000	110,000	0	0	0	0	73,300	39.
17,474	19,242	20,484	12,841	1,629	142,542							40.
36,874	36,642	36,484	21,841	7,229	252,542							41.
146,639	73,894	56,655	33,065	16,270	867,317	420,766	0	0	0	0	75,766	42.
28	0	0	0	0	53	20,000	19,947	-	19,947	-	-	43.
0	0	0	0	0	0	1,236	1,236	-	1,236	-	-	44.
0	0	0	0	0	0	5,200	5,200	-	5,200	-	-	45.
55	60	33	200	42	464	526	62	-	62	-	-	46.
0	0	0	0	0	0	8,000	8,000	-	8,000	-	-	47.
57	56	57	0	0	170	170	0	-	0	-	-	48.
9	83	70	6	0	168							49.
66	139	127	6	0	338							50.
0	16	29	10	0	55	8,400	8,345	-	8,345	-	-	51.
0	0	0	0	0	0	1,620	1,620	-	1,620	-	-	52.
0	0	0	75	1,200	1,275	1,677	402	-	402	-	-	53.
0	0	0	0	0	0	122	122	-	122	-	-	54.
10,624	9,672	7,731	7,109	12,321	71,938	154,772	82,834	-	82,834	-	-	55.
10,773	9,887	7,920	7,400	13,563	74,123	201,723	127,768	-	127,768	-	-	56.
109,404	54,701	39,781	24,540	25,418	611,801	741,759	129,993	92,523	222,481	45,341	0	57.
50,572	38,849	36,202	24,015	13,205	423,964							58.
159,976	93,550	75,983	48,555	38,623	1,035,765							59.
2,016	568	875	756	1,121	21,846							60.
13,384	5,077	739	0	0	44,792					179,454	-	61.
175,376	99,195	77,597	49,311	39,744	1,102,403	741,759	129,993	92,523	222,481	224,795	75,766	62.

In addition to the above State Water Project deliveries, 846,687 acre-feet were served from the joint-use San Luis Facilities to federal customers and about 808,000 acre-feet were released from Thermalito Afterbay and other project reservoirs to satisfy water rights which existed prior to project construction.

Six of the 19 long-term contractors received water deliveries for the first time in 1972—all located in Southern California. An additional five whose contracts had scheduled initial deliveries in 1972 elected not to receive project water.

The 1972 entitlements of the 24 contractors totaled 820,640 acre-feet under contract provisions as of January 1, 1972. As of December 31, 1972, contracts had been amended, or were in the process of being amended, to reduce total annual entitlements by 78,881 acre-feet to 741,759 acre-feet. As of December 31, 1971, 594,054 acre-feet of this amount had been scheduled for delivery (see page 27, Bulletin 132-72). During the year, five contractors increased their requests by 75,909 acre-feet while five others reduced their requests by 58,162 acre-feet.

Also as of December 31, 1971, nine long-term contractors had requested 1972 delivery of 317,411 acre-feet of surplus water. During the year, four of these, together with one additional long-term contractor and a noncontractor, requested increases of 115,739 acre-feet—while three requested decreases of 9,186 acre-feet.

The various requests and changes outlined in the preceding paragraphs are shown below by respective agencies.

Contracting Agency	Contract Entitlements			Entitlement Deliveries			Surplus Water Deliveries		
	Effective as of 12/31/71	Changes During 1972 +	Changes During 1972 -	Requested as of 12/31/71	Changes During 1972 +	Changes During 1972 -	Requested as of 12/31/71	Changes During 1972 +	Changes During 1972 -
	(in acre-feet)								
County of Butte	500	0	0	500	0	314	0	0	0
Plumas County Flood Control and Water Conservation District	470	0	0	470	35	0	0	0	0
Alameda County Flood Control and Water Conservation District, Zone 7	12,400	0	0	12,400	0	1,911	0	0	0
Alameda County Water District	17,900	0	0	17,900	0	0	12,100	0	2,329
Santa Clara County Flood Control and Water District	88,000	0	0	88,000	0	0	0	12,266	0
Devil's Den Water District	7,700	0	0	7,700	0	0	6,300	0	95
Dudley Ridge Water District	20,000	0	0	20,000	0	0	29,000	0	6,557
Empire West Side Irrigation District	3,000	0	0	3,000	0	0	3,000	0	205
Hacienda Water District	2,600	0	0	2,600	0	0	2,100	1,151	0
Kern County Water Agency	270,700	0	0	270,700	0	0	149,546	70,535*	0
County of Kings	1,400	0	0	1,400	0	0	0	0	0
Mustang Water District	0	0	0	0	0	0	0	1,642	0
Oak Flat Water District	2,900	2,466	0	2,900	2,466	0	2,800	0	0
Tulare Lake Basin Water Storage District	36,700	73,300	0	36,700	73,300	0	112,400	30,142	0
Antelope Valley-East Kern Water Agency	20,000	0	0	0	53	0	0	0	0
Castaic Lake Water Agency	1,600	0	364	0	0	0	0	0	0
Coachella Valley County Water District	5,200	0	0	0	0	0	0	0	0
Crestline-Lake Arrowhead Water Agency	580	0	54	492	0	28	0	0	0
Desert Water Agency	8,000	0	0	0	0	0	0	0	0
Littlerock Creek Irrigation District	170	0	0	170	0	0	165	3	0
Mojave Water Agency	8,400	0	0	0	55	0	0	0	0
Palmdale Irrigation District	1,620	0	0	0	0	0	0	0	0
San Bernardino Valley Municipal Water District	46,000	0	44,323	19,122	0	17,847	0	0	0
San Gabriel Valley Municipal Water District	10,600	0	10,478	0	0	0	0	0	0
The Metropolitan Water District of Southern California	254,200	0	99,428	110,000	0	38,062	0	0	0
TOTAL for 1972	820,640	75,766	154,647	594,054	75,909	58,162	317,411	115,739	9,186

Entitlement Water Deliveries in 1972. Of the 820,640 acre-feet of 1972 entitlements effective as of December 31, 1971, 226,586 acre-feet were not then scheduled for delivery during 1972 because:

Local distribution facilities were not available (Antelope Valley-East Kern Water Agency and San Gabriel Valley Municipal Water District).

User demands were lower than originally anticipated (Castaic Lake Water Agency, Mojave Water Agency, and Palmdale Irrigation District).

Necessary water exchange agreements were not yet effective (Coachella Valley County Water District and Desert Water Agency).

Certain project facilities required to make deliveries were not expected to be operational during all of 1972 (San Bernardino Valley Municipal Water District, Crestline-Lake Arrowhead Water Agency, and The Metropolitan Water District of Southern California).

Of the 594,054 acre-feet of entitlement water scheduled at the beginning of the year, 58,162 acre-feet were not delivered because:

Certain project facilities became operational later than expected (The Metropolitan Water District of Southern California and San Bernardino Valley Municipal Water District).

Completion of contractor's local facilities was delayed (Crestline-Lake Arrowhead Water Agency).

Need for project water was lower than anticipated (County of Butte and Alameda County Flood Control and Water Conservation District, Zone 7).

On the other hand, 75,909 acre-feet of entitlement in excess of amounts originally scheduled were delivered pursuant to changes in delivery schedules during 1972 (Tulare Lake Basin Water Storage District, Oak Flat Water District, Plumas County Flood Control and Water Conservation District, Antelope Valley-East Kern Water Agency, and Mojave Water Agency).

The above increases involved upward changes of 1972 entitlements for two agencies (Tulare Lake Basin Water Storage District and Oak Flat Water District). On the other hand, since project facilities were not ready to deliver annual entitlements of five Southern California contractors on a reasonable schedule, contract amendments reducing 1972 entitlements were in process as of the end of the year (Castaic Lake Water Agency, Crestline-Lake Arrowhead Water Agency, San Bernardino Valley Municipal Water District, San Gabriel Valley Municipal Water District, and The Metropolitan Water District of Southern California). The basis for the reduction was the monthly distribution of 1972 entitlements shown on the five-year delivery requests submitted by the contractors in 1967. This request was basic to the State's power order for 1972. Regardless of the fact that, under most recent requests, certain contractors requested no deliveries for 1972 due to distribution system problems and other reasons, the Department considered a reduction of 1972 entitlements to those contractors to be in order.

Of the revised total 1972 entitlements of 741,759 acre-feet, 129,958 acre-feet were paid for but not delivered during the year for a variety of reasons. Under the Standard Provisions of the Contracts, the Project is not obligated to make up these deliveries in future years unless such nondelivery results from causes beyond the State's control or from necessary investigation, inspection, maintenance, repair, or replacement of any project facility necessary for such deliveries. However, certain contracts include special "wet weather" provisions whereby the State also is obligated to make up deliveries if nondelivery was caused by above-normal local water supply. As pointed out in a following section entitled "Contract Amendments", the Department is working with the contractors to develop a general "deferred delivery" amendment whereby all nondelivery of entitlement water, due to any cause, would be made up in subsequent years. The intent of the parties to the negotiation is that the amendment would apply retroactively to all past nondelivery of entitlement water. (The 35 acre-feet excess delivery to Plumas County Flood Control and Water Conservation District is temporarily held in abeyance pending development of this amendment. As shown in Table 2, Plumas has not taken delivery of all its entitlement water prior to 1972.)

The three South San Francisco Bay contractors had a total of 65,467 acre-feet of deferred delivery credits under the wet weather provisions of their contracts as of the beginning of 1972 (see page 25, Bulletin 132-72). Alameda County Water District and Santa Clara County Flood Control and Water District requested surplus water in 1972 and agreed to waive rights to deferred delivery in an amount equal to the quantity of surplus received during the year. The two contractors took a total of 22,037 acre-feet of surplus thereby reducing their deferred delivery rights. On the other hand, Alameda County Flood Control and Water Conservation District, Zone 7, received 1,911 acre-feet less than its 1972 entitlement due to above-normal local water supply which therefore added to its credits under the wet weather provisions. Total deferred delivery rights for the three South Bay contractors at year's end were 45,341 acre-feet.

(While not in the same category as the deferred delivery of entitlement water, the Project also was obligated, as of December 31, 1972, to deliver an additional 179,454 acre-feet of repayment water prior to 1985 to Buena Vista Farms, Incorporated, and Buena Vista Water Storage District.)

Surplus Water Deliveries in 1972. During the year, two contractors requested total surplus water deliveries which would be in excess of the differences between their 1972 annual entitlements and their maximum annual entitlements (Tulare Lake Basin Water Storage District and Oak Flat Water District). In accordance with interim 1972 policy concerning delivery of such excess surplus water, the two were required to increase their 1972 entitlements under the wet weather provisions of their contracts. Under such provisions, the entitlement increases will be off-

set by future entitlement decreases during years of above-average local water supply.

The 1972 entitlement for Tulare Lake Basin Water Storage District was increased from 36,700 acre-feet to 110,000 acre-feet, its maximum annual entitlement. Of the 142,542 acre-feet of surplus water delivered to Tulare, 69,242 acre-feet were permitted by the increase of entitlement. Oak Flat Water District was required to increase its 1972 entitlement from 2,900 acre-feet to 5,366 acre-feet, 334 acre-feet less than its maximum annual entitlement.

Project Water Delivery Plans

On October 1, 1972, long-term contractors submitted projections of future project water needs for the six-year period 1973 through 1978. The schedules indicate that the contractors anticipate a total need for 1,683,017 acre-feet of entitlement water during 1978.

Notices concerning power purchases for pumping 1978 entitlement water were based on the contractors' anticipated needs as outlined above. If actual amounts of entitlement water eventually delivered in 1978 are greater than estimated, the Department may be required to purchase additional power at unit costs higher than power scheduled six years in advance. Conversely, if the amounts eventually delivered are less than estimated, the Department may have made a commitment to purchase unneeded power.

Summarized in the tabulation below are the total annual amounts of entitlement water deliveries requested by the contractors during the next six years based on October 1, 1972 submittals and the corresponding amounts of previous submittals. As shown, estimated project water needs have been increasing since projections submitted on October 1, 1970.

Requests Submitted October 1:	For Delivery of Entitlements During:					
	1973	1974	1975	1976	1977	1978
	(in acre-feet)					
1972	923,945	1,059,575	1,283,915	1,459,955	1,576,936	1,683,017
1971	837,980	1,017,870	1,160,750	1,321,730	1,480,251	
1970	805,180	916,950	1,010,630	1,128,815		
1969	930,220	992,490	1,112,320			
1968 *(a*	986,700					
Contract Amounts	984,700	1,146,650	1,311,260	1,488,870	1,667,321	1,845,872

a) Only 5-year requests were submitted in 1968.

Surplus Water Deliveries in 1973. Contractor requests submitted on October 1, 1972 included 606,345 acre-feet for surplus water deliveries during 1973. The Department estimates that there will be more than sufficient supply to satisfy these requests during 1973.

Since 1968, the Department has been working with the contractors on a standard contract amendment which would combine and simplify the existing provisions regarding surplus water. One of the objectives during the five years of negotiations was the development of a surplus water scheduling procedure which would be correlated with runoff forecast —based on snow surveys generally conducted on the first of February, March, and April of each year. Such a procedure should lessen the likelihood of future repetitions of the 1972 situation whereby actual surplus water deliveries exceeded original schedules by over one-third. Thus, project plans could be made on a more accurate basis with resulting economies of operation.

In August 1972, it was decided to initiate the proposed scheduling procedure on a trial basis for a period beginning May 1, 1973. As of December 31, 1972, surplus water delivery schedules had been established only for the four-month period January 1, 1973 through April 30, 1973—totaling 168,090 acre-feet for eight long-term contractors. These four-month deliveries will be made under extensions of existing one-year contracts originally executed in 1968. As of the end of 1972, negotiations were under way to develop a trial contract to cover service after May 1, 1973.

Pursuant to agreements with Buena Vista Farms, Incorporated, and Buena Vista Water Storage District, the agencies submitted total requests for repayment water deliveries of 32,900 acre-feet during 1973. Schedules covering only the first four months of 1973 were established, covering 6,400 acre-feet. Schedules covering the remainder of 1973 will be issued on about May 1, 1973, along with surplus water delivery schedules.

Contract Amendments

A total of 236 amendments to the 31 long-term contracts, summarized in Figure 6, had been executed as of December 31, 1972. Forty-eight amendments were executed during 1972, as follows:

An amendment to the contract with Alameda County Water District (No. 6) which establishes the maximum delivery to the District from the South Bay Aqueduct between Vallecitos Turnout and Alameda-Bayside Turnout at 16 cubic feet per second and 8,775 acre-feet annually.

An amendment to the contract with Santa Clara County Flood Control and Water District (No. 9) which establishes the storage capacity in Lake Del Valle associated with service to the District at 9,536 acre-feet.

An amendment to eight contracts which provides that the power credit, surcharge, and surcharge credit provisions shall not apply to 1971 project water deliveries: County of Butte (No. 4), Plumas County Flood Control and Water Conservation District (No. 7), Alameda County Flood Control and Water Conservation District (No. 10), Alameda County Water District (No. 8), Santa Clara County Flood Control and Water District (No. 11), County of Kings (No. 5), Hacienda Water District (No. 8), and Tulare Lake Basin Water Storage District (No. 8). The other five of the 13 contractors who received project water in 1971 signed the amendment in 1971 (see page 29, Bulletin 132-72).

An amendment to three contracts which defers the inclusion in Delta Water Charge determinations of projected construction and operation costs of "additional project conservation facilities" and "supplemental conservation facilities" until the State first incurs major construction costs for such facilities: County of Kings (No. 4), Santa Barbara County Flood Control and Water Conservation District (No. 5), and Ventura County Flood Control District (No. 4). Twenty-five contractors signed this amendment in 1971 (see pages 28 and 29, Bulletin 132-72).

An amendment to the contract with Tulare Lake Basin Water Storage District (No. 9) which increases the District's annual entitlement for 1972 from 36,700 acre-feet to 110,000 acre-feet (see preceding section on "Water Deliveries in 1972").

- An amendment to the contract with The Metropolitan Water District of Southern California (No. 12) which prohibits the State from making any other contracts to supply water for use within the boundaries of the District or to authorize any other contractor to supply project water for use outside of its boundaries and within those of the District without the District's consent. (See Chapter I, "Pending Actions", regarding a court action brought by San Bernardino Valley Municipal Water District concerning this amendment.)
- An amendment to 23 contracts which permanently deletes the surcharge, surcharge credit, and power credit provisions: County of Butte (No. 5), Napa County Flood Control and Water Conservation District (No. 6), Santa Clara County Flood Control and Water District (No. 12), County of Kings (No. 6), Devil's Den Water District (No. 10), Dudley Ridge Water District (No. 11), Empire West Side Irrigation District (No. 9), Hacienda Water District (No. 9), Kern County Water Agency (No. 10), Oak Flat Water District (No. 9), Tulare Lake Basin Water Storage District (No. 10), Santa Barbara County Flood Control and Water Conservation District (No. 6), Antelope Valley-East Kern Water Agency (No. 8), Castaic Lake Water Agency (No. 7), Coachella Valley County Water District (No. 6), Crestline-Lake Arrowhead Water Agency (No. 8), Desert Water Agency (No. 6), Mojave Water Agency (No. 7), Palmdale Irrigation District (No. 6), San Bernardino Valley Municipal Water District (No. 7), San Gabriel Valley Municipal Water District (No. 7), San Gorgonio Pass Water Agency (No. 7), and The Metropolitan Water District of Southern California (No. 13).
- An amendment to 10 contracts which provides options for amortizing certain adjustments of Transportation Charges: Kern County Water Agency (No. 11), Oak Flat Water District (No. 10), Antelope Valley-East Kern Water Agency (No. 9), Castaic Lake Water Agency (No. 8), Crestline-Lake Arrowhead Water Agency (No. 9), Desert Water Agency (No. 7), Palmdale Irrigation District (No. 7), San Bernardino Valley Municipal Water District (No. 8), San Gabriel Valley Municipal Water District (No. 8), and The Metropolitan Water District of Southern California (No. 14).

In addition to the above, the following 36 amendments were pending as of December 31, 1972:

An amendment which would provide options for amortizing certain adjustments of Transportation Charges to 19 contracts of all agencies not listed

Figure 6: WATER SUPPLY CONTRACT AMENDMENTS AS OF DECEMBER 31, 1972

Contracting Agency	Minimum Project Yield Increased	Delta Water Charge, "Eel" Costs Delayed			Project Interest Rate Modified	Surcharge and Surcharge Credit Provisions						"Wet Weather" Provisions Added	"A & R" Surplus Water Provisions		Turnout Construction by Agency	Peaking Service		Annual Entitlements Revised	Excess Capacity Purchased	Article 28 Revised	Special Conditions
		1970	1971	1972 till construction		Added	Revised	Moratorium Declared Thru 1969	Moratorium Declared 1970	Moratorium Declared 1971	Deleted		Added	Revised		Increased	Decreased				
FEATHER RIVER AREA																					
City of Yuba City	1						1							1				1			
County of Butte	1	3P	3P	3P	3P		1	2		4	5			1							
Plumas County Flood Control and Water Conservation District	1	3	5	6	3		1	2	4	7				1							
NORTH BAY AREA																					
Napa County Flood Control and Water Conservation District	1	3	4	5	3		1				6			1							1,2
Solano County Flood Control and Water Conservation District	1	2			2		1							1		1		1			
SOUTH BAY AREA																					
Alameda County Flood Control and Water Conservation District, Zone 7	2	6	8	9	6	2		5	7	10		1		2	3			1,4			1
Alameda County Water District	1	4	5	7	4	1		3		8		S	1		2						1,6
Santa Clara County Flood Control and Water District	2	6	8	10	6	2		5	7	11	12	1	1	2	3			1,4			1,9
SAN JOAQUIN VALLEY AREA																					
County of Kings		2	3	4	2			1		5	6	S	S								
Devil's Den Water District	1	5	7	8	5			4	6	9	10			1				1,3			2
Dudley Ridge Water District	1	6	8	9	6			5	7	10	11			1				1,2 3,4			
Empire West Side Irrigation District	1	4	6	7	4			3	5	8	9	S		1				2			
Hacienda Water District	1	4	6	7	4			3	5	8	9	S		1				2			7
Kern County Water Agency	1	4	6	8	4			3	5	9	10			1				1,2		11	7
Oak Flat Water District		3	5	6	3			2	4	7	9	S	S		1			8P		10	
Tulare Lake Basin Water Storage District	2	5	6	7	5			4		8	10	S		2				1,3 9			
CENTRAL COASTAL AREA																					
San Luis Obispo County Flood Control and Water Conservation District	2	3	4	5	3	1	2						1	2							
Santa Barbara County Flood Control and Water Conservation District	2	3	4	5	3	1	2				6		1	2				2			
SOUTHERN CALIFORNIA AREA																					
Antelope Valley-East Kern Water Agency	1	5	6	7	5	1					8		1			3	2	1	4	9	2,3 4
Castaic Lake Water Agency	2	4	5	6	4	1	2				7		1	2		2		2,3		8	
Coachella Valley County Water District	2	3	4	5	3	1	2				6		1	2				2			
Crestline-Lake Arrowhead Water Agency	2	5	6	7	5	1	2				8		1	2	4	3		2		9	
Desert Water Agency	2	3	4	5	3	1	2				6		1	2				2		7	
Littlerock Creek Irrigation District	2	3	4	5	3	1	2						1	2				2			
Mojave Water Agency	2	4	5	6	4	1	2				7		1	2			3	2			3
Palmdale Irrigation District	2	3	4	5	3	1	2				6		1	2				2		7	
San Bernardino Valley Municipal Water District	2	4	5	6	4	1	2				7		1	2				1,2 3		8	
San Gabriel Valley Municipal Water District	2	4	5	6	4	1	2				7		1	2		2		2	3	8	
San Gorgonio Pass Water Agency	2	4	5	6	4	1	2				7		1	2		2		2			2,3
The Metropolitan Water District of Southern California	1	9	10	11	9	1					13		1					1,3 8V	2,6 7	14	(a
Ventura County Flood Control District	1	2	3	4	2		1							1							

P = Pending as of December 31, 1972.
S = Special provisions of basic contract.

V = Amendment voided by subsequent actions.
a) Amendment Numbers 2, 3, 4, 5, 7, 8V, 12.

above for this amendment, excluding County of Butte and City of Yuba City.

An amendment to 8 contracts which would permanently delete provisions pertaining to the surcharge, surcharge credit, and power credit: City of Yuba City, Plumas County Flood Control and Water Conservation District, Solano County Flood Control and Water Conservation District, Alameda County Flood Control and Water Conservation District, Alameda County Water District, San Luis Obispo County Flood Control and Water Conservation District, Littlerock Creek Irrigation District, and Ventura County Flood Control District.

An amendment to contracts with City of Yuba City and County of Butte concerning calculation of the Delta Water Charge and the project interest rate.

An amendment to the contract with Solano County Flood Control and Water Conservation District concerning calculation of the Delta Water Charge.

Amendments to five contracts reducing 1972 entitlements because of the inoperative status of certain project facilities during portions of 1972: Castaic Lake Water Agency, Crestline-Lake Arrowhead Water Agency, San Bernardino Valley Municipal Water District, San Gabriel Valley Municipal Water District, and The Metropolitan Water District of Southern California (see preceding section on "Water Deliveries in 1972").

An amendment increasing the 1972 entitlement of the Oak Flat Water District (see preceding section on "Water Deliveries in 1972").

South Bay Aqueduct Proportionate Use. Contract amendments executed in 1972 settled special problems regarding proportionate-use calculations for the South Bay Aqueduct. Those problems concerned the potential water deliveries to be associated with currently uncontracted-for capacity in reaches downstream from Lake Del Valle. (Sufficient aqueduct capacity is available to deliver 22,000 acre-feet annually in addition to the maximum annual entitlements of the three South San Francisco Bay contractors.) While the Department's previous procedures were based upon water quantities contemplated during original aqueduct design, subsequent shifts in delivery points and changes in contracted-for service resulted in potential delivery quantities which vary erratically by respective reaches.

Under the amendments, the principal changes from previous procedures are as follows:

Use of Lake Del Valle capacity for regulating the entitlements of Santa Clara County Flood Control and Water District will be increased by 600 acre-feet. Such use reserved for entitlements of a future contractor will be reduced by a like amount.

- Alameda County Water District's entitlement in the reach between Vallecitos Turnout and the Alameda-Bayside Turnout will be increased by 3,775 acre-feet.
- All capacity in reaches between Lake Del Valle and Alameda-Bayside Turnout will have associated annual water quantities corresponding to deliveries of 11 percent during the peak month.

With completion of the amendments, proportionate-use factors for the South Bay Aqueduct are established on mutually agreeable bases, including the projectwide criteria set forth in Settlement Letter No. 3 (see page 68, Bulletin 132-67). Capital repayments and project operating revenues will not be affected during the Project's critical financial period by these amendments.

Elimination of Surcharge Provisions. As advocated by the water supply contractors, an amendment to all 31 contracts was proposed during 1972 which would delete all provisions concerning the power credit, the surcharge, and the surcharge credit.

The power credit was initially established at $2 per acre-foot by Article 30(b) of the Contracts. This amount was based on a very preliminary estimate of what the credit could amount to once powerplants associated with initial project conservation facilities were in operation. Article 30 also provides for redetermination of the credit to reflect increases or decreases in net power revenues from year to year once the facilities are operational. In 1972, sufficient information on the costs and revenues of the power operation was developed to make a redetermination practicable. The current estimate of the surcharge (unit power credit) is only about 15 percent of the original estimate—$0.30 per acre-foot.

An evaluation also was made of the costs of administering the power credit, surcharge, and surcharge credit provisions, and the net effect on recipients of the surcharge credit. Since the surcharge is considerably less than originally anticipated, it appears that many of the recipients (users of project water on nonexcess land) would be penalized rather than benefited—the portion of administrative costs that they would bear would exceed their share of the surcharge credits.

An amendment deleting the provisions was distributed for the contractors' consideration and execution in view of the possible adverse cost effect on many users, the complicated nature of the provisions, problems with the administration of the provisions, and considerable work volume for the State, the agencies, member units of the agencies, and individual water users.

Project financial analyses have never included potential revenues under the surcharge provisions. Since most of these revenues would have been returned to the contractors in the form of surcharge

credits and not retained by the State, the amendment would have an insignificant effect on project financing.

Options for Amortizing Adjustments of the Transportation Charge. The Contracts provide for an annual redetermination of all past and future Transportation Charges to each contractor, based on factors as then known. Many of these factors apply retroactively to all past Transportation Charges—such as the project interest rate, allocation factors, etc. Adjustments to compensate for indicated changes in the level of past charges have been applied as a "one-shot" in the next bill to be paid by the respective contractors.

During 1972, amendments were distributed offering certain options which could be exercised at any time by the respective contractors. As compared with the present "one-shot" adjustment procedure, exercise of these options would provide for one of the following:

1. For all contractors; total adjustments of all three components of the Transportation Charge would thereafter be amortized over one to five years—the length of period depending on the relative magnitude of the adjustments as compared with the last official projection submitted by the Department of charges for that year.

2. As an alternative for contractors putting project water to agricultural use, all adjustments of the capital cost component of the Transportation Charge would thereafter be amortized as a unit rate applied to future entitlements (in the same manner that such contractors repay allocated capital costs).

The optional approach of the amendment recognizes that the relative magnitude of variations differs among contractors, that contractors have differing financial capabilities, and that certain contractors would prefer to continue the "one-shot" adjustment procedure. The aspect of the amendment whereby an option once exercised would be applied thereafter is necessary to insure that project financing would not be penalized through a process of deferral of those "one-shot" adjustments tending to increase payments, and of immediate credit for those "one-shot" adjustments tending to decrease payments.

Since the projected effect of the amendment is to defer water charges and project revenues, financing would be adversely affected to a certain extent. Estimates are that if all contractors choose to elect the proposed options, total project revenues during the period through 1980 would be reduced by slightly less than $1 million.

As of the end of 1972, only Kern County Water Agency had elected to exercise an option under the amendment—and only in regard to agricultural-use water.

Surplus Water and Deferred Entitlements. Previous bulletins have reported efforts, initiated in 1968, to negotiate a form of amendment which would realign and simplify dual surplus water provisions of the Contracts (see pages 75 and 76, Bulletin 132-68). This proposal has been joined with a "deferred entitlements" amendment which would replace the special "wet weather" provisions, presently included in eight contracts, and would provide rights to future delivery of all entitlement water paid for but not delivered due to any reason. Negotiation of these two proposals, in turn, has been joined by consideration of a series of items concerning the calculation of water charges—including the allocation of pumping power costs among contractors.

Several negotiation meetings were held between the contractor representatives and the Department. While considerable progress has been made, and areas of differences more clearly identified, completion of these amendments will not be possible for some time. In the interim, the parties to the negotiation agreed to a trial of a surplus water service contract based on the concepts developed to date for the surplus water amendment (see the preceding section on "Project Water Delivery Plans").

Negotiation of Water Charge Settlements During 1972, the task force consisting of representatives of the State Water Contractors' Audit Committee, The Metropolitan Water District of Southern California, and the Department's Water Service Contract Cost Negotiations Committee (formerly, "Capital Cost Committee") met to discuss problems concerning the computation of charges. The frequency of meetings of the entire task force has decreased since responsibility for most of the work has been assumed by technical subcommittees and by parties to the negotiation of the surplus water and deferred entitlement amendments. Problem areas considered by the task force during 1972 included the following:

- *Allocation of Power Costs Among Contractors and Between Water Conservation and Water Transportation Functions.* Comparison of cost allocation methods was completed by the Department's staff and reviewed by the task force. Areas of concern were identified by task force members and efforts undertaken to develop a mutually acceptable package of contract revisions.
- *1968 Capital Costs Settlement.* Settlement Letter No. 6 was developed to cover contested capital costs incurred in 1968.

  1969 and 1970 Capital Costs Settlement. The task force gave the Technical Accounting Subcommittee the assignment of developing recommendations for a settlement of contested capital costs

incurred in 1969 and 1970. By year's end, the Department's staff had analyzed the contested capital costs and was preparing a report for consideration by the Subcommittee.

There are a number of issues remaining to be resolved. By Water Service Contractors Council Memo No. 767, August 9, 1972, the contractors were notified that they had until December 21, 1973, to file notices of contest and to pursue all remedies available to them on statements of charges submitted prior to such date—excepting charges covered by the five settlement letters and the concurrence letter (subject to correction of inaccuracies in the application thereof) referred to in the 1972 extension letter (see page 30, Bulletin 132-72), and also excepting the charges covered by the following:

1. The "Proportionate-Use of South Bay Aqueduct Reaches" settlement letter, sent by the Director to the South San Francisco Bay contractors on March 16, 1971.
2. The "1968 Capital Costs" settlement letter, sent by the Director to all contractors on March 21, 1972, covering certain capital costs incurred during 1968.

1973-74 Budget Review In order to reduce the magnitude of costs contested by the contractors, a regular procedure was established in 1968 by which the Department's expenditure plans for the Project can be formally presented to the contractors through the California Water Commission (see pages 27 and 28, Bulletin 132-69).

As compared with previous reviews, the contractors' examination of the Department's proposed 1973-74 project budget was enhanced by early transmittal of preliminary program statements to the contractors, thus allowing a more productive initial meeting with the Department's staff, on August 18, 1973, and eliminating the need for follow-up meetings.

The State Water Project Budget Review Committee of the California Water Commission met with representatives of the contractors on November 2, 1972, to review their comments on the budget. By report dated November 3, 1972, the Committee submitted its comments to the full Commission. The Department's replies to these comments are contained in the Director's December 13, 1972 letter to the Chairman of the Commission and are summarized below:

Special Engineering Analyses and Criteria Development. This two-year study concerns the adequacy of anchorages for electrical and mechanical equipment. The need for this design review results from unprecedented vertical motions experienced during the 1971 Sylmar Earthquake. The Department will advise the contractors of the results of this study prior to any expenditures for major construction modifications.

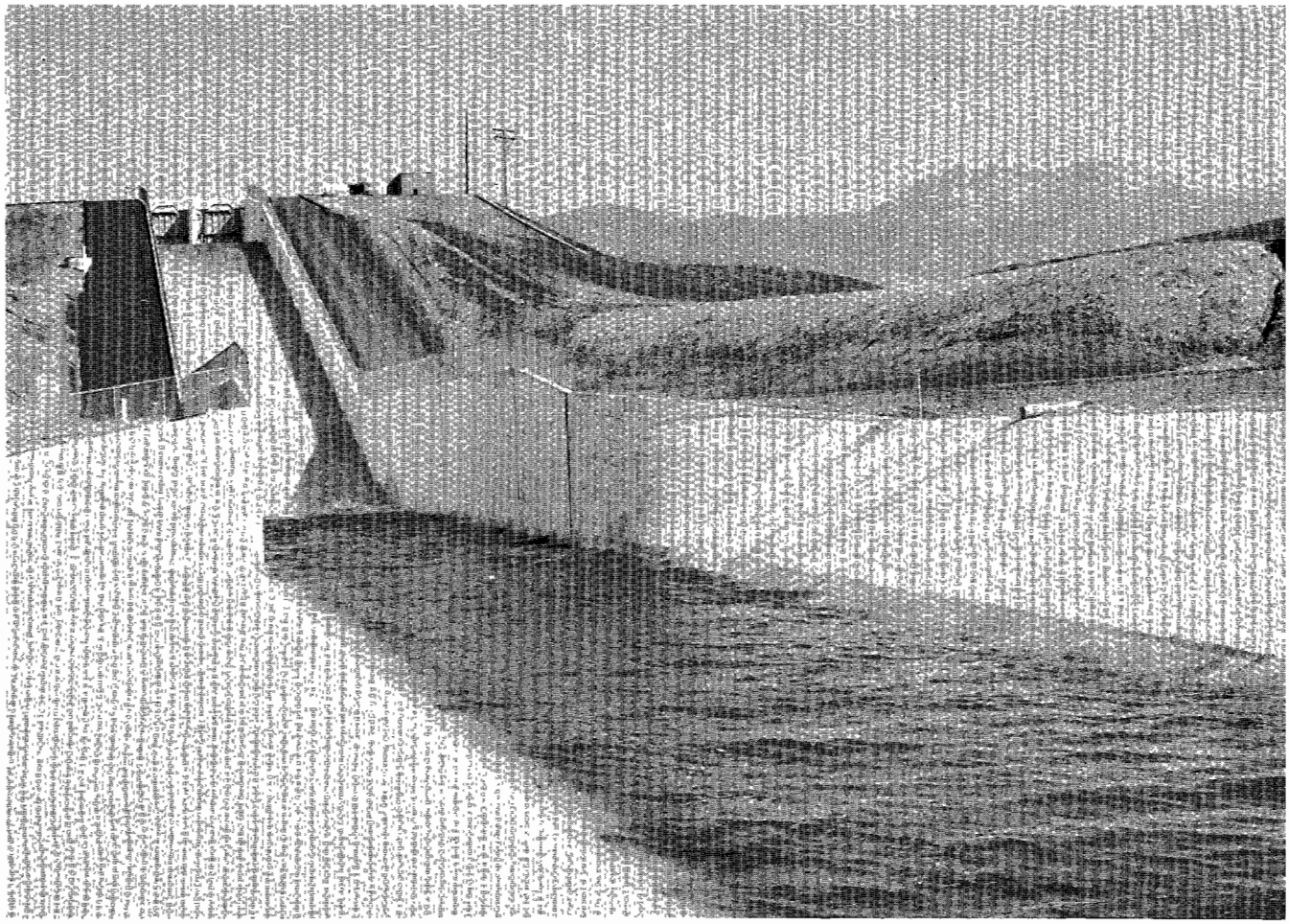
- *Piru Creek Project.* The Department will develop a plan to resolve any charge inequities simultaneously with the completion of contracts and other documents for this project.
- *Delta Water Quality Monitoring.* While the Bureau of Reclamation has been carrying an appropriate share of these activities, there is no way to guarantee the level of future federal funding. However, the Department will continue to work with the Bureau to develop a coordinated program whereby each agency assumes a proper share.
- *Cross-Valley Canal.* The Department does not believe it appropriate to finance a portion of this program from the General Fund since the program is for the benefit of the State Water Project and the Central Valley Project—federal funds covering the latter project's share.
- *Waste Water Reclamation, Weather Modification, and Saline Water Conversion.* The Department will consult with the contractors before proceeding with any such developments financed by project funds. In the meantime, the portion of study costs financed by project funds will be treated as nonreimbursable by the contractors.
- *Property Reutilization and Disposal.* The Department believes that the four-year disposal schedule is realistic and economical, but will strive to accelerate the process, where possible.

Implementation of Additional Service

By the end of 1972, the California Aqueduct reaches between Silverwood Lake and Barton Road on the Santa Ana Valley Pipeline were declared ready to deliver project water. Under Article 29(c) of the Contracts, all future reimbursable minimum operations, maintenance, power, and replacement costs incurred for these reaches will be returned annually to the State through contractor payments of the minimum OMP&R component, rather than amortized through payments of the capital cost component.

Through 1972, the contractors had spent about $700 million in construction of their own conveyance facilities to handle local distribution of project water. They will have spent almost $2 billion by the time their systems are complete. The legislature has made available $8 million to assist in the financing of such construction for specified agencies (see page 1, Bul-

letin 132-72). By letters dated July 10, 1972, the Department sent application forms under this assistance program to all eligible agencies. By September 2, 1972, the Department had received three loan commitment applications and eight construction loan applications—in a total amount exceeding the $8 million available. Since all applicants are member units of the Kern County Water Agency, comments were requested from the Agency by the Director's November 13, 1972 letter. As of the end of 1972, the Department was awaiting the Agency's response.



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Power Contracts Management

In May 1972, the Department's Power Office was reestablished with the overall project objectives of providing for (1) pumping power at lowest possible cost and (2) optimum development of power generating potential.

In addition to power recovery generation within the aqueduct system, the Project presently has three primary sources of power. These sources are Canadian Entitlement, Bonneville Power Administration, and California Suppliers. Unit power rates for Canadian Entitlement and California Suppliers' power are fixed until March 31, 1983. Bonneville Power Administration's rates are subject to change in 1974 and every five years thereafter.

Even though present purchase contracts provide for power at very low rates, continuing effort is required to further improve the Project's overall power situation. Negotiation on the following agreements was completed in 1972:

- Purchase agreement with California Suppliers for interruptible onpeak energy to permit continuous pumping required because of operating problems with A. D. Edmonston Pumping Plant units.
- Agreement with Pacific Gas and Electric Company permitting the Company's use of the spare portion of the Project's 230-kilovolt bus line to Table Mountain. In exchange, the Company will perform routine maintenance on the line, without charge.

  Trust agreement under which the Bonneville Power Administrator may make nonfederal Northwest energy available to California utilities.

Agreement with the City of Los Angeles Department of Water and Power and the Southern California Edison Company for the utilities' purchase of 40,000 kilowatts of the Project's share of Canadian Entitlement power during 1974.

The actual and projected annual use of energy by project pumping plants and generation by the project recovery plants is shown in Table 3. Projected energy quantities for 1973 include that required for delivery of both entitlement and surplus water. Quantities for the 1973-78 period are based on entitlement water delivery schedules submitted by the water contractors on October 1, 1972. Quantities beyond 1978 reflect the buildup in entitlement water deliveries anticipated by water contractors. Table 3 indicates that the total annual energy requirements will be about 13 billion kilowatt-hours when ultimate project water deliveries are made. Approximately 20 percent of the energy requirements will be met from project recovery generation. The remaining energy requirements must be obtained from other sources.

Figure 7 graphically illustrates the future annual amounts of onpeak and offpeak energy estimated to be required by project pumping plants. Onpeak energy is utilized between 7 a.m. and 10 p.m. on weekdays and from 1 p.m. to 10 p.m. on Saturdays, while offpeak energy is used during the remainder of the time. Since onpeak power is more expensive than offpeak power, the Project is operated so as to minimize the amount of power required during onpeak periods. This is accomplished by maximizing project pumping during offpeak periods while maximizing project generation during onpeak periods.

Power costs are expected to increase substantially after March 1983 when Canadian Entitlement power will no longer be available and new rates will become effective under the Suppliers' Contract. Studies continued during 1972 concerning long-range power supplies for the Project. One of the more attractive alternative sources of power being studied is the cooperative development of a nuclear powerplant by the Department and one or more utilities. Work was also begun to determine the future requirements and design considerations for the proposed second Hyatt-Thermalito Powerplants. This study considers both the future market for low-capacity-factor power and the possibility of using the output of the Hyatt-Thermalito facilities as a power source for project pumping.

The Department has continued its participation in the Western Systems Coordinating Council. This activity provides information concerning the coordinated operation of over 40 electric utility systems in the western part of the United States and Canada. Information is also obtained concerning the utilities' long-range construction programs.

Figure 7: PROJECTED PUMPING ENERGY REQUIREMENTS

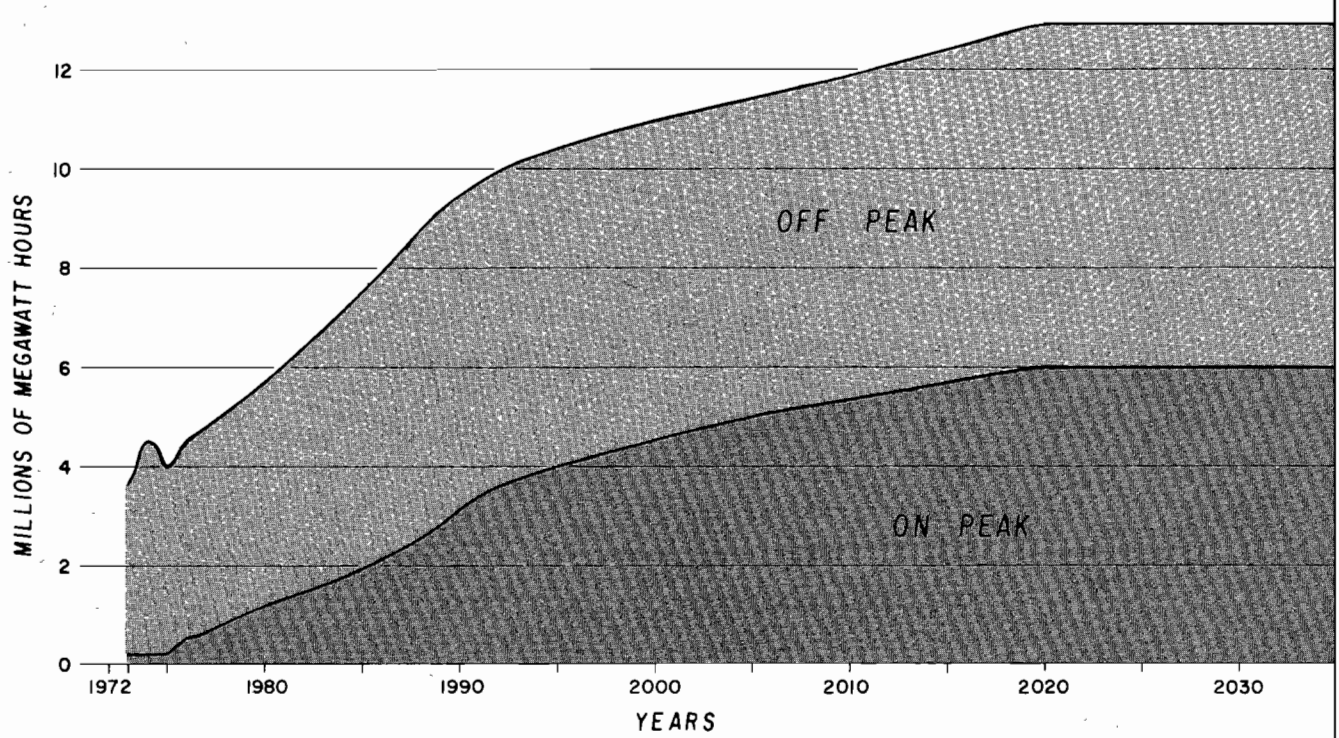


TABLE 3: ANNUAL PROJECT ENERGY

(in millions of Energy)

Calendar Year	North Bay Aqueduct Pumping Plants: Calhoun and Travis	North Bay Aqueduct Pumping Plants: Cordelia	Peripheral Canal Pumping Plant (a	South Bay Aqueduct Pumping Plants (b	California Aqueduct: Delta	California Aqueduct: San Luis	California Aqueduct: Dos Amigos	California Aqueduct: Buena Vista	California Aqueduct: Wheeler Ridge	California Aqueduct: Wind Gap	California Aqueduct: A. D. Edmonston
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Subtotal, Actual for 11 Years, 1962-1972	0	7	0	579	1,236	717	321	117	64	130	435
1973 (d)	0	3	0	119	548	100	237	218	198	425	1,388
1974	0	2	0	108	456	89	210	251	273	608	2,050
1975	0	2	0	110	461	121	198	220	235	523	1,750
3 Years, 1973-1975	0	7	0	337	1,465	310	645	689	706	1,556	5,188
1976	0	2	0	111	492	119	221	247	265	590	1,971
1977	0	3	0	113	558	148	237	261	281	624	2,083
1978	0	3	0	114	542	108	252	277	296	659	2,187
1979	0	4	0	123	604	176	253	310	322	721	2,462
1980	1	5	0	125	663	248	264	313	322	721	2,456
1981	1	6	0	128	658	204	284	338	348	777	2,647
1982	1	6	0	131	741	287	297	349	358	796	2,709
1983	1	6	0	133	731	119	324	388	398	885	3,012
1984	2	7	0	136	839	278	334	394	403	896	3,031
1985	2	7	0	139	824	225	351	413	422	937	3,164
10 Years, 1976-1985	8	49	0	1,253	6,652	1,912	2,817	3,290	3,415	7,606	25,722
10 Years, 1986-1995	49	100	0	1,572	10,675	2,911	4,472	5,426	5,599	12,475	41,975
10 Years, 1996-2005	77	139	0	1,700	11,896	2,984	5,027	6,289	6,553	14,649	49,449
10 Years, 2006-2015	80	140	0	1,700	12,616	3,068	5,334	6,833	7,163	16,050	54,333
10 Years, 2016-2025	80	140	0	1,688	13,357	3,055	5,646	7,345	7,740	17,335	58,448
10 Years, 2026-2035	80	140	0	1,680	13,550	3,130	5,730	7,460	7,870	17,610	59,160

a) Current assumptions are that the Canal would be a state-only facility. The addition of a pumping plant would increase the Canal's capacity and permit participation by the federal Central Valley Project.

b) Includes South Bay and Del Valle Pumping Plants and, during 1962 thru 1967, an interim pumping plant which pumped a supply provided by the federal Delta-Mendota Canal.

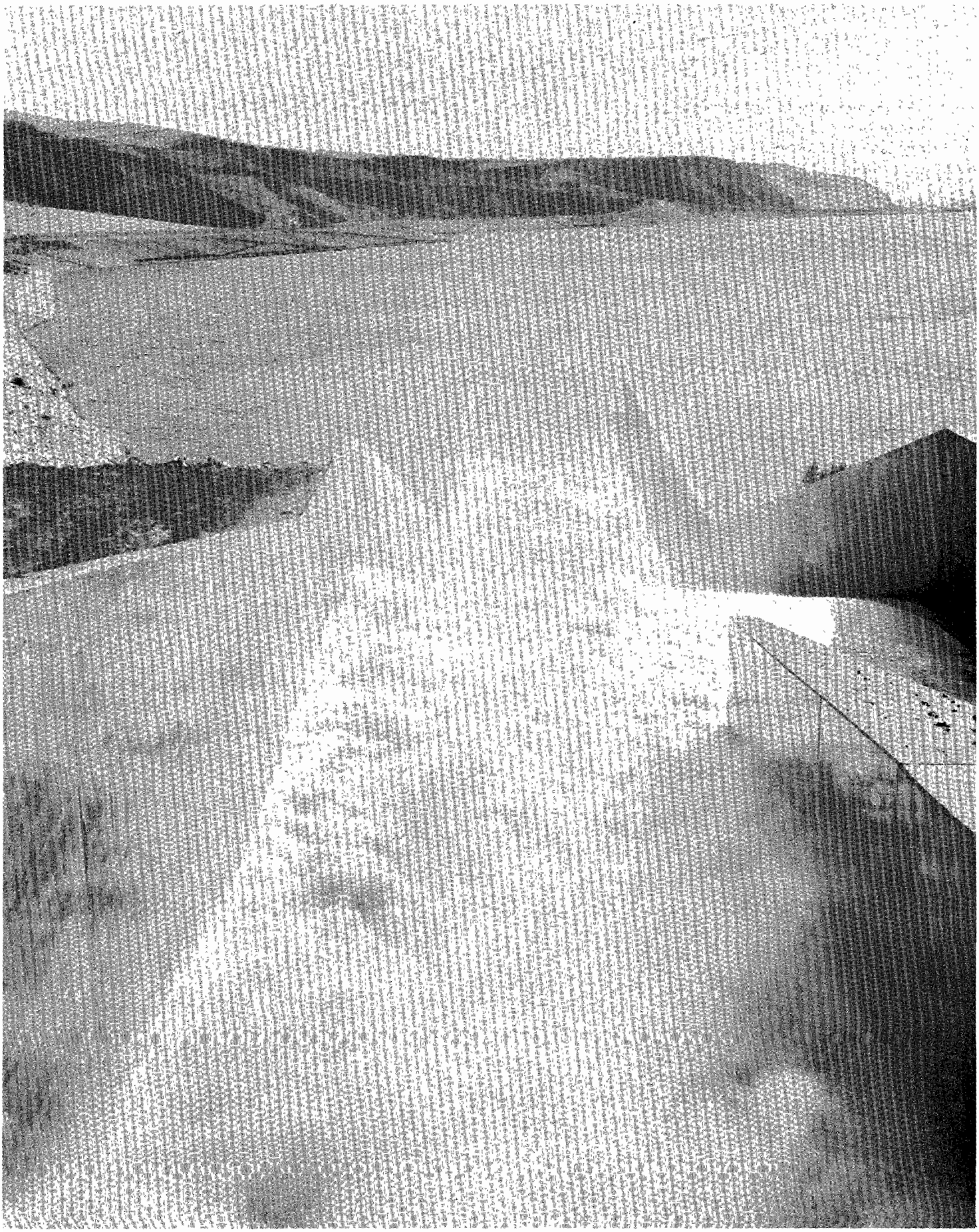
REQUIREMENTS FOR PUMPING

kilowatt-hours)

Requirements					Energy Generation					Net Energy Requirements	
Pumping Plants					California Aqueduct Powerplants						
Pear blossom	Oso	Las Perillas and Badger Hill	Devil's Den, Sawtooth, and Polonio	Total	San Luis	Devil Canyon	Castaic (c	Luis Obispo	Total	Col (16) minus Col (21)	Calendar Year
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	
33	43	127	0	3,809	261	1	88	0	350	3,459	11 Years, 1962-1972
182	103	36	0	3,557	163	260	179	0	602	2,955	1973 (d)
262	151	23	0	4,483	86	404	424	0	914	3,569	1974
314	86	24	0	4,044	75	504	275	0	854	3,190	1975
758	340	83	0	12,084	324	1,168	878	0	2,370	9,714	3 Years, 1973-1975
402	76	26	0	4,522	86	678	243	0	1,007	3,515	1976
408	87	28	0	4,831	89	660	281	0	1,030	3,801	1977
437	87	30	0	4,992	97	706	282	0	1,085	3,907	1978
455	92	34	0	5,556	169	756	317	0	1,242	4,314	1979
436	97	39	26	5,716	149	727	334	5	1,215	4,501	1980
459	109	41	29	6,029	175	784	377	6	1,342	4,687	1981
479	106	44	34	6,338	166	800	366	7	1,339	4,999	1982
508	129	47	39	6,720	114	827	447	8	1,396	5,324	1983
510	128	49	46	7,053	166	808	446	9	1,429	5,624	1984
516	140	52	56	7,248	169	828	488	11	1,496	5,752	1985
4,610	1,051	390	230	59,005	1,380	7,574	3,581	46	12,581	46,424	10 Years, 1976-1985
4,762	2,734	635	1,081	94,466	1,765	7,089	9,503	213	18,570	75,896	10 Years, 1986-1195
4,938	3,442	725	1,686	109,554	1,924	7,326	11,889	353	21,492	88,062	10 Years, 1996-2005
4,959	4,004	760	1,920	118,960	1,871	7,371	13,762	410	23,414	95,546	10 Years, 2006-2015
5,404	4,330	760	1,926	127,254	1,719	8,204	14,657	410	24,990	102,264	10 Years, 2016-2025
5,730	4,290	760	1,930	129,120	1,700	8,770	14,570	410	25,450	103,670	10 Years, 2026-2035

c) The City of Los Angeles Department of Water and Power will construct and operate a 1,250,000-kilowatt Castaic Powerplant and will supply the Project with electric power and energy equivalent to the generation from a 213,984-kilowatt powerplant the State originally had planned to construct.

d) 1973 Entitlement and Surplus; 1974 and thereafter - Entitlement only.



Discharge from Castaic Dam into Castaic Lagoon
DWR 12310

CHAPTER IV. PROJECT OPERATIONS

The flexibility of project operations to cope with drought-year conditions, as well as with unexpected physical and managerial emergencies, successfully passed major tests in 1972. In addition, the Project assisted in a clean-up operation in the Delta and demonstrated the ability to satisfy uses not originally contemplated.

Operations Highlights During 1972

Operational highlights during 1972 were as follows:

First project water deliveries were made to customers south of the Tehachapis.

Water deliveries to project customers totaled 1,102,403 acre-feet—up 58 percent over 1971 deliveries. 1972 deliveries constituted 36 percent of the total 3,047,672 acre-feet which had been delivered since project operations began in 1962.

Water deliveries helped alleviate drought year conditions in project service areas.

Recreation use at project facilities totaled 1,971,200 recreation days—slightly less than the 2,085,900 recorded during 1971. (Inclement weather during the latter part of 1972 and the opening of additional nonproject reservoirs in Northern California and Nevada were the primary causes for the decrease.)

Initial recreation developments were opened for the first time to the public at Silverwood Lake, Castaic Lake, and Castaic Lagoon. Three additional fishing access sites were opened on the California Aqueduct in the San Joaquin Valley.

- A new recreation use of the Project was initiated —the California Aqueduct Bikeway, between Bethany Reservoir and O'Neill Forebay.
- A total of 1,867,000,000 kilowatt-hours of electric energy was generated at project powerplants—only about 56 percent of 1971 generation, reflecting reduced Feather River flows under drought-year conditions.
- Initial operations of Devil Canyon Powerplant began in December 1972.
- The Project passed a major managerial test when approximately two-thirds of the operations and maintenance personnel went on strike during four days in May 1972—the first labor strike called by California State Employees.
- The Project also passed a major operational test when the Andrus Island levee broke in June 1972, temporarily disrupting the salinity control barrier in the Delta.
- Project releases assisted in reestablishing the salinity control barrier and project pumping helped in restoring water quality in interior Delta channels to pre-break conditions.

1972 Water Supply Conditions

The vagaries of California's weather were vividly displayed during 1972.

In the Central Valley, the year began with a winter and early spring of record below-average precipitation, and evolved into a late spring and summer drought with the longest period of consecutive days of over 100-degree Fahrenheit temperatures in many locales. This was relieved by a fall of initially above-average precipitation, and, as a grand finale, the year ended with an unprecedented artic-type cold spell with 20-degree Fahrenheit temperatures and uncommon snows blanketing many valley-floor towns. Only widespread flooding was absent from 1972's weather repertoire in the role of a bad actor.

In Sacramento, January through March rainfall totaled 2.59 inches—the lowest for this three-month period since records began in 1878.

In Fresno, the maximum temperature of 90 degrees Fahrenheit on March 17 was the highest ever recorded on that date; no precipitation fell during March, the first time this has occurred since records began in 1878.

- In Los Angeles, January through March rainfall totaled 0.13 inches, an all-time low for this three-month period.
- In the watersheds feeding the major streams of the southern San Joaquin Valley, snow water content on April 1 was 25 percent of normal for the Kern River, 11 percent for the Tule River (the lowest in 42 years), 44 percent for the Kings River, and 30 percent for the Kaweah River (the second lowest in 42 years).
- All streams in California had less than normal runoff during the April through July period.
- Rainfall accumulation during October through mid-November was the greatest of record—95 years at Sacramento and 123 years at San Francisco.
- Central Valley areas experienced temperatures as low as 17 degrees Fahrenheit during December 9, 10, and 11. Considerable freeze damage occurred to crops—especially citrus.

December rainfall and runoff were below normal throughout the State.

As a result of below normal precipitation and warmer temperatures during February and March, plus relatively fog-free days, water use for irrigation was triggered earlier than usual in the San Joaquin Valley. Valley contractors increased their delivery requests from project aqueducts as the extent of the drought became evident—especially those served both by local surface sources and the Project.

Initial project deliveries to Southern California also helped alleviate an extreme drought being experienced in that area. For instance, The Metropolitan Water District of Southern California ran its Colorado River Aqueduct 25 percent over design capacity. Water in the District's aqueduct was only four to six inches from the top of canal sections as against 18 inches of freeboard originally designed. The District also sped up initial deliveries from the State Water Project and asked its member agencies to reduce water purchases wherever possible so that the District could reserve adequate storage in its reservoirs for emergencies. General Manager Frank Clinton of the District stated that the initial service of the State Water Project came just in time to stave off shortages:

> "If it were not for the new supply, we would have been very hard pressed to provide sufficient water at least for agricultural use in the Metropolitan Water District this year—principally in Orange, Riverside, and San Diego Counties.
>
> "These facts deny critics who contend the State Water Project is not needed. Without it we would be running out of water in a very few years, even for domestic use."

Delta Levee Break

On June 21, 1972, at about 1 a.m., a levee in the Sacramento-San Joaquin Delta broke from unknown causes. June 21 was the longest day of a hot summer in a drought year. The break occurred near high tide; but the tide was not as high as on previous days. One of the contributing factors may have been a very high wind which prevailed for several days. The water eroded a 300-foot gap in the levee and poured down into Andrus Island, some 20 feet below sea level. Within two days, over 150,000 acre-feet of water covered Andrus Island and adjoining Brannan Island, including the town of Isleton, leaving many people homeless and resulting in damages estimated at approximately $24 million.

Intrusion of salt water from Suisun Bay into the Delta also began with the levee failure. Fresh water inflow to the Delta, primarily from the Sacramento River, was not enough to flood Andrus and Brannan Islands as well as maintain a fresh water outflow from the Delta to Suisun Bay (i.e., to maintain a hydraulic barrier) and the deficiency had to be made up by inflow from Suisun Bay.

Within six hours after the original breach, State Water Project supply gates at Clifton Court Forebay were closed, and five of the federal Central Valley Project's six units at the Tracy Pumping Plant were turned off. These immediate measures were taken to increase the amount of fresh water within the Delta and to slow the rate of salts being brought in from Suisun Bay to the west. Also, within 10 days, over 200,000 acre-feet of fresh water had been released from federal storage and 100,000 acre-feet from Lake Oroville. By June 29, eight days after the levee break, estimated Delta outflows had increased from a pre-break flow of 4,500 cubic feet per second to a post-break flow of 12,000 cubic feet per second in an effort to move the salt back into the Bay. While the increased flows soon reestablished the hydraulic barrier to prevent further intrusion of salt water, they were largely ineffective for flushing out the salt sucked in by the break.

On July 1, the Corps of Engineers began restoring the levee; 24 days and 834,000 cubic yards of sand and rock later, the break was closed. Pumping to remove the flood waters was begun July 27 by the Andrus-Brannan Levee Maintenance District. The dewatering operation continued through the end of the year.

On June 30, the Bureau of Reclamation began bringing the Tracy Pumping Plant units back on line —the Plant resumed full operation on July 4. (State diversion into Clifton Court Forebay began, on a limited basis, on July 20.)

The State Water Project maintained the quality of its deliveries by first drawing water stored in Clifton Court Forebay and San Luis Reservoir and, later, by blending water pumped from the Delta with releases of high quality water stored in San Luis Reservoir (162,000 acre-feet) and Lake Del Valle (5,500 acre-feet). Deliveries of Delta water, beginning July 20, were initially limited to the South Bay Aqueduct—on July 23, the California Aqueduct south of Bethany Reservoir resumed operation.

By August 16, salinity conditions in the Delta were back to pre-break levels.

Estimates are that the salinity clean-up job, which took two months through increased upstream storage releases and by pumping trapped salt water into state and federal project canals (equivalent to an estimated 53,000 tons of salt), could have been accomplished in three weeks had the Peripheral Canal been in operation so that flushing flows could have been released at strategic locations within the Delta.

Strike of O&M Personnel

The operation of the Project also passed a major managerial test in 1972 with the first labor strike to be called by California State Employees. For four days in May, some 375 of the Project's operations and maintenance personnel were on strike, while more than 200 operations and maintenance employees stayed on the job—together with about 2,100 other employees of the Department. However, nonstriking supervisors and employees manned essential facilities and water delivery schedules were satisfied. Total water deliveries amounted to about 10,000 acre-feet during the strike period. Power production at Oroville was curtailed during the first two days because of equipment left inoperable by striking personnel but then was restored to meet full schedules.

Summary of 1972 Operations

Figure 8 presents a pictorial summary of project operations during 1972. Also shown on Figure 8 is the areal extent of each of the Project's five field divisions. Operations and maintenance activities during 1972 within each field division are described in following sections, together with maps of the project facilities and water contracting agencies.

Table 2 (Chapter III) presents the monthly amounts delivered during 1972 to each contracting agency. Table 4 presents summary data on the quality of water delivered during 1972 as measured at selective stations on the Project. Also shown in Table 4 are the corresponding monthly average objectives for maximum concentrations of constituents as set forth in long-term water supply contracts. (Note that the mineral analyses are based on one measurement each month, while the "objectives" are in terms of average conditions within a month.)

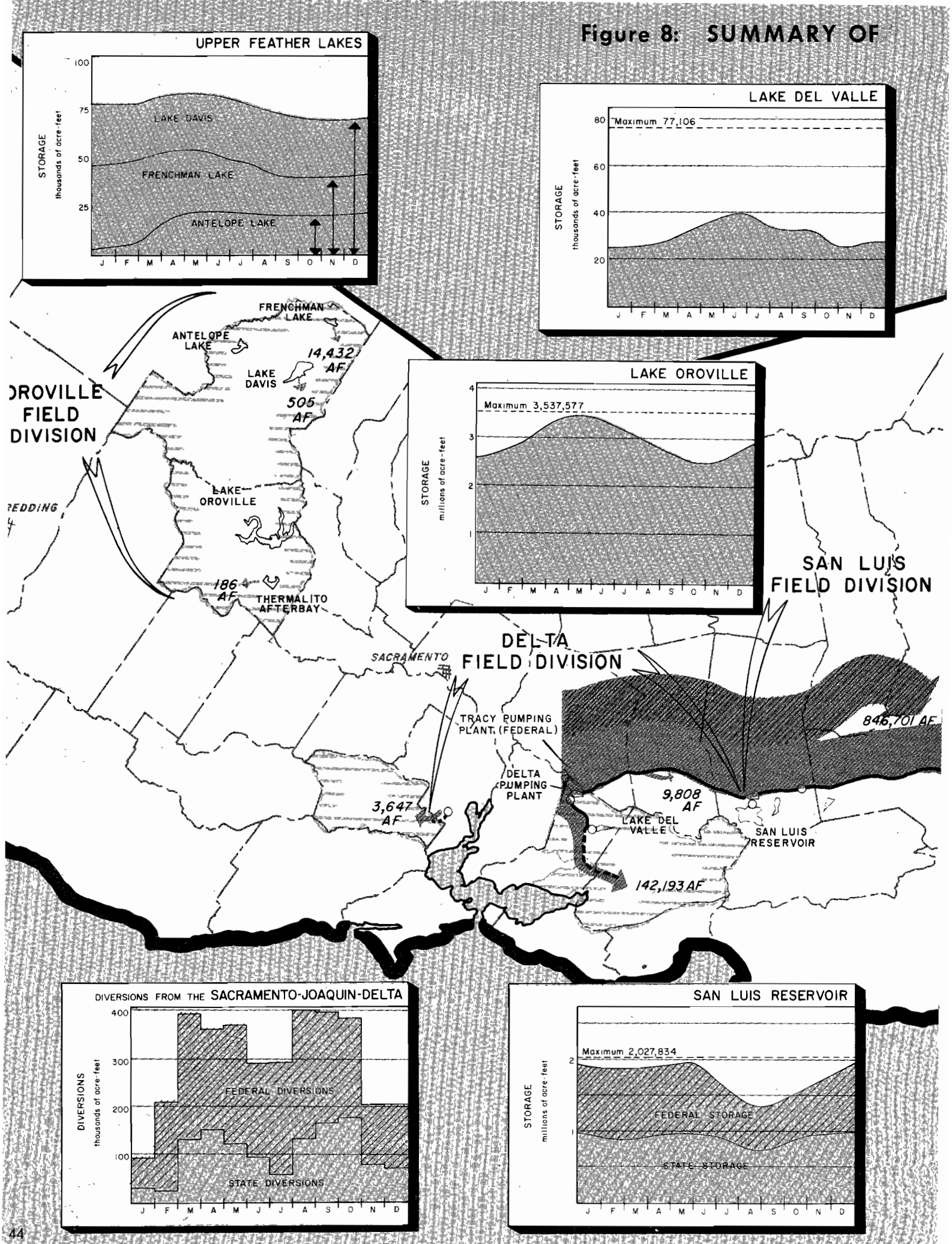
Project power operations, for each facility during each month of 1972, are summarized in Table 5.

TABLE 4: WATER QUALITY MEASUREMENTS AT SELECTIVE STATIONS

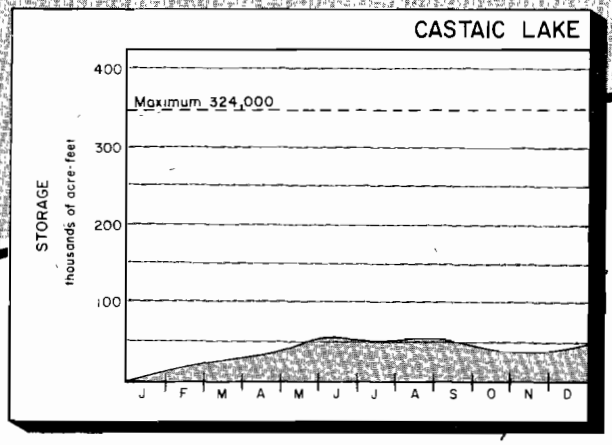
(in parts per million, unless otherwise noted)

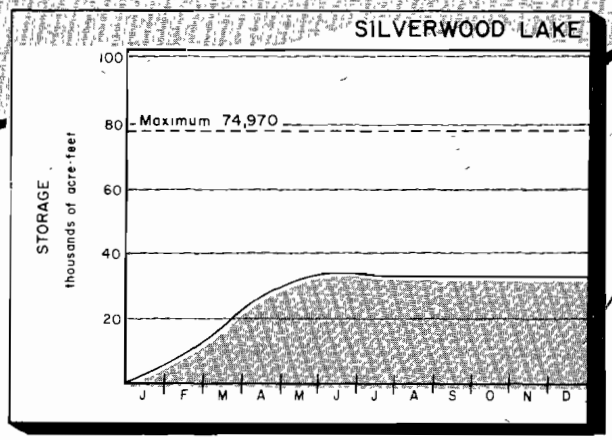
Station	Monthly Samples	Total Dissolved Solids	Total Hardness	Chlorides	Sulfates	Sodium (%)	Boron
Thermalito Afterbay, Outlet to Feather River	Minimum	40	34	0.5	0.3	14	0.0
	Average	52	36	1.3	2.2	17	0.0
	Maximum	74	38	1.8	4.4	19	0.1
Sacramento-San Joaquin Delta, Delta Pumping Plant	Minimum	129	70	28	16	38	0.0
	Average	240	98	68	37	49	0.2
	Maximum	359	140	141	79	61	0.3
South Bay Aqueduct, Santa Clara Terminal Facility	Minimum	130	68	28	17	35	0.1
	Average	239	104	57	39	46	0.2
	Maximum	345	140	102	76	59	0.3
California Aqueduct: Entrance to O'Neill Forebay	Minimum	93	61	20	14	35	0.0
	Average	223	90	60	34	49	0.1
	Maximum	370	142	113	81	62	0.3
Outlet from O'Neill Forebay	Minimum	135	70	27	18	39	0.0
	Average	236	99	60	39	49	0.2
	Maximum	381	140	94	83	56	0.3
Near Kettleman City	Minimum	166	75	34	19	41	0.1
	Average	244	101	65	40	50	0.2
	Maximum	316	125	96	67	58	0.2
Coastal Branch near Devil's Den	Minimum	147	72	24	20	39	0.1
	Average	231	99	60	37	48	0.2
	Maximum	325	128	84	67	57	0.3
Near Buena Vista Pumping Plant	Minimum	145	76	31	23	41	0.1
	Average	226	97	57	35	48	0.2
	Maximum	318	131	91	68	56	0.3
Monthly average quality objectives		440	180	110	110	50	0.6

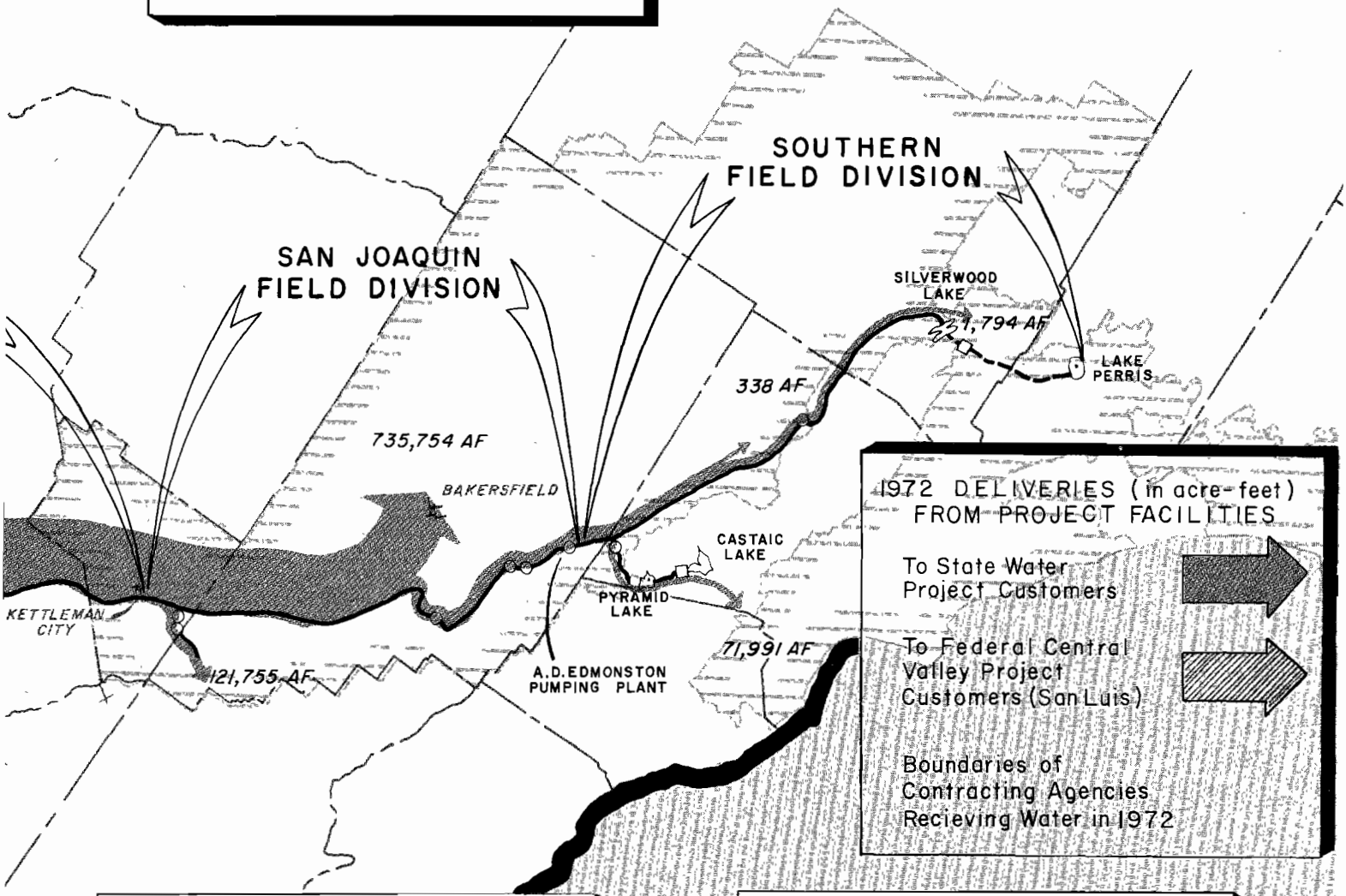
Figure 8: SUMMARY OF

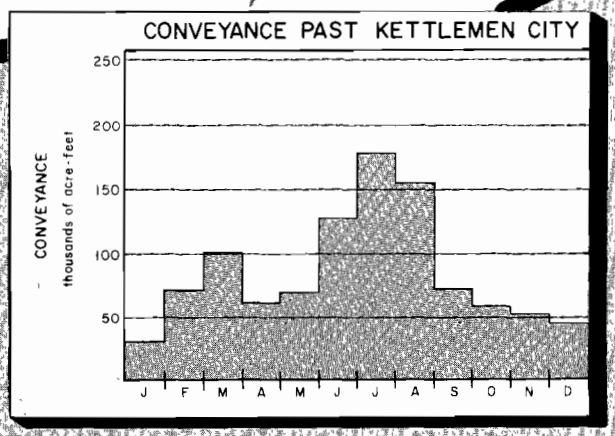


PROJECT WATER OPERATIONS, 1972









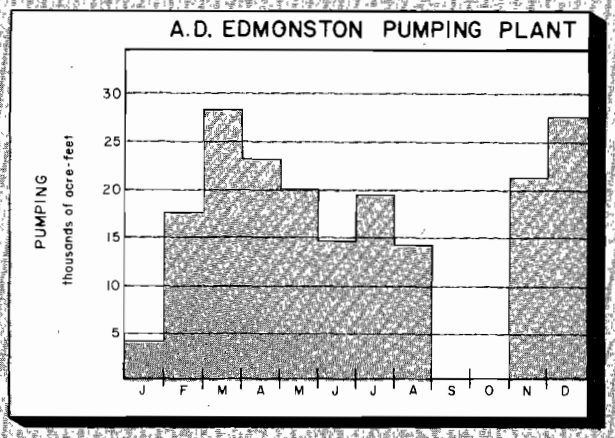


TABLE 5: MONTHLY POWER

(in millions of

Operations	Month					
	January	February	March	April	May	June
ENERGY GENERATED BY EDWARD HYATT & THERMALITO POWERPLANTS[a]						
Gross Generation	106.41	149.58	90.73	104.02	170.57	219.55
Powerplant Use and Pumpback Requirements	0.63	1.34	0.97	0.63	0.33	0.26
Delivered to California Power Pool Companies	105.78	148.24	89.76	103.39	170.24	219.29
ENERGY USED BY PROJECT PUMPING PLANTS 1972						
Interim (Cordelia)	0.31	0.28	0.22	0.06	0.01	0.00
South Bay	6.33	5.16	12.65	15.59	16.70	12.93
Del Valle	0.02	0.01	0.25	0.34	0.31	0.11
Delta	10.49	8.16	40.83	47.09	37.54	29.36
San Luis (State Share)	13.76	48.51	56.19	39.10	15.41	0
Dos Amigos (State Share)	3.84	9.82	14.19	8.71	10.07	17.73
Las Perillas	0.23	0.70	0.83	0.61	0.87	1.46
Badger Hill	0.52	1.85	2.23	1.60	2.31	3.83
Buena Vista	2.61	8.14	11.73	8.39	9.33	8.93
Wheeler Ridge	1.29	5.05	8.22	6.87	6.13	4.76
Wind Gap	2.56	11.19	18.29	15.07	13.17	9.84
A. D. Edmonston	8.71	38.50	61.94	51.13	44.15	32.30
Oso	0.82	2.93	4.43	4.04	4.80	3.96
Pearblossom	1.17	5.17	8.95	6.44	2.88	0.32
EHV Transmission Losses	0.51	0.64	0.83	0.82	0.84	0.82
Total	53.17	146.11	241.78	205.86	164.52	126.35
SOURCES OF ENERGY FOR PROJECT PUMPING PLANTS						
San Luis Pumping-Generating Plant (State Share)	12.42	41.11	25.57	2.29	3.82	17.63
Castaic Powerplant (State Share)	0.93	5.24	9.34	8.09	10.37	8.00
Devil Canyon Powerplant	0	0	0	0	0	0
Canadian Entitlement Power at Cal-Oregon Border	11.01	10.30	11.01	10.40	10.76	10.42
Bonneville Power Administration at Cal-Oregon Border	0	3.25	7.32	7.58	7.83	7.38
California "Suppliers"	28.93	85.83	188.54	177.50	131.74	82.49
LADWP[c]	0	0	0	0	0	0.47
Banked Energy Carried Over[b]	(0.38)		0	0	0	(0.04)
Banked Energy Withdrawn[b]	0.26	0.38	0	0	0	0
Total	53.17	146.11	241.78	205.86	164.52	126.35

a) Sold under terms of the Oroville-Thermalito Power Sale Contract, November 29, 1967.
b) Energy which was excess to project needs which was temporarily banked.

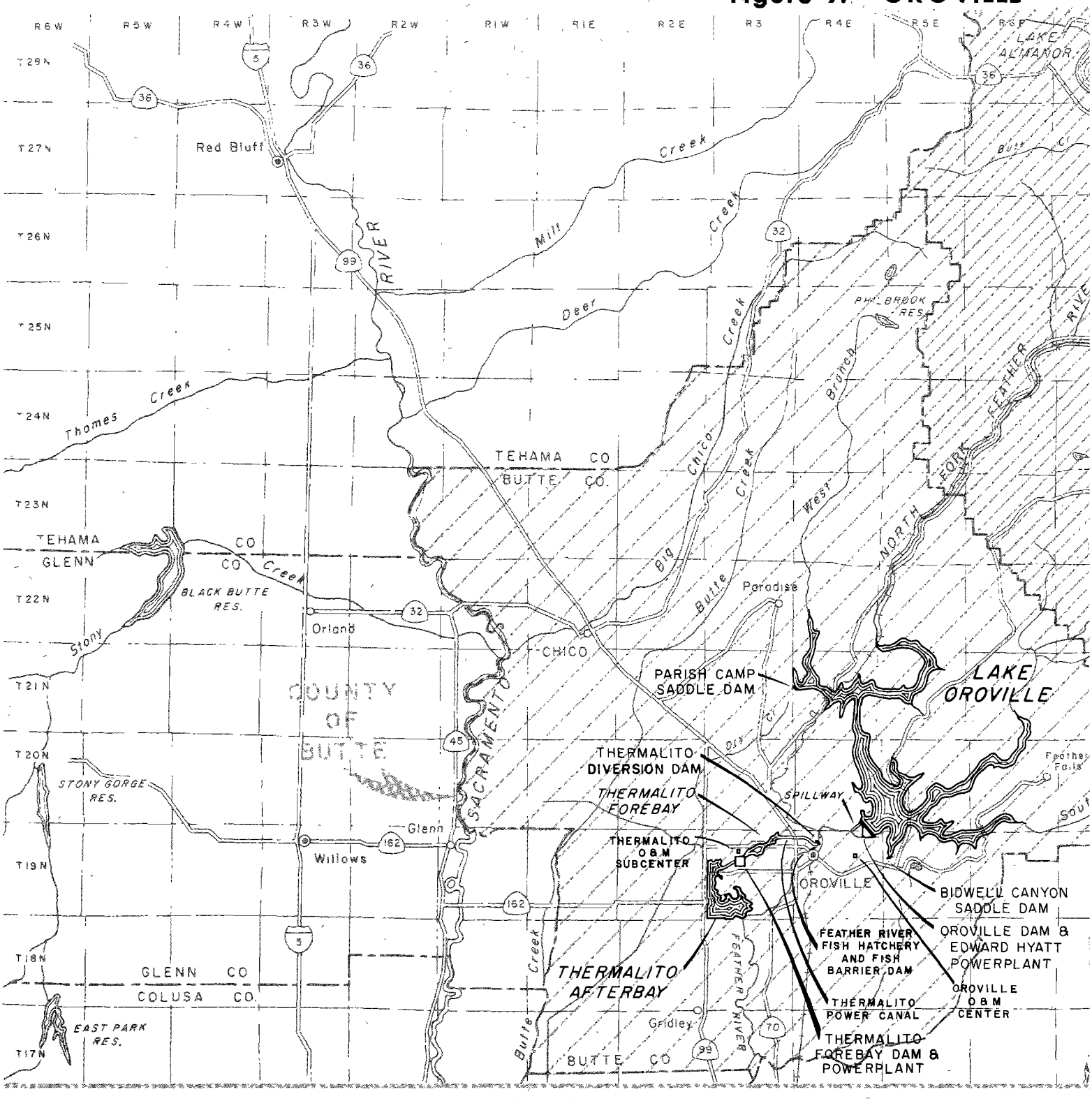
OPERATIONS IN 1972

kilowatt hours)

Month							Operations
July	August	September	October	November	December	Total	
							ENERGY GENERATED BY EDWARD HYATT & THERMALITO POWERPLANTS
206.19	235.62	142.55	90.11	56.74	86.25	1,658.32	Gross Generation
0.29	0.27	0.41	3.51	9.25	5.61	23.50	Powerplant Use and Pumpback Requirements
205.90	235.35	142.14	86.60	47.49	80.64	1,634.82	Delivered to California Power Pool Companies
							ENERGY USED BY PROJECT PUMPING PLANTS 1972
0.04	0.01	0.05	0.28	0.27	0.31	1.84	Interim (Cordelia)
8.83	13.26	9.91	5.60	6.89	7.64	121.49	South Bay
0.01	0.02	0.02	0.02	0.02	0.04	1.17	Del Valle
11.03	40.93	50.47	55.15	24.60	20.79	376.44	Delta
0	13.26	39.34	43.75	16.19	11.36	296.87	San Luis (State Share)
24.29	21.22	9.93	7.76	7.34	6.53	141.43	Dos Amigos (State Share)
1.88	1.89	0.63	0.21	0.09	0.26	9.66	Las Perillas
5.02	5.01	1.62	0.49	0.21	0.61	25.30	Badger Hill
11.32	8.35	1.82	1.28	5.85	7.57	85.32	Buena Vista
6.24	4.75	0.45	0.44	6.39	8.23	58.82	Wheeler Ridge
13.06	9.83	0.44	0.42	13.96	17.57	125.40	Wind Gap
43.14	31.18	0.29	0	48.54	63.13	423.01	A. D. Edmonston
5.10	3.31	0.03	0.02	4.54	7.49	41.47	Oso
0.27	1.67	0.29	0.38	3.34	1.57	32.45	Pearblossom
0.82	0.72	0.44	0.55	0.47	0.49	7.95	EHV Transmission Losses
131.05	155.41	115.73	116.35	138.70	153.59	1,748.62	Total
							SOURCES OF ENERGY FOR PROJECT PUMPING PLANTS
37.41	25.35	1.17	0	7.40	0.84	175.01	San Luis Pumping-Generating Plant (State Share)
10.14	9.40	0	0	8.45	17.74	87.70	Castaic Powerplant (State Share)
0	0	0	0	0	1.25	1.25	Devil Canyon Powerplant
10.76	10.77	9.49	11.71	10.42	10.76	127.81	Canadian Entitlement Power at Cal-Oregon Border
7.45	5.31	0	0	0	0	46.12	Bonneville Power Administration at Cal-Oregon Border
64.55	104.30	104.65	103.10	112.50	122.93	1,307.06	California "Suppliers"
0.86	0.12	0.42	1.54	0	0	3.41	LADWP[c]
(0.16)		0	0	(0.07)	0	(0.65)	Banked Energy Carried Over[b]
0.04	0.16	0	0	0	0.07	0.91	Banked Energy Withdrawn[b]
131.05	155.41	115.73	116.35	138.70	153.59	1,748.62	Total

c) Energy received from Los Angeles Department of Water and Power for repayment of San Luis Generation received.

Figure 9: OROVILLE



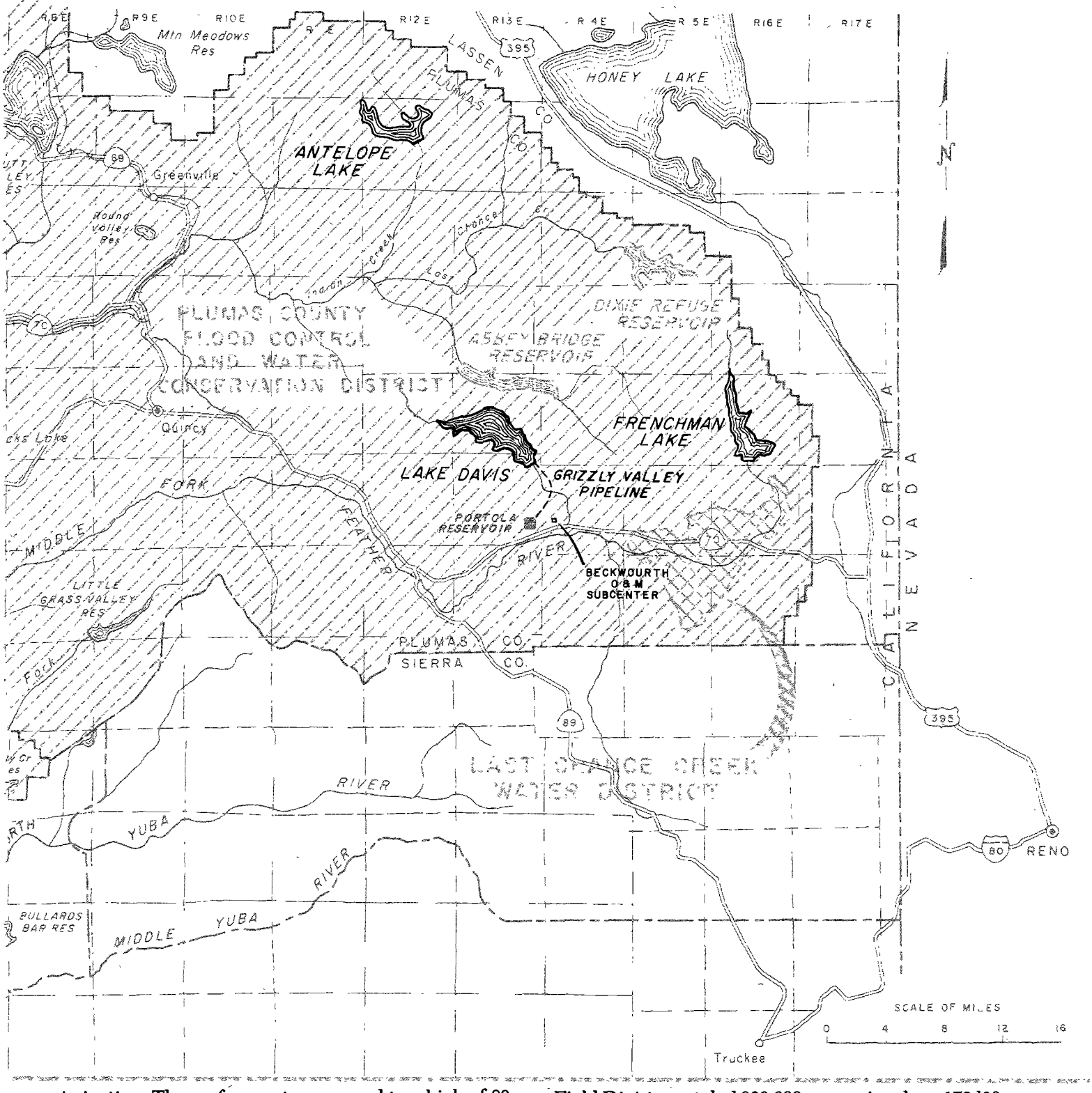
Oroville Field Division

Project facilities within the Oroville Field Division are shown in Figure 9. Lake Oroville storage reached its maximum capacity for the year on May 29. Minimum storage during the year was 2,474,370 acre-feet on November 4. The maximum rate of inflow was 17,600 cubic feet per second on February 29.

Releases under prior rights to Sutter Butte Canal, PG&E Lateral, Western Canal, Richvale Canal, and Palermo Canal totaled 779,556 acre-feet. The peak irrigation release reached 3,170 cubic feet per second on April 28. Releases to the Feather River totaled 2,077,046 acre-feet. The maximum rate of river release was 11,814 cubic feet per second on February 9.

Water temperatures of releases met requirements of the Feather River Fish Hatchery and downstream

FIELD DIVISION



irrigation. The surface water warmed to a high of 80 degrees Fahrenheit by July 19. Evaporation from Lake Oroville was estimated to be 66,509 acre-feet for the year.

Federal Power Act regulations require an inspection for safety of hydroelectric power works at five-year intervals. The initial inspection of the Hyatt-Thermalito facilities under this requirement was conducted during the week of July 10-14, 1972.

Recreation use during 1972 within the Oroville Field Division totaled 920,000 recreation days: 179,100 recreation days at Frenchman Lake; 230,700 recreation days at Lake Davis; 85,700 recreation days at Antelope Lake; and 424,500 recreation days at Lake Oroville and the Thermalito facilities.

During 1972, the Department of Fish and Game planted 156,000 fingerling rainbow and 5,000 Kamloops rainbow subcatchable trout in Frenchman Lake; 95,000 subcatchable rainbow, 885,000 fingerling rainbow, and 109,000 fingerling cutthroat in Da-

vis Lake; and 21,000 rainbow catchable and 250,000 rainbow fingerlings in Antelope Lake. Oroville Lake was planted with 31,000 brown trout catchables, 90,000 silver salmon catchables, 19,000 Pit River rainbow catchables, 50,000 Pit River rainbow fingerlings, and 4,500 Pit River rainbow subcatchables.

The combined total of spring- and fall-run king salmon eggs taken at the Feather River Fish Hatchery in 1972 amounted to approximately 4.5 million. The 1972 egg take was about half the number of eggs from both strains taken in 1971. Total number of fall-run fish entering the hatchery was 3,635—about 100 more than in 1971. However, the number of adult females was only half of the 1971 figure, while the total number of returning fall-run grilse was twice that of 1971. Total number of spring-run adults was also about half that of the previous year's run.

Loss of spring-run adults in the holding ponds was again low because the fish were not allowed to come into the Hatchery from the river until about September 1—shortly before they were ready to spawn.

Total steelhead egg take in 1972 amounted to about 1,300,000—more than sufficient to meet the Hatchery's commitment for steelhead. Advanced fingerling steelhead not needed for yearling production were planted as the need for thinning the ponds arose.

Total 1972 production from the Hatchery amounted to 5,033,000 fish weighing 173,300 pounds. Of this total, 4,079,000 were salmon with a total weight of 132,900 pounds. The remainder were steelhead totaling 954,000 fish weighing 40,400 pounds.

The warm well water used in two pond series was effective in reducing Sacramento River Chinook Disease, but 1972 was marked by higher losses from gill bacteria and Columnaris. Some changes have been made in hatchery operation to reduce losses from these diseases in the future.

The ultraviolet system used for rearing steelhead was effective in reducing losses during the year due to Ceratomyxa. The ultraviolet treatment also appears to reduce the incidence of gill bacteria and Columnaris as well since there was no outbreak of these diseases in the steelhead.

For the third year, two groups of 30,000 yearling steelhead each from Ceratomyxa-resistent domestic stock and from wild stock were marked and released for information on the returns of the two stocks.

The 1972 ocean sport fishery was a very good one; landings of 235,000 salmon were second only to the record 255,000 in 1971. Commercial landings dropped somewhat to 4,500,000 pounds from the 1971 level of 4,900,000 pounds. This decline, however, is not attributed to any problem with California's inland salmon habitat or production since a similar decline was observed along the entire Pacific Coast. Large numbers of small salmon observed at sea during 1972 provide cause for optimism that the ocean fisheries will experience an upturn in 1973.

Castaic Lagoon and Castaic Dam
DWR 4304-4

STATE WATER PROJECT BENEFITS THROUGH 1972

Year	Water delivered (acre-feet) [a]			Recreation supported (recreation days) [b]	Electrical energy generated (megawatt-hours)
	Municipal & industrial use	Agri-cultural use	Total		
1962	4,594	13,695	18,289	30,000	--
1963	6,686	15,770	22,456	105,000	--
1964	11,292	21,215	32,507	331,600	--
1965	17,642	26,463	44,105	499,800	--
1966	27,529	40,399	67,928	465,000	--
1967	28,736	36,407	65,143	438,000	--
1968	52,688	255,332	308,020	932,000	628,000
1969	37,436	246,810	284,246	1,554,800	2,614,000
1970	61,915	343,182	405,097	1,804,800	2,679,000
1971	103,550	593,928	697,478	2,085,900	3,302,000
1972	207,702	894,701	1,102,403	1,971,200	1,867,000
Total through 1972 [c]	559,770	2,487,902	3,047,672	10,218,100	11,090,000

a) An acre-foot of water (325,851 gallons) will cover one acre of land to a depth of one foot.
b) A recreation day is the visit of one person to a recreation area for any part of one day.
c) In addition, dams of the State Water Project have prevented millions of dollars worth of flood damage, the most notable to date being an estimated $30,000,000 in probable damage prevented by operation of partially completed Oroville Dam during the storm of December 1964 and January 1965.

Delta Field Division

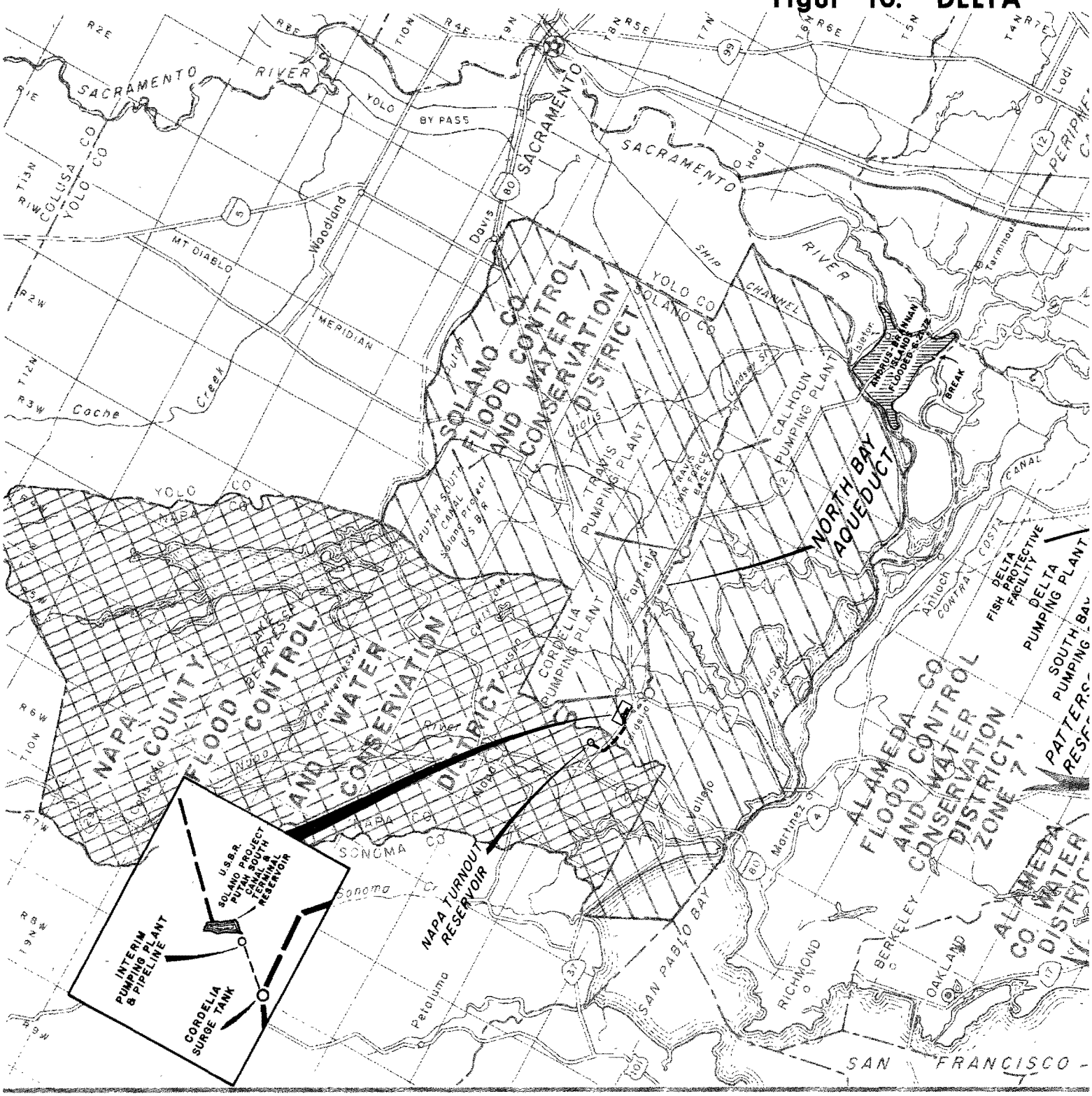
Project facilities within the Delta Field Division are shown in Figure 10.

Data from the monitoring programs conducted by the Bureau of Reclamation and the Department during 1972 indicated that except during and for several weeks following the levee break, the quality of water in the Sacramento-San Joaquin Delta was better than that required under the "November 19, 1965 Criteria".

Water storage in Lake Del Valle on January 1, 1971, was 25,524 acre-feet. Local inflow, supplemented by water pumped from the South Bay Aqueduct, raised the storage level to a maximum of 40,034 acre-feet on June 8 for summer recreation. During the fall, water deliveries from the Lake reduced the storage to a minimum of 25,012 acre-feet on November 1. Local inflow raised the storage level to 27,765 acre-feet by December 31.

During 1972, facilities within the Delta Field Division received a total recreation use of 189,150 recreation days; 183,800 at Lake Del Valle; 2,700 recreation days at Clifton Court Forebay; 1,400 recreation days at Cottonwood Road Fishing Access Site; 1,000 recre-

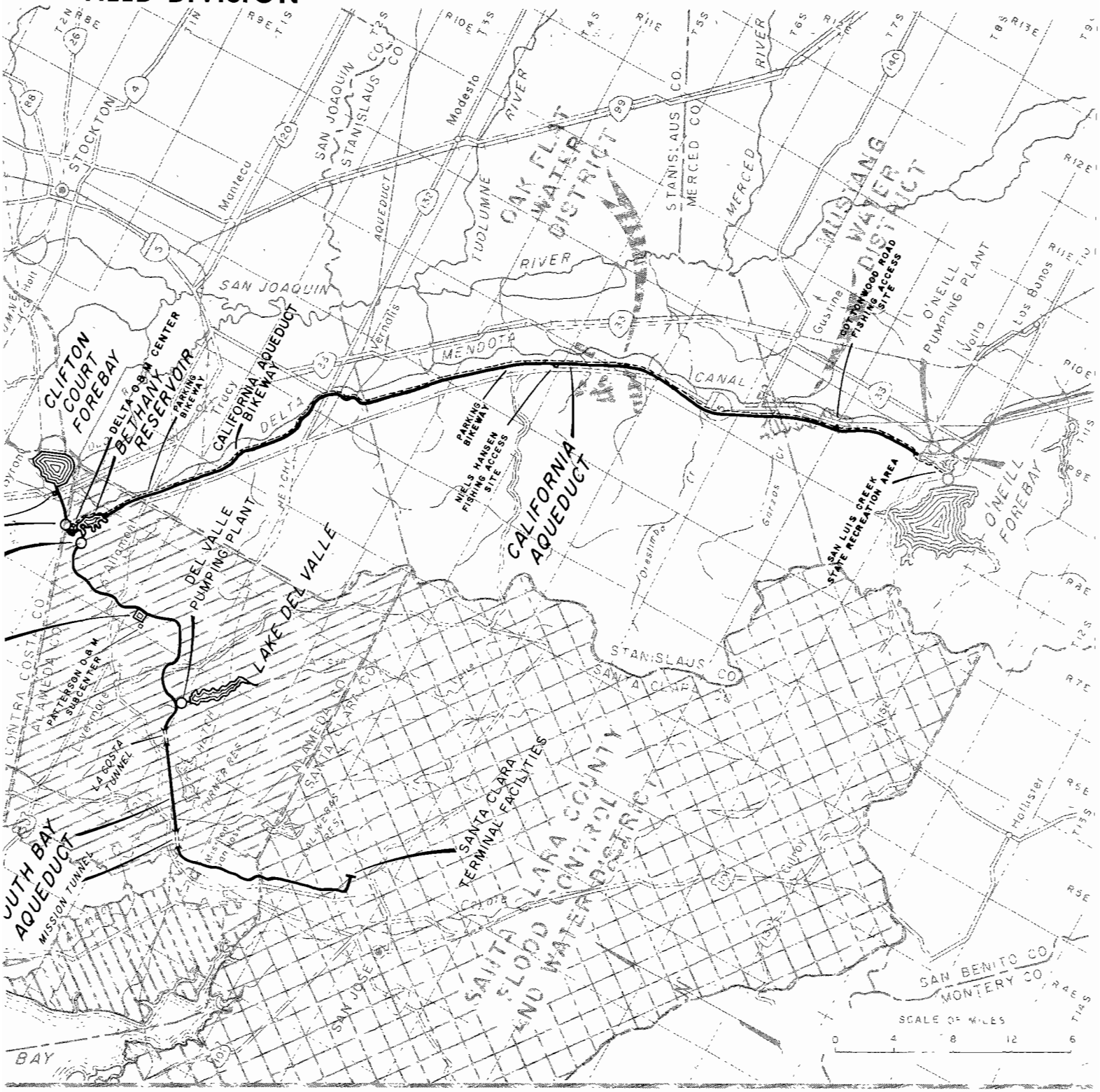
Figur 10: DELTA



ation days at Niels Hansen Fishing Access Site; and 250 recreation days on the California Aqueduct Bikeway.

The fall migration of salmon up the San Joaquin River was again aided by a temporary rock barrier constructed at the head of Old River by the Department (in accordance with a March 10, 1969 memorandum of understanding on interim Delta fish protection measures prior to Peripheral Canal construction—see page 6, Bulletin 132-70. This barrier aids salmon by forcing more water to flow down the San Joaquin River to Stockton, thus improving water quality there. Since water quality conditions did not improve as rapidly after barrier construction in 1972 as in most recent years, the Bureau of Reclamation augmented flows by releasing about 21,000 acre-feet of additional water into the San Joaquin River.

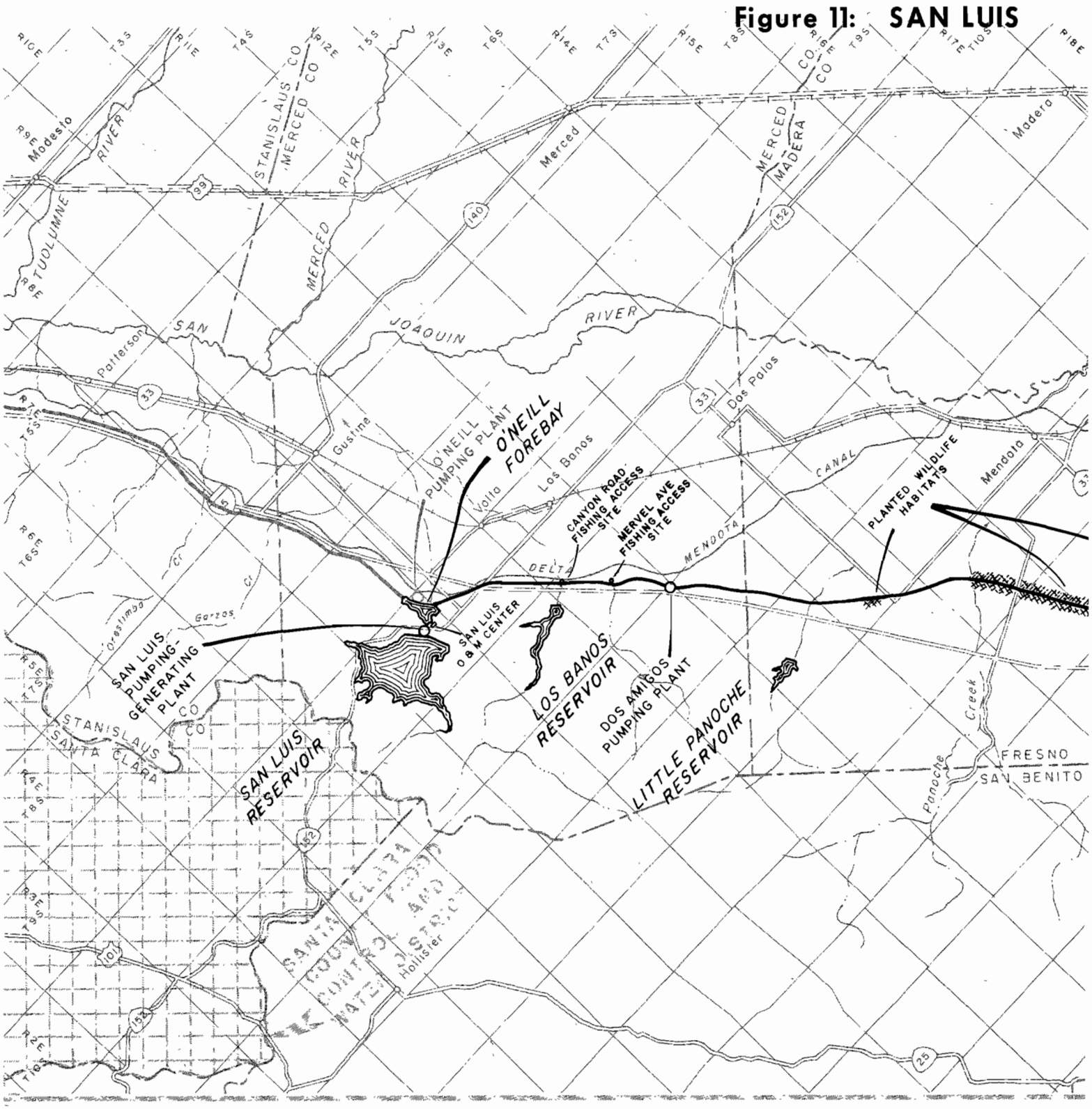
The Delta Fish Protective Facility captured about 16,600,000 fish from the Delta Pumping Plant intake channel. These fish were transported and released at



various sites in the Delta.

The Department of Fish and Game planted approximately 111,800 subcatchable and catchable rainbow trout in Lake Del Valle. Smallmouth black bass were introduced for the first time with the planting of 304 adults. An investigation was begun by Department of Fish and Game reservoir biologists on the interrelationship between Mississippi silversides and threadfin shad, two forage species, and the gamefish species in the Lake. Fishery samplings showed that both forage fish are being utilized by trout as well as by warmwater game species.

A major salvage operation was undertaken during 1972 as the result of draining the Delta-Mendota Canal of the federal Central Valley Project for cleaning and repairs. An estimated 286,000 catfish and striped bass, weighing more than 50,000 pounds, were removed from canal siphons and planted in Clifton Court Forebay and at other points along the California Aqueduct.



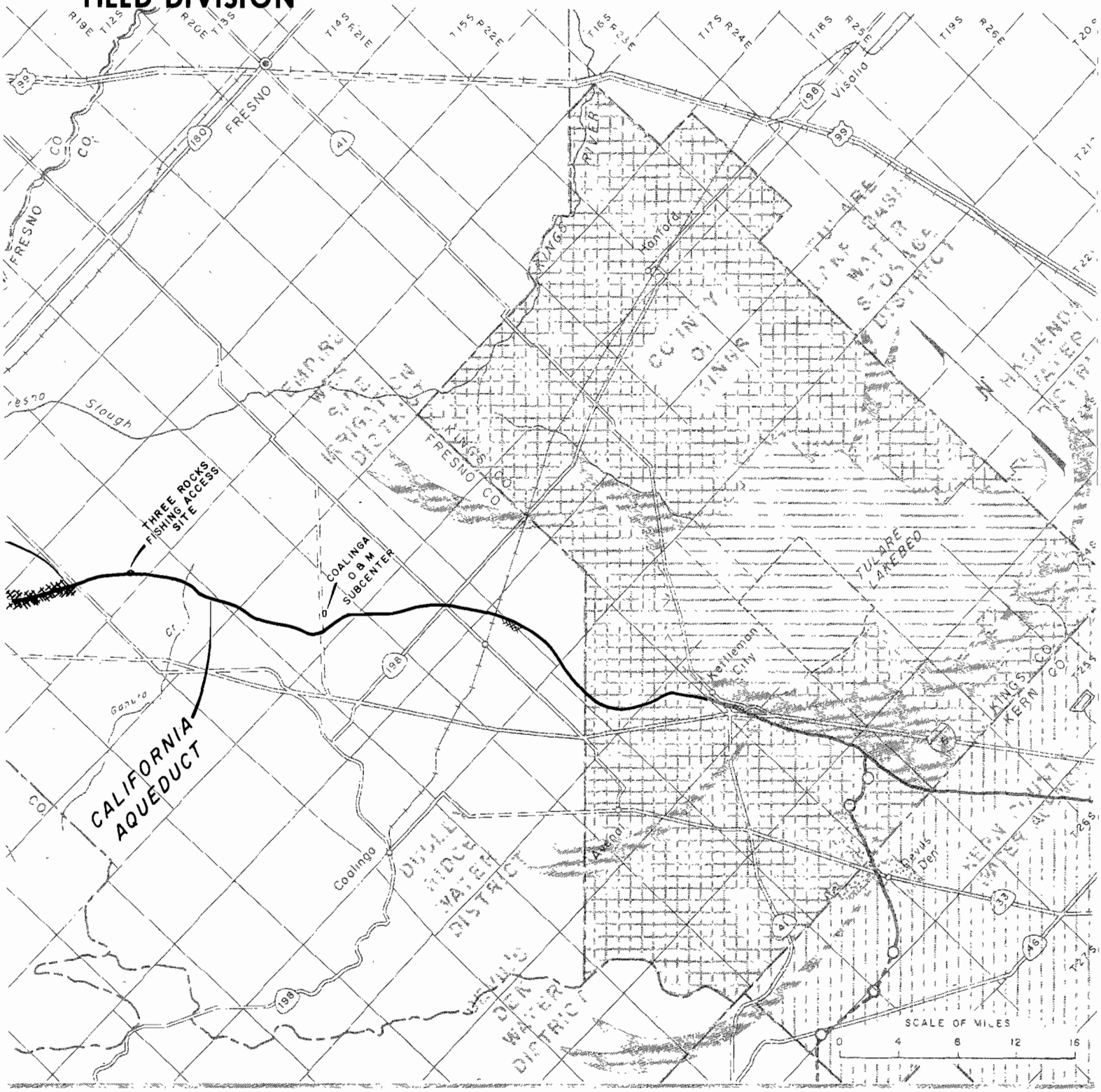
San Luis Field Division Project facilities within the San Luis Field Division are shown in Figure 11.

The "Supplemental Agreement Between the United States of America and the State of California for the Operation of the San Luis Unit" was executed on January 12, 1972. This adds to the basic agreement of December 30, 1961, concerning federal construction and state operation of the San Luis joint-use facilities, and covers the day-to-day operations in greater detail.

Storage in San Luis Reservoir on January 1, was 1,949,325 acre-feet. Storage in the Reservoir on December 31 was 1,932,426 acre-feet, of which 1,007,345 acre-feet was project water and the remainder, water of the federal Central Valley Project. On January 1, storage in Los Banos and Little Panoche Reservoirs was 18,870 and 332 acre-feet, respectively—on December 31, storage was 18,227 and 331 acre-feet, respectively.

Facilities in the San Luis Field Division received

FIELD DIVISION

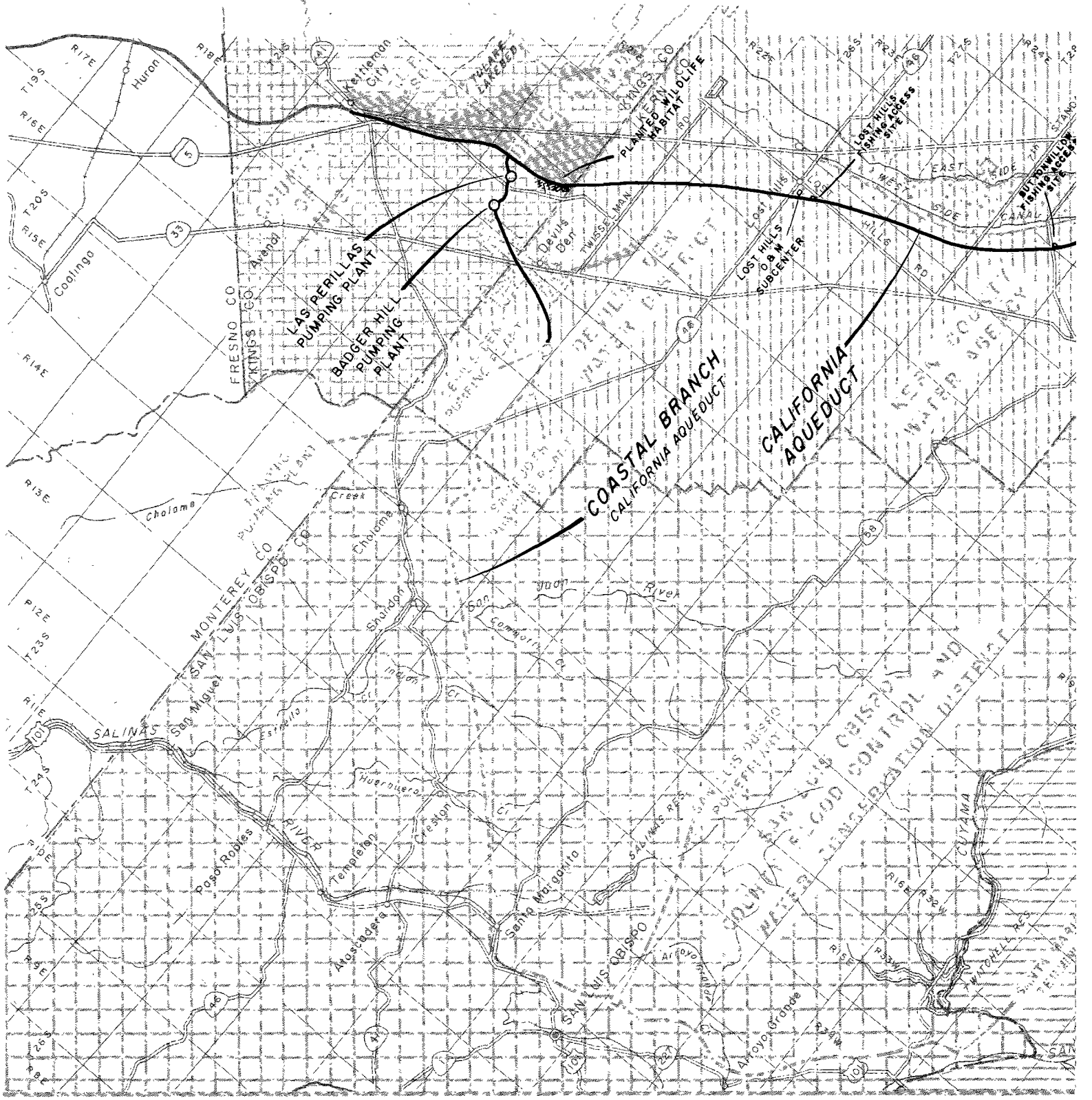


545,400 recreation days of use during 1972: 531,000 recreation days at San Luis Reservoir and Forebay and Los Banos Reservoir; 6,500 recreation days at Canyon Road Fishing Access Site; 5,300 recreation days at Mervel Avenue Fishing Access Site; and 2,600 recreation days at Three Rocks Fishing Access Site.

During 1972, occasional creel censuses were carried out at San Luis Reservoir, O'Neill Forebay, and Los Banos Reservoir. Fishing was fair to good at all three water bodies for catfish, sunfish, and striped bass. Fishing for striped bass at San Luis between January and March was outstanding. The catch was equal to 76 percent of that in the entire Sacramento-San Joaquin Delta area during 1971.

An agreement was signed in 1972 among the Department, the Department of Fish and Game, and the Bureau of Reclamation providing for the Department of Fish and Game to develop wildlife habitats on all suitable rights-of-way in the San Luis Field Division. This development is now in progress.

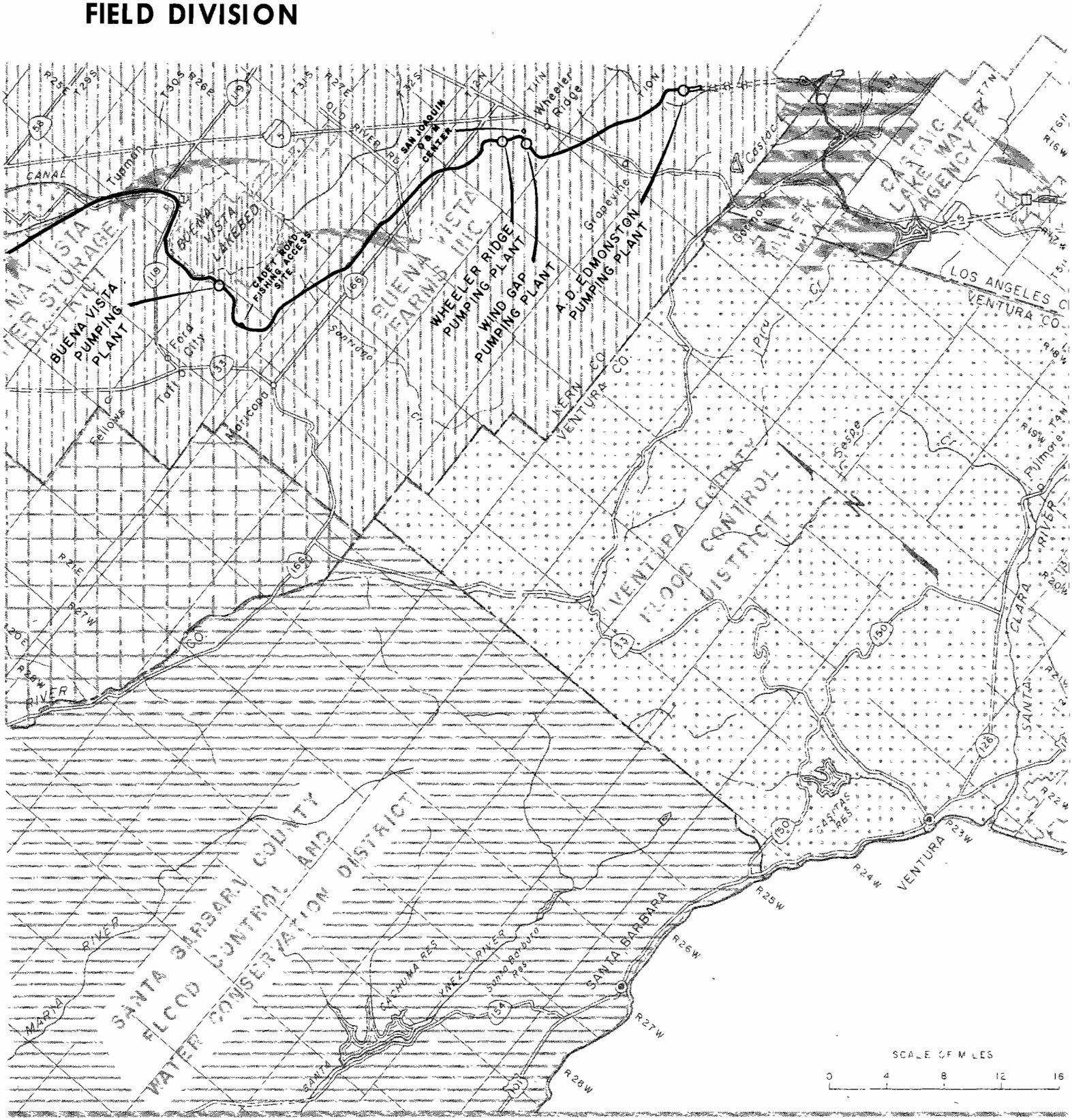
Figure 12: SAN JOAQUIN



San Joaquin Field Division

Project facilities within the San Joaquin Field Division are shown in Figure 12.

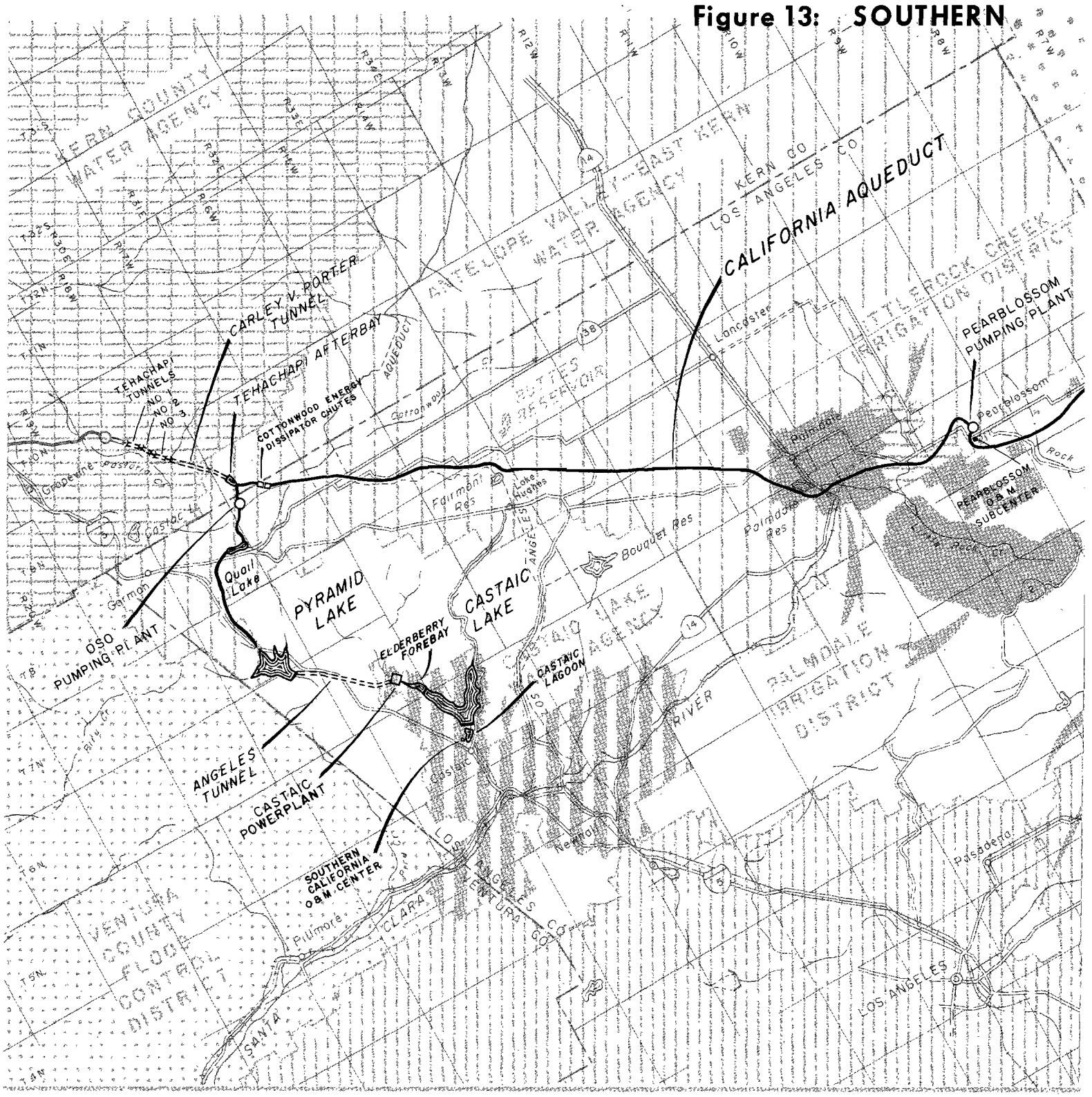
The successful fishing access site program for the California Aqueduct, conducted cooperatively with the State Wildlife Conservation Board, was extended



in 1972. At the end of 1972, eight fishing access sites on the California Aqueduct were open to the public in the San Joaquin Valley.

Three new sites were opened in Kern County in 1972—Lost Hills, Buttonwillow, and Cadet Road Fishing Access Sites. Each site provides approximately 600 feet of developed canalside fishing with access to overchutes for additional fishing. Parking, sanitary facilities, and safety devices are provided. The sites are maintained free and open to the public by the County of Kern.

During 1972, a total of 31,100 recreation days of use was received by these fishing access sites: 13,700 recreation days at Lost Hills; 15,700 recreation days at Buttonwillow; and 1,700 recreation days at Cadet Road.



Southern Field Division

Project facilities within the Southern Field Division are shown in Figure 13.

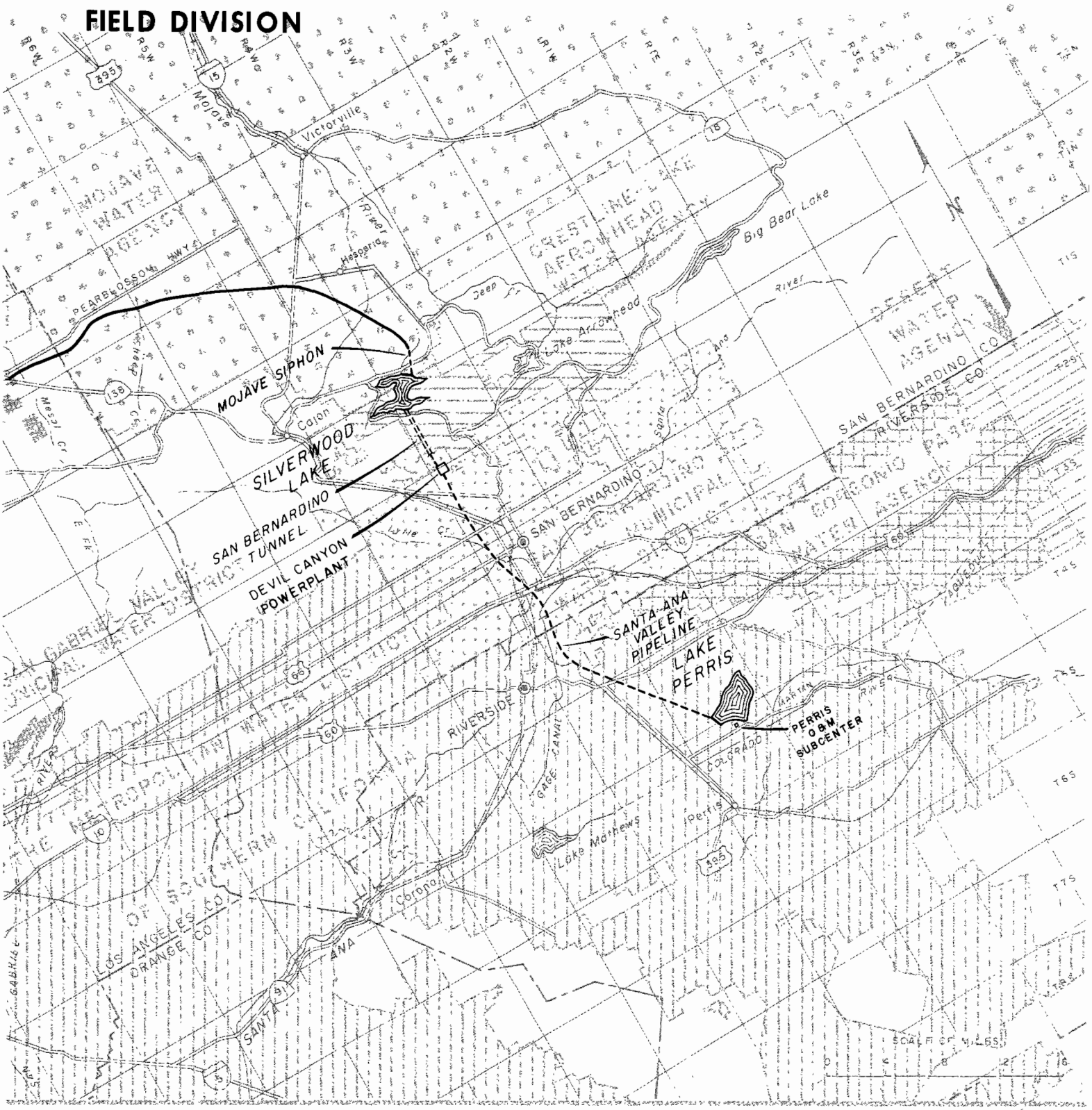
By the end of 1972, all major facilities in the Southern Field Division were operational except Lake Perris and Pyramid Lake (to be completed in 1973) and permanent West Branch facilities required to replace the interim Gorman Creek Improvement and Buttes Reservoir (both to be completed in the 1980s).

In March, initial project water deliveries south of A. D. Edmonston Pumping Plant began from the Mojave Division Canal to the Antelope Valley-East Kern Water Agency.

In April, water deliveries commenced from Castaic Lake to The Metropolitan Water District of Southern California.

In May, deliveries began from Silverwood Lake to the Crestline-Lake Arrowhead Water Agency.

FIELD DIVISION



In late November, deliveries began from the tailrace of Devil Canyon Powerplant to the San Bernardino Valley Municipal Water District.

After initial deliveries began, however, facilities were not available for full operations throughout the remainder of the year:

The Mojave Division Canal was drained for inspection and minor repair between June and August. (Deliveries were supplied from Silverwood Lake storage during the shutdown.)

- The West Branch Aqueduct was out of service for contract work in the Angeles Tunnel Intake September 5, through October 31. During the shutdown, modifications were made in the Quail Canal Outlet and Gorman Creek Improvement. (Deliveries during this period were supplied by Castaic Lake storage.)

Castaic Lake storage was limited to about 50,000 acre-feet so as not to flood construction by the City of Los Angeles.

Silverwood Lake storage was limited to about 33,-300 acre-feet throughout the year (approximately, half of the reservoir's capacity) to facilitate construction of permanent recreation facilities by the Department of Parks and Recreation.

Project service was supplemented by use of the Cedar Springs Interim Water Supplies Facilities to provide a temporary supply to the Crestline-Lake Arrowhead Water Agency before deliveries could be made from Silverwood Lake. The Interim Facilities were constructed in 1968 by the Department to (1) provide water required during the construction of Cedar Springs Dam and the San Bernardino Tunnel and (2) insure an emergency supply to the Agency should construction of the Tunnel adversely affect local ground water levels. During 1971 and early 1972, the Interim Facilities, supplied by a ground water well in the Mojave Water Agency, were used to provide a much needed supplemental water supply to Crestline-Lake Arrowhead prior to initiation of project water deliveries. In April 1972, the interim pipeline which conveyed the well water to Crestline-Lake Arrowhead's delivery structure broke under the rising pressure of water filling the Lake. Crestline-Lake Arrowhead installed a temporary pump and filter to take project water from the Lake.

A total of 185 acre-feet was served to Crestline-Lake Arrowhead through the Interim Facilities: 130 acre-feet in 1971 and 55 acre-feet in early 1972. By agreement covering the interim arrangement, Mojave's exported supply will be replaced with a portion of Crestline-Lake Arrowhead's project water entitlements.

Interim facilities at Silverwood Lake were opened to recreation May 26. Castaic Lake was opened on June 26 and Castaic Lagoon, in late May. Fishing was opened in Southern California reservoirs on July 1 and attracted a large attendance.

Recreation use at facilities within the Southern Field Division totaled 285,500 recreation days during 1972; 231,600 recreation days at Castaic Lake and 53,-900 recreation days at Silverwood Lake.

The Department of Fish and Game continued to sample fish life in the California Aqueduct downstream from the A. D. Edmonston Pumping Plant during 1972. In addition to the three species found during 1971 (bluegill, green sunfish, and threadfin shad), a freshwater sculpin (prickly sculpin) began appearing in early 1972 and was present in most samples. Most of the fish taken continue to be small, generally less than three inches long.

During 1972 substantial plants of channel catfish, from the Imperial Valley Warmwater Hatchery, were made in Castaic and Silverwood Lakes as well as in the Mojave Division Canal of the California Aqueduct. These three water bodies each received between 15,000 and 20,000 fingerling catfish. In addition, each of the two lakes were stocked with 1,000 pounds of surplus broodfish.

In January 1972, Castaic and Silverwood each received approximately 15,000 catchable rainbow trout. In May, Silverwood was stocked with an additional 190,000 subcatchable rainbow trout.

When both lakes were opened for fishing on July 1, limits of trout were taken by experienced and inexperienced anglers. While bass fishing was very poor at Silverwood, Castaic's bass fishery was exceptionally good. Most anglers were able to take five-fish limits with little effort. After the initial flurry of the opening weekend at Castaic, fishing success and angler pressure declined steadily. However, trout fishing at Silverwood remained good through the rest of the year.

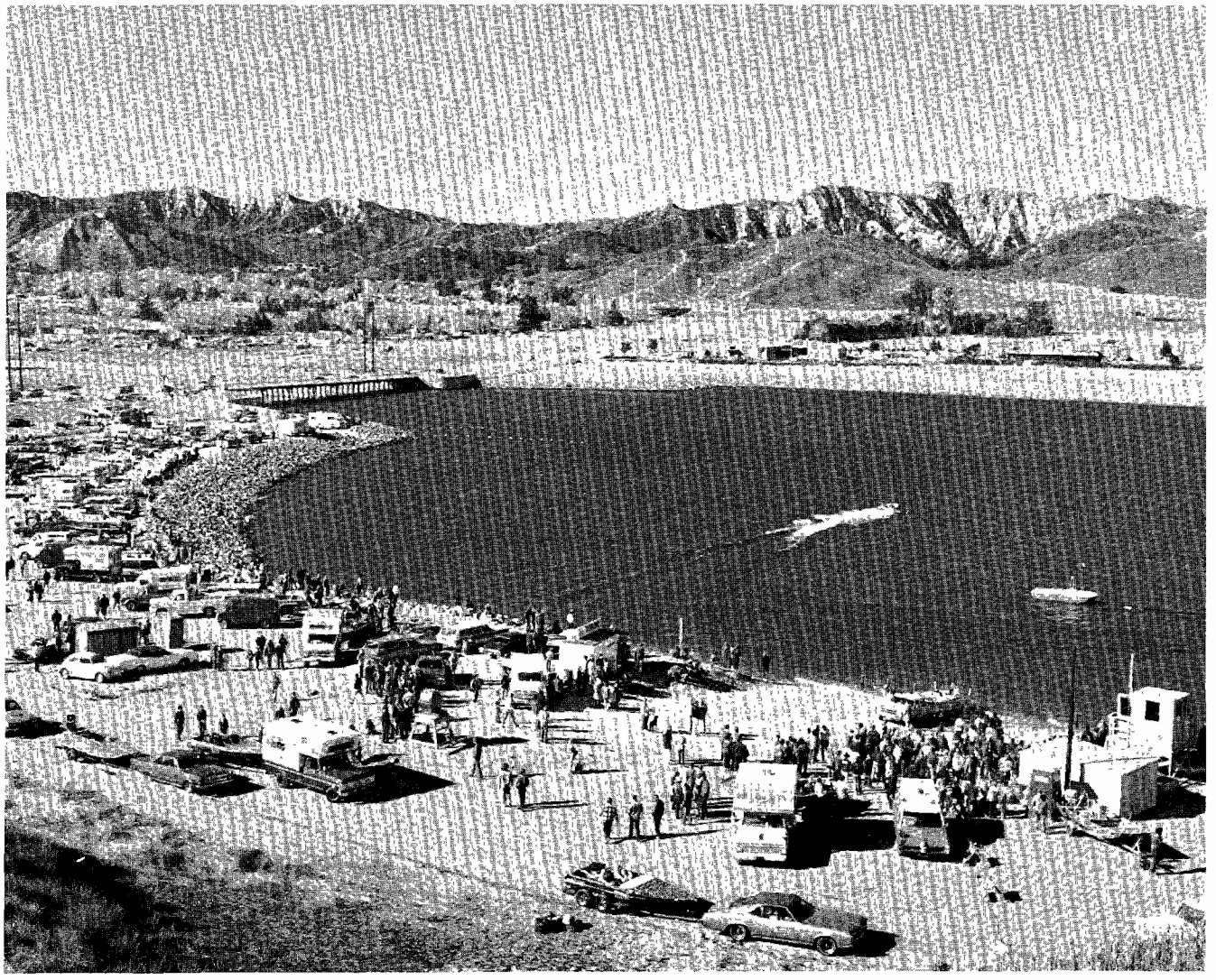
CHAPTER V. PROJECT FINANCING

As of December 31, 1972, $2.15 billion had been expended by the Department for constructing the State Water Project. These construction expenditures include the costs of planning, design, financing, relocations, land acquisition, and operations during the construction period of each facility.

While initial project facilities are nearing completion, continued construction will be required to satisfy growing demands for project services. Under the Department's current assumptions concerning future facilities, construction expenditures for the Project eventually would total $2.98 billion through 1997. This estimate does not include future costs of (1) the San Joaquin Drainage Facilities which probably would not be constructed before 1980 even if beneficiaries provide prerequisite repayment guarantees or (2) the replacement of the interim Gorman Creek Improvement on the California Aqueduct West Branch, required by 1985.

However, the State Water Project requires capital expenditures other than those for constructing project facilities, including (1) disbursements under the associated Davis-Grunsky Act Program, (2) other capital requirements under revenue bond financing, and, for current purposes of illustration, (3) annual principal and interest payments for additional water conservation storage capacity assumed to be eventually constructed by the United States. (Such additional storage would be required to satisfy water delivery commitments after 1995.)

This chapter presents a detailed analysis showing a financially viable project producing revenues which are sufficient to pay all costs of operations and maintenance, to repay all capital expenditures with interest, and eventually to produce surplus revenues available for future additions to the State Water Resources Development System that may be authorized.



Castaic Lagoon
DWR 4304-2

The financial analysis is shown in Table 6, in two spreads. Actual and projected capital expenditures and sources of financing are shown in Spread 1 (and, graphically for the period through 1985, on Figure 14). Actual and anticipated revenues and the application thereof to pay project operating expenses and to repay capital financing are shown in Spread 2 (and, graphically, on Figure 15).

Future conditions undoubtedly will cause changes in the financial analysis set forth in Table 6. For this reason, basic assumptions are reviewed and the financial analysis is updated periodically. Notable contingencies include (1) changes in annual state tideland oil and gas revenues to be available to the Project from amounts now provided for by statutes, (2) possible development of alternative sources of additional water not included in present plans, (3) changes in timing of various facilities to be added to the System, and (4) need to expand the present System to include service to areas not now contemplated. Furthermore, the outcome of certain lawsuits now pending before the courts (see Chapter I) could impose requirements noticeably affecting projected capital expenditures or anticipated project revenues.

The financial analysis is based on the assumption that the Department would sell revenue bonds in connection with future facilities of the California Aqueduct—with proceeds sufficient to fulfill the currently estimated need for supplemental financing. However, this assumption is being reviewed and will be examined more fully in subsequent reports. (Supplemental financing refers to funds in excess of those anticipated under current agreements, legislative enactments, and authorized bond issues.) The analysis indicates a total need for such supplemental financing of $37.5 million in 1979.

Previous bulletins have included references to two sets of negotiations the Department had been conducting to provide a basis for revenue bond sales. The first of these was successfully concluded with the sale of Devil Canyon-Castaic Revenue Bonds in August 1972 (see section entitled "Providing Funds for

Figure 14: FINANCING OF CONSTRUCTION EXPENDITURES 1952-1985

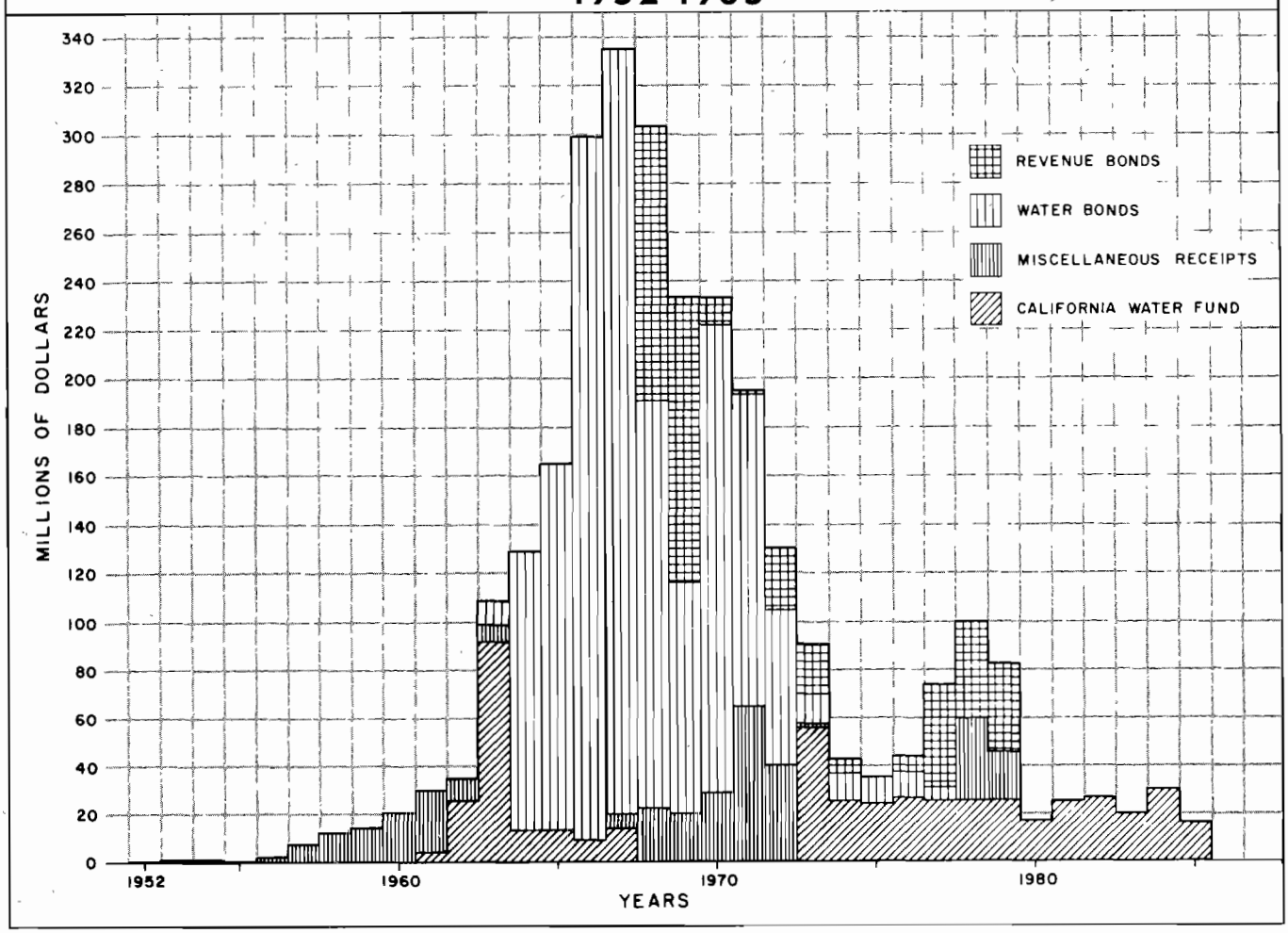
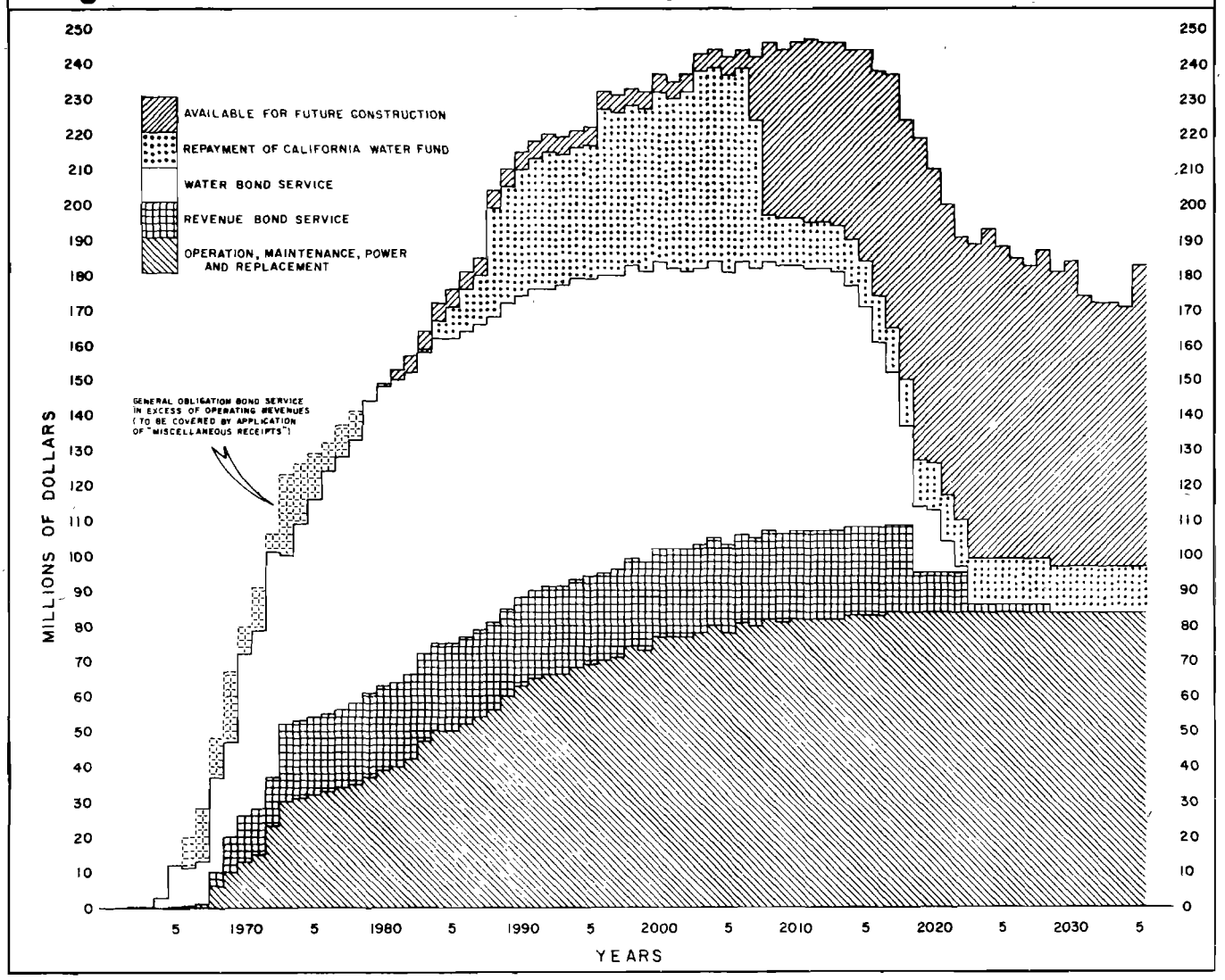


Figure 15: APPLICATION OF PROJECT OPERATING REVENUES



Future Construction" Chapter I). The above-shown need for supplemental financing is in addition to the funds provided by that sale. The second negotiation concerns the proposed Piru Creek Project on the West Branch of the California Aqueduct (see pages 6 through 8, Bulletin 132-72).

If the proposed Piru Creek Project is determined to be feasible under studies now nearing completion, and if contractual arrangements are consummated, sale of Piru Revenue Bonds would finance the costs of a rather extensive power development on the West Branch of the California Aqueduct. In addition to power generation, this proposed project, if found feasible, could also provide additional water storage capacity, increased opportunities for recreation development, and a permanent means of conveying water through the portion of the West Branch now served by interim Gorman Creek Improvement. It would extend from the discharge of Oso Pumping Plant—through existing Quail facilities and a proposed system of pipeline, powerplants, and reservoir—to and including Pyramid Dam and Lake, now under construction.

Only the costs of Quail facilities and Pyramid Dam and Lake (together with interim Gorman Creek Improvement) are included in the estimated construction expenditures shown in the financial analysis. Construction costs excluded from the analysis for proposed facilities of the Piru Creek Project—or any alternative development in lieu thereof—could be more than offset by the value of power generated and the sale of revenue bonds supported thereby—also excluded from the analysis. Even if an alternative facility were constructed, subsequent development of a power complex similar to the proposed Piru Creek Project would not be precluded.

The following sections describe the line items shown in Table 6 and current assumptions thereto.

TABLE 6: PROJECT FINANCIAL

(in thousands

LINE NO.	LINE ITEM	1952-1972	1973	1974	1975	1976	1977	1979	CALENDAR 1979
									CAPITAL
	PROJECT CONSTRUCTION EXPENDITURES								
1.	CURRENT PROGRAM: The 1973 Project Facilities	2,148,563	55,619	4,109	446	0	0	0	0
	FUTURE PROGRAM:								
2.	Abbey Bridge and Dixie Refuge Dams and Reservoirs	0	0	14	576	398	402	2,639	4,129
3.	Phase II of the North Bay Aqueduct	14	127	223	370	665	989	6,119	6,212
4.	Delta Facilities	194	1,024	3,939	7,960	25,236	55,737	51,648	33,833
	California Aqueduct:								
5.	Final Four Units at Delta Pumping Plant	0	142	67	278	1,012	1,502	2,610	3,372
6.	San Luis Canal Modifications	0	406	505	206	0	0	0	500
7.	Final Three Units at A. D. Edmonston Pumping Plant	0	0	0	0	,0	0	73	650
8.	Staged Units and Pipelines South of A. D. Edmonston	215	5,310	7,808	9,814	1,889	223	150	1,897
9.	Buttes Dam and Reservoir	0	0	0	0	129	1,264	940	456
10.	Final Three Units at Las Perillas and Badger Hill	0	0	0	0	0	784	0	5
11.	Phase II of the Coastal Branch	0	0	0	1,229	2,454	6,242	32,873	27,924
12.	General Costs	5	2,172	10,303	3,214	1,521	738	969	979
13.	SUBTOTAL, California Aqueduct	220	8,030	18,683	14,741	7,005	10,753	37,615	35,783
14.	Miscellaneous Project Costs	1,083	2,326	2,202	461	203	166	645	362
15.	Additional Conservation Facilities, Conveyance Works	(7,473)	(310)	333	343	346	344	344	344
16.	TOTAL, Future Construction Program	1,511	11,507	25,394	24,451	33,853	68,391	99,010	80,663
17.	TOTAL PROJECT CONSTRUCTION EXPENDITURES	2,150,074	67,126	29,503	24,897	33,853	68,391	99,010	80,663
	OTHER CAPITAL REQUIREMENTS								
18.	Davis-Grunsky Act Program	81,886	11,981	10,381	10,323	10,246	5,183	0	0
19.	Additional Conservation Facilities, Storage Works	0	0	0	0	0	0	0	0
20.	Special, Revenue Bond Financing	26,849	12,272	3,166	0	0	0	1,511	2,212
21.	TOTAL OTHER CAPITAL REQUIREMENTS	108,735	24,253	13,547	10,323	10,246	5,183	1,511	2,212
22.	TOTAL CAPITAL EXPENDITURES	2,258,809	91,379	43,050	35,220	44,099	73,574	100,521	82,875
									FINANCING OF
23.	APPLICATION OF CALIFORNIA WATER FUND MONEYS	176,247	56,094	25,750	24,512	26,988	25,750	25,750	25,750
	APPLICATION OF PROCEEDS FROM SALE OF BONDS:								
24.	Oroville Revenue Bonds	244,854	141	0	0	0	0	0	0
25.	Devil Canyon-Castaic Revenue Bonds	23,392	20,772	6,249	0	6,519	42,297	39,936	0
26.	Supplemental Revenue Bonds	0	0	0	0	0	0	1,511	35,896
27.	Water Bonds, Davis-Grunsky Program	81,886	11,981	10,381	10,323	10,246	5,183	0	0
28.	Water Bonds, Additional Facilities	6,976	310	333	343	346	344	344	344
29.	Water Bonds, 1973 Project Facilities	1,443,753	0	0	0	0	0	0	0
30.	TOTAL, Application of Proceeds from Sale of Bonds	1,800,861	33,204	16,963	10,666	17,111	47,824	41,791	36,240
31.	APPLICATION OF MISCELLANEOUS RECEIPTS TO CONSTRUCTION	281,701	2,081	337	42	0	0	32,980	20,885
32.	TOTAL FINANCING OF CAPITAL EXPENDITURES	2,258,809	91,379	43,050	35,220	44,099	73,574	100,521	82,875

Note: Values shown in parentheses are accounted for in Line 1 as part of the current program.

ANALYSIS, DECEMBER 31, 1972

of dollars)

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YEARS												
1980	1981	1982	1983	1984	1985	1986-1995	1996-2005	2006-2015	2016-2025	2026-2035	TOTAL 1952-2035	LINE NO.
EXPENDITURES												
0	0	0	0	0	0	0	0	0	0	0	2,208,737	1.
948	3,466	2,281	0	0	0	0	0	0	0	0	14,853	2.
430	56	4	0	0	0	0	0	0	0	0	15,209	3.
3,306	8,959	10,261	8,742	8,070	146	0	0	0	0	0	219,055	4.
834	881	1,566	2,617	2,719	673	0	0	0	0	0	18,273	5.
1,500	2,950	2,500	1,764	6,521	4,405	0	0	0	0	0	21,257	6.
2,824	4,984	7,446	5,324	1,665	0	0	0	0	0	0	22,966	7.
3,601	2,420	1,879	327	0	0	0	0	0	0	0	35,533	8.
0	109	149	176	7,304	6,510	0	0	0	0	0	17,037	9.
99	196	210	215	165	386	0	0	0	0	0	2,060	10.
2,817	315	131	0	0	0	0	0	0	0	0	73,985	11.
567	206	168	134	69	51	0	0	0	0	0	21,096	12.
12,242	12,061	14,049	10,557	18,443	12,025	0	0	0	0	0	212,207	13.
125	121	75	75	64	63	0	0	0	0	0	7,971	14.
350	503	756	757	3,521	3,289	240,784	47,948	0	0	0	299,962	15.
17,401	25,166	27,426	20,131	30,098	15,523	240,784	47,948	0	0	0	769,257	16.
17,401	25,166	27,426	20,131	30,098	15,523	240,784	47,948	0	0	0	2,977,994	17.
0	0	0	0	0	0	0	0	0	0	0	130,000	18.
0	0	0	0	0	0	0	90,554	127,500	127,500	127,500	473,054	19.
0	0	0	0	0	0	0	0	0	0	0	46,010	20.
0	0	0	0	0	0	0	90,554	127,500	127,500	127,500	649,064	21.
17,401	25,166	27,426	20,131	30,098	15,523	240,784	138,502	127,500	127,500	127,500	3,627,058	22.
CAPITAL EXPENDITURES												
17,401	25,166	27,426	20,131	30,098	15,523	240,784	138,502	127,500	127,500	127,500	1,284,372	23.
0	0	0	0	0	0	0	0	0	0	0	244,995	24.
0	0	0	0	0	0	0	0	0	0	0	139,165	25.
0	0	0	0	0	0	0	0	0	0	0	37,407	26.
0	0	0	0	0	0	0	0	0	0	0	130,000	27.
0	0	0	0	0	0	0	0	0	0	0	9,340	28.
0	0	0	0	0	0	0	0	0	0	0	1,443,753	29.
0	0	0	0	0	0	0	0	0	0	0	2,004,660	30
0	0	0	0	0	0	0	0	0	0	0	338,026	31.
17,401	25,166	27,426	20,131	30,098	15,523	240,784	138,502	127,500	127,500	127,500	3,627,058	32.

TABLE 6: PROJECT FINANCIAL

(in thousands

LINE No.		1952-1972	1973	1974	1975	1976	1977	1978	1979
									CALENDAR
							MISCELLANEOUS RECEIPTS AND		
	MISCELLANEOUS RECEIPTS								
33.	Federal Payments for "Open-Space" and Flood Control	74,636	441	133	153	0	0	0	0
34.	Appropriations Prior to the Burns-Porter Act	98,975	0	0	0	0	0	0	0
35.	Appropriations for Construction Costs Allocated to Recreation	34,973	27	5,000	5,000	5,000	5,000	5,000	5,000
36.	Appropriations Under SB 261 (1968)	82,661	0	0	0	0	0	0	0
37.	City of Los Angeles Payments for Castaic Power Development	33,107	4,320	0	0	0	0	0	0
38.	Water Contractor Advances for Construction of Requested Works	68,664	2,067	31	27	0	0	48	20
39.	Investment Earnings on Unexpended Miscellaneous Receipts	29,361	7,200	8,100	7,100	6,700	4,700	2,200	1,000
40.	TOTAL MISCELLANEOUS RECEIPTS	422,377	14,055	13,264	12,280	11,700	9,700	7,248	6,020
	PROJECT OPERATING REVENUES								
41.	Payments under Oroville Power Sale Contract (extended)	57,687	16,150	16,150	16,818	16,538	16,504	16,730	16,759
42.	Payments under Devil Canyon-Castaic Contract	0	8,178	8,311	8,311	8,311	8,311	8,311	8,311
43.	Payments (Assumed) for Supplemental Revenue Bonds	0	0	0	0	0	0	1,056	2,112
44.	Payments under Long-term Water Supply Contracts	262,170	71,532	76,667	88,238	96,323	99,122	101,697	111,019
45.	Federal Payments for Operating Costs of San Luis Facilities	6,018	2,273	1,762	1,758	1,744	1,750	1,750	1,739
46.	Appropriations for Operating Costs Allocated to Recreation	1,808	2,776	1,576	1,542	1,589	1,580	1,596	1,708
47.	Payments under Davis-Grunsky Loan Repayment Contracts	899	237	348	517	702	1,010	1,257	1,282
48.	Miscellaneous Revenues	73,404	8,476	3,883	31	32	32	1,188	2,244
49.	TOTAL PROJECT OPERATING REVENUES	401,986	109,622	108,697	117,215	125,239	128,309	133,585	145,174
50.	TOTAL MISCELLANEOUS RECEIPTS AND PROJECT OPERATING REVENUES	824,363	123,677	121,961	129,495	136,939	138,009	140,833	151,194
						APPLICATION OF MISCELLANEOUS RECEIPTS			
51.	CARRYOVER (+) AND APPLICATION (-) OF RECEIPTS AND REVENUES HELD TEMPORARILY IN RESERVE	59,658	-7,454	-4,238	-983	3,582	893	-34,716	-16,742
52.	PROJECT OPERATING COSTS	70,033	30,457	30,718	31,940	33,137	33,757	34,759	36,776
53.	DEPOSITS TO SPECIAL RESERVES, Revenue Bond Financing	26,823	7,986	281	1,293	671	643	2,025	3,115
	PAYMENTS OF BOND SERVICE:								
	Bonds sold through December 31, 1972:								
54.	Interest Payments	384,888	87,818	89,691	89,449	89,132	88,690	88,113	87,392
55.	Principal Repayments	1,260	2,530	4,400	6,475	8,555	11,835	14,425	15,465
	Assumed Future Bond Sales:								
56.	Interest Payments	0	259	772	1,279	1,862	2,191	3,247	4,303
57.	Principal Repayments	0	0	0	0	0	0	0	0
58.	TOTAL BOND INTEREST PAYMENTS	384,888	88,077	90,463	90,728	90,994	90,881	91,360	91,695
59.	TOTAL BOND PRINCIPAL REPAYMENTS	1,260	2,530	4,400	6,475	8,555	11,835	14,425	15,465
60.	REPAYMENT OF THE CALIFORNIA WATER FUND	0	0	0	0	0	0	0	0
61.	APPLICATION OF MISCELLANEOUS RECEIPTS TO CONSTRUCTION	281,701	2,081	337	42	0	0	32,980	20,885
62.	SUBTOTAL, Repayment of Capital Financing	282,961	4,611	4,737	6,517	8,555	11,835	47,405	36,350
63.	RESERVATION FOR FUTURE CONSTRUCTION	0	0	0	0	0	0	0	0
64.	TOTAL APPLICATION OF MISCELLANEOUS RECEIPTS AND PROJECT OPERATING REVENUES	824,363	123,677	121,961	129,495	136,939	138,009	140,833	151,194

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of dollars)

YEARS											TOTAL	
1980	1981	1982	1983	1984	1985	1986-1995	1996-2005	2006-2015	2016-2025	2026-2035	1952-2035	LINE NO.
PROJECT OPERATING REVENUES												
0	0	0	0	0	0	0	0	0	0	0	75,363	33.
0	0	0	0	0	0	0	0	0	0	0	98,975	34.
5,000	5,000	5,000	5,000	5,000	5,000	50,000	50,000	50,000	50,000	25,789	320,789	35.
0	0	0	0	0	0	0	0	0	0	0	82,661	36.
0	0	0	0	0	0	0	0	0	0	0	37,427	37.
6	0	32	10	11	5	0	0	0	0	0	70,921	38.
0	0	0	0	0	0	0	0	0	0	0	66,361	39.
5,006	5,000	5,032	5,010	5,011	5,005	50,000	50,000	50,000	50,000	25,789	752,497	40.
16,383	16,150	16,150	18,709	34,770	19,289	173,758	164,476	161,500	171,852	185,413	1,151,786	41.
8,311	8,311	8,311	9,211	9,205	9,196	91,462	90,884	92,801	67,316	0	453,052	42.
2,112	2,113	2,112	2,112	2,113	2,112	22,718	23,056	22,876	23,416	7,232	115,140	43.
112,749	116,602	121,004	128,274	133,602	138,304	1,715,545	1,985,427	2,069,591	1,728,066	1,530,884	10,686,816	44.
1,744	1,747	1,748	1,756	1,750	1,751	17,436	17,460	17,460	17,460	17,460	116,566	45.
1,891	1,900	1,957	2,067	2,005	1,934	20,300	21,837	22,546	22,485	22,230	135,327	46.
1,367	1,389	1,534	1,716	2,143	2,144	20,910	20,187	16,867	11,122	2,707	88,338	47.
32	32	32	32	32	32	320	320	320	320	320	91,082	48.
144,589	148,244	152,848	163,877	185,620	174,762	2,062,449	2,323,647	2,403,961	2,042,037	1,766,246	12,838,107	49.
149,595	153,244	157,880	168,887	190,631	179,767	2,112,449	2,373,647	2,453,961	2,092,037	1,792,035	13,590,604	50.
AND PROJECT OPERATING REVENUES												
0	0	0	0	0	0	0	0	0	0	0	0	51.
39,137	40,100	42,017	47,531	49,512	50,094	619,534	754,640	818,954	840,611	842,970	4,446,677	52.
527	296	299	4,337	18,923	3,442	15,537	6,869	4,949	1,784	0	99,800	53.
86,574	85,606	84,546	83,424	82,195	80,900	727,959	546,823	286,994	32,000	0	3,102,194	54.
17,965	20,070	21,380	23,245	24,660	25,585	323,110	476,150	682,450	244,600	0	1,924,160	55.
4,303	4,304	4,304	4,290	4,251	4,181	35,075	20,210	14,301	8,021	547	117,700	56.
0	0	0	420	865	1,330	26,569	20,661	8,575	15,395	6,685	80,500	57.
90,877	89,910	88,850	87,714	86,446	85,081	763,034	567,033	301,295	40,021	547	3,219,894	58.
17,965	20,070	21,380	23,665	25,525	26,915	349,679	496,811	691,025	259,995	6,685	2,004,660	59.
0	0	302	630	5,214	9,230	314,665	498,294	201,037	127,500	127,500	1,284,372	60.
0	0	0	0	0	0	0	0	0	0	0	338,026	61.
17,965	20,070	21,682	24,295	30,739	36,145	664,344	995,105	892,062	387,495	134,185	3,627,058	62.
1,089	2,868	5,032	5,010	5,011	5,005	50,000	50,000	436,701	822,126	814,333	2,197,175	63.
149,595	153,244	157,880	168,887	190,631	179,767	2,112,449	2,373,647	2,453,961	2,092,037	1,792,035	13,590,604	64.

Project Construction Expenditur s

The current "1973 Project facilities" construction program is virtually complete.

The future construction program has already begun with continuing manufacture and installation of additional pump and power generation units in plants of the California Aqueduct. Under current assumptions, the future program would end in 1997 with completion of works necessary to maintain the project water supply at the Sacramento-San Joaquin Delta (assumptions illustrate the costs of required additional conservation facilities).

Estimates of future construction expenditures are based on prices and salaries prevailing on December 31, 1972, with the following percentages applied to allow for inflation:

Year	Percent Increase Per Annum: State Salaries	Percent Increase Per Annum: Construction Prices
1973	6	5
1974	6	5
1975	4	4
1976 thru 1980	3	3
after 1980	0	0

Land acquisition costs are assumed to escalate 7.25 percent per annum.

TABLE 7: PROJECT CONSTRUCTION EXPENDITURES

(in thousands of dollars)

FACILITIES AND CONSTRUCTION DIVISIONS	CURRENT PROGRAM — THE "1973 PROJECT FACILITIES"			FUTURE CONSTRUCTION PROGRAM	TOTAL	PRELIMINARY ALLOCATIONS AMONG PROJECT PURPOSES			
	Incurred thru 1972	To be Incurred	Subtotal			Water Supply and Power Generation	Flood Control	Recreation and Fish and Wildlife Enhancement	Other (a
Feather River Facilities:									
Upper Feather Division	14,135	0	14,135	14,991	29,126	1,287	0	27,839	0
Oroville Division	500,587	1,248	501,835	6,238	508,073	426,886	69,616	11,571	0
North Bay Aqueduct	4,053	172	4,225	16,178	20,403	20,400	0	0	3
Delta Facilities	16,877	1,704	18,581	219,055	237,636	204,385	0	33,251	0
South Bay Aqueduct	67,814	197	68,011	77	68,088	48,499	5,608	13,955	26
California Aqueduct:									
North San Joaquin Division	155,529	309	155,838	18,932	174,770	168,676	0	6,094	0
San Luis Division	177,294	316	177,610	21,709	199,319	192,645	0	6,452	222
South San Joaquin Division	252,664	5,660	258,324	3,257	261,581	253,477	0	8,104	0
Tehachapi Division	250,353	7,995	258,348	31,036	289,384	280,696	0	8,688	0
Mojave Division	192,574	8,374	200,948	32,670	233,618	226,152	0	7,466	0
Santa Ana Division	166,428	8,397	174,825	10,763	185,588	175,024	0	10,564	0
West Branch	316,807	24,769	341,576	14,454	356,030	343,234	0	12,796	0
Coastal Branch	14,015	139	14,154	79,386	93,540	93,435	0	0	105
Subtotal	1,525,664	55,959	1,581,623	212,207	1,793,830	1,733,339	0	60,164	327
Additional Conservation Facilities	7,473	310	7,783	299,962	307,745	303,944	0	0	3,801
San Joaquin Drainage Facilities	6,209	0	6,209	0	6,209	0	0	0	6,209
Unassigned	5,751	584	6,335	549	6,884	0	0	0	6,884
TOTAL	2,148,563	60,174	2,208,737	769,257	2,977,994	2,738,740	75,224	146,780	17,250

a) Includes costs currently unassigned to purpose, planning costs of deleted features of project facilities, and initial costs of inventoried items.

Estimated construction expenditures for each construction division, including those under the current 1973 Project facilities program and those under the future program, are summarized in Table 7—together with a preliminary allocation of such expenditures among project purposes.

Line 1: The 1973 Project Facilities. The December 31, 1972 status is described in Chapter I for each facility of the current construction program. In addition, the current construction program includes all investigation, planning, and allocated general costs through 1973 for all project facilities—including the Peripheral Canal and the San Joaquin Drainage Facilities.

Since the 1973 Project facilities are virtually complete, associated costs are shown as one line item in Table 6. Facilities of the future construction program are shown by individual line items, however, and pertinent assumptions for each are described in the following paragraphs:

Line 2: Abbey Bridge and Dixie Refuge Dams and Reservoirs. These facilities would be completed in 1980 and 1983, respectively, for water-oriented recreation in the Upper Feather area. The timing of these facilities is to be reexamined each year.

Line 3: Phase II of the North Bay Aqueduct. The Aqueduct between the Delta and the Napa Valley Pipeline, which would replace the interim connection with the federal Solano Project, would be needed by 1980 for delivery of project water to Solano and Napa Counties. This date could be accelerated if mutually agreed to by the Counties and the Department.

Line 4: Delta Facilities. The Peripheral Canal would be operational by approximately 1980 to protect the environment of the Sacramento-San Joaquin Delta (particularly the striped bass and salmon fishery) and to facilitate transfer of project water across the Delta to Clifton Court Forebay of the California Aqueduct. The Canal would be a state-only facility with provision for future federal participation. It would be a full-sized facility but without the low-lift pumping plant that would be required to convey flows for the federal Central Valley Project. If federal participation develops in time so that a joint-use canal were constructed initially, the project costs shown in Line 4 would be substantially less.

Line 5: California Aqueduct, Final Four Units at Delta Pumping Plant. These 1,067-cubic-foot-per-second units would be operational in January and March 1980, and in January and March 1985, respectively. This schedule could be accelerated or deferred depending on future changes of projected entitlement water deliveries in the south San Francisco Bay, San Joaquin Valley, Central Coastal, and Southern California areas.

Line 6: California Aqueduct, San Luis Canal Modifications. These modifications would be required to maintain and, eventually, to augment the present conveyance capacity between Dos Amigos Pumping Plant and Kettleman City. Measures to compensate for subsidence along the Canal would cost about $8 million (state share) during the period 1979 through 1983. About $11 million would be expended during the period 1983 through 1985 for raising the canal lining to increase the State's capacity by about 1,000 cubic feet per second.

Line 7: California Aqueduct, Final Three Units at A. D. Edmonston Pumping Plant. These 315-cubic-foot-per-second units would be operational in June 1983, October 1983, and February 1984, respectively. This schedule could be accelerated or deferred depending on future changes of projected entitlement water deliveries in Southern California.

Line 8: California Aqueduct, Staged Units and Pipelines South of A. D. Edmonston Pumping Plant. Additional capacity would be installed as needed to convey increased project water deliveries. Staged features include Pastoria Creek Siphon (to be completed in 1983) and Antelope Siphon (to be completed in 1975); the final two pumping units and discharge line at Pearblossom Pumping Plant and the final generating unit and penstock at Devil Canyon Powerplant (to be operational by 1976); and Castaic Dam Outlet Works, Second Stage (to be completed in 1980).

Line 9: California Aqueduct, Buttes Dam and Reservoir. This off-aqueduct reservoir would be needed by 1985 to regulate project water deliveries to Antelope Valley-East Kern Water Agency. Under the Agency's water supply contract, construction of this facility by the State is conditioned on engineering and financial feasibility.

Line 10: California Aqueduct, Final Three Units at Both Las Perillas and Badger Hill Pumping Plants. These 112-cubic-foot-per-second units have already been installed by the Berrenda Mesa Water District, at the District's expense, under special agreements with the Department. This analysis is based on the assumption that the Department would replace Units No. 4 by December 1981 and would purchase, at depreciated values, Units No. 5 (together with the second discharge line at Badger Hill Pumping Plant, also constructed by the District) in January 1977, and Units No. 6 in January 1985. The date for purchase of Units No. 6 could be modified depending on future entitlement water deliveries from the Coastal Branch.

Line 11: California Aqueduct, Phase II of the Coastal Branch. The Coastal Branch, from and including the Devil's Den Pumping Plant to Santa Maria Terminus, would be operational in 1980 to permit delivery of project water to San Luis Obispo and Santa Barbara Counties. Under the Counties' water supply contracts, construction of Phase II could be accelerated, deferred, or eliminated entirely—depending on the exercise of options available to the Counties.

Line 12: California Aqueduct, General Costs. These expenditures cover such items as general design and construction costs, the completion of aqueduct monitor and control systems and operation and maintenance facilities, costs of initial reservoir fill, operations activation costs, and other costs associated

with aqueduct operations as a whole. Portions of these costs would be allocated to the aqueduct units described in the preceding paragraphs.

Line 13: Subtotal, California Aqueduct. The total of Lines 5 through 12.

Line 14: Miscellaneous Project Costs. These expenditures cover various completion items for facilities other than the California Aqueduct.

Line 15. Additional Conservation Facilities, Conveyance Works. The project water yields supplied by Oroville, San Luis, and the Delta Facilities would have to be supplemented by 1996 to satisfy water delivery obligations under executed contracts. The required additional yield would build up to a maximum of 700,000 acre-feet annually at the Sacramento-San Joaquin Delta. Increased Delta outflow requirements could advance this date and require a greater amount of additional conservation yield.

Line 16: Total Future Construction Program. The total of Lines 2 through 4 and Lines 13 through 15.

Line 17: Total Project Construction Expenditures. The total of Lines 1 and 16.

Other Capital Requirements

These requirements are described in the following paragraphs:

Line 18: Davis-Grunsky Act Program. This state financial assistance program, for water developments by local public agencies, is associated with the State Water Project to the extent of $130 million in capital expenditures. Capital expenditures for the Program include disbursements under approved loans and grants and the Department's administrative costs while the respective developments are under construction.

Line 19: Additional Conservation Facilities, Storage Works. The Department assumes that principal and interest payments for reservoir storage constructed by the Corps of Engineers would be made under a federal Water Supply Act of 1958 contract. As had been permitted under such repayment contracts, storage could be divided into several blocks with the capital costs of each block being repaid in 50 equal annual installments of principal and interest commencing in the year the block was first used. For this analysis, the Department assumes that required storage would be divided into two blocks, with repayment of the capital costs of the first block commencing in 1996 and of the second block, in 2003. The applicable federal interest rate is assumed to be 4 percent per annum. These assumptions will be reevaluated periodically.

Line 20: Other Capital Requirements Under Revenue Bond Financing. Under the Central Valley Project Act, the principal amounts of revenue bond sales must include requirements for interest and operation of the financed facilities through one year following completion of construction as well as for construction expenditures. These special requirements and the principal amounts of sales are indicated below for actual and assumed revenue bond issues:

Application of Revenue Bond Proceeds	Oroville (actual)	Devil Canyon-Castaic (actual)	Supplemental (assumed)
		(in millions)	
Project construction expenditures	$218.0	$127.1	$33.7
Plus, Other capital requirements:			
Reimbursement of General Fund	$ 2.6	$ 0.0	$ 0.0
Bond interest through one year following completion of construction	19.9	10.0	3.2
Operating costs for one year following completion of construction	1.5	0.7	0.2
Bond discount	3.0	1.4	0.4
Subtotal	$ 27.0	$ 12.1	$ 3.8
Total, Principal amount of bonds	$245.0	$139.2	$37.5

Line 21: Total, Other Capital Requirements. The total of Lines 18 through 20.

Line 22: Total Capital Expenditures. The total of Lines 17 and 21.

Financing of Capital Expenditures

Three general types of financing have been used for the Project:

Burns-Porter financing, derived from the sale of *California Water Resources Development Bonds* (Water Bonds) and a portion of the State's tideland oil and gas revenues that are deposited in the *California Water Fund* as authorized by the Burns-Porter Act (California Water Code Sections 12930-12944), approved by the Electorate in 1960.

Revenue Bond financing, derived from the sale of revenue bonds as authorized by the Central Valley Project Act (California Water Code Sections 11100-11925). The Department's authority to issue revenue bonds was confirmed by a decision of the Supreme Court of California in 1963 *(Warne v. Harkness,* 60 Cal. 2d 579).

Miscellaneous Receipts, derived from payments and appropriations (including certain additional tideland oil and gas revenues) as authorized by a variety of special contracts, cost-sharing agreements, and legislative actions concerning the State Water Project.

Water Bonds have financed most of the construction costs of the Project. The Burns-Porter Act authorized an issue of $1.75 billion of general obligation bonds of the State which are made self-supporting by revenues under the water supply contracts. This authorization includes a reservation of $130 million specifically for the Davis-Grunsky Act Program. Proceeds from the sale of Water Bonds are deposited in the *California Water Resources Development Bond Fund-Bond Proceeds Account,* from which moneys may be expended only for the construction of project facilities and for the Davis-Grunsky Act Program.

Moneys deposited in the California Water Fund, so named by the Legislature in 1959 (formerly, the Investment Fund, established in 1956), are appropriated for purposes of the Burns-Porter Act. Such deposits are derived from a portion of the State's tideland oil and gas revenues under a continuing authorization. In the past, the Legislature has acted both to decrease and increase the level of deposits. Money may be expended from the Fund only for the construction of project facilities and for the Davis-Grunsky Act Program.

Almost $384.2 million in revenue bonds had been sold by the Department as of December 31, 1972. Additional issues of revenue bonds might be used to supplement project financing. Proceeds from the sale of revenue bonds are deposited in the *Central Valley Water Project Construction Fund* from which money is expended only for purposes specified in the resolution authorizing such sale. These purposes include the payment of (1) bond interest during the construction period, and for one year following completion of construction, and (2) operating costs during a period of one year after completion of construction.

Miscellaneous receipts are deposited in the *Central Valley Water Project Construction Fund* and may be expended for (1) Water Bond Service and (2) construction of project facilities. Under the Department's financial management of the Project, miscellaneous receipts are used during the early years of the Project to the extent needed for coverage of any Water Bond service which exceeds other available annual revenues.

Described below is the application of funds to capital expenditures under the financial analysis.

Line 23: Application of California Water Fund Moneys. The Burns-Porter Act provides that any available money in the California Water Fund shall be applied in lieu of the proceeds from the sale of Water Bonds. When the Act became effective in late 1960, approximately $97 million had been accumulated in the Fund. This balance, together with continuing annual appropriations to the Fund through June 28, 1968, financed a total of $176 million of project construction costs. On June 28, 1968 SB 261 became effective (California Statutes of 1968, Chapter 411) which transferred the remaining balance to the Central Valley Water Project Construction Fund and eliminated accruals to the California Water Fund until July 1, 1972. Since that date, appropriations again are being deposited in the California Water Fund—up to $25 million annually.

The projected use of appropriations to the California Water Fund is shown in the financial analysis only to the extent required under the current estimates of future construction expenditures. However, the Department expects that appropriations to the Fund would continue indefinitely in the full annual amounts now provided for by law. The Department also expects that repayments to the California Water Fund, to be derived from project revenues in excess of operating costs and Water Bond service, would be available for expenditure—such as for principal and interest payments associated with additional conservation storage constructed by the United States.

As shown in Line 23, use of the full annual appropriations of tideland revenues to the Fund (and short-term interest earnings thereon, amounting to $0.75 million maximum annually) would be required for financing construction expenditures through 1979. While the Department expects that full annual appropriations would continue to be available to the Fund, the financial analysis indicates that required expenditures from the Fund would be less than $25 million annually after 1979. Commencing in 1981 increasing annual project repayments to the Fund (see Line 60, Spread 2) could be used in lieu of annual

appropriations so that all financing required after about 1990 could be provided by such repayments.

Finally, it is emphasized that this analysis is based on current estimates and assumptions regarding future capital costs. Such costs could change significantly with future events, especially with regard to the nature and timing of additional conservation facilities.

Line 24: Application of Proceeds from Sale of Oroville Revenue Bonds. All original proceeds from sale of Oroville Revenue Bonds had been applied as of December 31, 1972, except $0.4 million which was then reserved for future construction costs under the bond resolution.

Line 25: Application of Proceeds from Sale of Devil Canyon-Castaic Revenue Bonds. Construction funds provided by the sale of Devil Canyon-Castaic Revenue Bonds consist of (a) $98.9 million which reimbursed other project funds used to finance the Devil Canyon and Castaic Facilities prior to the delivery of the Bonds and (b) $28.2 million which was reserved to complete construction of the Facilities. Included in Line 25 is an indication of the projected use of funds so reimbursed and of funds reserved for future construction. Current estimates of future construction costs of the Facilities are less than the funds reserved by about $3.2 million. Such costs include the installation of the second and last generating unit in the Devil Canyon Powerplant.

Line 26: Application of Proceeds from Sale of Supplemental Revenue Bonds. As previously indicated, a future revenue bond issue is assumed to provide net funds of $33.7 million for application to the construction expenditures shown in this analysis. This amount is, in effect, a balancing item to complete the State Water Project as now contemplated. Unknown future developments could reduce or increase this amount.

Line 27: Application of Proceeds from Sale of Water Bonds, Davis-Grunsky Act Program. For simplification, the $130 million of capital expenditures authorized for the Davis-Grunsky Act Program under the Burns-Porter Act are shown to be funded solely by proceeds from the sale of Water Bonds, although the California Water Fund was used for a portion of these expenditures in lieu of bond proceeds. This simplification does not in any way affect the validity of the analysis.

Line 28: Application of Proceeds from Sale of Water Bonds, Additional Conservation Facilities. The Burns-Porter Act provides that to the extent California Water Fund moneys are expended, an equal amount of proceeds from the sale of Water Bonds is reserved ("offset") for financing the construction of certain additional conservation facilities to be located in either or both the North Coastal area and the Sacramento Valley. The maximum reservation of "offset" bonds is effectively limited to $176 million—equal to the amount of California Water Fund moneys already expended for the Project. All future Water Bond proceeds are reserved for either the additional facilities or the Davis-Grunsky Act Program. Under this analysis, $167 million of the $176 million reservation would not be required if associated storage would, in fact, be constructed by the United States with capital provided by the Congress. The remaining costs of such facilities could be financed by other available funds. However, the timing required for such construction or the use of some alternative development in lieu of the one assumed would have a direct bearing on the projected use of "offset" bonds.

Line 29: Application of Proceeds from Sale of Water Bonds, 1973 Project Facilities. This application is limited to $1.444 billion of the total $1.75 billion Burns-Porter authorization—after deducting the $130 million reservation for the Davis-Grunsky Act Program and the $176 million 'offset' reservation for additional facilities.

Line 30: Total Application of Proceeds from Sale of Bonds. The total of Lines 24 through 29. (See Table 8 for a summary of actual and projected bond sales, together with information concerning interest costs and principal maturities.)

Line 31: Application of Miscellaneous Receipts. Under the Department's financial management of the Project, the first call on miscellaneous receipts is coverage of any Water Bond service which exceeds available operating revenues. The estimated portion of receipts remaining for application to construction expenditures depends on an analysis of total available receipts and project operating revenues in relation to operating costs and bond service requirements—shown on Spread 2 of Table 6.

Line 32: Total Financing of Capital Expenditures. This line—the total of Lines 23, 30, and 31—corresponds with Line 22 and illustrates that all capital expenditures would be funded under the analysis.

Miscellaneous Receipts

Described below are the miscellaneous receipts available for application to (1) Water Bond service and (2) project construction expenditures.

Line 33: Federal Payments for "Open-Space" and Flood Control. About $1.5 million in federal payments had been received through December 31, 1972, for acquisition costs of those project and recreation lands reserved for "open-space"—the total expected. Federal payments received through December 31, 1972, for project costs allocated to flood control totaled $73.1 million—$68.2 million for Oroville and $4.9 million for Lake Del Valle. Line 33 includes an allowance for an additional $1.0 million of payments for Lake Oroville. Payments for Lake Del

TABLE 8: BOND SALES AND PROJECT INTEREST RATES

Bond Sales	Date of Sale	Dollar-years (a)	Interest Cost (b)	Percent Interest Cost (c)	Project Interest Rate (d)
	(1)	(2)	(3)	(4)	(5)
Actual Issues					
$50,000,000 Bond Anticipation Notes	11/21/63	26,944	531	1.970	1.970
$100,000,000 Series "A" Bonds	2/18/64	3,402,000	119,750	3.520	3.508
$50,000,000 Series "B" Bonds	5/5/64	1,726,000	60,986	3.533	3.516
$100,000,000 Series "C" Bonds	10/7/64	3,452,000	123,764	3.585	3.544
$100,000,000 Series "D" Bonds	2/16/65	3,497,900	122,403	3.499	3.531
$100,000,000 Series "E" Bonds	11/23/65	3,497,900	130,029	3.717	3.573
$100,000,000 Series "F" Bonds	6/8/66	3,497,900	137,359	3.927	3.638
$100,000,000 Series "G" Bonds	11/22/66	3,497,900	143,788	4.111	3.711
$100,000,000 Series "H" Bonds	3/21/67	3,497,900	129,261	3.695	3.709
$100,000,000 Series "J" Bonds	7/18/67	3,497,900	143,199	4.094	3.754
$100,000,000 Series "K" Bonds	11/14/67	3,497,900	163,887	4.685	3.853
$150,000,000 Revenue Bonds, Oroville Division, Series "A"	4/3/68	5,228,700	270,289	5.197	-
$100,000,000 Series "L" Bonds	7/11/68	3,497,900	166,918	4.772	3.941
$100,000,000 Series "M" Bonds	10/22/68	3,497,900	169,989	4.860	4.021
$94,995,000 Revenue Bonds, Oroville Division, Series "B"	4/1/69	3,423,460	195,902	5.767	-
$46,761,000 Cumulative 1970 General Fund Borrowing; repaid 7/10/70	-	4,938	346	7.007	4.021
$200,000,000 Series "N" and "P" Bond Anticipation Notes	6/16/70	200,000	11,660	5.830	4.030
$100,000,000 Series "N" Bonds	2/2/71	3,447,900	190,292	5.519	4.148
$100,000,000 Series "Q" Bond Anticipation Notes	3/10/71	100,000	2,349	2.350	4.143
$100,000,000 Series "P" Bonds	4/21/71	3,397,900	193,377	5.691	4.255
$150,000,000 Series "Q" and "R" Bonds	11/9/71	5,171,850	265,734	5.138	4.342
$40,000,000 Series "S" Bonds	3/28/72	1,399,160	76,509	5.468	4.371
$139,165,000 Devil Canyon-Castaic Revenue Bonds (e	8/8/72	4,776,204	258,839	5.419	4.457
Projected Issues					
$10,000,000 Series "T" Bonds	3/20/73	185,265	9,491	5.122	4.459
$10,000,000 Series "U" Bonds	3/1/74	185,265	9,263	5.0	4.460
$10,000,000 Series "V" Bonds	3/1/75	185,265	9,263	5.0	4.462
$13,000,000 Series "W" Bonds	3/1/76	240,845	12,042	5.0	4.464
$37,500,000 Supplemental Revenue Bonds (f	3/1/78	1,284,888	70,667	5.5	4.486

a) A unit equivalent to one dollar of principal amount outstanding for one year, in thousands.
b) In thousands of dollars.
c) The total interest cost (without regard to premiums received) divided by the total dollar-years, expressed as a percent.
d) Determined by dividing cumulative interest costs by cumulative dollar-years, expressed as a percent. Excluding Central Valley Project Revenue Bonds, Oroville Division, which do not affect the calculation of the "project interest rate".
e) Bonds sold at a net interest cost of 5.446 percent. Net proceeds for financing construction costs plus bond discount amounting to $126,893,000 are used for purposes of the project interest rate.
f) Net proceeds for financing construction costs plus bond discount amounting to $34,134,000 are used for purposes of the project interest rate.

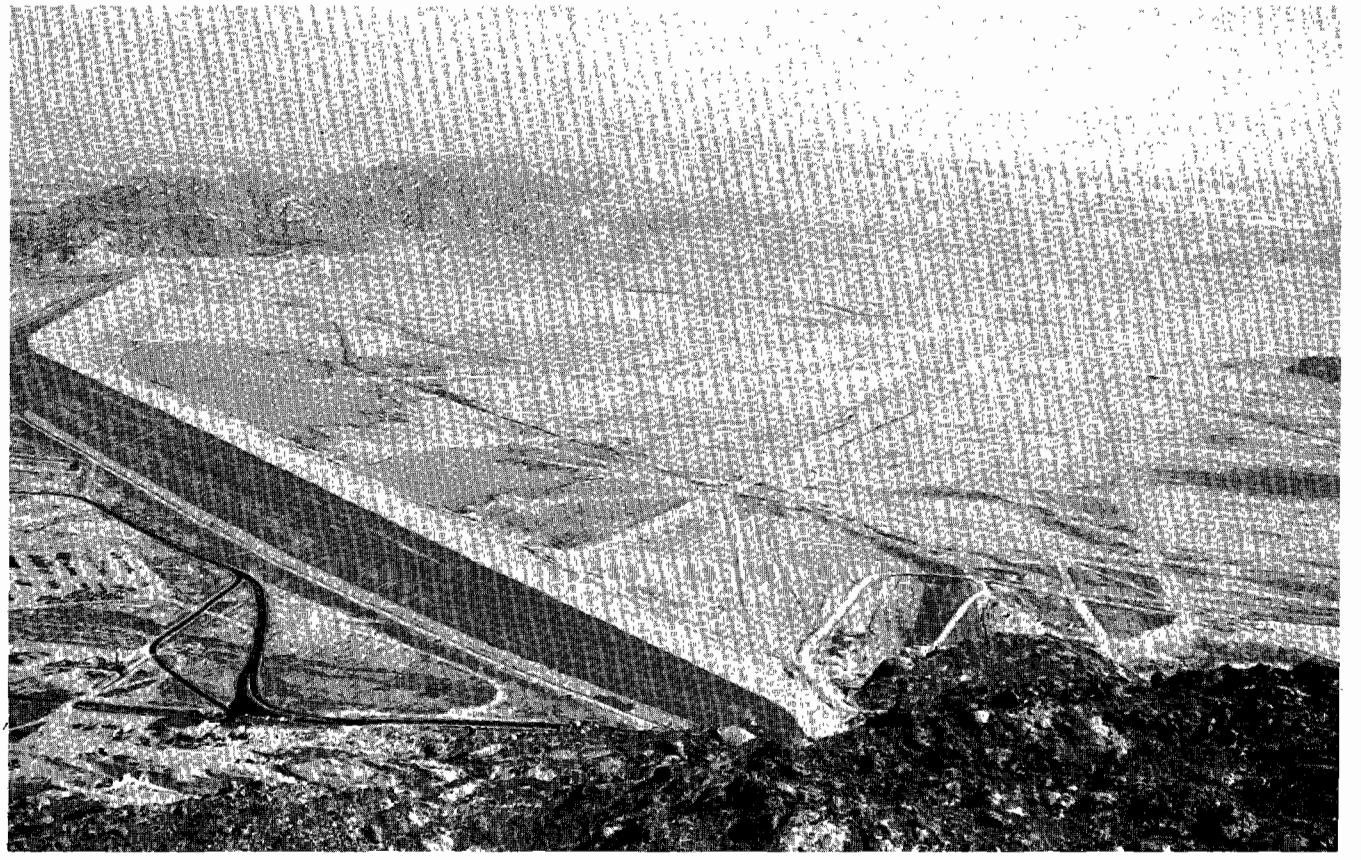
Valle are complete under the present agreement. While not included in Line 33, there is a possibility of an additional $0.6 million payment under a supplemental agreement (see page 5, Bulletin 132-72).

Line 34: Appropriations Prior to the Burns-Porter Act. Year-to-year appropriations financed all construction expenditures prior to the effective date of the Burns-Porter Act, November 8, 1960. Expenditures so financed ended in 1963 and totaled about $11 million from the General Fund and $88 million from the Investment Fund (succeeded by the California Water Fund in 1959). These amounts exclude $1 million from the Local Projects Assistance Fund which financed the Davis-Grunsky Act Program prior to the $130 million authorization of the Burns-Porter Act. While these special appropriations do not fit the general definition of "miscellaneous receipts" in that they were not deposited in the Central Valley Water Project Construction Fund, they are so classified to simplify the presentation of the financial analysis.

Line 35: Appropriations for Construction Costs Allocated to Recreation and Fish and Wildlife Enhancement. By enactment of AB 12 (California Statutes of 1966, First Extraordinary Session, Chapter 27), $5 million of the State's tideland oil and gas revenues is deposited annually in the Central Valley Water Project Construction Fund for repayment of (1) project costs (construction expenditures) allocated to recreation and fish and wildlife enhancement and (2) costs of acquiring lands for recreation developments associated with the Project. As indicated in Table 7, such costs total about $147 million. The $5 million annual appropriation would extend through about 2031 in order to reimburse the Project, with interest, assuming that 60 percent of such costs would be financed by Water Bonds bearing an average interest cost of 4.4 percent.

Line 36: Appropriations Under SB 261 (1968). By enactment of SB 261, the June 28, 1968 balance of moneys in the California Water Fund was transferred to the Central Valley Water Project Construction Fund, together with appropriations of tideland oil and gas revenues in annual amounts of $11 million through June 30, 1970 and $25 million thereafter until June 30, 1972.

Line 37: City of Los Angeles Payments for Cooperative (Castaic) Power Development. Under a 70-year contract executed September 2, 1966, the State constructed the Angeles Tunnel with a 30-foot diameter instead of with a 17-foot diameter as originally planned. In return, the City is constructing and will operate and maintain a 1,250-megawatt Castaic Powerplant and will supply the State, without charge, power equivalent in value to that which the State would have produced in its originally planned 220-megawatt powerplant. The value of this supply is accounted for in a subsequent section as a credit to project operating costs in the same manner as other



Perris Dam
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aqueduct power credits. In addition, the City is making certain payments, shown in Line 37, to ensure that the benefits of joint development are equally realized by both the State and the City. Neither the payments shown in Line 37 nor the estimated construction expenditures for the Project include those for the Castaic Surge Chamber—constructed by the State but directly financed by the City.

Line 38: Water Contractor Advances for Construction of Requested Works. The respective water contractors are required to finance, in advance, costs of delivery structures (turnouts) constructed for them by the State and of any excess capacity the State is requested to construct in project facilities.

Advance payments for State construction requested by certain contractors are summarized below:

	(in millions)
Requested excess capacity:	
° The Metropolitan Water District of Southern California:	
(a) for 188 cubic foot per second excess capacity in reaches from Kettleman City to the Junction of the West Branch	$19.4
(b) for enlargement of Lake Perris above a basic capacity of 100,000 acre-feet	$13.9
(c) for 787 cubic foot per second excess capacity in the San Bernardino Tunnel	$12.0
° San Gabriel Valley Municipal Water District, for 21 cubic foot per second of excess capacity in the San Bernardino Tunnel	$ 0.3
° Antelope Valley-East Kern Water Agency, for 19 cubic foot per second excess capacity in the reaches of the West Branch from the Junction through the Quail facilities	$ 0.3
Subtotal	$45.9
Required advance payment of water charges by The Metropolitan Water District of Southern California for originally requested excess capacity in the West Branch, now classified as basic project capacity	$16.3
Requested delivery structures constructed or to be constructed by the State	$ 8.6
Total water supply contractor advances for state construction of requested works	$70.8

Advance payments for requested excess capacity are determined by contract formula so as to assure more than sufficient funds to cover the additional construction costs involved. For purposes of the financial analysis, the Department assumes that such advance payments would exceed the additional construction costs involved, with interest, by $35.8 million. Credits for these assumed overpayments have been applied to reduce estimated project operating revenues which otherwise would be derived from water charges, described in a subsequent section.

Line 39: Investment Earnings on Unexpended Miscellaneous Receipts. The Department assumes that future balances remaining in the Central Valley Water Project Construction Fund, including unexpended revenue bond proceeds, would realize short-term interest income at 5.5 percent per annum. This line also includes income from certain right-of-way sales in the amount of $1.5 million.

Line 40: Total Miscellaneous Receipts. The total of Lines 32 through 39.

Project Operating Revenues

Project operating revenues are deposited in two primary accounts: The *Central Valley Water Project Revenue Fund,* in which are placed all revenues pledged to revenue bonds, and the *California Water Resources Development Bond Fund-Revenue Account,* in which are placed all other project operating revenues, including interest earnings on any unexpended proceeds from the sale of Water Bonds.

Line 41: Power Pool Companies' Payments under Oroville-Thermalito Power Sale Contract (extended). The Oroville-Thermalito Power Sale Contract will terminate on April 24, 2018, or when Oroville Revenue Bonds are retired—whichever date is later. The Companies (Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas and Electric Company) are obligated to pay approximately $8.1 million semiannually to the Department until contract termination. These firm payments are based on an estimated annual net energy generation of 2.1 billion kilowatt-hours. The contract provides for an energy adjustment account which can be periodically cleared through supplemental payments by the Companies or through payments by the Department in the event actual annual net energy generation is more or less than 2.1 billion kilowatt-hours, respectively.

For the financial analysis, the Department assumes that revenues from the sale or other disposal of Oroville-Thermalito power would continue to be available to the Project after termination of the present contract—under payment terms similar to the present contract. Project revenues shown in Line 41 include the fixed semi-annual payments, together with revenues received for power used for project pumping prior to the "full operation date" and estimated future net receipts under the operation of the energy adjustment account.

Line 42: Water Contractor Payments under Devil Canyon-Castaic Contract. As described in the section entitled, "Providing Funds for Future Construction", Chapter I, these payments are equal to the annual service of Devil Canyon-Castaic Revenue Bonds and annual operating costs of the Devil Canyon and Castaic Facilities allocated to power generation.

Line 43: Contractor Payments (Assumed) for Supplemental Revenue Bonds. These payments would cover annual debt service on the assumed future issue of revenue bonds which might be used to provide construction funds for certain currently undefined aqueduct facilities, together with operating costs associated with such facilities.

Line 44: Water Contractor Payments Under Long-term Water Supply Contracts. Water supply contracts provide for payments of two charges: (1) a Delta Water Charge and (2) a Transportation Charge.

The Delta Water Charge is a charge for each acre-foot of water the contractors are entitled to receive; it is computed so as to return to the State during the contract term all appropriate costs of project conservation facilities, together with interest thereon. Project conservation facilities are defined as those facilities which conserve water, including Lake Oroville, Delta Facilities, additional conservation facilities and San Luis Reservoir and a portion of the California Aqueduct leading thereto from the Delta. Costs allocated to flood control and recreation and fish and wildlife enhancement are not paid under the water supply contracts. Both debits for power costs and credits for power revenues of project conservation facilities are included in the determination of the Delta Water Charge.

The Transportation Charge is computed so as to return to the State during the contract term the costs of the aqueducts necessary to deliver water to the respective contractors, together with interest thereon. Such costs exclude in addition to those allocated to flood control and recreation and fish and wildlife enhancement, the costs of the Devil Canyon and Castaic Facilities allocable to power.

Each year's costs of each aqueduct reach are allocated among contractors whose deliveries are or will be conveyed through that reach. For contractors with predominately municipal and industrial water use, the allocated amounts of each year's construction expenditures are required to be repaid, together with interest, in 50 equal annual installments. For contractors with predominately agricultural water use, allocated construction costs are repaid by a uniform charge per acre-foot of water entitlement, computed so as to return to the State during the contract term such costs with interest.

Operating costs reimbursed through the Transportation Charge are paid currently. Construction costs reimbursed through the Transportation Charge and all construction and annual operating costs reimbursed through the Delta Water Charge are to be repaid with interest at the "project interest rate".

The project interest rate is determined as the weighted average of the rates paid on securities issued to finance project facilities, excluding Oroville Revenue Bonds. Under original contract provisions, the basis for determining the project interest rate was the weighted average of the rates paid on Water Bond sales only. Under contract amendments executed in 1969, after issuance of Oroville Revenue Bonds, the basis was expanded to include the rates on all other securities sold thereafter for financing the project facilities, including revenue bonds (see page 28, Bulletin 132-70). However, not all proceeds from the sale of revenue bonds are melded in the calculation of the project interest rate—only those proceeds applied to construction costs (the only application of

general obligation bonds permitted by law) and those consumed in the bond discount (a component of the total interest cost of a revenue bond issue). Shown below is the percent of the total proceeds from revenue bond issues which affect the actual and projected calculation of the project interest rate:

Revenue Bond Proceeds	Devil Canyon-Castaic (actual)	Supplemental (assumed)
	(in millions)	
Applied to construction costs	$127.1	$33.7
Less, portion of such proceeds derived from interest earnings prior to delivery of bonds[a]	1.6	0.0
Plus, bond discount	1.4	0.4
Subtotal, proceeds included in calculating the Project Interest Rate	$126.9	$34.1
Principal amount of bonds	$139.2	$37.5
Percent total principal amount included in calculating the Project Interest Rate	91%	91%

a) For similar treatment as for Water Bond proceeds, whereby such accrued interest constitutes a part of the Project's operating revenues -- not of the Project's construction funds.

Table 8 presents a derivation of actual and projected project interest rates.

A detailed development of water charges for each contractor is presented in Appendix B which is based on presently known conditions and supports the Department's determination of 1974 water charges—to be billed by July 1, 1973. However, there are the following significant differences between the projection of charges shown in Line 44 and the substantiation of 1974 charges shown in Appendix B:

Future capital costs shown in Appendix B are based on prices prevailing on December 31, 1972. Those shown in the financial analyses include allowances for future price escalation.

The project interest rate basic to charges shown in Appendix B is based on actual bond sales at the time this report was prepared (4.457 percent). The project interest rate basic to the charges shown in Line 44 also reflect the projected bond sales shown in Table 8.

Pre-1974 charges shown in Appendix B represent what such charges should have been under presently known conditions. Pre-1974 charges shown in Line 44 are those actually paid under previously determined bills.

Charges for 1974 and thereafter shown in Appendix B are unadjusted. Such charges shown in Line 44 include adjustments for any apparent overpayments or underpayments of pre-1974 charges and credits due to prepayments of the capital cost component which will result under various contract amendments involving excess aqueduct capacity.

- The charges shown in Appendix B are those which would apply in the absence of the Devil Canyon-Castaic contract. The charges shown in Line 44 recognize that the costs covered by the Contract are not paid under the water supply contracts.
- The charges shown in Appendix B represent billed amounts for the respective years. The amounts shown in Line 44 represent the payment of such charges—which may lag billed amounts by one or more months. (For instance, certain payments for operating costs incurred during a particular year will actually accrue to the State during the early months of the following year).

Line 45: Federal Payments for Joint Operating Costs of San Luis Facilities. Under the December 30, 1961 Agreement between the State and the United States, the Department operates and maintains the joint-use San Luis Facilities. Under the January 12, 1972 Supplement to the Agreement, the United States pays 45 percent of the costs incurred by the Department for these activities (excluding power costs), subject to review in 1975. The amounts shown in Line 45 are based on the assumption of an indefinite extension of this percent federal share.

Line 46: Appropriations for Operating Costs Allocated to Recreation. Under the Davis-Dolwig Act, the Legislature declared its intent that, except for funds provided pursuant to AB 12 (1966), the Department's budget shall include appropriations from the General Fund of moneys necessary for enhancement of fish and wildlife and for recreation in connection with state water projects. The $5 million annual AB12 appropriation is for repayment of construction costs—annual operating costs allocated to recreation and fish and wildlife enhancement are paid by General Fund appropriations.

Line 47: Local Agency Payments Under Davis-Grunsky Loan Repayment contracts. As pointed out in the section "Davis-Grunsky Act Program", Chapter I, almost $28.7 million in loan applications had been approved as of December 31, 1972. The amounts shown in Line 47 are based on the assumption that $20.2 million in future contracts would be approved—bringing estimated total loans under the $130 million authorization to $48.9 million (37.6 percent). All future loans are assumed to be repaid in 50 years at 2.5 percent interest, with an initial five-year deferment of principal repayment.

Line 48: Miscellaneous Revenues. Miscellaneous revenues include annual payments by the City of Los Angeles for a share of the maintenance costs of the Angeles Tunnel, revenue bond proceeds applied to revenue bond service and operating costs through

one year following completion of construction, interest earnings on unexpended proceeds from sale of Water Bonds, and other short-term investment earnings.

Line 49: Total Project Operating Revenues. The total of Lines 41 through 48.

Line 50: Total Miscellaneous Receipts and Project Operating Revenues. The total of Lines 40 and 49.

Application of Revenues and Miscellaneous Receipts

Revenues pledged to revenue bonds, deposited in the Central Valley Water Project Revenue Fund, are disbursed in accordance with resolutions authorizing the issuance of such bonds. All other operating revenues, deposited in the California Water Resources Development Bond Fund-Revenue Account, are disbursed in accordance with the following priorities of use as specified in the Burns-Porter Act:

1. Project operating costs.
2. Water Bond service.
3. Repayment of project expenditures from the California Water Fund.
4. Deposits to a reserve for future construction of the State Water Resources Development System.

Line 51: Carryover (-) and Application (+) of Receipts and Revenues Held Temporarily in Reserve. The only carryover of receipts and revenues from year-to-year concerns a temporary reserve to ensure that future annual service on Water Bonds will be met. Portions of annual miscellaneous receipts accruing after 1979 and all such receipts accruing after 1981—not needed for either bond service or construction expenditures under this analysis—are included in Line 63 as being available for financing future construction of the State Water Resources Development System.

Line 52: Project Operating Costs. Actual and estimated project operating costs are presented in Table 9 under three bases: (1) by project facilities; (2) by type of component cost; and (3) by project purpose. Allowances for future long-term price escalation are not included in these estimates since operating costs do not substantially affect the overall results of the financial analysis. (For the most part, changes of operating costs cause direct, offsetting changes of operating revenues.)

Power costs are the largest single annual operating expense of the Project. Under ultimate water delivery conditions, power costs are presently estimated at $73 million annually, including costs of transmission service.

Project pumping energy requirements will continue to increase over the next 20 years at an average rate of about 350 million kilowatt-hours annually, ultimately reaching 13 billion kilowatt-hours by the year 2020. Presently, the Project has three sources of purchased power; Canadian Entitlement, Bonneville Power Administration, and the California Suppliers. The unit rates for Canadian Entitlement and California Suppliers' power sources are fixed until March 31, 1983. Bonneville Power Administration rates are subject to change in 1974 and every five years thereafter.

The long-term outlook in the electric power industry continues to reflect a rising trend in electric power costs. Higher power costs can be expected in the future due to (1) environmental factors resulting in siting problems and construction delays, (2) more stringent licensing and safety requirements, (3) escalation of labor and materials costs, and (4) rising fuel costs. The combined effect of these factors will have a major impact on project power costs after March 1983 when new rates will become effective under the Suppliers' Contract.

In previous Bulletins 132, projected power costs were clearly understated in view of current price levels. As reported in Bulletin 132-72, projections were to be updated in three stages to reflect more realistic power costs after 1982. The estimated annual power costs shown in Table 9 represent the second stage of updating.

The Department currently assumes that project power sources, beginning in April 1983, will consist of recovery plant generation and power from a nuclear powerplant cooperatively developed and financed by the State with one or more of the California utilities—with only supplemental offpeak energy purchased from the California Suppliers. The Department also assumes that the State's share of such a powerplant would be financed with revenue bonds.

Line 53: Deposits to Special Reserves under Revenue Bond Financing. Only those deposits derived from project operating revenues and miscellaneous receipts are shown in this line.

In regard to Oroville Revenue Bonds, such deposits include the following:

- Payments to the Department for energy and generating capability prior to April 1, 1969, under terms of interim letter agreements and all other power revenues for a period of one year following completion of construction.
- Payments to the Department from the energy adjustment account for net annual energy generation in excess of 2.1 billion kilowatt-hours.
- Federal flood control contributions in the amount of $2.4 million for allocated operations and maintenance costs.

In regard to Devil Canyon-Castaic Revenue Bonds, such deposits consist of about $9.2 million to

provide a reserve approximating maximum annual bond service.

The ultimate effect of these reserves, together with interest earnings thereon, is to accelerate the last year that operating revenues are applied to revenue bond service. For simplicity, the interest earnings of these reserves is ignored in the financial analysis.

Lines 54-55: Payment of Service on Bonds Sold as of December 31, 1972. Tables 12 and 13, Bulletin 132-72, show the annual principal and interest payments on Oroville Revenue Bonds (Series A and B) and Water Bonds (Series A through R), respectively—all sold as of December 31, 1971. Annual service on bonds sold during 1972 are shown in Table 10 of this bulletin, for Devil Canyon-Castaic Revenue Bonds and Water Bonds (Series S), together with cumulative total annual service.

Line 54 also includes approximately $0.3 million in interest payments to the General Fund for the temporary loan of $46.8 million in 1970—repaid by proceeds from the sale of Series N Water Bonds.

Line 56-57: Assumed Payment of Service on Future Bond Sales. Table 11 shows the projected annual service on supplemental revenue bonds under the assumptions of this analysis and on those Water Bonds remaining to be issued for the Davis-Grunsky Act Program.

Assumptions concerning the service on supplemental revenue bonds are as follows:

The net interest cost on sales would average 5.5 percent.

The service pattern would provide for no maturities during the first ten years after issuance, with a final maturity 50 years after issuance.

Assumptions concerning the service on future Water Bonds are as follows:

The net interest cost would average 5.0 percent.

The service pattern would provide for no maturities during the first nine years after issuance, with a final maturity 25 years after issuance.

Lines 58-59: Total Payments of Bond Service. The total of Lines 54 and 56 and 55 and 57, respectively.

Line 60: Repayment of the California Water Fund. The Burns-Porter Act requires the repayment of expenditures from the California Water Fund. Under the financial analysis, expenditures from the California Water Fund would be substantially repaid by 2010. The continuing annual repayments shown thereafter represent the replacement, with operating revenues, of expenditures from the Fund for annual principal and interest payments to the United States for additional conservation storage under the assumptions of this analysis.

Line 61: Application of Miscellaneous Receipts to Construction Expenditures. This line matches Line 31. All projected annual accruals of miscellaneous receipts would be totally applied to Water Bond service and construction expenditures through 1979 under the financial analysis. After 1979, all financing for future construction costs would be provided from the California Water Fund under current estimates and assumptions. Such costs could change significantly with future events. After 1979, the portions of annual receipts not applied to Water Bond service would be reserved for financing future construction —shown in Line 63.

Line 62: Subtotal, Repayment of Capital Financing. This line is the subtotal of Lines 59, 60, and 61 and demonstrates the schedule by which the Project will eventually reimburse, with project income, all funds required to finance capital expenditures as shown in Line 32.

Line 63: Reservation for Future Construction. In accordance with the Burns-Porter Act all project revenues in excess of project operating costs, Water Bond service, and California Water Fund repayment shall be deposited in a reserve account for financing future construction of the State Water Resources Development System. Also included in the amounts shown in Line 63 are those miscellaneous receipts (primarily reimbursements of construction costs allocated to recreation and fish and wildlife enhancement) which accrue too late to be applied to construction expenditures under this analysis.

Within the constraints of timing, accruals to the reserve could be available for financing the San Joaquin Drainage Facilities and all or a portion of other additional project costs in the event contingencies, such as those referred to at the beginning of this chapter, occur. However, if such additional costs were to be incurred in annual amounts preceding and exceeding the annual amounts shown in Line 63, the required use of full appropriations to the California Water Fund could extend well beyond 1979 (the last year of such full use as indicated in the analysis) and the eventual need for supplemental construction funds could exceed the amount projected herein.

Line 64: Total Project Operating Costs and Miscellaneous Receipts. This summary of the application of revenues and receipts matches the total accrual of such moneys as shown in Line 50.

TABLE 9: PROJECT

(in thousands

FEATURE	Calendar							
	1962-1972	1973	1974	1975	1976	1977	1978	1979
BY PROJECT FACILITY:								
Feather River Facilities	14,813	4,280	4,377	4,189	4,143	4,108	4,092	4,162
North Bay Aqueduct	320	56	55	55	60	61	68	63
Delta Facilities	0	0	0	0	0	0	0	0
South Bay Aqueduct	7,668	1,179	1,217	1,191	1,181	1,186	1,232	1,095
California Aqueduct:								
Main Line - Delta to A. D. Edmonston	38,238	15,275	14,047	15,546	16,328	17,021	17,285	18,452
Main Line - A. D. Edmonston to Lake Perris	4,171	6,716	7,983	8,787	9,671	9,653	10,832	12,036
West Branch	1,728	1,496	1,711	912	472	436	-76	-418
Coastal Branch	3,095	769	762	753	768	770	796	756
Additional Conservation Facilities								
Trans-Basin Diversion Works	0	0	0	0	0	0	0	0
Payments to Corps for Operating Costs	0	0	0	0	0	0	0	0
Water Quality Monitoring Programs (San Joaquin Valley and Sacramento-San Joaquin Delta)	0	557	497	430	430	430	430	430
Davis-Grunsky Act Program (continuing administrative costs)	0	129	69	77	84	92	100	100
TOTAL OPERATING COSTS	70,033	30,457	30,718	31,940	33,137	33,757	34,759	36,776
BY COMPOSITION:								
Salaries and Expenses of Headquarters Personnel	57,818	7,371	7,296	6,813	6,754	6,959	6,589	6,638
Salaries and Expenses of Field Personnel	49,910	13,845	14,853	15,043	14,995	14,690	14,990	14,994
Pumping Power:								
Used by Pumping Plants	15,165	13,807	15,388	14,058	16,548	17,701	19,763	23,018
Produced by Recovery Plants	-1,878	-2,661	-4,380	-4,429	-5,801	-6,167	-7,122	-8,541
Deposits to Replacement Reserves	2,045	856	862	864	900	900	900	900
Other Costs (a	(b	369	366	366	366	366	366	366
Less, Portion of Costs Incurred During Construction	-53,027	-3,130	-3,667	-775	-625	-692	-727	-599
TOTAL OPERATING COSTS	70,033	30,457	30,718	31,940	33,137	33,757	34,759	36,776
BY PROJECT PURPOSE:								
Water Supply and Power Generation	60,241	26,926	27,087	28,357	29,522	30,137	31,119	33,037
Recreation and Fish and Wildlife Enhancement	3,125	1,459	1,576	1,542	1,589	1,580	1,596	1,708
Flood Control	83	28	29	29	29	29	29	29
Miscellaneous Purposes:								
Federal Share, San Luis Facilities	6,578	1,713	1,762	1,758	1,744	1,750	1,750	1,739
Other (Davis-Grunsky, Drainage, City of L. A.)	6	331	264	254	253	261	265	263
TOTAL OPERATING COSTS	70,033	30,457	30,718	31,940	33,137	33,757	34,759	36,776

a) Includes other costs such as annual bond issuance expenses, Oroville-Thermalito insurance premiums, and payments to Corps for operating costs, Upper Eel River Development.

b) These costs are included in Salaries and Expenses of Headquarters Personnel.

OPERATING COSTS

of dollars)

Year											
1980	1981	1982	1983	1984	1985	1986-1995	1996-2005	2006-2015	2016-2025	2026-2035	TOTAL 1962-2035
4,191	4,197	4,247	4,227	4,204	4,215	42,080	42,180	42,180	42,180	42,180	280,245
221	211	216	233	237	241	2,945	3,326	3,336	3,316	3,327	18,347
1,613	1,577	1,579	1,575	1,547	1,667	14,038	13,936	13,936	13,936	13,936	79,340
1,238	1,232	1,277	1,453	1,513	1,554	15,634	15,920	15,878	15,789	15,861	103,398
18,900	19,730	20,741	23,432	24,152	23,476	311,428	351,847	378,681	397,260	396,160	2,117,999
11,935	12,178	13,366	15,341	16,744	17,793	232,212	298,561	330,354	340,686	344,120	1,703,139
-646	-674	-1,092	-584	-805	-827	-21,388	-27,761	-31,304	-38,066	-38,207	-155,093
1,155	1,119	1,153	1,324	1,390	1,445	17,285	20,650	21,312	20,929	21,012	117,243
0	0	0	0	0	0	0	20,381	24,781	24,781	24,781	94,724
0	0	0	0	0	0	0	10,300	14,500	14,500	14,500	53,800
430	430	430	430	430	430	4,300	4,300	4,300	4,300	4,300	27,284
100	100	100	100	100	100	1,000	1,000	1,000	1,000	1,000	6,251
39,137	40,100	42,017	47,531	49,512	50,094	619,534	754,640	818,954	840,611	842,970	4,446,677
8,057	6,711	6,734	6,735	6,733	6,652	65,977	55,961	51,762	51,762	51,762	425,084
15,052	16,394	16,394	16,394	16,394	16,629	164,405	191,835	200,435	200,435	200,435	1,208,122
23,561	25,048	27,039	33,836	36,020	36,648	510,213	632,418	698,592	727,319	730,520	3,616,662
-8,795	-9,270	-9,395	-10,677	-10,692	-10,914	-131,285	-149,467	-159,928	-166,998	-167,840	-876,240
935	935	935	935	980	993	9,933	9,933	9,933	9,933	9,933	63,605
366	366	366	366	366	366	3,660	13,960	18,160	18,160	18,160	76,861
-39	-84	-56	-58	-289	-280	-3,369	0	0	0	0	-67,417
39,137	40,100	42,017	47,531	49,512	50,094	619,534	754,640	818,954	840,611	842,970	4,446,677
35,211	36,161	38,019	43,413	45,464	46,083	578,798	708,266	770,925	792,651	795,270	4,156,687
1,891	1,900	1,957	2,067	2,005	1,967	20,366	21,837	22,546	22,485	22,230	135,426
29	30	30	31	31	31	304	1,074	1,250	1,250	1,250	5,595
1,744	1,747	1,748	1,756	1,750	1,751	17,436	17,460	17,460	17,460	17,460	116,566
262	262	263	264	262	262	2,630	6,003	6,773	6,765	6,760	32,403
39,137	40,100	42,017	47,531	49,512	50,094	619,534	754,640	818,954	840,611	842,970	4,446,677

TABLE 10: ANNUAL SERVICE ON BONDS SOLD AS OF DECEMBER 31, 1972

(in thousands of dollars)

Calendar Year	Bonds Sold as of December 31, 1971				Bonds Sold During 1972				Total Bonds Sold as of December 31, 1972	
	Series A through R Water Bonds (a		Oroville Revenue Bonds		Series S Water Bonds		Devil Canyon-Castaic Revenue Bonds			
	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest
1964	0	3,333	0	0	0	0	0	0	0	3,333
1965	0	11,114	0	0	0	0	0	0	0	11,114
1966	0	16,743	0	0	0	0	0	0	0	16,743
1967	0	26,911	0	0	0	0	0	0	0	26,911
1968	0	37,761	0	3,876	0	0	0	0	0	41,637
1969	0	47,460	0	10,448	0	0	0	0	0	57,908
1970	0	53,290	0	13,145	0	0	0	0	0	66,435
1971	0	63,035	0	13,145	0	0	0	0	0	76,180
1972	0	68,034	1,260	13,112	0	1,115	0	0	1,260	82,261
1973	1,200	66,859	1,330	13,042	0	2,229	0	7,708	2,530	89,838
1974	3,000	66,784	1,400	12,969	0	2,230	0	7,708	4,400	89,691
1975	5,000	66,619	1,475	12,893	0	2,229	0	7,708	6,475	89,449
1976	7,000	66,383	1,555	12,811	0	2,230	0	7,708	8,555	89,132
1977	10,200	66,026	1,635	12,727	0	2,229	0	7,708	11,835	88,690
1978	12,700	65,538	1,725	12,637	0	2,230	0	7,708	14,425	88,113
1979	13,650	64,915	1,815	12,540	0	2,229	0	7,708	15,465	87,392
1980	16,050	64,195	1,915	12,441	0	2,230	0	7,708	17,965	86,574
1981	18,050	63,335	2,020	12,334	0	2,229	0	7,708	20,070	85,606
1982	18,850	62,401	2,130	12,221	400	2,216	0	7,708	21,380	84,546
1983	19,700	61,426	2,245	12,101	400	2,189	900	7,708	23,245	83,424
1984	20,900	60,405	2,365	11,982	440	2,161	955	7,647	24,660	82,195
1985	21,650	59,324	2,485	11,862	440	2,131	1,010	7,583	25,585	80,900
1986	22,350	58,209	2,605	11,737	480	2,100	1,070	7,515	26,505	79,561
1987	23,400	57,045	2,735	11,602	480	2,067	1,135	7,442	27,750	78,156
1988	24,450	55,832	2,870	11,464	520	2,034	1,205	7,366	29,045	76,696
1989	25,600	54,628	3,015	11,314	560	1,997	1,275	7,284	30,450	75,223
1990	26,650	53,414	3,175	11,152	560	1,959	1,355	7,198	31,740	73,723
1991	27,400	52,168	3,335	10,983	600	1,920	1,435	7,107	32,770	72,178
1992	28,100	50,901	3,510	10,806	640	1,878	1,520	7,010	33,770	70,595
1993	29,550	49,619	3,695	10,618	640	1,840	1,610	6,907	35,495	68,984
1994	30,900	48,272	3,885	10,421	680	1,805	1,705	6,799	37,170	67,297
1995	31,800	46,879	4,085	10,215	720	1,768	1,810	6,684	38,415	65,546
1996	32,850	45,442	4,300	9,996	720	1,730	1,920	6,561	39,790	63,729
1997	33,700	44,000	4,525	9,767	760	1,691	2,035	6,432	41,020	61,890
1998	35,000	42,555	4,760	9,524	800	1,650	2,155	6,295	42,715	60,024
1999	36,800	41,052	5,005	9,265	800	1,607	2,285	6,160	44,890	58,084
2000	38,050	39,467	5,280	8,987	840	1,564	2,420	6,040	46,590	56,058
2001	39,100	37,832	5,565	8,693	880	1,518	2,565	5,912	48,110	53,955
2002	40,200	36,152	5,865	8,384	920	1,469	2,720	5,773	49,705	51,778
2003	42,050	34,415	6,180	8,057	920	1,420	2,885	5,626	52,035	49,518
2004	44,200	32,588	6,520	7,714	960	1,369	3,055	5,470	54,735	47,141
2005	45,450	30,676	6,870	7,349	1,000	1,316	3,240	5,305	56,560	44,646
2006	46,700	28,712	7,245	6,968	1,040	1,261	3,435	5,130	58,420	42,071
2007	48,150	26,679	7,635	6,564	1,080	1,203	3,640	4,945	60,505	39,391
2008	50,100	24,587	8,050	6,138	1,120	1,142	3,860	4,749	63,130	36,616
2009	52,400	22,398	8,490	5,690	1,160	1,080	4,090	4,540	66,140	33,708
2010	54,050	20,118	8,950	5,216	1,200	1,015	4,335	4,319	68,535	30,668
2011	55,500	17,769	9,435	4,717	1,240	948	4,595	4,085	70,770	27,519
2012	57,250	15,339	9,945	4,192	1,280	879	4,875	3,837	73,350	24,247
2013	59,050	12,869	10,485	3,636	1,320	807	5,165	3,574	76,020	20,886
2014	56,500	10,514	11,055	3,051	1,400	732	5,475	3,303	74,430	17,600
2015	52,250	8,184	11,655	2,435	1,440	654	5,805	3,015	71,150	14,288
2016	44,650	6,051	12,290	1,782	1,480	574	6,150	2,710	64,570	11,117
2017	36,500	4,125	12,960	1,097	1,560	490	6,520	2,388	57,540	8,100
2018	23,750	2,575	13,665	371	1,600	405	6,910	2,045	45,925	5,396
2019	15,250	1,457	0	0	1,640	320	7,325	1,682	24,215	3,459
2020	15,600	702	0	0	1,720	232	7,765	1,298	25,085	2,232
2021	6,750	160	0	0	1,760	141	8,230	890	16,740	1,191
2022	0	0	0	0	1,800	47	8,725	458	10,525	505
2023	0	0	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0
TOTAL	1,500,000	2,275,276	244,995	466,191	40,000	76,509	139,165	283,872	1,924,160	3,101,848

a) Series F interest payments due January 1 are shown dispersed on that date rather than December 31 as was presented in Bulletin 132-72, Table 13.

TABLE 11: ANNUAL SERVICE ON ASSUMED FUTURE BOND SALES

(in thousands of dollars)

Calendar Year	Series T through W Water Bonds		Supplemental Revenue Bonds		Total Future Bond Sales	
	Principal	Interest	Principal	Interest	Principal	Interest
1973	0	259	0	0	0	259
1974	0	772	0	0	0	772
1975	0	1,279	0	0	0	1,279
1976	0	1,862	0	0	0	1,862
1977	0	2,191	0	0	0	2,191
1978	0	2,191	0	1,056	0	3,247
1979	0	2,191	0	2,112	0	4,303
1980	0	2,191	0	2,112	0	4,303
1981	0	2,191	0	2,113	0	4,304
1982	0	2,192	0	2,112	0	4,304
1983	420	2,178	0	2,112	420	4,290
1984	865	2,138	0	2,113	865	4,251
1985	1,330	2,069	0	2,112	1,330	4,181
1986	1,946	1,971	0	2,112	1,946	4,083
1987	2,048	1,857	0	2,113	2,048	3,970
1988	2,149	1,744	0	2,112	2,149	3,856
1989	2,257	1,633	245	2,104	2,502	3,737
1990	2,370	1,521	260	2,087	2,630	3,608
1991	2,487	1,402	275	2,069	2,762	3,471
1992	2,610	1,277	290	2,049	2,900	3,326
1993	2,744	1,144	305	2,029	3,049	3,173
1994	2,882	1,003	330	2,008	3,212	3,011
1995	3,026	855	345	1,985	3,371	2,840
1996	3,182	700	365	1,961	3,547	2,661
1997	3,338	537	385	1,935	3,723	2,472
1998	3,498	368	410	1,908	3,908	2,276
1999	2,750	215	435	1,879	3,185	2,094
2000	1,960	102	460	1,849	2,420	1,951
2001	1,138	27	485	1,817	1,623	1,844
2002	0	0	515	1,783	515	1,783
2003	0	0	550	1,747	550	1,747
2004	0	0	580	1,710	580	1,710
2005	0	0	610	1,672	610	1,672
2006	0	0	650	1,633	650	1,633
2007	0	0	685	1,591	685	1,591
2008	0	0	730	1,548	730	1,548
2009	0	0	775	1,504	775	1,504
2010	0	0	825	1,461	825	1,461
2011	0	0	870	1,416	870	1,416
2012	0	0	925	1,367	925	1,367
2013	0	0	975	1,316	975	1,316
2014	0	0	1,040	1,261	1,040	1,261
2015	0	0	1,100	1,204	1,100	1,204
2016	0	0	1,165	1,142	1,165	1,142
2017	0	0	1,235	1,078	1,235	1,078
2018	0	0	1,310	1,009	1,310	1,009
2019	0	0	1,390	937	1,390	937
2020	0	0	1,480	861	1,480	861
2021	0	0	1,565	780	1,565	780
2022	0	0	1,655	695	1,655	695
2023	0	0	1,760	604	1,760	604
2024	0	0	1,860	508	1,860	508
2025	0	0	1,975	407	1,975	407
2026	0	0	2,090	299	2,090	299
2027	0	0	2,220	185	2,220	185
2028	0	0	2,375	63	2,375	63
2029	0	0	0	0	0	0
2030	0	0	0	0	0	0
TOTAL	43,000	40,060	37,500	77,640	80,500	117,700

APPENDIX B

DATA AND COMPUTATIONS USED IN DETERMINING WATER CHARGES FOR 1974

APPENDIX B - DATA AND COMPUTATIONS USED IN DETERMINING WATER CHARGES FOR 1974

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APPENDIX B
DATA AND COMPUTATIONS USED IN DETERMINING WATER CHARGES FOR 1974

Those statements of charges to be furnished by the State on or before July 1 of each year are described in Article 29(e) of the "Standard Provisions for Water Supply Contract", which provides that:

> "...All such statements shall be accompanied by the latest revised copies of the document amendatory to Article 22 and of Tables B C D E F and G of this contract, together with such other data and computations used by the State in determining the amounts of the above charges as the State deems appropriate."

Compliance with Article 29(e) requires a comprehensive annual redetermination of all water supply aspects of the State Water Project. This annual redetermination is specifically provided for in Article 22(f), concerning the Delta Water Charge per acre-foot of future entitlements, and in Article 28, with regard to annual Transportation Charges for the entire project repayment period.

This appendix documents such a redetermination for the substantiation of water charges to be paid by contractors during calendar year 1974 based on all aspects of the State Water Project as known on January 1, 1973.

The redetermined Transportation Charges derived herein are those calculated prior to the application of certain credits derived from contractor payments under supplemental arrangements, including the following:

1. Payments for state construction of requested delivery structures which exceed the actual construction costs of such structures.
2. Payments for state construction of requested excess capacity in project transportation facilities which exceed the actual construction costs of such excess capacity.
3. Payments under the Devil Canyon-Castaic Contract (see the section entitled "Providing Funds for Future Construction", Chapter I).

The redetermined Transportation Charges that are derived herein for prior years, through 1972, do not equal those amounts actually paid by contractors under statements previously furnished by the State. The indicated overpayments or underpayments (the differences between the redetermined amounts and those under statements previously furnished) are accumulated, with appropriate interest credits or debits, and are deducted from or added to the redetermined amounts of the Transportation Charge to be paid by the respective contractors during 1974 (except for Kern County Water Agency— see the section entitled "Contract Amendments", Chapter III, regarding options for amortizing adjustments). These adjustment computations are shown in the attachments accompanying the statement of charges furnished to each contractor and are reflected in the revised copies of Tables C through G of the contract, also furnished with the statement of charges.

Under the formula for computing the Delta Water Rate, Article 22(f) provides that all adjustments for prior overpayments or underpayments of the Charge are accounted for in the redetermination of the Rate. Since the redetermined Rate applies to all future entitlements, such adjustments are effectively amortized during the remainder of the project repayment period. This appendix includes a determination of the Delta Water Rate for 1974. However, projected annual Delta Water Charges are not shown herein since such a projection is not required by the contracts.

This redetermination generally excludes those charges associated with project water service other than the Delta Water Charge and the Transportation Charge. These other charges (and the manner by which such charges are treated herein) are:

- Advances of funds pursuant to Article 24(d) of the Standard Provisions, for excess capacity constructed by the State at the request of contractors. (Information on required advances is included herein because these charges are covered in the July 1 statements. However, any advances which are projected to exceed the additional capital costs for such excess capacity in completed aqueduct reaches have not been credited to future capital cost components of the Transportation Charges. The application of these credits are shown in the copies of revised Tables D and G which are furnished with the statements of charges.)
- Advances of funds pursuant to Article 10(d) of the Standard Provisions, for delivery structures (turnouts) constructed by the State at the request of contractors. (Partial information is included herein concerning the actual and projected capital costs of such delivery structures. Statements concerning these costs, and data in support of such statements, are furnished to the appropriate contractors at various times and are not part of the July 1 statements.)

  Payments for the sale and service of surplus project water to contractors pursuant to Article 21 of the Standard Provisions and the so-called

"Agricultural and Ground Water Replenishment" provisions. (This redetermination does not include information concerning the future sale and service of surplus water. However, the redetermined variable OMP&R components for 1968 through 1972 include charges associated with surplus water deliveries since surplus water was marketed to contractors during those years at the same unit variable OMP&R components as entitlement water.)

Payments for the sale and service of surplus project water to entities other than contractors pursuant to Article 21 of the Standard Provisions. (Payments of such water are based on prices greater than the unit variable OMP&R costs involved. Net revenues resulting from "noncontractor" service are applied in the manner described on page 24, Bulletin 132-71. Such prices are generally based on the unit rates shown in the last table of this appendix.)

- Payments under the Devil Canyon-Castaic Contract for the costs of the Devil Canyon and Castaic Facilities allocable to power generation. (Charges under the Contract are billed separately from those under the Water Supply Contract. The treatment of such charges in relation to redetermined Transportation Charges as derived herein are shown in special attachments to the bills of the affected six contractors.)

The computational procedure and relationships among tabulations of this redetermination are outlined on Figure B-1. All tables indicated thereon are found at the end of this appendix—all figures indicated thereon are interspersed among related narrative sections of this appendix.

Bases for Allocating Reimbursable Costs Among Contractors

This section concerns how reimbursable costs of aqueduct reaches of the project transportation facilities are allocated among contractors for determining the Transportation Charge. Reimbursable costs of the project conservation facilities are not allocated directly among contractors since, conceptually, the Delta Water Charge is a unit commodity charge rather than a use-of-facilities charge.

Allocation of reimbursable costs of aqueduct reaches among contractors is based on two specific applications of the Proportionate Use of Facilities Method:

- Allocations of reimbursable capital costs and minimum OMP&R costs of each reach are based on the proportionate maximum use of that reach by the respective contractors under planned conditions of full project development.
- Allocations of reimbursable variable OMP&R costs of each reach are based on the proportionate actual annual use of that reach by the respective contractors.

Proportionate Maximum Use of Facilities

The derivation of ratios that represent the proportionate maximum use of each aqueduct reach by the respective contractors was last described in Bulletin 132-70. (See pages 103-106 for a description of the computational procedure; pages 116-117 for a summary of aqueduct reaches, reach delivery quantities, and reach capacities; and pages 118-173 for a detailed derivation of factors for each contractor and for each aqueduct reach.) Such factors are still valid—except for the first reach of the California Aqueduct and for reaches of the South Bay Aqueduct. Revised ratios for these reaches are described in Bulletin 132-72 (see pages 106-111) and account for certain contract amendments executed early in 1972 regarding South Bay Aqueduct use (see section entitled "Contract Amendments", Chapter III, of this bulletin).

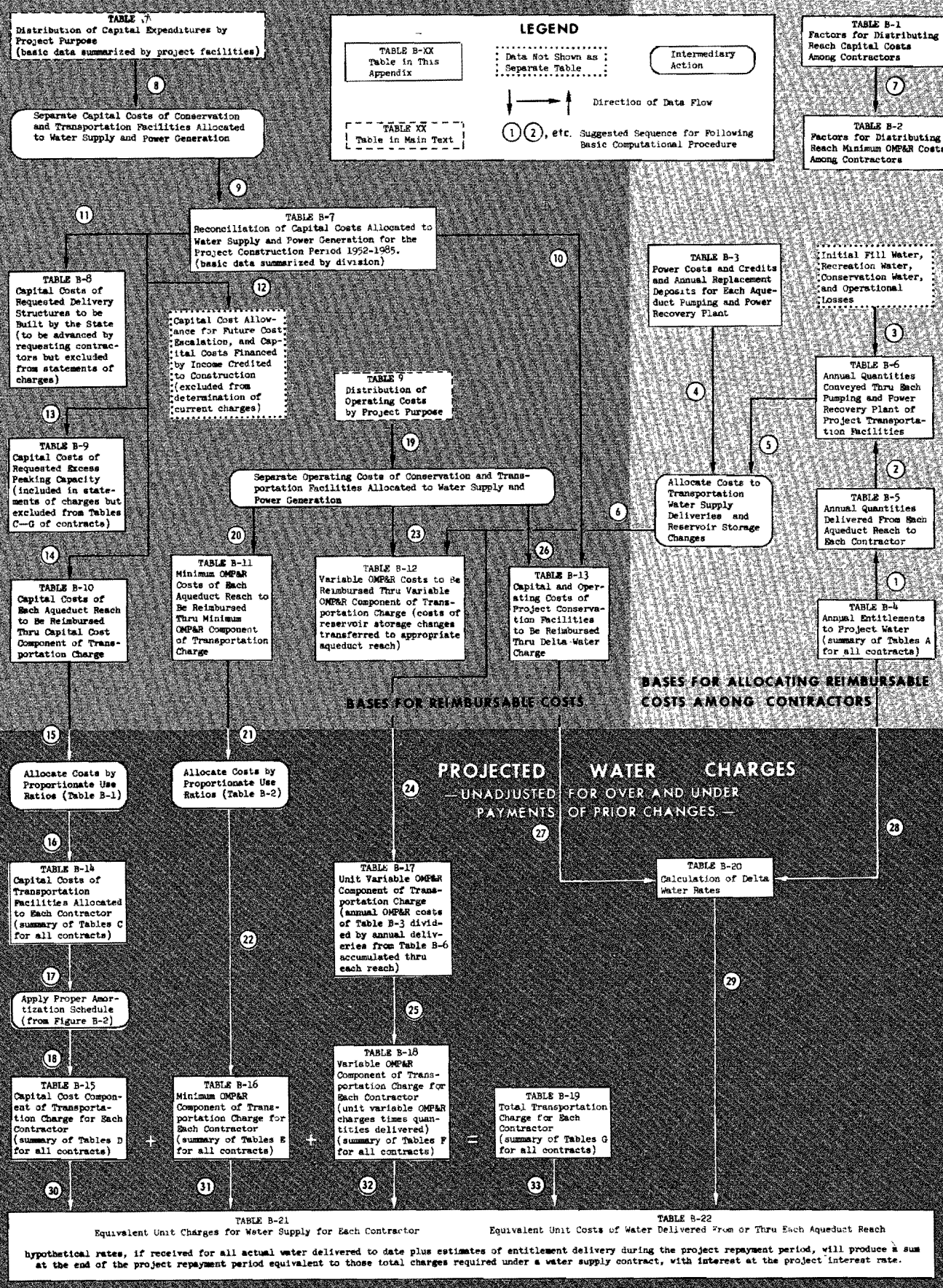
Table B-1 presents a summary of all reach ratios currently applicable to reimbursable capital costs. Table B-2 presents a corresponding summary applicable to reimbursable minimum OMP&R costs. Requested excess capacity is ignored in the former (since the associated capital costs are paid for on an incremental-cost basis and not a proportionate-use basis) but is accounted for in the latter

Proportionate Annual Use of Facilities

Article 26(a) of the Contract provides that the variable OMP&R component of the Transportation Charge shall return to the State those costs which are incurred in an amount which depends upon and varies with the amount of project water delivered to the contractor. (The minimum OMP&R component returns those operating costs which are incurred in an amount which does not vary with deliveries.) The Article goes on to explain that all such costs for a reach for a given year shall be allocated among contractors in proportion to the respective delivery quantities conveyed through the reach during the year.

Under the State's procedure, variable OMP&R costs orginate with certain operating costs of project pumping and power recovery plants. However, these costs are incurred in amounts which generally vary with the total conveyance through the plants—not with the portion thereof enroute directly to con-

FIGURE B-1. RELATIONSHIPS OF DATA USED TO SUBSTANTIATE STATEMENTS OF CHARGES



tractor turnouts. In addition to direct deliveries, conveyance may include the following:

a. Water applied in down-aqueduct onshore recreation developments;

b. Water stored in the initial fill of down-aqueduct reservoirs;

c. Water lost through evaporation and seepage from down-aqueduct reaches and reservoirs; and

d. Water stored during a year in excess of storage withdrawals, subsequent to initial fill, in down-aqueduct reservoirs.

Under the State's procedure, certain operating costs for a plant for a given year are allocated among direct deliveries and (a) through (d) above in proportion to the respective quantities conveyed through the plant during the year. Plant costs that are allocated to direct deliveries are designated as variable OMP&R costs to be repaid by contractors for the reach in which the plant is located. The remaining plant costs that are allocated to the quantities of (a) through (d) above are designated as follows:

a. A portion of the joint OMP&R costs of the reach containing the plant allocated to recreation.

b. A portion of the joint capital costs of the respective down-aqueduct reservoirs.

c. and (d) A portion of the joint minimum OMP&R costs of the respective down-aqueduct reaches and reservoirs.

Concerning (d) above, in years when storage in down-aqueduct reservoirs is decreased for the purpose of making deliveries, associated variable OMP&R costs are established for the respective reservoirs with an offsetting credit applied to the minimum OMP&R costs of each. Such variable OMP&R costs are calculated so as to be equivalent to the original plant costs of conveying the water placed in storage. Under current procedures, the unit cost of conveying water placed in storage is assumed to be equivalent to the unit cost of conveying water to the storage site during years when such storage is released.

Special Treatment of Certain Plant Costs. As indicated in the preceding section, the State's procedure requires an initial apportionment of certain plant costs among capital cost minimum OMP&R, and variable OMP&R components. This apportionment is based on annual quantities conveyed through the respective plants for various down-aqueduct functions. The plant costs which are to be so apportioned are summarized in Table B-3 and include the following items:

- Costs of power and energy used, exclusive of associated power transmission charges. (Transmission costs are classified as minimum OMP&R costs.)
- Credits for power and energy produced (treated as negative costs).
- Annual payments to sinking fund reserves to finance periodic replacement of plant machinery components having economic lives shorter than the project repayment period.

Excluded from the above are costs for salaries of plant operations and maintenance personnel—classified as minimum OMP&R costs.

Water Conveyance. Table B-4 summarized the schedules of annual entitlements as set forth in Table A of each contract. Table B-5 presents a summary of the actual and projected water quantities delivered and to be delivered from each aqueduct reach to each contractor. These water delivery quantities do not necessarily correspond with annual entitlements. (For a comparison of actual and projected delivery quantities v. annual entitlements, see Table 1, Chapter III.)

Table B-6 summarized the quantities conveyed or to be conveyed through each aqueduct pumping plant or powerplant for each year of the project repayment period and for each of the following functions:

- Made available to contractors at down-aqueduct delivery structures ("Deliveries, Water Supply").
- Required to initially fill down-aqueduct reaches and reservoirs to operational levels ("Initial Fill Water").
- Consumed in down-aqueduct project-associated recreation developments ("Deliveries, Recreation").
- Lost through evaporation and seepage from all down-aqueduct reaches ("Operational Losses").
- Placed in down-aqueduct reservoir storage subsequent to the initial fill of such storage ("Reservoir Storage Changes").

In addition, Table B-6 summarizes the net annual water amounts stored and to be stored in San Luis Reservoir (a project conservation facility with costs reimbursed through the Delta Water Charge) and lost and to be lost through evaporation and seepage from the Reservoir and from the water conservation portion of the Aqueduct (all such quantities included under the heading "Conservation Water").

The Delta Pumping Plant is a joint project transportation-conservation facility. Under the State's procedure, power and replacement costs of the Delta Pumping Plant which are apportioned to the conveyance of annual "conservation water" quantities are transferred to the capital costs of San Luis Reservoir (during initial fill) or to the minimum OMP&R costs of San Luis Reservoir (subsequent to initial fill).

In those years when releases from San Luis Reservoir cause a net annual storage depletion in order to make deliveries to contractors down-aqueduct therefrom, a portion of the minimum OMP&R costs of the Reservoir is transferred to the transportation variable OMP&R costs of the Delta Pumping Plant. This transfer is in an amount equal to the variable OMP&R cost per acre-foot of delivery through the Delta Pumping Plant for that year, multiplied by the acre-feet of deliveries derived from San Luis Reservoir storage for that year.

Bases for Reimbursable Costs

Tables 7 and 9 (Chapter V) summarize the capital and OMP&R costs of all project facilities, respectively, and the allocation of these costs among the various project purposes. Allocation percentages are shown for each project facility in the tabulation below. For the most part, these percentages are preliminary and subject to future revision and are applicable to the State's costs of the respective facilities. This redetermination is concerned only with the costs of project facilities that are allocated to water supply and power generation.

Project Facilities	Water Supply and Power Generation		All Other Purposes (Nonreimbursable)	
	Capital Costs	Minimum OMP&R Costs	Capital Costs	Minimum OMP&R Costs
	(in percent)			
Conservation Facilities				
Frenchman Dam and Lake	23.3	0.5	76.7	99.5
Antelope Dam and Lake	0	0	100.0	100.0
Grizzly Valley Dam and Lake Davis	5.1	8.8	94.9	91.2
Abbey Bridge Dam and Reservoir	0	0	100.0	100.0
Dixie Refuge Dam and Reservoir	0	0	100.0	100.0
Oroville Division[a]	97.1	99.0	2.9	1.0
California Aqueduct	96.5	94.1	3.5	5.9
Delta Facilities	86.0	86.0	14.0	14.0
Additional Conservation Facilities	72.5	72.5	27.5	27.5
Transportation Facilities				
California Aqueduct, excluding Coastal Branch	97.0	92.9	3.0	7.1
South Bay Aqueduct:				
Del Valley Dam and Lake Del Valle	27.5	34.9	72.5	65.1
North Bay Aqueduct	100.0	100.0	0	0

a) Percentages shown are applicable to the total costs of the Division excluding specific power costs of Edward Hyatt and Thermalito Powerplants and Switchyards. Federal reimbursements for flood control are treated as negative costs.

Capital Costs

Table B-7 presents a reconciliation of the estimated total capital costs of each project conservation facility and each aqueduct reach as estimated for (a) the current financial analysis and (b) the current redetermination of water charges.

Cost of Delivery Structures. Costs of delivery structures constructed by the State are paid directly by each contractor requesting such structures (see pages 88 and 89, Bulletin 132-71, for a description of the method of payment for the capital costs of a

delivery structure constructed by the State). Capital costs of all delivery structures constructed and to be constructed by the State are shown for each contractor in Table B-8. However, these costs are not to be construed as preliminary estimates or final invoices to be furnished by the State. The following tabulation indicates the general location and construction status of delivery structures requested as of the end of 1972:

Project Facility	Number of Delivery Structures					
	Requested by Agencies	Under Construction		Completed		Stub Only[a]
		by State	by Agencies	by State	by Agencies	
Oroville Area	6	0	0	0	5	1
North Bay Aqueduct (Phase I)	2	0	0	1	0	1
South Bay Aqueduct	19	0	0	8	6	5
California Aqueduct:						
North San Joaquin Division	4	0	0	0	4	0
San Luis Division (served by the federal Central Valley Project)						
South San Joaquin Division	40	0	4	8	14	14
Tehachapi Division	1	0	0	0	0	1
Mojave Division	14	0	0	0	1	13
Santa Ana Division	10	2	1	3	1	3
West Branch	5	0	0	1	1	3
Coastal Branch (Phase I)	2	0	0	1	1	0
Total	103	2	5	22	33	41

a) Will be completed at a later date. Temporary facilities for delivery of water have been installed at several of the stubs.

Costs of Requested Excess Capacity. Amendments have been added to the contracts of the following three agencies which provide for excess capacity in the project transportation facilities: The Metropolitan Water District of Southern California, San Gabriel Valley Municipal Water District, and Antelope Valley-East Kern Water Agency. Listed in Table B-9 are estimates of the annual amounts for:

Additional costs incurred by the State for requested excess capacity.

The required annual advances, by water contractors, of funds for such costs.

Any credits for those total advances which are estimated to be in excess of additional costs and which will be applied to the respective contractors' accounts (generally, to the contractors' next installment of the capital cost component of the Transportation Charge).

Under Amendment 2 of Metropolitan's contract, 809 cubic feet per second of excess capacity originally was constructed in reaches of the West Branch at the District's request. Under Amendment 7, such capacity was reclassified as basic capacity of the project transportation facilities. This aspect of Amendment 7 required a $16.3 million prepayment of the District's capital cost component of the Transportation Charge in lieu of advances of funds for the originally requested capacity.

The application of estimated credits for any contractor advances that are estimated to be in excess of actual costs and (concerning Metropolitan's Amendment 7) for prepayments of the capital cost component is shown in the attachments to the respective statements of charges.

Amendment 5 of Metropolitan's contract includes a provision whereby the additional costs to be incurred because of modifications to the Santa Ana Valley Pipeline, required for enlargement of Lake Perris, at the request of Metropolitan are to be allocated to the District and returned to the State through payments of the Transportation Charge. The estimated additional costs to be repaid through the District's capital cost component for the aque-

duct reach from Devil Canyon Powerplant to Barton Road total $6.7 million, as shown on page 98, Bulletin 132-72.

Annual Operating Costs

The estimated operating costs that Table 9 shows as allocable to water supply and power generation will be returned to the State through payments of the minimum and variable OMP&R components of Delta Water and Transportation Charges and through a portion of the revenues from electric power sales.

All reimbursable operating costs of conservation facilities are returned to the State through payments of the minimum OMP&R component of the Delta Water Charge.

The composition of those operating costs that are to be reimbursed through payments of the variable OMP&R component of the Transportation Charge was previously described in the section entitled "Special Treatment of Certain Plant Costs". Therefore, the remainder of this section centers on those costs to be reimbursed through payments of the minimum OMP&R component of the Transportation Charge.

Minimum Operating Costs. The following types of operating costs are considered to be incurred in annual amounts that do not vary with the water quantities delivered to the contractors and are therefore classified as minimum OMP&R costs:

All direct labor charges for field operations and maintenance personnel, including associated indirect costs.

Electric power transmission costs.

All costs for equipment, materials, and supplies and for replacement of works other than rotating machinery of pumping and power recovery plants.

Portions of the power and replacement costs of all up-aqueduct pumping plants and powerplants that are allocable to the annual conveyance of water subsequently (a) lost to evaporation and seepage from respective aqueduct reaches or (b) placed into storage in respective reservoirs of the project transportation facilities (after initial fill).

Credits, which offset those costs referred to in (b) above, for deliveries derived from reservoir storage.

- A distributed share of general and direct operating costs which cannot be identified solely with one facility or aqueduct reach.

Concerning the allocation of general operating costs among facilities and reaches, this redetermination follows the procedures described on pages 111-113, Bulletin 132-70.

Costs to be Returned to the State Through Payments Under the Transportation Charge and the Devil Canyon-Castaic Contract

Table B-10 presents the actual and projected annual capital costs of each aqueduct reach that will eventually be returned to the State, with interest, through contractor payments of the capital cost component under the Transportation Charge and of debt service under the Devil Canyon-Castaic Contract. The actual and projected costs to be reimbursed through payments of the minimum OMP&R component under the Transportation Charge and of allocated operating costs under the Devil Canyon-Castaic Contract are shown in Tables B-11. Variable OMP&R costs, shown in Table B-12, constitute the portion of those costs shown in Table B-3 which are allocable to the water supply delivery quantities shown in Table B-6 and are reimbursed through payments of the variable OMP&R component of the Transportation Charge.

Costs to Be Returned Through Payments Under the Delta Water Charge and the Oroville Power Sale Contract

Summarized in Table B-13 are the actual and projected capital and operating costs of project conservation facilities that are to be reimbursed through payments under (a) the Delta Water Charge and (b) Oroville power sales. Not included in Table B-13 are the credits to be applied to the reimbursable capital costs of the project conservation facilities pursuant to negotiated settlements concerning the magnitude of incurred capital costs for the period 1952 through 1968 (see section entitled "Negotiation of Water Charge Settlements", Chapter III). These credits are as shown on page 99, Bulletin 132-72.

Project Water Charges

This section summarizes the redetermination of past and projected components of the Transportation Charge for the annual revision of Tables C through G that are included in each water contract. This section also includes a derivation of future unit Delta Water Charges. Equivalent unit charges for each acre-foot of entitlement water service are also summarized herein for (a) each contractor and (b) each aqueduct reach.

Transportation Charges

The accumulation of allocated costs of each aqueduct reach to each contractor forms the basis for the annual components of the Transportation Charge.

Allocated Capital Costs. Table B-14 summarizes each contractor's share of the capital costs of aqueduct reaches presented in Table B-10, as determined by application of proportionate-use ratios set forth in

Table B-1. The resulting allocated costs are to be set forth in Table C of the respective contracts.

Prepayments of the capital cost component, such as required under Metropolitan's Amendment 7, are shown as negative capital costs in Metropolitan's Table C but are ignored in Table B-14. Furthermore, both Table B-14 and Tables C of the six contractors located below the Devil Canyon and Castaic Facilities include the capital costs that are reimbursable under the Devil Canyon Castaic Contract.

Capital Cost Components. Criteria as to the types of amortization schedules applicable to the allocated capital costs for the respective contractors are summarized in Figure B-2. The accounting of interest charges included in the capital cost components of the Transportation Charge follows the procedure established in Settlement Letter No. 2.

Table B-15 summarizes the capital cost components of the Transportation Charge for each contractor for each year of the project repayment period. These estimated components, subsequently adjusted for prior overpayments or underpayments, are to be set forth in Table D of the respective contracts. Credits for the portion of advance payment for excess capacity that exceed the actual additional costs of such capacity are applied to reduce the payment amounts set forth in Table D, but are ignored in Table B-15. Both Table B-15 and Tables D of the six Devil Canyon-Castaic contractors include the debt service payments due under the Devil Canyon-Castaic Contract.

Minimum OMP&R Components. Table B-16 summarizes the minimum OMP&R components of the Transportation Charge for the contractor for each

FIGURE B-2: CRITERIA FOR AMORTIZATION SCHEDULES

Contractor	Amortization of Allocated Capital Costs in 50 Equal Annual Installments, With Initial Payment Due in:								
	1963	1964	1965	1966	1968	1970	1973	a	b
Alameda County FC&WCD, Zone 7	● c								
Alameda County WD	●								
Antelope Valley-East Kern WA	●								
Castaic Lake WA		●							
County of Butte									
County of Kings					●				
City of Yuba City									
Coachella Valley County WD		●							
Crestline-Lake Arrowhead WA		●							
Desert WA	● d								
Devil's Den WD								●	
Dudley Ridge WD								●	
Empire West Side ID								●	
Hacienda WD								●	
Kern County WA: Ag use								●	
M&I use			●						
Littlerock Creek ID		●							
Mojave WA		●							
Napa County FC&WCD				●					
Oak Flat WD								●	
Palmdale ID		●							
Plumas County FC&WCD						●			
San Bernardino Valley MWD	●								
San Gabriel Valley MWD	● d								
San Gorgonio Pass WA	● d								
San Luis Obispo County FC&WCD		● e							
Santa Barbara County FC&WCD		● e							
Santa Clara County FC&WD	●								
Solano County FC&WCD							●		
The Metropolitan WD-SC	●								
Tulare Lake Basin WSD								●	
Ventura County FCD		●							

a Amortization of allocated capital costs on basis of equivalent unit rate applied to annual entitlements (Table B-4) within project repayment period.

b Payments on Delta Water Charge only.

c Principal payments on each annual capital cost prior to 1971 delayed until calendar year 1972, except payments for 1963.

d Deferred and added to 1964 payment with accrued interest.

e Exception: all principal and interest payments for costs of "Coastal Stub" are assumed deferred until 1976.

year of the project repayment period. These estimated components, subsequently adjusted for prior overpayments or underpayments, are to be set forth in Tables E of the respective contracts. These components represent the accumulated share of the reach costs presented in Table B-11, as determined by application of the proportionate-use ratios shown for each reach and for each contractor in Table B-2. Both Table B-16 and Tables E of the six Devil Canyon-Castaic contractors include the portion of operating costs payable under the Devil Canyon-Castaic Contract.

Variable OMP&R Components. Article 26(a) of the Standard Provisions specifies the following procedure for calculating the variable OMP&R component of the Transportation Charge:

> An annual charge per acre-foot of projected water deliveries to all contractors served from or through each reach is determined so as to return to the State the projected variable OMP&R costs to be incurred for each reach.
>
> The total annual variable OMP&R component for any contractor for a given reach is obtained by multiplying the unit charge associated with that reach by the quantity of water actually delivered from or through the reach to the contractor.

Table B-17 presents a summary of the actual and projected total variable OMP&R costs for each acre-foot of conveyance through each aqueduct pumping plant and powerplant for each year of the project repayment period. The data summarized in Table B-17 have been derived by dividing the power costs (and credits) and replacement costs shown in Table B-12 by the delivery quantities shown in Table B-6.

Table B-18 summarizes the variable OMP&R components of the Transportation Charge for each contractor and for each year of the project repayment period. Table B-18 is developed from the costs per acre-foot as shown in Table B-17 and the delivery quantities for each contractor from each reach as shown in Table B-5. These estimated components, subsequently adjusted for prior overpayments or underpayments, are to be set forth in Table F of the respective contracts.

Total Annual Charges. Annual Transportation Charges for each contractor are summarized in Table B-19. (The amounts shown in Table B-19 represent the sums of the corresponding amounts shown in Tables B-15, B-16, and B-18.) These estimated payments, subsequently adjusted for prior overpayments or underpayments, are to be set forth in Tables G of the respective contracts. Both Table B-19 and Tables G of the six Devil Canyon-Castaic contractors include debt service and operating cost payments due under the Devil Canyon-Castaic Contract.

Delta Water Charges per Acre-foot of Entitlement

The calculation of future Delta Water Charges applicable after December 31, 1973 are shown in Table B-20 in accordance with the amended Articles 22(e) and 22(g) of 28 contracts. Under the amended articles, future construction and operating costs of each additional and supplemental conservation facility will be included in the calculation of the Charge in years when the State first incurs major construction costs. The calculation of the Charge due under the three contracts which have not as yet been amended (Butte County, Yuba City, and Solano County Flood Control and Water Conservation District) are shown in a special attachment to the respective bills. (Of the three, only Butte County is obligated to pay the Delta Water Charge in 1974.)

Equivalent Total Water Charges

A summary of total charges is shown in Table B-21 in terms of the equivalent charge for each acre-foot of project water now estimated to be delivered as entitlement water to the respective contractors. These equivalent charges would provide the same total sum at the end of the project repayment period as annual payments to be made under the Delta Water Charge and Transportation Charge, including interest at the project interest rate. These equivalent unit charges do not reflect the future service of surplus water. The potential charges for surplus water service will be considerably less than the charges for entitlement water. Furthermore, the Table B-21 values account for the fact that current estimates of future entitlement water service are noticeably less than the amounts shown in Tables A for certain Southern California contractors.

Equivalent Water Cost, by Reach

Table B-22 presents a summary of the equivalent unit costs of conveying entitlement water through respective aqueduct reaches of the project transportation facilities. These unit costs provide the basis of charges to be assessed (a) for certain "extra service" (such as for delivery of entitlements down-aquaduct from a contractor's turnout) and, together with the Delta Water Charge per acre-foot, (b) for surplus water service to entities other than long-term water supply contractors. It should be noted that the cumulative unit conveyance costs shown for reaches in Table B-22 do not necessarily equal the equivalent unit Transportation Charges to contractors served from such reaches. This is because the unit charges of Table B-21 account for the rates of water demand buildup and cost allocation factors of the respective contractors, whereas the unit costs of Table B-22 meld together the effect of the respective buildups and allocation criteria of all contractors whose entitlements are conveyed through a given reach.

TABLE B-I: FACTORS FOR DISTRIBUTING

Reach No	Reach Description	NORTH BAY AREA		SOUTH BAY AREA				TOTAL
		Napa County FC&WCD	Solano County FC&WCD	Alameda County FC&WCD Zone 7	Alameda County Water District	Santa Clara County FC&WCD	Future Contractor	
North Bay Aqueduct								
1	Lindsey Slough to Suisun City	.39808876	60191124					1.00000000
2	Suisun City to Cordelia Pumping Plant	39808861	60191139					1.00000000
3	Cordelia Pumping Plant thru Napa Turnout Reservoir (Including the interim facilities)	1.00000000						1.00000000
South Bay Aqueduct								
1	Bethany Reservoir thru Altamont Turnout			22599621	20663014	49237700	07499665	1 00000000
2	Altamont Turnout thru Patterson Reservoir			22599657	20663057	49237791	07499495	1.00000000
4	Patterson Reservoir to Del Valle Junction			19504791	21450021	51113252	07931936	1 00000000
5	Del Valle Junction thru Lake Del Valle			14436367	12972254	33715573	38875806	1.00000000
6	Del Valle Junction thru South Livermore Turnout			14599918	21144710	50574745	13680627	1 00000000
7	South Livermore Turnout thru Vallecitos Turnout				25176680	60218448	14604872	1.00000000
8	Vallecitos Turnout thru Alameda-Bayside Turnout				06294980	72065355	21639665	1.00000000
9	Alameda-Bayside Turnout thru Santa Clara Terminal Facilities					1 00000000		1.00000000
California Aqueduct								
1	Delta Thru Bethany Reservoir			00954802	00872976	02080260	00342519	— — —

Reach No.	Reach Description	CENTRAL COASTAL AREA		SOUTHERN				
		San Luis Obispo County FC&WCD	Santa Barbara County FC&WCD	Antelope Valley-East Kern Water Agency	Castaic Lake Water Agency	Coachella Valley County Water District	Crestline Lake Arrowhead Water Agency	Desert Water Agency
California Aqueduct								
1	Delta Thru Bethany Reservoir	.00531147	01240007	02939503	00890866	.00528393	.00133630	.00871425
2A	Bethany Reservoir to Orestimba Creek	00555266	.01296315	.03072975	00931319	.00552151	00139640	00910607
2B	Orestimba Creek to O'Neill Forebay	.00555876	.01297741	03076360	00932344	00552915	00139833	.00911867
3	O'Neill Forebay to Dos Amigos Pumping Plant	.00555769	.01297494	.03075777	00932168	.00552856	00139818	.00911771
4	Dos Amigos Pumping Plant to Panoche Creek	.00555659	01297235	03075165	00931982	.00552794	00139801	.00911670
5	Panoche Creek to Five Points	00555520	.01296912	03074401	00931751	.00552717	00139780	.00911543
6	Five Points to Arroyo Pasajero	.00555311	01296424	.03073244	.00931400	.00552602	.00139750	.00911351
7	Arroyo Pasajero to Kettleman City	.00555243	01296267	.03072873	.00931287	.00552565	.00139740	.00911289
8C	Kettleman City thru Milham Avenue	.00555159	.01296069	.03072405	.00931145	00552517	.00139729	.00911211
8D	Milham Avenue thru Avenal Gap	.00566628	01322842	.03135878	.00950380	.00564073	00142650	.00930269
9	Avenal Gap thru Twisselman Road			.03437577	.01041812	.00618845	.00156502	.01020599
10A	Twisselman Road thru Lost Hills			.03492681	.01058510	.00628966	.00159061	.01037292
11B	Lost Hills to 7th Standard Road			.03848657	.01166387	00694140	.00175542	.01144773
12D	7th Standard Road thru Elk Hills Road			.04046660	.01226391	.00730484	.00184732	.01204709
12E	Elk Hills Road thru Tupman Road			.04052108	01228042	00731580	.00185010	.01206514
13B	Tupman Road to Buena Vista Pumping Plant			.04397523	01332721	00794772	.00200991	01310729
14A	Buena Vista-Pumping Plant thru Santiago Creek			.04618687	01399742	00835456	00211281	01377821
14B	Santiago Creek thru Old River Road			.04702647	.01425185	00851020	.00215218	01403490
14C	Old River Road to Wheeler Ridge Pumping Plant			.04846557	.01468794	.00877627	.00221947	.01447369
15A	Wheeler Ridge Pumping Plant to Wind Gap Pumping Plant			.04927653	01493368	.00892667	00225752	01472172
16A	Wind Gap Pumping Plant to A.D. Edmonston Pumping Plant			.05113510	.01549688	.00927016	.00234437	.01528820
17E	A.D. Edmonston Pumping Plant to Carley V. Porter Tunnel			.05355379	.01622984	.00971819	.00245767	.01602709
17F	Carley V. Porter Tunnel to Junction, West Branch, Calif. Aqueduct			.05366827	01626453	.00973908	00246295	01606154
18A	Junction, West Branch, Calif. Aqueduct thru Cottonwood Chutes			.13238112		.02399390	.00606794	03957043
19	Cottonwood Chutes to Fairmont			.13237766		.02399451	.00606810	.03957141
19C	Buttes Junction thru Buttes Reservoir			1.00000000				
20A	Fairmont thru 70th Street West			.06847931		.02576424	.00651572	.04249001
20B	70th Street West to Palmdale			.02276024		.02702916	.00683554	.04457607
21	Palmdale to Littlerock Creek			.02318953		.02754716	.00696650	.04543034
22A	Littlerock Creek to Pearblossom Pumping Plant			.01181870		.02794143	.00706620	.04608043
22B	Pearblossom Pumping Plant to West Fork Mojave River					.02827552	.00715073	.04663153
23	West Fork Mojave River to Silverwood Lake					.00324449	.00818121	00535117
24	Cedar Springs Dam and Silverwood Lake					.01024605	.01251569	.01690478
25	Silverwood Lake to South Portal, San Bernardino Tunnel							
26A	South Portal, San Bernardino Tunnel thru Devil Canyon Pwp.							
28G	Devil Canyon Powerplant to Barton Road							
28H	Barton Road to Lake Perris							
28J	Perris Dam and Lake Perris							
29A	Junction, West Branch, Calif. Aqueduct thru Oso Pumping Plant				.02736564			
29F	Oso Pumping Plant thru Quail Embankment				.02736563			
29G	Quail Embankment to Pyramid Lake				.02736564			
29H	Pyramid Dam and Lake				.02646380			
29J	Pyramid Lake thru Castaic Powerplant				.02736563			
30	Castaic Dam and Lake				.02637131			
31A	Avenal Gap to Devil's Den Pumping Plant	.10522767	.24566277					
33A	Devil's Den Pumping Plant thru San Luis Obispo Powerplant	.29988697	.70011303					
34	San Luis Obispo Powerplant to Arroyo Grande	.20553239	.79446761					
35	Arroyo Grande thru Santa Maria Terminal	.14771038	.85228962					

REACH CAPITAL COSTS AMONG CONTRACTORS[a]

Reach No.	SAN JOAQUIN VALLEY AREA								
	Devil's Den Water District	Dudley Ridge Water District	Empire West Side Irrigation District	Hacienda Water District	Kern County Water Agency		County of Kings	Oak Flat Water District	Tulare Lake Basin Water Storage District
					Municipal and Industrial	Agricultural			
California Aqueduct									
1	.00377824	.01707931	.00088687	.00251598	.02742075	30633444	00090702	00167139	03253706
2A	.00394038	.01781205	.00092491	.00262393	.02864590	31948963	.00094755	00174305	03393294
2B	.00395099	.01786013	.00092740	00263102	.02869073	32034362	.00094904		03402458
3	.00395208	.01786513	00092766	.00263176	.02868919	32043064	.00094900		03403409
4	00395323	01787039	.00092794	.00263254	.02868758	32052214	00094893		03404410
5	.00395466	.01787693	.00092828	.00263352	.02868559	32063639	.00094886		03405659
6	.00395684	01788685	.00092879	.00263498	.02868255	.32080926	00094875		.03407550
7	.00395753	.01789003	.00092896	00263544	02868158	32086471	.00094872		.03408157
8C	.00395842	.01789405	.00092918	.00263603	.02868035	.32093468	.00094867		03408923
8D	00404591	.01828966		00269431	.02928494	32802221			01551611
9					03214521	32838224			
10A					.03267760	.31755652			
11B					.03609912	.24768443			
12D					03801001	20879251			
12E					.03807068	20769413			
13B					.01464596	16664965			
14A					.00622935	.13374077			
14B					00634719	.11790931			
14C					00654829	.09078926			
15A					00666217	.07549599			
16A					00692172	04047416			
17E					00213551				
31A	07364766					.57546190			

Reach No.	CALIFORNIA AREA								
	Littlerock Creek Irrigation District	Mojave Water Agency	Palmdale Irrigation District	San Bernardino Valley Municipal Water District	San Gabriel Valley Municipal Water District	San Gorgonio Pass Water Agency	The Metropolitan Water District of Southern California	Ventura County Flood Control District	TOTAL
California Aqueduct									
1	.00049187	01101303	00369180	.02363192	.00650450	.00398446	.43940274	.00429334	1 00000000
2A	.00051421	01151300	.00385943	.02469456	00679800	.00416362	.45932582	00448829	1 00000000
2B	00051477	.01152575	.00386368	.02472869	.00680672	00416938	.45985090	00449324	1 00000000
3	.00051469	.01152359	00386296	.02472604	00680580	.00416893	.45976953	00449238	1.00000000
4	00051459	01152131	00386218	02472327	.00680482	.00416846	45968397	00449149	1 00000000
5	.00051448	01151846	00386122	.02471980	.00680361	.00416788	.45957712	.00449037	1 00000000
6	.00051428	01151416	00385978	.02471455	.00680178	.00416698	.45941544	00448869	1.00000000
7	00051421	.01151278	.00385931	02471286	00680118	.00416671	.45936361	00448816	1 00000000
8C	.00051414	.01151103	00385874	02471072	.00680044	.00416634	.45929816	.00448747	1.00000000
8D	.00052475	01174889	.00393847	.02522753	.00694206	00425349	.46880430	00458017	1 00000000
9	00057523	.01287942	00431739	.02767698	.00761389	.00466647	51396901	00502081	1 00000000
10A	00058444	01308595	.00438661	.02812957	.00773752	.00474279	.52223261	.00510129	1.00000000
11B	.00064401	01442004	00483371	.03104405	.00853455	00523416	.57558975	00562119	1.00000000
12D	00067713	01516215	.00508241	03266922	00897860	.00550817	60527969	.00591035	1 00000000
12E	00067804	01518261	.00508926	03271816	00899157	.00551643	60610827	00591831	1 00000000
13B	00073586	01647710	00552311	03554404	00976456	.00599288	.65787670	00642278	1 00000000
14A	00077287	01730602	00580090	03736328	.01026125	00629961	69105032	00674576	1 00000000
14B	.00078692	01762074	00590636	.03805925	01045073	00641694	70365858	00686838	1 00000000
14C	00081102	.01816015	00608712	03924903	.01077498	00661754	72526114	00707853	1 00000000
15A	.00082461	01846415	.00618901	03992156	.01095807	.00673092	.73744044	00719696	1.00000000
16A	00085571	.01916080	00642247	04145755	.01137676	00698987	76533787	00746838	1 00000000
17E	.00089617	.02006742	.00672629	04346097	.01192239	00732766	.80165539	00782162	1 00000000
31A	.00089809	02011032	.00674067	04355438	.01194797	.00734341	80337045	00783834	1 00000000
	.00221525	.04960424	.01662681	10730447	.02944861	.01809192	.57469531		1.00000000
	.00221522	.04960300	01662640	10730706	02944877	01809230	.57469557		1 00000000
									1 00000000
	00237800	05324853	01784830	.11522151	.03161800	01942666	61700972		1 00000000
	.00249470	05586076	.01872390	.12087842	.03316988	02038045	.64729088		1.00000000
	.00254199	05692052		.12319478	03380326	02077093	65963499		1.00000000
		.05773081		.12495765	.03428607	.02106816	.66905055		1.00000000
		05842136		12645206	.03469615	02132008	.67705257		1.00000000
				.14467449	.03969012	.02439238	.7746614		1.00000000
				.22243002	.04339444	.02843498	.66607404		1 00000000
				.14947726	.03997502	02520426	.78534346		1 00000000
				.14947726	03997502	.02520426	.78534346		1 00000000
				05126137			.94873863		1 00000000
							1.00000000		1 00000000
							1.00000000		1 00000000
Aqueduct Extensions									
							.95944607	.01318829	1 00000000
							.95944608	.01318829	1 00000000
							95944609	.01318827	1 00000000
							.96446829	00906791	1 00000000
							.95944608	.01318829	1 00000000
							96499830	.00863039	1 00000000
									1.00000000
									1.00000000
									1.00000000
									1.00000000

TABLE B-2: FACTORS FOR DISTRIBUTING REACH

Reach No	Reach Description	NORTH BAY AREA		SOUTH BAY AREA				TOTAL
		Napa County FC&WCD	Solano County FC&WCD	Alameda County FC&WCD Zone 7	Alameda County Water District	Santa Clara County FC&WCD	Future Contractor	
North Bay Aqueduct								
1	Lindsey Slough to Suisun City	.39808876	.60191124					1 00000000
2	Suisun City to Cordelia Pumping Plant	.39808861	.60191139					1 00000000
3	Cordelia Pumping Plant thru Napa Turnout Reservoir (Including the interim facilities)	1.00000000						1.00000000
South Bay Aqueduct								
1	Bethany Reservoir thru Altamont Turnout			22599621	20663014	49237700	07499665	1 00000000
2	Altamont Turnout thru Patterson Reservoir			22599657	20663057	49237791	07499495	1 00000000
4	Patterson Reservoir to Del Valle Junction			19504791	21450021	51113252	07931936	1.00000000
5	Del Valle Junction thru Lake Del Valle			14436367	12972254	33715573	38875806	1.00000000
6	Del Valle Junction thru South Livermore Turnout			14599918	21144710	50574745	13680627	1 00000000
7	South Livermore Turnout thru Vallecitos Turnout				25176680	60218448	14604872	1.00000000
8	Vallecitos Turnout thru Alameda-Bayside Turnout				06294980	72065355	21639665	1.00000000
9	Alameda-Bayside Turnout thru Santa Clara Terminal Facilities					1 00000000		1 00000000
California Aqueduct								
1	Delta Thru Bethany Reservoir			00954802	00872976	02080260	00342519	

Reach No.	Reach Description	CENTRAL COASTAL AREA		SOUTHERN				
		San Luis Obispo County FC&WCD	Santa Barbara County FC&WCD	Antelope Valley-East Kern Water Agency	Castaic Lake Water Agency	Coachella Valley County Water District	Crestline Lake Arrowhead Water Agency	Desert Water Agency
California Aqueduct								
1	Delta Thru Bethany Reservoir	.00531147	.01240007	.02939503	.00890866	00528393	.00133630	.00871425
2A	Bethany Reservoir to Orestimba Creek	.00555266	01296315	.03072975	00931319	00552151	.00139640	.00910607
2B	Orestimba Creek to O'Neill Forebay	.00555876	01297741	.03076360	.00932344	.00552915	.00139833	.00911867
3	O'Neill Forebay to Dos Amigos Pumping Plant	.00555769	01297494	.03075777	.00932168	.00552856	.00139818	00911771
4	Dos Amigos Pumping Plant to Panoche Creek	00555659	01297235	.03075165	00931982	.00552794	00139801	00911670
5	Panoche Creek to Five Points	.00555520	.01296912	.03074401	.00931751	.00552717	.00139780	.00911543
6	Five Points to Arroyo Pasajero	.00555311	.01296424	03073244	00931400	.00552602	00139750	00911351
7	Arroyo Pasajero to Kettleman City	.00555243	.01296267	.03072873	.00931287	00552565	00139740	.00911289
8C	Kettleman City thru Milham Avenue	.00549671	.01283255	.03042012	.00921937	00546665	.00138249	.00901561
8D	Milham Avenue thru Avenal Gap	.00560860	01309375	.03103938	.00940703	.00557923	.00141095	.00920128
9	Avenal Gap thru Twisselman Road			.03398205	.01029883	.00611262	.00154585	.01008094
10A	Twisselman Road thru Lost Hills			.03451663	01046082	.00621064	.00157063	.01024262
11B	Lost Hills to 7th Standard Road			.03796305	.01150525	.00684053	.00172991	.01128139
12D	7th Standard Road thru Elk Hills Road			.03987187	01208371	00719023	.00181834	.01185809
12E	Elk Hills Road thru Tupman Road			.03992309	.01209924	.00720053	00182095	.01187505
13B	Tupman Road to Buena Vista Pumping Plant			.04324825	01310695	.00780756	.00197447	.01287616
14A	Buena Vista Pumping Plant thru Santiago Creek			.04536499	.01374841	.00819606	.00207273	.01351685
14B	Santiago Creek thru Old River Road			04616419	01399059	.00834387	.00211013	01376063
14C	Old River Road to Wheeler Ridge Pumping Plant			.04753265	.01440528	.00859629	.00217396	.01417689
15A	Wheeler Ridge Pumping Plant to Wind Gap Pumping Plant			.04830162	.01463830	.00873855	.00220995	.01441151
16A	Wind Gap Pumping Plant to A.D Edmonston Pumping Plant			.05006206	.01517177	.00906311	.00229201	.01494676
17E	A.D. Edmonston Pumping Plant to Carley V. Porter Tunnel			.05234459	.01586347	.00948480	.00239865	.01564222
17F	Carley V. Porter Tunnel to Junction, West Branch, Calif. Aqueduct			05245356	.01589650	00950462	.00240367	.01567491
18A	Junction, West Branch, Calif. Aqueduct thru Cottonwood Chutes			13238112		.02399390	.00606794	.03957043
19	Cottonwood Chutes to Fairmont			13237766		.02399451	.00606810	.03957141
19C	Buttes Junction thru Buttes Reservoir			1.00000000				
20A	Fairmont thru 70th Street West			.06847931		.02576424	.00651572	.04249001
20B	70th Street West to Palmdale			.02276024		.02702916	.00683554	.04457607
21	Palmdale to Littlerock Creek			.02318953		.02754716	.00696650	.04543034
22A	Littlerock Creek to Pearblossom Pumping Plant			.01181870		.02794143	00706620	.04608043
22B	Pearblossom Pumping Plant to West Fork Mojave River					.02827552	.00715073	.04663153
23	West Fork Mojave River to Silverwood Lake					.00324449	.00818121	.00535117
24	Cedar Springs Dam and Silverwood Lake					01024605	.01251569	01690478
25	Silverwood Lake to South Portal, San Bernardino Tunnel							
26A	South Portal, San Bernardino Tunnel thru Devil Canyon Pwp.							
28G	Devil Canyon Powerplant to Barton Road							
28H	Barton Road to Lake Perris							
28J	Perris Dam and Lake Perris							
29A	Junction, West Branch, Calif. Aqueduct thru Oso Pumping Plant			.00304299	02728237			
29F	Oso Pumping Plant thru Quail Embankment			.00304379	.02728234			
29G	Quail Embankment to Pyramid Lake				.02736564			
29H	Pyramid Dam and Lake				.02646380			
29J	Pyramid Lake thru Castaic Powerplant				02736563			
30	Castaic Dam and Lake				.02637131			
31A	Avenal Gap to Devil's Den Pumping Plant	.10522767	.24566277					
33A	Devil's Den Pumping Plant thru San Luis Obispo Powerplant	.29988697	.70011303					
34	San Luis Obispo Powerplant to Arroyo Grande	.20553239	.79446761					
35	Arroyo Grande thru Santa Maria Terminal	.14771038	.85228962					

MINIMUM OMP&R COSTS AMONG CONTRACTORS[a]

Reach No	SAN JOAQUIN VALLEY AREA								
	Devil's Den Water District	Dudley Ridge Water District	Empire West Side Irrigation District	Hacienda Water District	Kern County Water Agency		County of Kings	Oak Flat Water District	Tulare Lake Basin Water Storage District
					Municipal and Industrial	Agricultural			
California Aqueduct									
1	.00377824	01707931	00088687	.00251598	02742075	.30633444	.00090702	.00167139	03253706
2A	.00394038	.01781205	00092491	.00262393	02864590	.31948963	.00094755	.00174305	.03393294
2B	.00395099	.01786013	.00092740	.00263102	.02869073	.32034362	00094904		.03402458
3	00395208	.01786513	00092766	.00263176	02868919	.32043064	00094900		.03403409
4	.00395323	.01787039	.00092794	00263254	02868758	.32052214	00094893		.03404410
5	00395466	01787693	00092828	00263352	02868559	.32063639	00094886		.03405659
6	00395684	01788685	.00092879	.00263498	.02868255	.32080926	00094875		.03407550
7	.00395753	01789003	00092896	00263544	02868158	32086471	.00094872		.03408157
8C	.00390372	.01764649	00091632	00259956	02836376	.31651560	00093819		03361753
8D	00398843	01802948		00265599	02895222	.32337797			.01529539
9					03173493	32315570			
10A					03225002	31237849			
11B					03555316	24304304			
12D					03738966	.20458362			
12E					03744664	.20348854			
13B					.01437747	.16288986			
14A					.00610657	13050491			
14B					.00621833	11497394			
14C					00640883	.08842321			
15A					.00651639	.07347673			
16A					00676126	03933051			
17E					.00208231				
31A	07364766					57546190			

Reach No	CALIFORNIA AREA								
	Littlerock Creek Irrigation District	Mojave Water Agency	Palmdale Irrigation District	San Bernardino Valley Municipal Water District	San Gabriel Valley Municipal Water District	San Gorgonio Pass Water Agency	The Metropolitan Water District of Southern California	Ventura County Flood Control District	TOTAL
California Aqueduct									
1	00049187	.01101303	00369180	.02363192	.00650450	00398446	.43940274	00429334	1 00000000
2A	.00051421	01151300	00385943	.02469456	00679800	00416362	45932582	00448829	1.00000000
2B	00051477	01152575	00386368	02472869	.00680672	00416938	45985090	00449324	1.00000000
3	.00051469	01152359	00386296	02472604	00680580	00416893	45976953	00449238	1 00000000
4	00051459	01152131	00386218	02472327	00680482	00416846	45968397	.00449149	1.00000000
5	00051448	.01151846	00386122	02471980	.00680361	.00416788	45957712	00449037	1.00000000
6	00051428	.01151416	00385978	.02471455	00680178	00416698	.45941544	.00448869	1.00000000
7	.00051421	.01151278	00385931	.02471286	.00680118	00416671	45936361	00448816	1 00000000
8C	.00050905	.01139703	00382056	02444913	00673013	.00412224	.46619410	.00444309	1.00000000
8D	00051940	.01162908	00389834	02495260	.00686817	00420714	47575203	.00453354	1 00000000
9	.00056864	01273174	00426793	02733801	.00752279	.00460932	.52108733	.00496332	1.00000000
10A	00057757	.01293209	.00433508	02777635	00764260	.00468324	.52938182	00504140	1.00000000
11B	.00063524	01422367	.00476795	.03059311	00841338	.00515814	.58274744	.00554474	1.00000000
12D	.00066717	01493906	00500769	.03215687	.00884093	.00542180	.61234745	.00582351	1.00000000
12E	.00066803	01495830	.00501413	03220286	.00885312	.00542956	.61318897	00583099	1.00000000
13B	.00072369	.01620441	.00543178	.03491750	.00959625	.00588725	66464178	.00631662	1.00000000
14A	.00075911	01699773	.00569765	.03665478	01007092	.00618017	.69750337	.00662575	1 00000000
14B	.00077249	01729729	00579803	.03731574	01025102	.00629159	70996969	.00674247	1 00000000
14C	.00079540	.01781020	.00596992	03844447	.01055888	.00648190	73127981	00694231	1.00000000
15A	00080829	01809845	00606653	03908064	01073222	.00658915	74327706	00705461	1 00000000
16A	.00083775	01875830	00628766	.04053195	01112817	.00683383	.77068316	00731170	1 00000000
17E	00087593	.01961383	00657438	04241764	.01164221	.00715176	.80626315	00764506	1.00000000
31A	.00087775	.01965466	.00658807	.04250630	.01166651	00716671	.80794577	00766097	1 00000000
	.00221525	04960424	01662681	.10730447	.02944861	.01809192	.57469531		1 00000000
	00221522	.04960300	01662640	.10730706	.02944877	01809230	.57469557		1.00000000
California Aqueduct									1.00000000
1	00237800	05324853	01784830	.11522151	03161800	01942666	61700972		1.00000000
2A	00249470	05586076	01872390	.12087842	.03316988	02038045	.64729088		1.00000000
2B	.00254199	.05692052		.12319478	.03380326	.02077093	.65963499		1.00000000
3		.05773081		.12495765	.03428607	.02106816	.66905055		1.00000000
4		.05842136		.12645206	03469615	.02132008	.67705257		1 00000000
5				14467449	03969012	.02439238	.77446614		1.00000000
6				.22243002	.04339444	.02843498	.66607404		1.00000000
7				.11825184	.03722720	.01993915	.82458181		1.00000000
8C				.14947726	.03997502	02520426	.78534346		1.00000000
8D				.05126137			.94873863		1 00000000
9							1.00000000		1.00000000
10A							1.00000000		1.00000000
11B									
12D							.95652648	.01314816	1.00000000
12E							.95652573	.01314814	1.00000000
13B							.95944609	.01318827	1.00000000
14A							.96446829	.00906791	1.00000000
14B							.95944608	.01318829	1.00000000
14C							.96499830	.00863039	1.00000000
15A									
16A									1.00000000
17E									1.00000000
31A									1.00000000
									1.00000000

TABLE B-3: POWER COSTS AND CREDITS AND ANNUAL REPLACEMENT

(In

CALENDAR YEAR	NORTH BAY AQUEDUCT		SOUTH BAY AQUEDUCT	CALIFORNIA				
	Reach 1 Calhoun and Travis Pumping Plants	Reach 3 Cordelia Pumping Plant	Reach 1 South Bay and Del Valle Pumping Plants (b)	Reach 1 Delta Pumping Plant	Reach 4 Dos Amigos Pumping Plant	Reach 14A Buena Vista Pumping Plant	Reach 15A Wheeler Ridge Pumping Plant	Reach 16A Wind Gap Pumping Plant
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1962	0	0	38,130	0	0	0	0	0
1963	0	0	58,871	0	0	0	0	0
1964	0	0	75,239	0	0	0	0	0
1965	0	0	146,297	0	0	0	0	0
1966	0	0	198,643	0	0	0	0	0
1967	0	0	224,948	31,165	0	0	0	0
1968	0	7,278	342,959	1,336,142	255,305	0	0	0
1969	0	8,700	281,686	871,774	158,900	0	0	0
1970	0	13,842	451,300	392,628	237,639	20,101	16,681	22,722
1971	0	10,774	424,271	613,361	249,672	165,384	31,467	25,618
1972	0	16,000	662,900	1,239,654	570,100	369,000	193,300	389,600
1973	0	17,000	570,400	1,273,000	684,100	670,800	666,300	1,273,400
1974	0	13,000	577,400	1,359,000	768,100	828,800	904,300	1,814,400
1975	0	12,000	558,400	1,395,000	745,100	742,800	801,300	1,591,400
1976	0	15,000	554,400	1,583,000	844,100	896,800	895,300	1,955,400
1977	0	11,000	562,400	2,144,000	907,100	864,800	1,003,300	2,043,400
1978	0	10,000	607,400	1,643,000	1,084,100	1,022,800	1,104,300	2,421,400
1979	0	12,000	570,400	3,176,000	968,100	1,130,800	1,212,300	2,628,400
1980	4,000	26,200	603,400	3,026,200	1,105,100	1,227,800	1,240,300	2,842,400
1981	4,000	26,200	594,400	3,411,200	1,187,100	1,289,800	1,304,300	2,826,400
1982	6,000	30,200	637,400	3,994,200	1,317,100	1,435,800	1,372,300	3,133,400
1983	11,000	40,200	805,400	5,637,200	1,715,100	1,690,800	1,714,300	3,609,400
1984	12,000	44,200	867,400	6,370,200	1,942,100	1,934,800	1,796,300	3,767,400
1985	13,000	46,200	906,400	5,333,400	2,138,100	2,208,800	1,896,300	3,976,400
1986	14,000	64,200	897,400	6,833,400	2,240,100	2,263,800	2,164,300	4,527,400
1987	20,000	62,200	861,400	6,836,400	2,307,100	2,376,800	2,322,300	4,848,400
1988	22,000	64,200	884,400	8,394,400	2,506,100	2,629,800	2,415,300	5,420,400
1989	33,000	65,200	888,400	7,998,400	2,621,100	2,680,800	2,669,300	5,549,400
1990	51,000	69,200	937,400	8,019,400	2,940,100	3,191,800	3,044,300	6,714,400
1991	51,000	71,200	944,400	8,356,400	2,966,100	3,193,800	3,048,300	6,723,400
1992	51,000	71,200	934,400	8,630,400	2,933,100	3,341,800	3,240,300	7,094,400
1993	50,000	89,200	932,400	8,897,400	2,859,100	3,102,800	2,965,300	6,540,400
1994	51,000	91,200	942,400	8,387,400	2,970,100	3,345,800	3,251,300	7,122,400
1995	51,000	92,200	939,400	8,533,400	2,976,100	3,343,800	3,247,300	7,113,400
1996	53,000	95,200	952,400	8,022,400	3,025,100	3,398,800	3,298,300	7,223,400
1997	53,000	95,200	939,400	8,867,400	3,003,100	3,368,800	3,490,300	7,594,400
1998	56,000	100,200	971,400	7,671,400	3,131,100	3,685,800	3,625,300	7,887,400
1999	54,000	99,200	963,400	8,426,400	3,081,100	3,454,800	3,580,300	7,792,400
2000	51,000	93,200	907,400	9,285,400	3,044,100	3,659,800	3,657,300	8,331,400
2001	53,000	95,200	920,400	9,304,400	3,060,100	3,701,800	3,694,300	8,417,400
2002	56,000	100,200	958,400	8,571,400	3,211,100	3,863,800	3,850,300	8,324,400
2003	56,000	101,200	971,400	8,450,400	3,255,100	3,934,800	3,922,300	8,948,400
2004	54,000	96,200	929,400	8,888,400	3,165,100	3,781,800	3,999,300	8,605,400
2005	53,000	95,200	917,400	8,128,400	3,108,100	3,707,800	3,700,300	8,433,400
2006	54,000	97,200	932,400	9,023,400	3,220,100	3,812,800	4,034,300	8,684,400
2007	52,000	93,200	899,400	8,551,400	3,072,100	3,670,800	3,882,300	8,357,400
2008	56,000	100,200	961,400	8,996,400	3,381,100	4,144,800	4,184,300	9,006,400
2009	53,000	95,200	920,400	9,398,400	3,226,100	3,952,800	3,992,300	8,594,400
2010	56,000	101,200	972,400	8,549,400	3,436,100	4,203,800	4,243,300	9,131,400
2011	57,000	103,200	984,400	8,555,400	3,462,100	4,251,800	4,290,300	9,230,400
2012	53,000	95,200	916,400	9,414,400	3,309,100	4,006,800	4,276,300	9,172,400
2013	54,000	97,200	934,400	9,601,400	3,288,100	4,036,800	4,076,300	9,223,400
2014	56,000	99,200	953,400	8,306,400	3,399,100	4,167,800	4,214,300	9,538,400
2015	53,000	95,200	912,400	9,442,400	3,287,100	3,977,800	4,244,300	9,101,400
2016	54,000	97,200	931,400	9,899,400	3,395,100	4,257,800	4,348,300	9,321,400
2017	53,000	94,200	911,400	9,375,400	3,238,100	3,976,800	4,025,300	9,105,400
2018	54,000	97,200	936,400	8,502,400	3,480,100	4,339,800	4,438,300	9,974,400
2019	51,000	93,200	896,400	9,553,400	3,230,100	3,925,800	4,189,300	8,994,400
2020 (c	54,000	97,200	936,400	10,014,400	3,424,100	4,142,800	4,424,300	9,493,400

a) Includes the costs of electric capacity and energy used by pumping plants, exclusive of associated power transmission charges; the value of electric capacity and energy produced by power recovery plants (treated as negative costs); and the payments to sinking fund reserves that will finance periodic replacement of electro-mechanical equipment.

DEPOSITS FOR EACH AQUEDUCT PUMPING AND POWER RECOVERY PLANT[a]

dollars)

AQUEDUCT								
Reach 17E A.D. Edmonston Pumping Plant	Reach 22B Pear-blossom Pumping Plant	Reach 26A Devil Canyon Powerplant	Reach 29A Oso Pumping Plant	Reach 29J Castaic Powerplant	Reach 31A Las Perillas and Badger Hill Pumping Plants	Reach 33A Devil's Den Sawtooth and Polonio PP's and San Luis Obispo Pwp	GRAND TOTAL	CALENDAR YEAR
(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
0	0	0	0	0	0	0	38,130	1962
0	0	0	0	0	0	0	58,871	1963
0	0	0	0	0	0	0	75,239	1964
0	0	0	0	0	0	0	146,297	1965
0	0	0	0	0	0	0	198,643	1966
0	0	0	0	0	0	0	256,113	1967
0	0	0	0	0	124,460	0	2,066,144	1968
0	0	0	0	0	84,012	0	1,405,072	1969
0	0	0	0	0	142,807	0	1,297,720	1970
43,538	68,259	0	4,715	0	175,695	0	1,812,754	1971
1,264,300	219,100	0	176,000	-400,000	244,500	0	4,944,454	1972
4,184,600	809,100	-1,151,500	372,800	-1,378,000	156,700	0	8,148,700	1973
6,113,600	1,205,100	-1,771,500	628,800	-2,445,000	143,700	0	10,139,700	1974
5,323,600	1,339,100	-2,100,500	286,800	-2,166,000	142,700	0	8,671,700	1975
6,619,600	1,659,900	-3,284,100	254,800	-2,211,000	159,700	0	9,942,900	1976
6,891,600	1,629,900	-3,178,100	290,800	-2,564,000	165,700	0	10,771,900	1977
8,299,600	1,978,900	-3,934,100	291,800	-2,871,000	188,700	0	11,846,900	1978
9,188,600	2,028,900	-3,965,100	306,800	-3,279,000	150,700	-2,000	14,126,900	1979
9,375,600	1,974,900	-3,868,100	320,800	-3,595,000	181,500	110,800	14,575,900	1980
9,852,600	1,997,900	-4,204,100	359,800	-3,702,000	189,500	111,800	15,248,900	1981
10,334,600	2,244,900	-4,216,100	351,800	-3,455,000	208,500	131,800	17,526,900	1982
12,969,600	2,802,900	-5,132,100	356,800	-3,925,000	274,500	233,800	22,803,900	1983
13,599,400	3,170,900	-4,721,100	348,800	-3,693,000	313,500	265,800	26,018,700	1984
14,338,400	3,299,900	-4,434,100	382,800	-3,868,000	334,500	298,800	26,870,900	1985
14,838,400	3,270,900	-5,043,100	450,800	-4,420,000	345,500	328,800	28,775,900	1986
16,137,400	2,640,900	-4,144,100	697,800	-5,468,000	349,500	403,800	30,251,900	1987
16,757,400	2,817,900	-4,694,100	781,800	-5,312,000	364,500	430,800	33,482,900	1988
18,682,400	2,767,900	-4,489,100	1,121,800	-5,636,000	381,500	447,800	35,781,900	1989
21,399,400	2,972,900	-4,780,100	1,269,800	-6,107,000	421,500	579,800	40,723,900	1990
21,434,400	3,190,900	-5,017,100	1,268,800	-6,197,000	421,500	569,800	41,025,900	1991
22,933,400	2,971,900	-4,596,100	1,350,800	-6,452,000	416,500	569,800	43,490,900	1992
20,873,400	3,106,900	-4,747,100	1,322,800	-6,385,000	411,500	594,800	40,613,900	1993
24,696,400	3,111,900	-5,168,100	1,585,800	-7,043,000	415,500	594,800	44,354,900	1994
24,667,400	3,153,900	-4,630,100	1,464,800	-6,407,000	417,500	700,800	45,663,900	1995
25,060,400	3,188,900	-4,927,100	1,490,800	-6,823,000	446,500	712,800	45,217,900	1996
24,862,400	3,125,900	-4,901,100	1,593,800	-6,857,000	449,500	706,800	46,391,900	1997
25,806,400	3,250,900	-5,094,100	1,756,800	-7,385,000	469,500	723,800	46,656,900	1998
25,516,400	3,223,900	-5,077,100	1,722,800	-7,094,000	463,500	717,800	46,924,900	1999
27,849,400	3,044,900	-4,614,100	1,786,800	-7,529,000	438,500	798,800	50,804,900	2000
26,463,400	2,887,900	-4,890,100	1,790,800	-6,988,000	446,500	823,800	49,780,900	2001
27,536,400	2,962,900	-4,520,100	1,987,800	-7,115,000	469,500	877,800	51,134,900	2002
28,067,400	3,063,900	-4,647,100	1,900,800	-7,419,000	476,500	888,800	51,970,900	2003
28,756,400	2,898,900	-4,622,100	2,058,800	-7,780,000	456,500	842,800	52,130,900	2004
28,178,400	3,107,900	-4,724,100	1,793,800	-7,600,000	451,500	842,800	50,193,900	2005
29,028,400	2,887,900	-5,035,100	1,993,800	-7,839,000	459,500	857,800	52,211,900	2006
27,937,400	3,056,900	-4,728,100	1,988,800	-7,787,000	442,500	812,800	50,301,900	2007
30,102,400	3,242,900	-4,917,100	2,166,800	-8,445,000	474,500	880,800	54,335,900	2008
28,731,400	2,878,900	-4,796,100	2,168,800	-7,658,000	453,500	839,800	52,850,900	2009
30,521,400	3,279,900	-4,807,100	2,311,800	-8,068,000	480,500	894,800	55,306,900	2010
30,846,400	3,054,900	-4,952,100	2,346,800	-7,949,000	486,500	903,800	55,671,900	2011
30,938,400	3,141,900	-5,162,100	2,210,800	-8,444,000	451,500	818,800	55,198,900	2012
31,092,400	2,887,900	-4,887,100	2,237,800	-8,274,000	460,500	847,800	55,676,900	2013
32,169,400	3,026,900	-5,155,100	2,302,800	-8,391,000	470,500	872,800	56,030,900	2014
30,698,400	3,073,900	-4,837,100	2,210,800	-8,685,000	449,500	808,800	54,832,900	2015
31,436,400	2,923,900	-4,911,100	2,160,800	-8,459,000	459,500	834,800	56,749,900	2016
30,714,400	2,812,900	-5,092,100	2,232,800	-8,995,000	448,500	813,800	53,714,900	2017
32,143,400	3,210,900	-5,314,100	2,425,800	-9,172,000	462,500	823,800	56,402,900	2018
30,345,400	2,757,900	-5,280,100	2,508,800	-9,158,000	441,500	778,800	53,327,900	2019
32,033,400	2,937,900	-5,286,100	2,538,800	-9,129,000	462,500	823,800	56,967,900	2020 (c

b) The estimated costs of Del Valle Pumping Plants are combined with those of South Bay Pumping Plant to simplify the cost allocations.

c) And each year thereafter for the remainder of the project repayment period.

TABLE B-4: ANNUAL ENTITLE-

(in acre-feet)

CALENDAR YEAR	NORTH BAY AREA			SOUTH BAY AREA (b				CENTRAL COASTAL AREA		
	Napa County FC & WCD (c	Solano County FC & WCD	Total	Alameda County FC & WCD, Zone 7	Alameda County Water District	Santa Clara County FC & WD	Total	San Luis Obispo County FC & WCD	Santa Barbara County FC & WCD	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1962	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	507	5,248	5,783	11,538	0	0	0
1968	0	0	0	6,900	15,000	88,000	109,900	0	0	0
1969	0	0	0	8,200	15,500	75,000	98,700	0	0	0
1970	0	0	0	10,000	16,200	88,000	114,200	0	0	0
1971	0	0	0	11,200	17,000	88,000	116,200	0	0	0
1972	0	0	0	12,400	17,900	88,000	118,300	0	0	0
1973	0	0	0	13,600	18,800	88,000	120,400	0	0	0
1974	0	0	0	14,800	19,600	88,000	122,400	0	0	0
1975	0	0	0	16,000	20,500	88,000	124,500	0	0	0
1976	0	0	0	17,200	21,300	88,000	126,500	0	0	0
1977	0	0	0	18,400	22,200	88,000	128,600	0	0	0
1978	0	0	0	19,600	23,100	88,000	130,700	0	0	0
1979	0	0	0	20,800	23,900	88,000	132,700	0	0	0
1980	12,500	6,750	19,250	22,000	24,800	88,000	134,800	1,000	1,200	2,200
1981	13,750	8,000	21,750	23,000	26,000	88,000	137,000	1,000	2,300	3,300
1982	15,000	9,400	24,400	24,000	27,200	88,000	139,200	2,000	4,600	6,600
1983	16,250	10,800	27,050	25,000	28,400	88,000	141,400	3,000	6,900	9,900
1984	17,500	12,100	29,600	26,000	29,600	88,000	143,600	4,500	10,400	14,900
1985	18,750	14,000	32,750	27,000	30,800	88,000	145,800	7,500	17,300	24,800
1986	20,000	16,500	36,500	28,000	32,100	88,000	148,100	10,000	23,100	33,100
1987	21,250	20,000	41,250	29,000	33,300	88,000	150,300	12,500	28,800	41,300
1988	22,500	27,000	49,500	30,000	34,500	88,000	152,500	15,500	35,800	51,300
1989	23,750	34,500	58,250	31,000	35,700	90,000	156,700	20,000	46,100	66,100
1990	25,000	42,000	67,000	32,000	36,900	92,000	160,900	25,000	57,700	82,700
1991	25,000	42,000	67,000	34,000	38,400	94,000	166,400	25,000	57,700	82,700
1992	25,000	42,000	67,000	36,000	39,900	96,000	171,900	25,000	57,700	82,700
1993	25,000	42,000	67,000	38,000	41,400	98,000	177,400	25,000	57,700	82,700
1994	25,000	42,000	67,000	40,000	42,000	100,000	182,000	25,000	57,700	82,700
1995	25,000	42,000	67,000	42,000	42,000	100,000	184,000	25,000	57,700	82,700
1996	25,000	42,000	67,000	44,000	42,000	100,000	186,000	25,000	57,700	82,700
1997	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
1998	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
1999	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2000	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2001	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2002	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2003	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2004	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2005	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2006	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2007	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2008	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2009	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2010	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2011	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2012	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2013	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2014	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2015	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2016	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2017	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2018	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2019	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2020	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2021	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2022	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2023	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2024	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2025	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2026	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2027	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2028	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2029	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2030	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2031	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2032	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2033	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2034	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
2035	25,000	42,000	67,000	46,000	42,000	100,000	188,000	25,000	57,700	82,700
TOTAL	1,331,250	2,091,050	3,422,300	2,494,607	2,459,248	6,510,783	11,464,638	1,227,000	2,830,700	4,057,700

a) From Tables A and Articles 6(a) of water supply contracts as of December 31, 1972.

b) Entitlements for the South Bay Area have been supplied by nonproject water for the period June 1962 through November 1967. Actual delivery quantities of project water are shown for 1967.

c) District's Table A quantities exclude those during the period 1968 through 1979 which are assumed to be supplied by nonproject water.

MENTS TO PROJECT WATER[a]

(in acre-feet)

CALENDAR YEAR	SAN JOAQUIN VALLEY AREA								
	Devil's Den Water District	Dudley Ridge Water District	Empire West Side Irrigation District	Hacienda Water District	Kern County Water Agency	County of Kings	Oak Flat Water District	Tulare Lake Basin Water Storage District	Total
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
1962	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0
1968	3,700	14,300	1,000	0	46,600	900	2,300	12,250	81,050
1969	5,000	14,325	3,000	2,400	95,700	1,200	2,500	43,950	168,075
1970	5,700	15,700	3,000	2,500	145,100	1,300	2,600	31,800	207,700
1971	6,700	17,900	3,000	2,300	190,300	1,300	2,800	34,200	258,500
1972	7,700	20,000	3,000	2,600	270,700	1,400	5,366	110,000	420,766
1973	8,700	22,000	3,000	2,900	310,500	1,500	3,100	39,100	390,800
1974	9,700	24,100	3,000	3,300	347,000	1,500	3,200	43,000	434,800
1975	10,700	26,200	3,000	3,600	385,500	1,600	3,400	46,900	480,900
1976	11,700	28,300	3,000	3,900	432,800	1,600	3,500	50,800	535,600
1977	12,700	30,400	3,000	4,200	483,600	1,700	3,700	54,800	594,100
1978	12,700	32,500	3,000	4,600	534,300	1,900	3,900	58,700	651,600
1979	12,700	34,600	3,000	4,900	583,900	2,000	4,000	62,600	707,700
1980	12,700	36,700	3,000	5,200	634,500	2,200	4,200	66,500	765,000
1981	12,700	38,800	3,000	5,600	691,400	2,300	4,300	70,400	828,500
1982	12,700	41,000	3,000	5,900	745,300	2,500	4,500	74,300	889,200
1983	12,700	42,900	3,000	6,200	805,100	2,800	4,600	78,200	955,500
1984	12,700	45,100	3,000	6,500	860,600	3,100	4,800	82,100	1,017,900
1985	12,700	47,200	3,000	6,900	915,000	3,400	4,900	86,000	1,079,100
1986	12,700	49,300	3,000	7,200	968,200	3,700	5,100	90,000	1,139,200
1987	12,700	51,400	3,000	7,500	1,023,500	4,000	5,200	93,900	1,201,200
1988	12,700	53,500	3,000	7,800	1,074,600	4,000	5,400	97,800	1,258,800
1989	12,700	55,600	3,000	8,200	1,112,300	4,000	5,600	101,700	1,303,100
1990	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
1991	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
1992	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
1993	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
1994	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
1995	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
1996	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
1997	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
1998	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
1999	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2000	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2001	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2002	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2003	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2004	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2005	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2006	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2007	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2008	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2009	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2010	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2011	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2012	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2013	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2014	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2015	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2016	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2017	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2018	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2019	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2020	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2021	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2022	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2023	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2024	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2025	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2026	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2027	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2028	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2029	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2030	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2031	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2032	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2033	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2034	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
2035	12,700	57,700	3,000	8,500	1,153,400	4,000	5,700	110,000	1,355,000
TOTAL	818,900	3,396,025	202,000	495,200	65,712,900	233,900	351,166	6,489,000	77,699,091

(in acre-feet)

CALENDAR YEAR	SOUTHERN CALIFORNIA AREA									
	Antelope Valley-East Kern Water Agency	Castaic Lake Water Agency	Coachella Valley County Water District	Crestline Lake Arrowhead Water Agency	Desert Water Agency	Littlerock Creek Irrigation District	Mojave Water Agency	Palmdale Irrigation District	San Bernardino Valley Municipal Water District	San Gabriel Valley Municipal Water District
	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
1962	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0
1972	20,000	1,236	5,200	526	8,000	170	8,400	1,620	1,677	122
1973	25,000	3,700	5,800	870	9,000	290	10,700	2,940	48,000	11,500
1974	30,000	5,700	6,400	1,160	10,000	400	13,100	4,260	50,000	12,300
1975	35,000	7,500	7,000	1,450	11,000	520	15,400	5,580	52,500	13,100
1976	44,000	9,500	7,600	1,740	12,000	640	17,800	6,900	55,000	14,000
1977	50,000	11,400	8,421	2,030	13,000	730	20,200	8,220	57,500	14,800
1978	57,000	13,400	9,242	2,320	14,000	920	22,500	9,340	60,000	15,700
1979	63,000	15,300	10,063	2,610	15,000	1,040	24,900	10,260	62,500	16,600
1980	69,200	17,700	10,884	2,900	17,000	1,150	27,200	11,180	65,500	17,400
1981	75,000	20,100	12,105	3,190	19,000	1,270	29,600	11,700	68,500	18,300
1982	81,300	22,100	13,326	3,480	21,000	1,380	31,900	12,320	71,500	19,100
1983	87,700	24,600	14,547	3,770	23,000	1,500	34,300	12,940	74,500	19,900
1984	94,000	26,900	15,768	4,060	25,000	1,610	36,700	13,560	78,000	20,700
1985	100,400	29,100	16,989	4,350	27,000	1,730	39,000	14,180	81,500	21,800
1986	106,700	30,900	18,210	4,640	29,000	1,840	41,400	14,800	85,000	23,200
1987	113,000	32,900	19,431	4,930	31,500	1,960	43,700	15,420	89,000	24,600
1988	119,400	35,300	20,652	5,220	34,000	2,070	46,000	16,040	93,000	26,000
1989	125,700	37,400	21,873	5,510	36,500	2,190	48,500	16,660	97,000	27,400
1990	132,100	39,300	23,100	5,800	38,100	2,300	50,800	17,300	101,500	28,800
1991	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
1992	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
1993	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
1994	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
1995	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
1996	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
1997	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
1998	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
1999	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2000	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2001	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2002	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2003	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2004	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2005	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2006	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2007	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2008	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2009	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2010	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2011	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2012	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2013	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2014	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2015	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2016	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2017	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2018	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2019	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2020	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2021	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2022	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2023	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2024	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2025	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2026	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2027	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2028	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2029	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2030	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2031	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2032	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2033	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2034	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
2035	138,400	41,500	23,100	5,800	38,100	2,300	50,800	17,300	102,600	28,800
TOTAL	7,656,500	2,251,536	1,286,111	321,556	2,107,600	127,210	2,848,100	983,720	5,909,177	1,641,322

MENTS TO PROJECT WATER[a]

(in acre-feet)

CALENDAR YEAR	SOUTHERN CALIFORNIA AREA (continued)				FEATHER RIVER AREA				TOTAL STATE WATER PROJECT
	San Gorgonio Pass Water Agency	The Metropolitan Water District of Southern California	Ventura County Flood Control District	Total	City of Yuba City	County of Butte	Plumas County FC & WCD	Total	
	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)
1962	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	11,538
1968	0	0	0	0	0	300	250	550	191,500
1969	0	0	0	0	0	350	270	620	267,395
1970	0	0	0	0	0	400	300	700	322,600
1971	0	0	0	0	0	450	440	890	375,590
1972	0	154,772	0	201,723	0	500	470	970	741,759
1973	0	354,600	0	472,400	0	600	500	1,100	984,700
1974	0	454,900	0	588,220	0	700	530	1,230	1,146,650
1975	0	555,200	0	704,250	0	1,050	560	1,610	1,311,260
1976	0	655,600	0	824,780	0	1,400	590	1,990	1,488,870
1977	0	755,900	0	942,201	0	1,800	620	2,420	1,667,321
1978	0	856,300	0	1,060,722	0	2,200	650	2,850	1,845,872
1979	0	956,600	0	1,177,873	0	2,600	680	3,280	2,021,553
1980	6,800	1,057,000	1,000	1,304,914	0	4,000	710	4,710	2,230,874
1981	7,800	1,157,300	2,000	1,425,865	4,200	5,450	740	10,390	2,426,805
1982	8,800	1,257,600	3,000	1,546,806	4,600	6,900	770	12,270	2,618,476
1983	9,800	1,358,000	4,000	1,668,557	5,050	8,350	800	14,200	2,816,607
1984	10,800	1,458,300	5,000	1,790,398	5,500	9,800	830	16,130	3,012,528
1985	11,800	1,558,700	6,000	1,912,549	5,950	12,250	860	19,060	3,214,059
1986	12,900	1,659,300	8,000	2,035,890	6,600	14,700	890	22,190	3,414,980
1987	14,000	1,759,800	10,000	2,160,241	7,300	17,150	920	25,370	3,619,661
1988	15,100	1,860,400	13,000	2,286,182	8,000	20,600	960	29,560	3,827,842
1989	16,200	1,961,000	16,000	2,411,933	8,800	24,050	1,000	33,850	4,029,933
1990	17,300	2,011,500	20,000	2,487,900	9,600	27,500	1,040	38,140	4,191,640
1991	17,300	2,011,500	20,000	2,497,500	9,600	27,500	1,080	38,180	4,206,780
1992	17,300	2,011,500	20,000	2,497,500	9,600	27,500	1,120	38,220	4,212,320
1993	17,300	2,011,500	20,000	2,497,500	9,600	27,500	1,160	38,260	4,217,860
1994	17,300	2,011,500	20,000	2,497,500	9,600	27,500	1,200	38,300	4,222,500
1995	17,300	2,011,500	20,000	2,497,500	9,600	27,500	1,250	38,350	4,224,550
1996	17,300	2,011,500	20,000	2,497,500	9,600	27,500	1,300	38,400	4,226,600
1997	17,300	2,011,500	20,000	2,497,500	9,600	27,500	1,350	38,450	4,228,650
1998	17,300	2,011,500	20,000	2,497,500	9,600	27,500	1,400	38,500	4,228,700
1999	17,300	2,011,500	20,000	2,497,500	9,600	27,500	1,450	38,550	4,228,750
2000	17,300	2,011,500	20,000	2,497,500	9,600	27,500	1,510	38,610	4,228,810
2001	17,300	2,011,500	20,000	2,497,500	9,600	27,500	1,570	38,670	4,228,870
2002	17,300	2,011,500	20,000	2,497,500	9,600	27,500	1,630	38,730	4,228,930
2003	17,300	2,011,500	20,000	2,497,500	9,600	27,500	1,690	38,790	4,228,990
2004	17,300	2,011,500	20,000	2,497,500	9,600	27,500	1,750	38,850	4,229,050
2005	17,300	2,011,500	20,000	2,497,500	9,600	27,500	1,810	38,910	4,229,110
2006	17,300	2,011,500	20,000	2,497,500	9,600	27,500	1,880	38,980	4,229,180
2007	17,300	2,011,500	20,000	2,497,500	9,600	27,500	1,950	39,050	4,229,250
2008	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,020	39,120	4,229,320
2009	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,090	39,190	4,229,390
2010	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,160	39,260	4,229,460
2011	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,240	39,340	4,229,540
2012	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,320	39,420	4,229,620
2013	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,410	39,510	4,229,710
2014	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,500	39,600	4,229,800
2015	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,600	39,700	4,229,900
2016	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,700	39,800	4,230,000
2017	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,700	39,800	4,230,000
2018	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,700	39,800	4,230,000
2019	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,700	39,800	4,230,000
2020	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,700	39,800	4,230,000
2021	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,700	39,800	4,230,000
2022	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,700	39,800	4,230,000
2023	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,700	39,800	4,230,000
2024	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,700	39,800	4,230,000
2025	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,700	39,800	4,230,000
2026	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,700	39,800	4,230,000
2027	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,700	39,800	4,230,000
2028	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,700	39,800	4,230,000
2029	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,700	39,800	4,230,000
2030	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,700	39,800	4,230,000
2031	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,700	39,800	4,230,000
2032	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,700	39,800	4,230,000
2033	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,700	39,800	4,230,000
2034	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,700	39,800	4,230,000
2035	17,300	2,011,500	20,000	2,497,500	9,600	27,500	2,700	39,800	4,230,000
TOTAL	909,800	112,360,272	988,000	139,390,904	497,600	1,400,600	112,820	2,011,020	238,045,653

TABLE B-5: ANNUAL QUANTITIES DELIVERED

(in acre-feet)

Calendar Year	Grizzly Valley Pipeline PC FC&WCD	NORTH BAY AQUEDUCT Reach 2 SC FC&WCD	NORTH BAY AQUEDUCT Reach 3 NC FC&WCD(a	TOTAL NORTH BAY AQUEDUCT (a	SOUTH BAY AQUEDUCT Reach 1 ACWD	SOUTH BAY AQUEDUCT Reach 1 AC FC&WCD	SOUTH BAY AQUEDUCT Reach 2 AC FC&WCD	SOUTH BAY AQUEDUCT Reach 4 AC FC&WCD	SOUTH BAY AQUEDUCT Reach 5 ACWD	SOUTH BAY AQUEDUCT Reach 5 AC FC&WCD	SOUTH BAY AQUEDUCT Reach 6 AC FC&WCD
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1962	0	0	0	0	8,412	141	353	0	0	0	0
1963	0	0	0	0	10,914	814	917	0	0	0	0
1964	0	0	0	0	19,238	248	1,425	0	0	0	0
1965	0	0	0	0	15,280	637	1,830	138	0	0	0
1966	0	0	0	0	0	2,475	2,537	499	0	0	0
1967	0	0	0	0	0	1,527	2,391	862	0	0	0
1968	0	0	1,214	1,214	0	1,608	3,799	721	0	5	0
1969	0	0	2,687	2,687	0	1,165	3,459	1,851	0	160	0
1970	70	0	3,618	3,618	0	1,345	4,558	3,182	0	164	0
1971	64	0	2,521	2,521	0	546	1,908	2,403	0	160	0
1972	505	0	3,647	3,647	0	1,066	4,605	2,041	1,489	2,777	0
1973	500	0	3,859	3,859	0	1,209	5,939	6,253	0	159	40
1974	530	0	3,915	3,915	0	1,209	7,074	3,317	0	159	3,041
1975	560	0	4,196	4,196	0	501	5,672	1,161	0	159	8,507
1976	590	0	4,243	4,243	0	373	6,203	1,161	0	159	9,304
1977	620	0	4,289	4,289	0	159	6,832	770	0	106	10,533
1978	650	0	4,335	4,335	0	159	7,401	0	0	0	12,040
1979	680	0	6,800	6,800	0	0	8,200	0	0	0	13,900
1980	710	6,750	8,500	15,250	0	0	8,900	0	0	0	15,100
1981	740	8,000	9,300	17,300	0	0	9,500	0	0	0	16,300
1982	770	9,400	10,100	19,500	0	0	10,200	0	0	0	17,400
1983	800	10,330	10,700	21,030	0	0	10,900	0	0	0	18,700
1984	830	11,160	11,300	22,460	0	0	11,700	0	0	0	19,800
1985	860	12,870	12,000	24,870	0	0	12,400	0	0	0	21,100
1986	890	15,240	13,200	28,440	0	0	13,100	0	0	0	22,300
1987	920	18,320	14,000	32,320	0	0	13,800	0	0	0	23,500
1988	960	24,900	14,600	39,500	0	0	14,500	0	0	0	24,700
1989	1,000	31,350	15,000	46,350	0	0	15,200	0	0	0	25,900
1990	1,040	37,800 (b	15,500	53,300	0	0	15,900	0	0	0	27,100
1991	1,080	37,800	17,000	54,800	0	0	16,500	0	0	0	28,000
1992	1,120	37,800	18,000	55,800	0	0	17,000	0	0	0	29,000
1993	1,160	37,800	19,000	56,800	0	0	17,000	0	0	0	29,000
1994	1,200	37,800	20,000	57,800	0	0	17,000	0	0	0	29,000
1995	1,250	37,800	21,000	58,800	0	0	17,000	0	0	0	29,000
1996	1,300	37,800	22,000	59,800	0	0	17,000	0	0	0	29,000
1997	1,350	37,800	22,700	60,500	0	0	17,000	0	0	0	29,000
1998	1,400	37,800	23,500	61,300	0	0	17,000	0	0	0	29,000
1999	1,450	37,800	24,200	62,000	0	0	17,000	0	0	0	29,000
2000	1,510	37,800	25,000	62,800	0	0	17,000	0	0	0	29,000
2001	1,570	37,800	25,000	62,800	0	0	17,000	0	0	0	29,000
2002	1,630	37,800	25,000	62,800	0	0	17,000	0	0	0	29,000
2003	1,690	37,800	25,000	62,800	0	0	17,000	0	0	0	29,000
2004	1,750	37,800	25,000	62,800	0	0	17,000	0	0	0	29,000
2005	1,810	37,800	25,000	62,800	0	0	17,000	0	0	0	29,000
2006	1,880	37,800	25,000	62,800	0	0	17,000	0	0	0	29,000
2007	1,950	37,800	25,000	62,800	0	0	17,000	0	0	0	29,000
2008	2,020	37,800	25,000	62,800	0	0	17,000	0	0	0	29,000
2009	2,090	37,800	25,000	62,800	0	0	17,000	0	0	0	29,000
2010	2,160	37,800	25,000	62,800	0	0	17,000	0	0	0	29,000
2011	2,240	37,800	25,000	62,800	0	0	17,000	0	0	0	29,000
2012	2,320	37,800	25,000	62,800	0	0	17,000	0	0	0	29,000
2013	2,410	37,800	25,000	62,800	0	0	17,000	0	0	0	29,000
2014	2,500	37,800	25,000	62,800	0	0	17,000	0	0	0	29,000
2015	2,600	37,800	25,000	62,800	0	0	17,000	0	0	0	29,000
2016	2,700	37,800	25,000	62,800	0	0	17,000	0	0	0	29,000
2017	2,700	37,800	25,000	62,800	0	0	17,000	0	0	0	29,000
2018	2,700	37,800	25,000	62,800	0	0	17,000	0	0	0	29,000
2019	2,700	37,800	25,000	62,800	0	0	17,000	0	0	0	29,000
2020 (c	2,700	37,800	25,000	62,800	0	0	17,000	0	0	0	29,000

a) Between 1968-1979, inclusive, annual quantities delivered are nonproject water pumped thru an interim facility.

b) Solano County Flood Control and Water Conservation District (SCFC&WCD) has contracted for 42,000 acre-feet maximum annually, of which 4,200 acre-feet will be delivered from the Delta thru the District's facilities.

c) And thereafter for the remainder of the project repayment period.

FROM EACH AQUEDUCT REACH TO EACH CONTRACTOR

(in acre-feet)

Calendar Year	SOUTH BAY AQUEDUCT (continued)			TOTAL SOUTH BAY AQUEDUCT	CALIFORNIA AQUEDUCT						
					NORTH SAN JOAQUIN DIVISION	SOUTH SAN JOAQUIN DIVISION					
	Reach 7	Reach 8	Reach 9		Reach 2A	Reach 8C			Reach 8D		
	ACWD	ACWD	SCC FC&WCD		OFWD	TLBWSD	EWSID	KC	DRWD	HWD	TLBWSD
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1962	0	0	0	8,906	0	0	0	0	0	0	0
1963	0	0	0	12,645	0	0	0	0	0	0	0
1964	0	0	0	20,911	0	0	0	0	0	0	0
1965	1,127	0	15,014	34,026	0	0	0	0	0	0	0
1966	14,864	0	34,538	54,913	0	0	0	0	0	0	0
1967	12,882	0	39,101	56,763	0	0	0	0	0	0	0
1968	24,817	0	70,105	101,055	3,084	25,100	1,978	900	26,360	0	0
1969	813	0	62,264	69,712	3,016	7,081	56	100	31,375	0	0
1970	0	0	80,311	89,560	5,911	0	3,942	0	40,407	3,408	0
1971	5,961	0	87,606	98,584	7,212	80,906	5,990	3,700	41,053	6,659	34,920
1972	26,182	0	100,266	138,426	8,166	144,843	5,795	1,400	42,443	5,851	107,699
1973	18,800	0	95,000	127,400	3,800	73,100	3,850	1,500	27,650	4,200	42,100
1974	14,200	5,400	88,000	122,400	3,200	23,000	3,000	1,500	24,100	3,300	20,000
1975	12,500	8,000	88,000	124,500	3,400	25,200	3,000	1,600	26,200	3,600	21,700
1976	13,300	8,000	88,000	126,500	3,500	27,300	3,000	1,600	28,300	3,900	23,500
1977	14,200	8,000	88,000	128,600	3,700	29,400	3,000	1,700	30,400	4,200	25,400
1978	15,100	8,000	88,000	130,700	3,900	31,500	3,000	1,900	32,500	4,600	27,200
1979	15,900	8,000	88,000	134,000	4,000	33,600	3,000	2,000	34,600	4,900	29,000
1980	16,800	8,000	88,000	136,800	4,200	35,700	3,000	2,200	36,700	5,200	30,800
1981	18,000	8,000	88,000	139,800	4,300	37,800	3,000	2,300	38,800	5,600	32,600
1982	19,200	8,000	88,000	142,800	4,500	39,900	3,000	2,500	41,000	5,900	34,400
1983	20,400	8,000	88,000	146,000	4,600	42,000	3,000	2,800	42,900	6,200	36,200
1984	21,600	8,000	88,000	149,100	4,800	44,100	3,000	3,100	45,100	6,500	38,000
1985	22,800	8,000	88,000	152,300	4,900	46,200	3,000	3,400	47,200	6,900	39,800
1986	24,100	8,000	88,000	155,500	5,100	48,400	3,000	3,700	49,300	7,200	41,600
1987	25,300	8,000	88,000	158,600	5,200	50,500	3,000	4,000	51,400	7,500	43,400
1988	26,500	8,000	88,000	161,700	5,400	52,600	3,000	4,000	53,500	7,800	45,200
1989	27,700	8,000	90,000	166,800	5,600	55,700	3,000	4,000	55,600	8,200	46,000
1990	28,900	8,000	92,000	171,900	5,700	60,000	3,000	4,000	57,700	8,500	50,000
1991	30,400	8,000	94,000	176,900	5,700	60,000	3,000	4,000	57,700	8,500	50,000
1992	31,900	8,000	96,000	181,900	5,700	60,000	3,000	4,000	57,700	8,500	50,000
1993	33,400	8,000	98,000	185,400	5,700	60,000	3,000	4,000	57,700	8,500	50,000
1994(C	34,000	8,000	100,000	188,000	5,700	60,000	3,000	4,000	57,700	8,500	50,000

Calendar Year	CALIFORNIA AQUEDUCT (continued)									
	SOUTH SAN JOAQUIN DIVISION (continued)									
	Reach 9		Reach 10A		Reach 11B	Reach 12D	Reach 12E		Reach 13B	
	KCWA (Ag.)	HWD	KCWA (Ag.)	HWD	KCWA (Ag.)	KCWA (Ag.)	KCWA (M&I)	KCWA (Ag.)	KCWA (M&I)	KCWA (Ag.)
	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
1968	30,951	0	0	0	24,776	0	0	0	0	0
1969	24,489	0	0	2,842	64,682	0	0	0	0	0
1970	46,114	1,855	158	4,315	72,279	0	0	9,279	0	4,891
1971	58,356	0	9,973	0	63,773	0	0	28,056	0	0
1972	75,464	0	5,876	0	72,358	0	0	62,342	0	17,388
1973	63,333	0	10,700	0	68,202	0	0	36,377	0	27,374
1974	74,528	0	9,284	0	84,648	0	0	37,432	0	12,382
1975	77,857	0	11,995	0	89,728	0	35,000	19,250	0	12,836
1976	83,424	0	25,103	0	96,574	0	37,300	22,921	0	13,582
1977	88,927	0	33,017	0	103,607	0	40,800	28,890	0	14,512
1978	94,934	0	40,950	0	111,225	0	43,100	34,279	0	15,390
1979	94,700	0	52,700	0	111,600	2,400	45,400	34,000	3,600	15,800
1980	94,500	0	72,200	0	118,000	2,400	47,700	34,000	3,600	17,700
1981	94,500	0	88,800	0	124,700	2,400	50,200	35,000	3,600	24,400
1982	94,500	0	104,400	0	130,800	2,400	53,600	35,000	3,600	31,900
1983	94,500	0	121,500	0	135,600	2,400	56,000	35,000	3,600	41,700
1984	94,500	0	137,700	0	141,300	2,400	59,400	35,000	3,600	49,500
1985	94,000	0	154,000	0	145,400	2,400	62,900	35,500	3,600	57,900
1986	94,000	0	169,600	0	150,000	2,400	65,300	38,600	3,600	63,100
1987	94,000	0	185,700	0	153,300	2,400	70,364	42,200	3,600	68,500
1988	94,000	0	200,500	0	155,800	2,400	77,936	45,800	3,600	73,900
1989	94,000	0	211,200	0	157,200	2,400	84,398	48,300	3,600	78,100
1990(C	93,600	0	224,600	0	157,800	2,400	91,100	51,200	3,600	82,200

TABLE B-5: ANNUAL QUANTITIES DELIVERED

(in acre-feet)

Calendar Year	CALIFORNIA AQUEDUCT (continued)								
	SOUTH SAN JOAQUIN DIVISION (continued)							TEHACHAPI DIVISION	MOJAVE DIVISION
	Reach 14A		Reach 14B	Reach 14C	Reach 15A	Reach 16A		Reach 17E	Reach 18A
	KCWA (M&I)	KCWA (Ag.)	KCWA (Ag.)	KCWA (Ag.)	KCWA (Ag.)	KCWA (M&I)	KCWA (Ag.)	KCWA (M&I)	AVEKWA
	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)
1970	0	0	3	0	0	0	0	0	0
1971	0	23,844	49,929	24,187	3,552	0	0	0	0
1972	0	26,621	77,034	35,016	6,064	0	4,768	0	0
1973	0	12,918	42,601	20,743	21,590	1,700	1,936	500	0
1974	0	7,987	24,754	10,508	15,549	1,925	1,426	600	0
1975	0	9,567	24,516	9,886	14,630	2,200	5,874	700	0
1976	0	10,750	27,551	11,110	16,441	2,475	6,585	800	0
1977	0	12,613	32,498	13,034	19,288	2,750	7,717	811	0
1978	0	13,723	35,360	14,182	20,986	3,025	14,226	942	0
1979	13,200	19,200	30,400	16,700	24,600	4,400	16,000	1,000	0
1980	13,900	21,000	36,200	18,400	26,700	4,800	17,800	1,100	0
1981	14,600	23,200	42,500	20,300	29,800	5,200	19,600	1,200	0
1982	15,400	24,100	46,900	21,100	35,700	5,700	21,700	1,300	2,000
1983	16,200	26,600	54,100	23,200	39,300	6,300	24,100	1,400	3,000
1984	16,900	27,900	56,700	24,300	41,100	7,200	32,200	1,500	4,000
1985	17,600	31,900	60,600	25,900	43,900	8,200	35,000	1,600	5,000
1986	18,400	33,200	65,700	26,800	45,700	9,400	41,100	1,700	6,000
1987	17,636	35,400	71,100	28,700	48,700	10,700	44,900	1,800	7,000
1988	13,164	37,200	78,600	30,100	51,200	12,300	47,400	1,900	8,000
1989	9,702	38,500	81,500	31,200	52,800	13,600	52,200	1,900	9,000
1990	7,300	40,100	84,800	32,400	55,000	15,000	55,200	2,000	10,000
1991	7,300	40,100	84,800	32,400	55,000	15,000	55,200	2,000	11,000
1992	7,300	40,100	84,800	32,400	55,000	15,000	55,200	2,000	12,000
1993	7,300	40,100	84,800	32,400	55,000	15,000	55,200	2,000	13,000
1994	7,300	40,100	84,800	32,400	55,000	15,000	55,200	2,000	14,000
1995 (c	7,300	40,100	84,800	32,400	55,000	15,000	55,200	2,000	15,000

Calendar Year	CALIFORNIA AQUEDUCT (continued)									
	MOJAVE DIVISION (continued)									
	Reach 19	Reach 20A	Reach 20B	Reach 21		Reach 22A	Reach 22B			
	AVEKWA	AVEKWA	PID	LCID	AVEKWA	AVEKWA	MWD-SC(d	CVCWD(d	DWA(d	MWA
	(42)	(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)
1972	0	0	0	338	0	0	0	0	0	55
1973	0	0	0	290	0	0	14,800-	5,800	9,000	0
1974	0	0	0	400	0	0	16,400-	6,400	10,000	0
1975	0	20,000	100	520	300	2,700	18,000-	7,000	11,000	11,100
1976	0	22,000	300	640	500	3,500	19,600-	7,600	12,000	19,200
1977	0	24,000	600	730	700	4,300	21,421-	8,421	13,000	19,200
1978	0	26,000	1,200	920	900	5,100	23,242-	9,242	14,000	19,200
1979	0	26,000	1,900	1,040	1,100	5,900	25,063-	10,063	15,000	23,200
1980	5,000	26,000	2,700	1,150	1,300	6,700	27,884-	10,884	17,000	27,200
1981	8,300	26,000	4,920	1,270	1,500	6,700	31,105-	12,105	19,000	31,200
1982	9,600	26,000	7,140	1,380	1,700	6,700	34,326-	13,326	21,000	35,200
1983	11,900	26,000	9,360	1,500	1,900	6,700	37,547-	14,547	23,000	38,660
1984	14,200	26,000	11,580	1,610	2,100	6,700	0	15,768	25,000	38,660
1985	16,500	26,000	13,800	1,730	2,300	6,700	0	16,989	27,000	38,660
1986	19,500	26,000	14,500	1,840	2,500	7,000	0	18,210	29,000	40,860
1987	22,800	26,000	15,200	1,960	2,700	7,000	0	19,431	31,500	43,160
1988	26,100	26,000	15,900	2,070	2,900	7,000	0	20,652	34,000	45,460
1989	29,400	26,000	16,600	2,190	3,100	7,000	0	21,873	36,500	47,960
1990	32,700	26,000	17,300	2,300	3,300	7,000	0	23,100	38,100	50,260
1991	36,220	26,000	17,300	2,300	3,620	7,000	0	23,100	38,100	50,260
1992	39,740	26,000	17,300	2,300	3,940	7,000	0	23,100	38,100	50,260
1993	43,260	26,000	17,300	2,300	4,260	7,000	0	23,100	38,100	50,260
1994	46,780	26,000	17,300	2,300	4,580	7,000	0	23,100	38,100	50,260
1995	50,300	26,000	17,300	2,300	4,900	7,000	0	23,100	38,100	50,260
1996	54,820	26,000	17,300	2,300	5,220	7,000	0	23,100	38,100	50,260
1997	59,840	26,000	17,300	2,300	5,540	7,000	0	23,100	38,100	50,260
1998	64,860	26,000	17,300	2,300	5,860	7,000	0	23,100	38,100	50,260
1999	69,880	26,000	17,300	2,300	6,180	7,000	0	23,100	38,100	50,260
2000 (c	74,900	26,000	17,300	2,300	6,500	7,000	0	23,100	38,100	50,260

d) In accordance with the Exchange Agreement between the noted agencies, Metropolitan Water District assumed responsibility for repayment of variable OMP&R costs on the exchange water in reaches beyond Reach 22B, and Desert Water Agency and Coachella Valley County Water District for such costs from the Delta through Reach 22B. The adjustment in deliveries shown in Column 47 provides for compliance with the repayment of the Agreement.

FROM EACH AQUEDUCT REACH TO EACH CONTRACTOR

(in acre-feet)

Calendar Year	CALIFORNIA AQUEDUCT (continued)									
	MOJAVE DIVISION (continued)		SANTA ANA DIVISION							
	Reach 23	Reach 24	Reach 26A				Reach 28G		Reach 28H	Reach 28J
	MWA	CLAWA	MWD-SC	SBVMWD	SGVMWD	SGPWA	MWD-SC	SBVMWD	MWD-SC	MWD-SC
	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)
1972	0	464	0	1,275	0	0	0	0	0	0
1973	540	870	14,800	48,000	0	0	80,000	0	0	0
1974	540	1,160	207,400	50,000	12,300	0	20,000	0	0	0
1975	540	1,450	200,000	52,500	13,100	0	20,000	0	0	129,300
1976	540	1,740	293,450	55,000	14,000	0	20,000	0	0	125,300
1977	540	2,030	322,821	57,500	14,800	0	22,500	0	0	127,100
1978	540	2,320	337,642	60,000	15,700	0	25,000	0	0	132,800
1979	540	2,610	339,463	62,500	16,600	0	25,000	0	0	138,800
1980	540	2,900	342,284	65,000	16,500	6,800	25,000	500	15,000	145,000
1981	540	3,190	345,505	67,500	16,840	7,800	25,000	1,000	15,000	151,000
1982	540	3,480	348,726	70,000	17,180	8,800	25,000	1,500	15,000	161,000
1983	540	3,770	351,947	72,500	17,520	9,800	25,000	2,000	15,000	176,000
1984	540	4,060	314,400	75,000	17,860	10,800	25,000	3,000	15,000	196,000
1985	540	4,350	314,400	77,500	18,200	11,800	25,000	4,000	15,000	202,100
1986	540	4,640	314,400	80,000	18,540	12,900	25,000	5,000	15,000	202,100
1987	540	4,930	104,800	82,500	18,880	14,000	25,000	6,500	20,000	220,000
1988	540	5,220	104,800	85,000	19,220	15,100	25,000	8,000	25,000	240,000
1989	540	5,510	104,800	87,500	19,560	16,200	25,000	9,500	30,000	260,000
1990	540	5,800	104,800	90,000	19,900	17,300	25,000	11,500	35,000	270,000
1991	540	5,800	104,800	90,000	20,240	17,300	25,000	12,600	40,000	270,000
1992	540	5,800	104,800	90,000	20,580	17,300	25,000	12,600	45,000	270,000
1993	540	5,800	104,800	90,000	20,920	17,300	25,000	12,600	50,000	270,000
1994	540	5,800	104,800	90,000	21,260	17,300	25,000	12,600	50,000	270,000
1995	540	5,800	104,800	90,000	21,600	17,300	25,000	12,600	50,000	270,000
1996	540	5,800	104,800	90,000	21,940	17,300	25,000	12,600	50,000	270,000
1997	540	5,800	104,800	90,000	22,280	17,300	25,000	12,600	50,000	270,000
1998	540	5,800	104,800	90,000	22,620	17,300	25,000	12,600	50,000	270,000
1999	540	5,800	104,800	90,000	22,960	17,300	25,000	12,600	50,000	270,000
2000	540	5,800	104,800	90,000	23,300	17,300	25,000	12,600	50,000	270,000
2001	540	5,800	104,800	90,000	23,580	17,300	25,000	12,600	50,000	270,000
2002	540	5,800	104,800	90,000	23,850	17,300	25,000	12,600	50,000	270,000
2003	540	5,800	104,800	90,000	24,130	17,300	25,000	12,600	50,000	270,000
2004	540	5,800	104,800	90,000	24,400	17,300	25,000	12,600	50,000	270,000
2005	540	5,800	104,800	90,000	24,680	17,300	25,000	12,600	50,000	270,000
2006	540	5,800	104,800	90,000	24,950	17,300	25,000	12,600	50,000	270,000
2007	540	5,800	104,800	90,000	25,230	17,300	25,000	12,600	50,000	270,000
2008	540	5,800	104,800	90,000	25,500	17,300	25,000	12,600	50,000	270,000
2009	540	5,800	104,800	90,000	25,780	17,300	25,000	12,600	50,000	270,000
2010	540	5,800	104,800	90,000	26,050	17,300	25,000	12,600	50,000	270,000
2011	540	5,800	104,800	90,000	26,330	17,300	25,000	12,600	50,000	270,000
2012	540	5,800	104,800	90,000	26,600	17,300	25,000	12,600	50,000	270,000
2013	540	5,800	104,800	90,000	26,880	17,300	25,000	12,600	50,000	270,000
2014	540	5,800	104,800	90,000	27,150	17,300	25,000	12,600	50,000	270,000
2015	540	5,800	104,800	90,000	27,430	17,300	25,000	12,600	50,000	270,000
2016	540	5,800	104,800	90,000	27,700	17,300	25,000	12,600	50,000	270,000
2017	540	5,800	104,800	90,000	27,980	17,300	25,000	12,600	50,000	270,000
2018	540	5,800	104,800	90,000	28,250	17,300	25,000	12,600	50,000	270,000
2019	540	5,800	104,800	90,000	28,530	17,300	25,000	12,600	50,000	270,000
2020 (c	540	5,800	104,800	90,000	28,800	17,300	25,000	12,600	50,000	270,000

TABLE B-5: ANNUAL QUANTITIES DELIVERED FROM EACH AQUEDUCT REACH TO EACH CONTRACTOR

(in acre-feet)

Calendar Year	CALIFORNIA AQUEDUCT (continued)										Total California Aqueduct
	WEST BRANCH, CALIFORNIA AQUEDUCT				COASTAL BRANCH, CALIFORNIA AQUEDUCT						
	Reach 29F	Reach 30			Reach 31A		Reach 33A	Reach 34	Reach 35		
	AVEKWA	MWD-SC	VCFCD	CLWA	KCWA (Ag.)	DDWD	SLOC FC&WCD	SLOC FC&WCD	SLOC FC&WCD	SBC FC&WCD	
	(62)	(63)	(64)	(65)	(66)	(67)	(68)	(69)	(70)	(71)	(72)
1968	0	0	0	0	71,657	7,382	0	0	0	0	192,188
1969	0	0	0	0	52,094	9,970	0	0	0	0	195,705
1970	0	0	0	0	71,910	11,739	0	0	0	0	276,211
1971	0	0	0	0	98,481	12,490	0	0	0	0	553,081
1972	53	71,938	0	0	107,850	13,905	0	0	0	0	895,006
1973	45	195,100	0	0	86,946	10,343	0	0	0	0	901,108
1974	45	209,300	0	0	65,975	9,700	0	0	0	0	935,945
1975	45	223,900	0	1,600	71,461	10,700	0	0	0	0	1,158,055
1976	45	236,450	0	3,700	78,184	11,700	0	0	0	0	1,331,965
1977	45	250,000	0	5,700	85,136	12,700	0	0	0	0	1,446,666
1978	45	263,000	0	7,500	91,978	12,700	0	0	0	0	1,549,467
1979	45	289,200	0	12,600	98,200	12,700	0	0	0	0	1,654,198
1980	1,000	300,600	1,000	17,700	104,500	12,700	400	200	400	8,000	1,783,874
1981	1,500	334,600	2,000	20,100	111,400	12,700	400	200	400	9,400	1,910,365
1982	2,000	364,600	3,000	22,100	117,200	12,700	800	400	800	10,800	2,034,646
1983	2,500	389,600	4,000	24,600	123,600	12,700	1,200	600	1,200	12,200	2,164,497
1984	3,000	409,600	5,000	26,900	129,400	12,700	1,800	900	1,800	13,600	2,287,778
1985	3,500	443,500	6,000	29,100	134,600	12,700	3,000	1,500	3,000	15,000	2,411,269
1986	4,000	524,100	8,000	30,900	139,600	12,700	4,000	2,000	4,000	16,600	2,576,330
1987	4,500	790,200	10,000	32,900	144,500	12,700	5,000	2,500	5,000	18,200	2,743,401
1988	5,000	845,200	13,000	35,300	148,800	12,700	6,200	3,100	6,200	19,800	2,908,562
1989	5,500	900,200	16,000	37,400	151,700	12,700	8,000	4,000	8,000	21,400	3,061,833
1990	6,000	965,200	20,000	39,300	155,100	12,700	10,000	5,000	10,000	23,000	3,223,400
1991	6,500	980,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	25,313	3,254,693
1992	7,000	995,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	27,627	3,282,687
1993	7,500	1,010,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	29,940	3,310,680
1994	8,000	1,030,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	32,253	3,338,673
1995	8,500	1,050,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	34,567	3,366,667
1996	9,000	1,070,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	36,880	3,394,660
1997	9,000	1,090,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	39,193	3,422,653
1998	9,000	1,110,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	41,507	3,450,647
1999	9,000	1,130,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	43,820	3,478,640
2000	9,000	1,150,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	46,133	3,506,633
2001	9,000	1,170,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	48,447	3,529,227
2002	9,000	1,190,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	50,760	3,551,810
2003	9,000	1,210,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	53,074	3,574,404
2004	9,000	1,230,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	55,387	3,596,987
2005	9,000	1,250,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	57,700	3,619,580
2006	9,000	1,270,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	57,700	3,639,850
2007	9,000	1,290,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	57,700	3,660,130
2008	9,000	1,310,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	57,700	3,680,400
2009	9,000	1,330,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	57,700	3,700,680
2010	9,000	1,350,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	57,700	3,720,950
2011	9,000	1,370,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	57,700	3,741,230
2012	9,000	1,390,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	57,700	3,761,500
2013	9,000	1,410,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	57,700	3,781,780
2014	9,000	1,430,200	20,000	41,510	155,100	12,700	10,000	5,000	10,000	57,700	3,802,050
2015	9,000	1,450,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	57,700	3,822,330
2016	9,000	1,470,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	57,700	3,842,600
2017	9,000	1,490,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	57,700	3,862,880
2018	9,000	1,510,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	57,700	3,883,150
2019	9,000	1,530,200	20,000	41,500	155,100	12,700	10,000	5,000	10,000	57,700	3,903,430
2020 (C	9,000	1,561,700	20,000	41,500	155,100	12,700	10,000	5,000	10,000	57,700	3,935,200

TABLE B-6: ANNUAL QUANTITIES CONVEYED THRU EACH PUMPING AND POWER RECOVERY PLANT OF PROJECT TRANSPORTATION FACILITIES

(in acre-feet)

Calendar Year	NORTH BAY AQUEDUCT							SOUTH BAY AQUEDUCT					
	CALHOUN AND TRAVIS PUMPING PLANTS			CORDELIA PUMPING PLANT				SOUTH BAY PUMPING PLANT					
											Deliveries		
	Operational Losses	Water Supply Delivery	Total	Initial Fill Water	Operational Losses	Water Supply Delivery (a	Total	Initial Fill Water	Operational Losses	Reservoir Storage Changes	Water Supply	Recreation	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1962	0	0	0	0	0	0	0	9	272	0	8,906	0	9,187
1963	0	0	0	0	0	0	0	71	185	0	12,645	0	12,901
1964	0	0	0	0	0	0	0	171	152	0	20,911	0	21,234
1965	0	0	0	0	0	0	0	93	729	0	34,026	0	34,848
1966	0	0	0	0	0	0	0	0	1,746	0	54,913	0	56,659
1967	0	0	0	0	0	0	0	0	1,677	0	56,763	0	58,440
1968	0	0	0	24	-10	1,214	1,228	0	1,847	0	101,055	0	102,902
1969	0	0	0	0	2	2,687	2,689	3,449	2,668	-15,953	69,712	0	59,876
1970	0	0	0	0	18	3,618	3,636	16,279	1,086	-5,355	89,560	0	101,570
1971	0	0	0	0	4	2,521	2,525	0	1,815	8,854	98,584	0	109,253
1972	0	0	0	0	-10	3,647	3,637	0	3,557	2,273	138,426	0	144,256
1973	0	0	0	0	0	3,859	3,859	0	3,993	-558	127,400	90	130,925
1974	0	0	0	0	0	3,915	3,915	0	3,993	0	122,400	120	126,513
1975	0	0	0	0	0	4,196	4,196	0	3,993	0	124,500	150	128,643
1976	0	0	0	0	0	4,243	4,243	0	3,993	0	126,500	180	130,673
1977	0	0	0	0	0	4,289	4,289	0	3,993	0	128,600	210	132,803
1978	0	0	0	0	0	4,335	4,335	0	3,993	0	130,700	240	134,933
1979	0	0	0	0	0	6,800	6,800	0	4,138	-25	134,000	260	138,373
1980	1,400	15,250	16,650	0	0	8,500	8,500	0	4,141	0	136,800	280	141,221
1981	1,400	17,300	18,700	0	0	9,300	9,300	0	4,145	0	139,800	290	144,235
1982	1,400	19,500	20,900	0	0	10,100	10,100	0	4,150	0	142,800	300	147,250
1983	1,400	21,030	22,430	0	0	10,700	10,700	0	4,155	0	146,000	320	150,475
1984	1,400	22,460	23,860	0	0	11,300	11,300	0	4,155	0	149,100	330	153,585
1985	1,400	24,870	26,270	0	0	12,000	12,000	0	4,135	0	152,300	350	156,785
1986	1,400	28,440	29,840	0	0	13,200	13,200	0	4,104	0	155,500	360	159,964
1987	1,400	32,320	33,720	0	0	14,000	14,000	0	4,075	0	158,600	380	163,055
1988	1,400	39,500	40,900	0	0	14,600	14,600	0	4,047	-58	161,700	400	166,089
1989	1,400	46,350	47,750	0	0	15,000	15,000	0	4,015	0	166,800	410	171,225
1990	1,400	53,300	54,700	0	0	15,500	15,500	0	3,948	0	171,900	425	176,273
1991	1,400	54,800	56,200	0	0	17,000	17,000	0	3,881	0	176,900	425	181,206
1992	1,400	55,800	57,200	0	0	18,000	18,000	0	3,816	-786	181,900	425	185,355
1993	1,400	56,800	58,200	0	0	19,000	19,000	0	3,778	-342	185,400	425	189,261
1994	1,400	57,800	59,200	0	0	20,000	20,000	0	3,736	2,081	188,000	425	194,242
1995	1,400	58,800	60,200	0	0	21,000	21,000	0	3,831	0	188,000	425	192,256
1996	1,400	59,800	61,200	0	0	22,000	22,000	0	3,831	0	188,000	425	192,256
1997	1,400	60,500	61,900	0	0	22,700	22,700	0	3,831	0	188,000	425	192,256
1998	1,400	61,300	62,700	0	0	23,500	23,500	0	3,831	0	188,000	425	192,256
1999	1,400	62,000	63,400	0	0	24,200	24,200	0	3,831	0	188,000	425	192,256
2000(b	1,400	62,800	64,200	0	0	25,000	25,000	0	3,831	0	188,000	425	192,256

Note: "Reservoir Storage Changes" include projected net annual storage accretions (positive values)and withdrawals (negative values) for all down-aqueduct reservoirs of the project transportation facilities. Those variable OMP&R costs (Table B-12) that are allocable to storage accretions are assigned to the minimum OMP&R costs of the respective reservoirs.

"Water Supply Delivery" or "Deliveries, Water Supply", include certain hypothetical quantities to facilitate cost allocations for those years when deliveries are made from net annual storage withdrawals. The net annual amounts of storage withdrawals are hypothetically added to the actual amounts conveyed from the Delta to the reservoirs -- since deliveries made from storage withdrawals bear the same variable OMP&R costs per acre-foot as if the deliveries were actually conveyed, that year, from the Delta. The hypothetical increases in the amounts conveyed are compensated for by proportionate hypothetical increases in the actual variable OMP&R costs (Table B-3) of the up-aqueduct plants. The hypothetical increases in variable OMP&R costs for deliveries made from reservoir storage withdrawals are offset by equal credits to the minimum OMP&R costs of the respective reservoirs. Thus, the variable OMP&R components per acre-foot (Table B-17) may be applied to the total annual quantities delivered either from aqueduct reservoir storage or from the Delta.

"Conservation Water" includes initial fill water, operational losses, and net annual storage changes associated with San Luis Reservoir (and the portion of the aqueduct that is allocated to conservation). The same allocation procedure outlined above for transportation facilities applies also to conservation facilities -- except that the hypothetical cost increases are added to the variable OMP&R costs to be reimbursed through the Transportation Charge, and deducted from the minimum OMP&R costs to be reimbursed through the Delta Water Charge.

a) **Between 1968 and 1979, inclusive, annual quantities delivered are from nonproject water pumped through an interim facility.**

b) **An each year thereafter for the remainder of the project repayment period.**

TABLE B-6: ANNUAL QUANTITIES CONVEYED THRU EACH PUMPING

(in acre-feet)

Calendar Year	CALIFORNIA AQUEDUCT													
	NORTH SAN JOAQUIN DIVISION								SAN LUIS DIVISION					
	DELTA PUMPING PLANT								DOS AMIGOS PUMPING PLANT					
			Transportation Water									Deliveries		
				Deliveries										
	Initial Fill Water	Operational Losses	Reservoir Storage Changes	Water Supply	Recreation	Total	Conservation Water	Total	Initial Fill Water	Operational Losses	Reservoir Storage Changes	Water Supply	Recreation	Total
	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)
1967	5,746	1,183	0	11,538	0	18,467	2,957	21,424	0	0	0	0	0	0
1968	11,079	74,464	0	293,243	0	378,786	531,275	910,061	11,079	25,126	0	189,104	0	225,309
1969	7,336	44,287	-174,300	265,417	0	142,740	531,185	673,925	3,887	9,922	-100,513	192,689	0	105,985
1970	23,947	20,767	-5,355	365,771	0	405,130	-12,995	392,135	7,668	1,901	0	270,300	0	279,869
1971	23,207	-10,754	8,854	651,665	14	672,986	7,702	680,688	23,207	-12,030	0	545,869	0	557,046
1972	145,066	9,076	-4,356	1,033,432	6,548	1,189,766	48,293	1,238,059	145,066	-6,616	-6,629	886,840	6,533	1,025,194
1973	235,744	117,242	-1,440	1,028,508	10,600	1,390,654	123,807	1,514,461	235,744	96,435	-882	897,308	10,000	1,238,605
1974	360,589	147,700	-6,752	1,058,345	16,800	1,576,682	-57,389	1,519,293	360,589	126,893	-6,752	932,745	16,000	1,429,475
1975	51,957	143,263	-32,380	1,282,555	23,325	1,468,720	51,985	1,520,705	51,957	122,456	-32,380	1,154,655	22,325	1,319,013
1976	13,739	143,019	-16,231	1,458,465	27,525	1,626,517	4,154	1,630,671	13,739	122,212	-16,231	1,328,465	26,325	1,474,510
1977	5,224	142,449	-13,357	1,575,266	27,725	1,737,307	83,334	1,820,641	5,224	121,642	-13,357	1,442,966	26,325	1,582,800
1978	4,360	141,956	-10,435	1,680,167	27,925	1,843,973	-73,353	1,770,620	4,360	121,149	-10,435	1,545,567	26,325	1,686,966
1979	2,330	143,210	42,632	1,788,198	28,115	2,004,485	-16,300	1,988,185	2,330	122,258	42,657	1,650,198	26,325	1,843,768
1980	0	144,652	-20,532	1,920,674	44,305	2,089,099	91,163	2,180,262	0	123,697	-20,532	1,779,674	42,325	1,925,164
1981	0	144,553	1,376	2,050,165	44,415	2,240,509	-74,734	2,165,775	0	123,594	1,376	1,906,065	42,325	2,073,360
1982	0	143,857	-31,875	2,177,446	44,525	2,333,953	103,599	2,437,552	0	122,893	-31,875	2,030,146	42,325	2,163,489
1983	0	144,564	38,938	2,310,497	44,645	2,538,644	-135,513	2,403,131	0	123,595	38,938	2,159,897	42,325	2,364,755
1984	0	144,871	-10,624	2,436,878	44,755	2,615,880	142,557	2,758,437	0	123,902	-10,624	2,282,978	42,325	2,438,581
1985	0	144,772	-10,105	2,563,569	44,875	2,743,111	-31,236	2,711,875	0	123,823	-10,105	2,406,369	42,325	2,562,412
1986	0	144,248	14,396	2,731,830	44,985	2,935,459	-51,640	2,883,819	0	123,330	14,396	2,571,230	42,325	2,751,281
1987	0	143,907	-18,338	2,902,001	45,105	3,072,675	11,645	3,084,320	0	123,018	-18,338	2,738,201	42,325	2,885,206
1988	0	143,753	-26,469	3,070,262	45,225	3,232,771	81,038	3,313,809	0	122,892	-26,411	2,903,162	42,325	3,041,968
1989	0	143,222	-11,327	3,228,633	45,335	3,405,863	76,012	3,481,875	0	122,393	-11,327	3,056,233	42,325	3,209,624
1990	0	143,086	1,982	3,395,300	45,500	3,585,868	-6,538	3,579,330	0	122,324	1,982	3,217,700	42,325	3,384,331
1991	0	142,884	-7,059	3,431,593	45,500	3,612,918	125,837	3,738,755	0	122,189	-7,059	3,248,993	42,325	3,406,448
1992	0	142,929	23,004	3,464,587	45,500	3,676,020	-167,161	3,508,859	0	122,299	23,790	3,276,987	42,325	3,465,401
1993	0	142,653	-59,868	3,496,080	45,500	3,624,365	183,478	3,807,843	0	122,061	-59,526	3,304,980	42,325	3,409,840
1994	0	142,000	40,984	3,526,673	45,500	3,755,157	-23,212	3,731,945	0	121,450	38,903	3,332,973	42,325	3,535,651
1995	0	143,004	6,081	3,554,667	45,500	3,749,252	205,407	3,954,659	0	122,359	6,081	3,360,967	42,325	3,531,732
1996	0	142,787	-11,375	3,582,660	45,500	3,759,572	-71,757	3,687,815	0	122,142	-11,375	3,388,960	42,325	3,542,052
1997	0	142,347	-409	3,610,653	45,500	3,798,091	150,142	3,948,233	0	121,702	-409	3,416,953	42,325	3,580,571
1998	0	142,517	-395	3,638,647	45,500	3,826,269	-90,764	3,735,505	0	121,872	-395	3,444,947	42,325	3,608,749
1999	0	142,155	-51,741	3,666,640	45,500	3,802,554	6,964	3,809,518	0	121,510	-51,741	3,472,940	42,325	3,585,034
2000	0	142,067	61,167	3,694,633	45,500	3,943,367	-22,258	3,921,109	0	121,422	61,167	3,500,933	42,325	3,725,847
2001	0	143,234	7,492	3,717,227	45,500	3,913,453	208,083	4,121,536	0	122,589	7,492	3,523,527	42,325	3,695,933
2002	0	142,609	-17,821	3,739,810	45,500	3,910,098	49,119	3,959,217	0	121,964	-17,821	3,546,110	42,325	3,692,578
2003	0	143,197	6,330	3,762,404	45,500	3,957,431	62,987	4,020,418	0	122,552	6,330	3,568,704	42,325	3,739,911
2004	0	143,274	21,371	3,784,987	45,500	3,995,132	4,368	3,999,500	0	122,629	21,371	3,591,287	42,325	3,777,612
2005	0	143,176	-44,667	3,807,580	45,500	3,951,589	-56,736	3,894,853	0	122,531	-44,667	3,613,880	42,325	3,734,069
2006	0	142,801	31,892	3,827,850	45,500	4,048,043	161,057	4,209,100	0	122,156	31,892	3,634,150	42,325	3,830,523
2007	0	142,804	-16,007	3,848,130	45,500	4,020,427	-70,495	3,949,932	0	122,159	-16,007	3,654,430	42,325	3,802,907
2008	0	143,371	25,387	3,868,400	45,500	4,082,658	81,068	4,163,726	0	122,726	25,387	3,674,700	42,325	3,865,138
2009	0	143,208	-19,136	3,888,680	45,500	4,058,252	105,934	4,164,186	0	122,563	-19,136	3,694,980	42,325	3,840,732
2010	0	143,316	1,189	3,908,950	45,500	4,098,955	34,461	4,133,416	0	122,671	1,189	3,715,250	42,325	3,881,435
2011	0	142,526	-28,013	3,929,230	45,500	4,089,243	-139,122	3,950,121	0	121,881	-28,013	3,735,530	42,325	3,871,723
2012	0	143,096	73,984	3,949,500	45,500	4,212,080	51,220	4,263,300	0	122,451	73,984	3,755,800	42,325	3,994,560
2013	0	143,311	-58,260	3,969,780	45,500	4,100,331	101,468	4,201,799	0	122,666	-58,260	3,776,080	42,325	3,882,811
2014	0	143,339	32,271	3,990,050	45,500	4,211,160	-182,543	4,028,617	0	122,694	32,271	3,796,350	42,325	3,993,640
2015	0	143,389	-12,259	4,010,330	45,500	4,186,960	203,926	4,390,886	0	122,744	-12,259	3,816,630	42,325	3,969,440
2016	0	143,648	-9,114	4,030,600	45,500	4,210,634	23,189	4,233,823	0	123,003	-9,114	3,836,900	42,325	3,993,114
2017	0	142,554	-37,944	4,050,880	45,500	4,200,990	128,111	4,329,101	0	121,909	-37,944	3,857,180	42,325	3,983,470
2018	0	143,110	77,560	4,071,150	45,500	4,337,320	-160,496	4,176,824	0	122,465	77,560	3,877,450	42,325	4,119,800
2019	0	143,227	-51,643	4,091,430	45,500	4,228,514	204,070	4,432,584	0	122,582	-51,643	3,897,730	42,325	4,010,994
2020(b)	0	142,675	0	4,123,200	45,500	4,311,375	42,503	4,353,878	0	122,030	0	3,929,500	42,325	4,093,855

AND POWER RECOVERY PLANT OF PROJECT TRANSPORTATION FACILITIES

(in acre-feet)

Calendar Year	CALIFORNIA AQUEDUCT (Continued)											
	SOUTH SAN JOAQUIN DIVISION											
	BUENA VISTA PUMPING PLANT						WHEELER RIDGE PUMPING PLANT					
	Initial Fill Water	Operational Losses	Reservoir Storage Changes	Deliveries: Water Supply	Deliveries: Recreation	Total	Initial Fill Water	Operational Losses	Reservoir Storage Changes	Deliveries: Water Supply	Deliveries: Recreation	Total
	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)
1970	4,779	1,012	0	3	0	5,794	198	2	0	0	0	200
1971	7,853	8,399	0	101,512	0	117,764	7,533	-112	0	3,552	0	10,973
1972	100,274	20,063	-6,629	223,626	6,533	343,867	100,274	12,784	-6,629	84,955	6,533	197,917
1973	229,344	58,276	-882	441,633	10,000	738,371	229,344	46,476	-882	365,371	10,000	650,309
1974	360,589	88,734	-6,752	563,894	16,000	1,022,465	360,589	76,934	-6,752	520,645	16,000	967,416
1975	51,957	84,297	-32,380	744,528	16,000	864,402	51,957	72,497	-32,380	700,559	16,000	808,633
1976	13,739	84,053	-16,231	872,077	20,000	973,638	13,739	72,253	-16,231	822,666	20,000	912,427
1977	5,224	83,483	-13,357	941,277	20,000	1,036,627	5,224	71,683	-13,357	883,132	20,000	966,682
1978	4,360	82,990	-10,435	1,000,311	20,000	1,097,226	4,360	71,190	-10,435	937,046	20,000	1,022,161
1979	2,330	84,099	42,657	1,071,998	20,000	1,221,084	2,330	72,299	42,657	992,498	20,000	1,129,784
1980	0	83,338	-20,532	1,149,774	20,000	1,232,580	0	71,538	-20,532	1,060,274	20,000	1,131,280
1981	0	83,235	1,376	1,227,865	20,000	1,332,476	0	71,435	1,376	1,127,265	20,000	1,220,076
1982	0	82,534	-31,875	1,304,546	20,000	1,375,205	0	70,734	-31,875	1,197,046	20,000	1,255,905
1983	0	83,236	38,938	1,384,997	20,000	1,527,171	0	71,436	38,938	1,264,897	20,000	1,395,271
1984	0	83,543	-10,624	1,459,578	20,000	1,552,497	0	71,743	-10,624	1,333,778	20,000	1,414,897
1985	0	83,464	-10,105	1,534,369	20,000	1,627,728	0	71,664	-10,105	1,398,369	20,000	1,479,928
1986	0	82,971	14,396	1,652,530	20,000	1,769,897	0	71,171	14,396	1,508,430	20,000	1,613,997
1987	0	82,659	-18,338	1,770,437	20,000	1,854,758	0	70,859	-18,338	1,617,601	20,000	1,690,122
1988	0	82,533	-26,411	1,886,326	20,000	1,962,448	0	70,733	-26,411	1,727,262	20,000	1,791,584
1989	0	82,034	-11,327	1,998,735	20,000	2,089,442	0	70,234	-11,327	1,837,833	20,000	1,916,740
1990	0	81,965	1,982	2,112,200	20,000	2,216,147	0	70,165	1,982	1,947,600	20,000	2,039,747
1991	0	81,830	-7,059	2,141,180	20,000	2,235,951	0	70,030	-7,059	1,976,580	20,000	2,059,551
1992	0	81,940	23,790	2,166,860	20,000	2,292,590	0	70,140	23,790	2,002,260	20,000	2,116,190
1993	0	81,702	-59,526	2,192,540	20,000	2,234,716	0	69,902	-59,526	2,027,940	20,000	2,058,316
1994	0	81,091	38,903	2,218,220	20,000	2,358,214	0	69,291	38,903	2,053,620	20,000	2,181,814
1995	0	82,000	6,081	2,243,900	20,000	2,351,981	0	70,200	6,081	2,079,300	20,000	2,175,581
1996	0	81,783	-11,375	2,269,580	20,000	2,359,988	0	69,983	-11,375	2,104,980	20,000	2,183,588
1997	0	81,343	-409	2,295,260	20,000	2,396,194	0	69,543	-409	2,130,660	20,000	2,219,794
1998	0	81,513	-395	2,320,940	20,000	2,422,058	0	69,713	-395	2,156,340	20,000	2,245,658
1999	0	81,151	-51,741	2,346,620	20,000	2,396,030	0	69,351	-51,741	2,182,020	20,000	2,219,630
2000	0	81,063	61,167	2,372,300	20,000	2,534,530	0	69,263	61,167	2,207,700	20,000	2,358,130
2001	0	82,230	7,492	2,392,580	20,000	2,502,302	0	70,430	7,492	2,227,980	20,000	2,325,902
2002	0	81,605	-17,821	2,412,850	20,000	2,496,634	0	69,805	-17,821	2,248,250	20,000	2,320,234
2003	0	82,193	6,330	2,433,130	20,000	2,541,653	0	70,393	6,330	2,268,530	20,000	2,365,253
2004	0	82,270	21,371	2,453,400	20,000	2,577,041	0	70,470	21,371	2,288,800	20,000	2,400,641
2005	0	82,172	-44,667	2,473,680	20,000	2,531,185	0	70,372	-44,667	2,309,080	20,000	2,354,785
2006	0	81,797	31,892	2,493,950	20,000	2,627,639	0	69,997	31,892	2,329,350	20,000	2,451,239
2007	0	81,800	-16,007	2,514,230	20,000	2,600,023	0	70,000	-16,007	2,349,630	20,000	2,423,623
2008	0	82,367	25,387	2,534,500	20,000	2,662,254	0	70,567	25,387	2,369,900	20,000	2,485,854
2009	0	82,204	-19,136	2,554,780	20,000	2,637,848	0	70,404	-19,136	2,390,180	20,000	2,461,448
2010	0	82,312	1,189	2,575,050	20,000	2,678,551	0	70,512	1,189	2,410,450	20,000	2,502,151
2011	0	81,522	-28,013	2,595,330	20,000	2,668,839	0	69,722	-28,013	2,430,730	20,000	2,492,439
2012	0	82,092	73,984	2,615,600	20,000	2,791,676	0	70,292	73,984	2,451,000	20,000	2,615,276
2013	0	82,307	-58,260	2,635,880	20,000	2,679,927	0	70,507	-58,260	2,471,280	20,000	2,503,527
2014	0	82,335	32,271	2,656,150	20,000	2,790,756	0	70,535	32,271	2,491,550	20,000	2,614,356
2015	0	82,385	-12,259	2,676,430	20,000	2,766,556	0	70,585	-12,259	2,511,830	20,000	2,590,156
2016	0	82,644	-9,114	2,696,700	20,000	2,790,230	0	70,844	-9,114	2,532,100	20,000	2,613,830
2017	0	81,550	-37,944	2,716,980	20,000	2,780,586	0	69,750	-37,944	2,552,380	20,000	2,604,186
2018	0	82,106	77,560	2,737,250	20,000	2,916,916	0	70,306	77,560	2,572,650	20,000	2,740,516
2019	0	82,223	-51,643	2,757,530	20,000	2,808,110	0	70,423	-51,643	2,592,930	20,000	2,631,710
2020(b)	0	81,671	0	2,789,300	20,000	2,890,971	0	69,871	0	2,624,700	20,000	2,714,571

TABLE B-6: ANNUAL QUANTITIES CONVEYED THRU EACH PUMPING

(in acre-feet)

Calendar Year	CALIFORNIA AQUEDUCT (Continued)											
	SOUTH SAN JOAQUIN DIVISION (Continued)						TEHACHAPI DIVISION					
	WIND GAP PUMPING PLANT						A. D. EDMONSTON PUMPING PLANT					
	Initial Fill Water	Operational Losses	Reservoir Storage Changes	Deliveries: Water Supply	Deliveries: Recreation	Total	Initial Fill Water	Operational Losses	Reservoir Storage Changes	Deliveries: Water Supply	Deliveries: Recreation	Total
	(40)	(41)	(42)	(43)	(44)	(45)	(46)	(47)	48)	(49)	(50)	(51)
1971	7,366	-159	0	0	0	7,207	5,446	8	0	0	0	5,454
1972	100,274	13,179	-6,629	78,891	6,533	192,248	100,274	16,086	-6,629	74,123	6,533	190,387
1973	229,344	45,676	-882	343,781	10,000	627,919	229,344	43,076	-882	340,145	10,000	621,683
1974	360,589	76,134	-6,752	505,096	16,000	951,067	360,589	73,534	-6,752	501,745	16,000	945,116
1975	51,957	71,697	-32,380	685,929	16,000	793,203	51,957	69,097	-32,380	677,855	16,000	782,529
1976	13,739	71,453	-16,231	806,225	20,000	895,186	13,739	68,853	-16,231	797,165	20,000	883,526
1977	5,224	70,883	-13,357	863,844	20,000	946,594	5,224	68,283	-13,357	853,377	20,000	933,527
1978	4,360	70,390	-10,435	916,060	20,000	1,000,375	4,360	67,790	-10,435	898,809	20,000	980,524
1979	2,330	71,499	42,657	967,898	20,000	1,104,384	2,330	68,899	42,657	947,498	20,000	1,081,384
1980	0	70,738	-20,532	1,033,574	20,000	1,103,780	0	68,138	-20,532	1,010,974	20,000	1,078,580
1981	0	70,635	1,376	1,097,465	20,000	1,189,476	0	68,035	1,376	1,072,665	20,000	1,162,076
1982	0	69,934	-31,875	1,161,346	20,000	1,219,405	0	67,334	-31,875	1,133,946	20,000	1,189,405
1983	0	70,636	38,938	1,225,597	20,000	1,355,171	0	68,036	38,938	1,195,197	20,000	1,322,171
1984	0	70,943	-10,624	1,292,678	20,000	1,372,997	0	68,343	-10,624	1,253,278	20,000	1,330,997
1985	0	70,864	-10,105	1,354,469	20,000	1,435,228	0	68,264	-10,105	1,311,269	20,000	1,389,428
1986	0	70,371	14,396	1,462,730	20,000	1,567,497	0	67,771	14,396	1,412,230	20,000	1,514,397
1987	0	70,059	-18,338	1,568,901	20,000	1,640,622	0	67,459	-18,338	1,513,301	20,000	1,582,422
1988	0	69,933	-26,411	1,676,062	20,000	1,739,584	0	67,333	-26,411	1,616,362	20,000	1,677,284
1989	0	69,434	-11,327	1,785,033	20,000	1,863,140	0	66,834	-11,327	1,719,233	20,000	1,794,740
1990	0	69,365	1,982	1,892,600	20,000	1,983,947	0	66,765	1,982	1,822,400	20,000	1,911,147
1991	0	69,230	-7,059	1,921,580	20,000	2,003,751	0	66,630	-7,059	1,851,380	20,000	1,930,951
1992	0	69,340	23,790	1,947,260	20,000	2,060,390	0	66,740	23,790	1,877,060	20,000	1,987,590
1993	0	69,102	-59,526	1,972,940	20,000	2,002,516	0	66,502	-59,526	1,902,740	20,000	1,929,716
1994	0	68,491	38,903	1,998,620	20,000	2,126,014	0	65,891	38,903	1,928,420	20,000	2,053,214
1995	0	69,400	6,081	2,024,300	20,000	2,119,781	0	66,800	6,081	1,954,100	20,000	2,046,981
1996	0	69,183	-11,375	2,049,980	20,000	2,127,788	0	66,583	-11,375	1,979,780	20,000	2,054,988
1997	0	68,743	-409	2,075,660	20,000	2,163,994	0	66,143	-409	2,005,460	20,000	2,091,194
1998	0	68,913	-395	2,101,340	20,000	2,189,858	0	66,313	-395	2,031,140	20,000	2,117,058
1999	0	68,551	-51,741	2,127,020	20,000	2,163,830	0	65,951	-51,741	2,056,820	20,000	2,091,030
2000	0	68,463	61,167	2,152,700	20,000	2,302,330	0	65,863	61,167	2,082,500	20,000	2,229,530
2001	0	69,630	7,492	2,172,980	20,000	2,270,102	0	67,030	7,492	2,102,780	20,000	2,197,302
2002	0	69,005	-17,821	2,193,250	20,000	2,264,434	0	66,405	-17,821	2,123,050	20,000	2,191,634
2003	0	69,593	6,330	2,213,530	20,000	2,309,453	0	66,993	6,330	2,143,330	20,000	2,236,653
2004	0	69,670	21,371	2,233,800	20,000	2,344,841	0	67,070	21,371	2,163,600	20,000	2,272,041
2005	0	69,572	-44,667	2,254,080	20,000	2,298,985	0	66,972	-44,667	2,183,880	20,000	2,226,185
2006	0	69,197	31,892	2,274,350	20,000	2,395,439	0	66,597	31,892	2,204,150	20,000	2,322,639
2007	0	69,200	-16,007	2,294,630	20,000	2,367,823	0	66,600	-16,007	2,224,430	20,000	2,295,023
2008	0	69,767	25,387	2,314,900	20,000	2,430,054	0	67,167	25,387	2,244,700	20,000	2,357,254
2009	0	69,604	-19,136	2,335,180	20,000	2,405,648	0	67,004	-19,136	2,264,980	20,000	2,332,848
2010	0	69,712	1,189	2,355,450	20,000	2,446,351	0	67,112	1,189	2,285,250	20,000	2,373,551
2011	0	68,922	-28,013	2,375,730	20,000	2,436,639	0	66,322	-28,013	2,305,530	20,000	2,363,839
2012	0	69,492	73,984	2,396,000	20,000	2,559,476	0	66,892	73,984	2,325,800	20,000	2,486,676
2013	0	69,707	-58,260	2,416,280	20,000	2,447,727	0	67,107	-58,260	2,346,080	20,000	2,374,927
2014	0	69,735	32,271	2,436,550	20,000	2,558,556	0	67,135	32,271	2,366,350	20,000	2,485,756
2015	0	69,785	-12,259	2,456,830	20,000	2,534,356	0	67,185	-12,259	2,386,630	20,000	2,461,556
2016	0	70,044	-9,114	2,477,100	20,000	2,558,030	0	67,444	-9,114	2,406,900	20,000	2,485,230
2017	0	68,950	-37,944	2,497,380	20,000	2,548,386	0	66,350	-37,944	2,427,180	20,000	2,475,586
2018	0	69,506	77,560	2,517,650	20,000	2,684,716	0	66,906	77,560	2,447,450	20,000	2,611,916
2019	0	69,623	-51,643	2,537,930	20,000	2,575,910	0	67,023	-51,643	2,467,730	20,000	2,503,110
2020(b	0	69,071	0	2,569,700	20,000	2,658,771	0	66,471	0	2,499,500	20,000	2,585,971

(in acre-feet)

Calendar Year	CALIFORNIA AQUEDUCT (Continued)											
	MOJAVE DIVISION						SANTA ANA DIVISION					
	PEARBLOSSOM PUMPING PLANT						DEVIL CANYON POWERPLANT					
	Initial Fill Water	Operational Losses	Reservoir Storage Changes	Deliveries: Water Supply	Deliveries: Recreation	Total	Initial Fill Water	Operational Losses	Reservoir Storage Changes	Deliveries: Water Supply	Deliveries: Recreation	Total
	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)	(62)	(63)
1971	21	0	0	0	0	21	0	0	0	0	0	0
1972	35,243	5,282	-153	1,794	0	42,166	37	0	0	1,275	0	1,312
1973	98,948	17,073	440	144,210	5,000	265,671	73,908	2,897	0	142,800	0	219,605
1974	77,851	28,622	-6,752	291,400	11,000	402,121	59,254	12,715	-5,089	289,700	6,000	362,580
1975	12,378	29,062	-30,891	427,990	11,000	449,539	11,746	13,022	-29,368	414,900	6,000	416,300
1976	5,083	28,877	3,349	529,230	11,000	577,539	5,083	13,107	27,559	507,750	6,000	559,499
1977	864	28,308	-20,122	566,491	11,000	586,541	0	12,666	-18,886	544,721	6,000	544,501
1978	0	27,783	-3,446	593,202	11,000	628,539	0	12,191	-6,334	571,142	6,000	582,999
1979	356	29,199	42,364	608,713	11,000	691,632	113	13,222	29,158	582,363	6,000	630,856
1980	0	28,516	-23,222	646,724	11,000	663,018	0	12,559	-28,110	616,084	6,000	606,533
1981	0	28,379	-6,856	664,575	11,000	697,098	0	12,448	5,594	629,645	6,000	653,687
1982	0	28,033	3,123	686,426	11,000	728,582	0	12,203	2,273	647,206	6,000	667,682
1983	0	28,724	19,578	712,737	11,000	772,039	0	12,852	703	669,767	6,000	689,322
1984	0	28,928	-5,125	741,088	11,000	775,891	0	13,039	-2,500	657,060	6,000	673,599
1985	0	28,904	-10,586	755,539	11,000	784,857	0	13,044	3,164	668,000	6,000	690,208
1986	0	28,265	-3,936	766,190	11,000	801,519	0	12,690	-7,686	672,940	6,000	683,944
1987	0	28,007	-12,331	591,241	11,000	617,917	0	12,092	-5,331	491,680	6,000	504,441
1988	0	28,139	24,806	627,992	11,000	691,937	0	12,313	14,119	522,120	6,000	554,552
1989	0	27,654	-33,703	664,943	11,000	669,894	0	12,036	-13,016	552,560	6,000	557,580
1990	0	27,424	-7,326	691,300	11,000	722,398	0	11,981	141	573,500	6,000	591,622
1991	0	27,460	-3,751	697,740	11,000	732,449	0	11,918	-3,949	579,940	6,000	593,909
1992	0	27,517	22,540	703,080	11,000	764,137	0	11,709	1,521	585,280	6,000	604,510
1993	0	27,695	-5,452	708,420	11,000	741,663	0	11,843	-42	590,620	6,000	608,421
1994	0	27,101	-13,411	708,760	11,000	733,450	0	11,601	2,488	590,960	6,000	611,049
1995	0	27,440	16,071	709,100	11,000	763,611	0	11,946	-2,488	591,300	6,000	606,758
1996	0	27,491	875	709,440	11,000	748,806	0	11,704	-6,375	591,640	6,000	602,969
1997	0	26,948	-11,659	709,780	11,000	736,069	0	11,201	91	591,980	6,000	609,272
1998	0	27,022	-8,176	710,120	11,000	739,966	0	11,302	4,160	592,320	6,000	613,782
1999	0	27,425	3,543	710,460	11,000	752,428	0	11,913	4,612	592,660	6,000	615,185
2000	0	27,141	10,914	710,800	11,000	759,855	0	11,717	-616	593,000	6,000	610,101
2001	0	28,047	11,242	711,080	11,000	761,369	0	12,262	117	593,280	6,000	611,659
2002	0	27,026	-29,821	711,350	11,000	719,555	0	11,639	-6,493	593,550	6,000	604,696
2003	0	27,912	19,590	711,630	11,000	770,132	0	12,156	13,112	593,830	6,000	625,098
2004	0	27,795	-8,339	711,900	11,000	742,356	0	12,047	-6,639	594,100	6,000	605,508
2005	0	27,846	21,793	712,180	11,000	772,819	0	12,311	1,493	594,380	6,000	614,184
2006	0	27,342	-22,618	712,450	11,000	728,174	0	11,978	2,394	594,650	6,000	615,022
2007	0	27,542	26,493	712,730	11,000	777,765	0	11,900	-3,894	594,930	6,000	608,936
2008	0	28,202	1,397	713,000	11,000	753,599	0	12,312	-1,728	595,200	6,000	611,784
2009	0	27,870	-2,896	713,280	11,000	749,254	0	12,095	4,417	595,480	6,000	617,992
2010	0	28,155	-4,250	713,550	11,000	748,455	0	12,339	-5,063	595,750	6,000	609,026
2011	0	27,392	-26,820	713,830	11,000	725,402	0	11,591	-107	596,030	6,000	613,514
2012	0	27,954	46,451	714,100	11,000	799,505	0	12,270	11,113	596,300	6,000	625,683
2013	0	28,228	-35,673	714,380	11,000	717,935	0	12,241	-13,923	596,580	6,000	600,898
2014	0	28,540	31,821	714,650	11,000	786,011	0	12,659	13,996	596,850	6,000	629,505
2015	0	28,328	418	714,930	11,000	754,676	0	12,340	3,056	597,130	6,000	618,526
2016	0	28,905	1,681	715,200	11,000	756,786	0	13,098	1,993	597,400	6,000	618,491
2017	0	27,912	-33,337	715,480	11,000	721,055	0	12,335	-7,127	597,680	6,000	608,888
2018	0	28,381	42,184	715,750	11,000	797,315	0	12,735	10,324	597,950	6,000	627,009
2019	0	28,336	-42,704	716,030	11,000	712,662	0	12,647	-15,834	598,230	6,000	601,043
2020(b	0	28,042	0	716,300	11,000	755,342	0	12,285	0	598,500	6,000	616,785

TABLE B-6: ANNUAL QUANTITIES CONVEYED THRU EACH PUMPING

(in acre-feet)

Calendar Year	CALIFORNIA AQUEDUCT (Continued)											
	WEST BRANCH, CALIFORNIA AQUEDUCT											
	OSO PUMPING PLANT						CASTAIC POWERPLANT					
	Initial Fill Water	Operational Losses	Reservoir Storage Changes	Deliveries: Water Supply	Deliveries: Recreation	Total	Initial Fill Water	Operational Losses	Reservoir Storage Changes	Deliveries: Water Supply	Deliveries: Recreation	Total
	(64)	(65)	(66)	(67)	(68)	(69)	(70)	(71)	(72)	(73)	(74)	(75)
1971	2,444	133	0	0	0	2,577	0	0	0	0	0	0
1972	63,883	6,576	-6,476	71,991	6,533	142,507	57,364	1,807	-6,233	71,938	6,533	131,409
1973	130,396	11,948	-1,322	195,145	5,000	341,167	29,322	5,564	-1,324	195,100	5,000	233,662
1974	282,738	30,857	0	209,345	5,000	527,940	200,494	18,513	0	209,300	5,000	433,307
1975	39,579	25,980	-1,489	225,545	5,000	294,615	36,687	13,514	-1,489	225,500	5,000	279,212
1976	8,656	25,921	-19,580	240,195	5,000	260,192	7,692	13,455	-19,580	240,150	5,000	246,717
1977	4,360	25,920	6,765	255,745	5,000	297,790	4,360	13,454	6,765	255,700	5,000	285,279
1978	4,360	25,952	-6,989	270,545	5,000	298,868	4,360	13,486	-6,989	270,500	5,000	286,357
1979	1,974	25,645	293	301,845	5,000	334,757	1,974	13,186	293	301,800	5,000	322,253
1980	0	25,567	2,690	320,300	5,000	353,557	0	13,108	2,690	319,300	5,000	340,098
1981	0	25,601	8,232	358,200	5,000	397,033	0	13,142	8,232	356,700	5,000	383,074
1982	0	25,246	-34,998	391,700	5,000	386,948	0	12,787	-34,998	389,700	5,000	372,489
1983	0	25,257	19,360	420,700	5,000	470,317	0	12,798	19,360	418,200	5,000	455,358
1984	0	25,360	-5,499	444,500	5,000	469,361	0	12,901	-5,499	441,500	5,000	453,902
1985	0	25,305	481	482,100	5,000	512,886	0	12,846	481	478,600	5,000	496,927
1986	0	25,451	18,332	567,000	5,000	615,783	0	12,992	18,332	563,000	5,000	599,324
1987	0	25,397	-6,007	837,600	5,000	861,990	0	12,938	-6,007	833,100	5,000	845,031
1988	0	25,139	-51,217	898,500	5,000	877,422	0	12,680	-51,217	893,500	5,000	859,963
1989	0	25,125	22,376	959,100	5,000	1,011,601	0	12,666	22,376	953,600	5,000	993,642
1990	0	25,286	9,308	1,030,500	5,000	1,070,094	0	12,827	9,308	1,024,500	5,000	1,051,635
1991	0	25,115	-3,308	1,048,200	5,000	1,075,007	0	12,656	-3,308	1,041,700	5,000	1,056,048
1992	0	25,168	1,250	1,063,700	5,000	1,095,118	0	12,709	1,250	1,056,700	5,000	1,075,659
1993	0	24,752	-54,074	1,079,200	5,000	1,054,878	0	12,293	-54,074	1,071,700	5,000	1,034,919
1994	0	24,735	52,314	1,099,700	5,000	1,181,749	0	12,276	52,314	1,091,700	5,000	1,161,290
1995	0	25,305	-9,990	1,120,200	5,000	1,140,515	0	12,846	-9,990	1,111,700	5,000	1,119,556
1996	0	25,037	-12,250	1,140,700	5,000	1,158,487	0	12,578	-12,250	1,131,700	5,000	1,137,028
1997	0	25,140	11,250	1,160,700	5,000	1,202,090	0	12,681	11,250	1,151,700	5,000	1,180,631
1998	0	25,236	7,781	1,180,700	5,000	1,218,717	0	12,777	7,781	1,171,700	5,000	1,197,258
1999	0	24,471	-55,284	1,200,700	5,000	1,174,887	0	12,012	-55,284	1,191,700	5,000	1,153,428
2000	0	24,667	50,253	1,220,700	5,000	1,300,620	0	12,208	50,253	1,211,700	5,000	1,279,161
2001	0	24,928	-3,750	1,240,700	5,000	1,266,878	0	12,469	-3,750	1,231,700	5,000	1,245,419
2002	0	25,324	12,000	1,260,700	5,000	1,303,024	0	12,865	12,000	1,251,700	5,000	1,281,565
2003	0	25,026	-13,260	1,280,700	5,000	1,297,466	0	12,567	-13,260	1,271,700	5,000	1,276,007
2004	0	25,220	29,710	1,300,700	5,000	1,360,630	0	12,761	29,710	1,291,700	5,000	1,339,171
2005	0	25,071	-66,460	1,320,700	5,000	1,284,311	0	12,612	-66,460	1,311,700	5,000	1,262,852
2006	0	25,200	54,510	1,340,700	5,000	1,425,410	0	12,741	54,510	1,331,700	5,000	1,403,951
2007	0	25,003	-42,500	1,360,700	5,000	1,348,203	0	12,544	-42,500	1,351,700	5,000	1,326,744
2008	0	24,910	23,990	1,380,700	5,000	1,434,600	0	12,451	23,990	1,371,700	5,000	1,413,141
2009	0	25,079	-16,240	1,400,700	5,000	1,414,539	0	12,620	-16,240	1,391,700	5,000	1,393,080
2010	0	24,902	5,439	1,420,700	5,000	1,456,041	0	12,443	5,439	1,411,700	5,000	1,434,582
2011	0	24,875	-1,193	1,440,700	5,000	1,469,382	0	12,416	-1,193	1,431,700	5,000	1,447,923
2012	0	24,883	27,533	1,460,700	5,000	1,518,116	0	12,424	27,533	1,451,700	5,000	1,496,657
2013	0	24,824	-22,587	1,480,700	5,000	1,487,937	0	12,365	-22,587	1,471,700	5,000	1,466,478
2014	0	24,540	450	1,500,700	5,000	1,530,690	0	12,081	450	1,491,700	5,000	1,509,231
2015	0	24,802	-12,677	1,520,700	5,000	1,537,825	0	12,343	-12,677	1,511,700	5,000	1,516,366
2016	0	24,484	-10,795	1,540,700	5,000	1,559,389	0	12,025	-10,795	1,531,700	5,000	1,537,930
2017	0	24,383	-4,607	1,560,700	5,000	1,585,476	0	11,924	-4,607	1,551,700	5,000	1,564,017
2018	0	24,470	35,376	1,580,700	5,000	1,645,546	0	12,011	35,376	1,571,700	5,000	1,624,087
2019	0	24,632	-8,939	1,600,700	5,000	1,621,393	0	12,173	-8,939	1,591,700	5,000	1,599,934
2020(b	0	24,374	0	1,632,200	5,000	1,661,574	0	11,915	0	1,623,200	5,000	1,640,115

AND POWER RECOVERY PLANT OF PROJECT TRANSPORTATION FACILITIES

(in acre-feet)

Calendar Year	CALIFORNIA AQUEDUCT (Continued)						
	COASTAL BRANCH, CALIFORNIA AQUEDUCT						
	LAS PERILLAS AND BADGER HILL PUMPING PLANTS				DEVIL'S DEN, SAWTOOTH AND POLONIO PUMPING PLANTS AND SAN LUIS OBISPO POWERPLANT		
	Initial Fill Water	Operational Losses	Water Supply Delivery	Total	Operational Losses	Water Supply Delivery	Total
	(76)	(77)	(78)	(79)	(80)	(81)	(82)
1968	210	873	79,039	80,122	0	0	0
1969	0	1,042	62,064	63,106	0	0	0
1970	0	638	83,649	84,287	0	0	0
1971	0	3,455	110,971	114,426	0	0	0
1972	0	1,745	121,755	123,500	0	0	0
1973	0	1,500	97,289	98,789	0	0	0
1974	0	1,500	75,675	77,175	0	0	0
1975	0	1,500	82,161	83,661	0	0	0
1976	0	1,500	89,884	91,384	0	0	0
1977	0	1,500	97,836	99,336	0	0	0
1978	0	1,500	104,678	106,178	0	0	0
1979	0	1,500	110,900	112,400	0	0	0
1980	0	3,700	126,200	129,900	2,200	9,000	11,200
1981	0	3,700	134,500	138,200	2,200	10,400	12,600
1982	0	3,700	142,700	146,400	2,200	12,800	15,000
1983	0	3,700	151,500	155,200	2,200	15,200	17,400
1984	0	3,700	160,200	163,900	2,200	18,100	20,300
1985	0	3,700	169,800	173,500	2,200	22,500	24,700
1986	0	3,700	178,900	182,600	2,200	26,600	28,800
1987	0	3,700	187,900	191,600	2,200	30,700	32,900
1988	0	3,700	196,800	200,500	2,200	35,300	37,500
1989	0	3,700	205,800	209,500	2,200	41,400	43,600
1990	0	3,700	215,800	219,500	2,200	48,000	50,200
1991	0	3,700	218,113	221,813	2,200	50,313	52,513
1992	0	3,700	220,427	224,127	2,200	52,627	54,827
1993	0	3,700	222,740	226,440	2,200	54,940	57,140
1994	0	3,700	225,053	228,753	2,200	57,253	59,453
1995	0	3,700	227,367	231,067	2,200	59,567	61,767
1996	0	3,700	229,680	233,380	2,200	61,880	64,080
1997	0	3,700	231,993	235,693	2,200	64,193	66,393
1998	0	3,700	234,307	238,007	2,200	66,507	68,707
1999	0	3,700	236,620	240,320	2,200	68,820	71,020
2000	0	3,700	238,933	242,633	2,200	71,133	73,333
2001	0	3,700	241,247	244,947	2,200	73,447	75,647
2002	0	3,700	243,560	247,260	2,200	75,760	77,960
2003	0	3,700	245,874	249,574	2,200	78,074	80,274
2004	0	3,700	248,187	251,887	2,200	80,387	82,587
2005 (b	0	3,700	250,500	254,200	2,200	82,700	84,900

TABLE B-7: RECONCILIATION OF CAPITAL COSTS ALLOCATED TO WATER SUPPLY AND POWER GENERATION FOR THE PROJECT CONSTRUCTION PERIOD, 1952-1985

(in thousands of dollars)

Project Facility	Project Costs Allocated to Water Supply and Power Generation							Project Costs Allocated to Other Purposes	Total, State Water Project
	Misc. Income Credited to Construction (a	Allowances for Future Price Escalation (b	Costs of Construction of Water Delivery Structures (c	Additional Costs of Requested Excess Capacity and Future Enlargement (d	Capital Cost Component of Delta Water Charge (e	Capital Cost Component of Transportation Water Charge (f	Water Supply and Power Total		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
CONSERVATION FACILITIES									
Upper Feather Division									
Frenchman Dam and Lake	172	0	0	0	540	0	712	2,573	3,285
Grizzly Valley Dam and Lake Davis	29	0	0	0	205	0	234	4,572	4,806
Antelope Dam and Lake	0	0	0	0	0	0	0	4,989	4,989
Abbey Bridge Dam and Res.	0	0	0	0	0	0	0	8,863	8,863
Dixie Refuge Dam and Res.	0	0	0	0	0	0	0	6,842	6,842
Total, Upper Feather Division	201	0	0	0	745	0	946	27,839	28,785
Oroville Division									
Multipurpose Facilities	2,125	250	150	0	338,436	0	340,961	79,511	420,472
Specific Power Facilities	365	19	0	0	85,541	0	85,925	1,676	87,601
Total, Oroville Division	2,490	269	150	0	423,977	0	426,886	81,187	508,073
California Aqueduct									
North San Joaquin Division	164	1,094	0	0	50,846	0	52,104	2,076	54,180
San Luis Division	242	17	0	0	86,330	0	86,589	3,170	89,759
Total, California Aqueduct	406	1,111	0	0	137,176	0	138,693	5,246	143,939
Delta Facilities	3	28,141	0	0	176,241	0	204,385	33,251	237,636
Additional Conservation Facilities	0	1,372	0	0	14,868	0	16,240	2,751	18,991
TOTAL, CONSERVATION FAC.	3,100	30,893	150	0	753,007	0	787,150	150,274	937,424
TRANSPORTATION FACILITIES									
Upper Feather Division									
Grizzly Valley Pipeline	0	0	0	0	0	341	341	0	341
North Bay Aqueduct	18	2,681	35	0	0	17,666	20,400	3	20,403
South Bay Aqueduct	1,550	3	287	0	0	46,659	48,499	19,589	68,088
California Aqueduct									
North San Joaquin Division	369	2,449	13	0	0	113,741	116,572	4,018	120,590
San Luis Division	6	2,835	0	0	0	103,215	106,056	3,504	109,560
South San Joaquin Division	286	143	2,371	3,154	0	247,523	253,477	8,104	261,581
Tehachapi Division	13	6,391	9	6,990	0	267,293	280,696	8,688	289,384
Mojave Division	500	4,350	353	0	0	220,949	226,152	7,466	233,618
Santa Ana Division	293	326	2,257	11,172	0	160,976	175,024	10,564	185,588
West Branch	36,605	1,361	3,083	106	0	302,079	343,234	12,796	356,030
Coastal Branch	6	10,557	83	0	0	82,789	93,435	105	93,540
Total, California Aqueduct	38,078	28,412	8,169	21,422	0	1,498,565	1,594,646	55,245	1,649,891
TOTAL TRANSPORTATION FAC.	39,646	31,096	8,491	21,422	0	1,563,231	1,663,886	74,837	1,738,723
SAN JOAQUIN DRAINAGE FACILITIES	0	0	0	0	0	0	0	6,209	6,209
UNASSIGNED & DAVIS-GRUNSKY	0	0	0	0	0	0	0	136,884	136,884
TOTAL, 1952-1985	42,746	61,989	8,641	21,422	753,007	1,563,231	2,451,036	368,204	2,819,240

a) Miscellaneous project receipts, including those from sale of Airpoint Reservoir land, that are applied for accounting purposes to reduce the capital costs of the particular facilities from which such income was realized.

b) These allowances are included for planning the future financial program, but not for determining current water charges. The costs shown on this appendix are based on prices prevailing on December 31, 1972.

c) See Table B-8.

d) From Table B-9, less a portion allocated to recreation and fish and wildlife enhancement.

e) See Table B-13. A portion of these costs will be offset by power generation sales and credits.

f) See Table B-10.

TABLE B-8: CAPITAL COSTS OF REQUESTED DELIVERY STRUCTURES TO BE BUILT BY THE STATE[a]

(in dollars)

Project Area and Water Supply Contractor	Calendar Year																Total
	1958-69	1970	1971	1972	1973	1974	1975	1976-77	1978	1979	1980	1981	1982	1983	1984	1985	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
FEATHER RIVER AREA																	
County of Butte	104,924	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	104,924
Thermalito Irrigation District[b]	43,942	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43,942
Subtotal	148,866	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	148,866
NORTH BAY AREA																	
Napa County Flood Control and Water Conservation District	2,878	0	0	0	1,000	0	0	0	0	0	0	0	0	0	0	0	3,878
Solano County Flood Control and Water Conservation District	0	0	0	0	0	0	0	0	30,000	0	0	0	0	0	1,000	0	31,000
Subtotal	2,878	0	0	0	1,000	0	0	0	30,000	0	0	0	0	0	1,000	0	34,878
SOUTH BAY AREA																	
Alameda County Flood Control and Water Conservation District, Zone 7	124,123	103	1,587	525	8,000	0	0	0	0	0	0	0	0	0	0	0	134,338
Alameda County Water Ditrict	139,599	0	0	0	1,000	0	0	0	0	0	0	0	0	0	0	0	140,599
Santa Clara County Flood Control and Water District	12,788	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12,788
Subtotal	276,510	103	1,587	525	9,000	0	0	0	0	0	0	0	0	0	0	0	287,725
SAN JOAQUIN VALLEY																	
Devil's Den Water District	76,115	268	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76,383
Dudley Ridge Water District	284,706	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	284,721
Empire West Side Irrigation District	6,194	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6,194
Hacienda Water District	17,996	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17,996
Kern County Water Agency	1,440,999	248,216	35,574	25,413	31,400	27,000	5,000	0	6,000	0	0	0	6,000	0	0	0	1,825,602
Oak Flat Water District	13,330	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13,330
Tulare Lake Basin Water Storage District	252,118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	252,118
Subtotal	2,091,458	248,499	35,574	25,413	31,400	27,000	5,000	0	6,000	0	0	0	6,000	0	0	0	2,476,344
SOUTHERN CALIFORNIA AREA																	
Antelope Valley-East Kern Water Agency	99,130	35,451	56,964	2,034	0	0	13,000	0	4,000	0	0	0	10,000	10,000	0	0	230,579
Castaic Lake Water Agency	59,888	10,584	255,876	34,816	0	0	5,000	0	0	0	0	0	0	0	0	0	366,164
Coachella Valley County Water District	2,725	679	12,167	25	0	0	0	0	0	0	0	0	4,000	0	0	0	19,596
Crestline-Lake Arrowhead Water Agency	8,226	479	697	848	1,000	0	0	0	0	0	0	0	3,000	0	0	0	14,250
Desert Water Agency	4,489	1,120	20,170	20	0	0	0	0	0	0	0	0	5,000	0	0	0	30,799
Littlerock Creek Irrigation District	10,814	5,621	1,234	2,382	1,000	0	0	0	0	0	0	0	0	0	0	0	20,951
Mojave Water Agency	9,583	1,598	51,036	46	0	3,000	1,000	0	3,000	4,000	0	0	4,000	0	0	0	77,263
Palmdale Irrigation District	15,003	7,148	1,284	746	0	0	3,000	0	0	0	0	0	0	0	0	0	27,181
San Bernardino Valley Municipal Water District	40,487	151,087	286,912	66,858	20,000	0	0	0	0	0	6,000	0	0	0	0	5,000	576,344
San Gabriel Valley Municipal Water District	12,822	21,966	20,674	18,015	17,000	1,000	0	0	0	0	0	0	0	0	0	0	91,477
San Gorgonio Pass Water Agency	3,094	25,074	25,270	4,218	0	0	0	0	0	0	0	0	0	0	0	0	57,656
The Metropolitan Water District of Southern California	790,669	734,102	1,894,586	444,463	181,000	0	0	0	0	14,000	0	0	0	0	10,000	0	4,068,620
Ventura County Flood Control District	29,985	3,663	58,279	13,168	0	0	0	0	5,000	2,000	0	0	0	0	0	0	112,095
Subtotal	1,086,915	998,472	2,685,149	587,639	220,000	4,000	22,000	0	12,000	20,000	6,000	0	26,000	10,000	10,000	5,000	5,693,175
TOTAL	3,606,627	1,247,074	2,722,310	613,577	261,400	31,000	27,000	0	48,000	20,000	6,000	0	32,000	10,000	11,000	5,000	8,640,988

a) Approximate only; not to be construed as invoice amounts.
b) Not a project water supply contractor. A delivery structure was constructed on the Thermalito Power Canal at the District's expense as a part of a water exchange agreement.

TABLE B-9: CAPITAL COSTS OF

(in dollars unless otherwise indicated)

TOTAL REQUIRED ADVANCE OF FUNDS										
Reach Number	Year Reach Becomes Operational	Excess Capacity (cfs)	Total Reach Capacity (cfs)	Ratio of Excess Capacity to Total Capacity (cfs/cfs) (a	Total Reach Cost (b	Total Advance Payments for Excess Capacity (c	Total Incremental Costs for Excess Capacity (d	Reconciliation of Advance Payments (e	Interest Credit (f	Reconciliation of Advance Payments and Interest Credit
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA										
8C	1968	188.00000	8,257.54768	0.02276705	597,582	13,605	2,000	11,605	1,667	13,272
8D	1968	188.00000	8,058.99281	0.02332798	13,942,413	325,248	113,000	212,248	30,109	242,357
9	1968	188.00000	7,268.54004	0.02586489	9,162,227	236,980	71,000	165,980	32,640	198,620
10A	1968	188.00000	7,117.74784	0.02641285	9,710,336	256,478	92,000	164,478	32,106	196,584
11B	1968	188.00000	6,313.19561	0.02977890	13,692,127	407,736	108,000	299,736	60,463	360,199
12D	1969	188.00000	5,929.95263	0.03170346	11,888,004	376,891	156,000	220,891	46,967	267,858
12E	1969	188.00000	5,907.22734	0.03182542	7,484,322	238,192	118,000	120,192	24,967	145,159
13B	1969	188.00000	5,341.25081	0.03519775	16,313,712	574,206	139,000	435,206	75,150	510,356
14A	1970	188.00000	5,008.96939	0.03753267	55,742,657	2,092,171	559,000	1,533,171	381,330	1,914,501
14B	1970	188.00000	4,888.19779	0.03845998	10,081,251	387,725	175,000	212,725	55,369	268,094
14C	1970	188.00000	4,700.84105	0.03999284	9,083,502	363,275	223,000	140,275	36,501	176,776
15A	1970	188.00000	4,597.94994	0.04088779	38,646,108	1,580,154	593,000	987,154	200,521	1,187,675
16A	1971	188.00000	4,387.78387	0.04284623	62,627,071	2,683,334	995,000	1,688,334	448,974	2,137,308
17E	1971	188.00000	4,136.09906	0.04545346	224,099,973	10,186,119	5,811,000	4,375,119	1,264,021	5,639,140
17F	1971	188.00000	4,126.98262	0.04555386	58,567,574	2,667,979	1,396,000	1,271,979	444,423	1,716,402
25	1971	787.00000	2,019.63064	0.38967521	30,989,289	12,075,758	6,823,844	5,251,914	1,368,192	6,620,106
28J	1973	-	-	-	-	4,378,641	4,378,641	0	0	0
SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT										
25	1971	21.00000	2,019.63064	0.01039794	31,022,106	322,566	182,156	140,410	36,579	176,989
ANTELOPE VALLEY-EAST KERN WATER AGENCY										
29A	1971	19.00000	3,128.83908	0.00607254	29,976,119	182,032	85,000	97,032	22,045	119,077
29F	1971	19.00000	3,128.01611	0.00607414	13,582,587	82,503	24,000	58,503	15,039	73,542

a) Column 1 divided by Column 2.

b) Reach costs are compounded at the project interest rate of 4.342 percent per annum as follows:

Reaches	Period	Year costs compounded to
8C thru 17F	1952 - 1965	1965
25 (for MWD)	1952 - 1966	1966
25 (for SGVMWD)	1952 - 1967	1967
29A and 29F	1952 - 1967	1967

c) Column 3 multiplied by Column 4.

d) As shown in Table B-7, except, prior Incremental Costs for Reach 28J have been brought forward with interest at 4.457% to 1966 for purposes of repayment.

e) Column 5 less Column 6.

f) Interest on Advance Payments in excess of Incremental Costs is at 5.5 percent per annum, approximate average rate of interest earnings during the period.

g) Actual payments are shown for 1966 through 1973 with 1974 adjusted to reflect overpayments and underpayments without interest for prior years.

h) Interest for overpayments and underpayments under the provisions of Amendment 2 of the contract.

i) Interest for overpayments and underpayments under the provisions of Amendment 5 of the contract.

j) Reach totals include Reconciliation of Advance Payments and Interest Credit (Column 9).

k) Advance payments in excess of incremental costs under the provisions of the contract reduce the capital cost component of the Transportation Charge.

REQUESTED EXCESS PEAKING CAPACITY

(in dollars)

ANNUAL REQUIRED ADVANCE OF FUNDS

Reach Number	Item	Estimated Costs and Advance Payments by Calendar Year 1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	Reach Totals (j
		(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
		THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA										
8C	1. Incremental Costs		1,000	1,000								2,000
	2. Advance Payments		6,803	6,802		-13,272						333
8D	1. Incremental Costs	4,000	45,000	64,000								113,000
	2. Advance Payments	11,513	129,524	184,211		-242,357						82,891
9	1. Incremental Costs	4,000	24,000	35,000	8,000							71,000
	2. Advance Payments	13,351	80,106	116,821	26,702		-198,620					38,360
10A	1. Incremental Costs	5,000	30,000	46,000	11,000							92,000
	2. Advance Payments	13,939	83,634	128,239	30,666		-196,584					59,894
11B	1. Incremental Costs	7,000	42,000	48,000	11,000							108,000
	2. Advance Payments	26,427	158,564	181,216	41,529		-360,199					47,537
12D	1. Incremental Costs	16,000	20,000	18,000	84,000	18,000						156,000
	2. Advance Payments	38,655	48,319	43,487	202,941	43,489		-267,858				109,033
12E	1. Incremental Costs	10,000	14,000	14,000	66,000	14,000						118,000
	2. Advance Payments	20,186	28,260	28,260	133,226	28,260		-145,159				93,033
13B	1. Incremental Costs	1,000	2,000	14,000	96,000	26,000						139,000
	2. Advance Payments	4,131	8,262	57,834	396,574	107,405		-510,356				63,850
14A	1. Incremental Costs	51,000	65,000	39,000	194,000	150,000	60,000					559,000
	2. Advance Payments	190,878	243,276	145,965	726,084	561,405	224,563		-1,914,501			177,670
14B	1. Incremental Costs	31,000	14,000	10,000	45,000	63,000	12,000					175,000
	2. Advance Payments	68,683	31,018	22,156	99,701	139,581	26,586		-268,094			119,631
14C	1. Incremental Costs	39,000	18,000	13,000	58,000	80,000	15,000					223,000
	2. Advance Payments	63,532	29,323	21,177	94,484	130,323	24,436		-176,776			186,499
15A	1. Incremental Costs	4,000	10,000	46,000	243,000	162,000	128,000					593,000
	2. Advance Payments	10,659	26,647	122,575	647,517	431,678	341,078		-1,187,675			392,479
16A	1. Incremental Costs	14,000	12,000	56,000	387,000	357,000	119,000	50,000				995,000
	2. Advance Payments	37,755	32,362	151,022	1,043,669	962,764	320,921	134,841		-2,137,308		546,026
17E	1. Incremental Costs	30,000	259,000	1,159,000	1,971,000	1,565,000	551,000	276,000				5,811,000
	2. Advance Payments	52,587	454,002	2,031,615	3,454,972	2,743,293	965,850	483,800		-5,639,140		4,546,979
17F	1. Incremental Costs	78,000	203,000	468,000	349,000	276,000	15,000	7,000				1,396,000
	2. Advance Payments	149,070	387,965	894,423	666,995	527,480	28,667	13,379		-1,716,402		951,577
25	1. Incremental Costs			932,118	2,289,874	1,910,988	1,211,656	479,208				6,823,844
	2. Advance Payments			1,649,515	4,052,256	3,381,764	2,144,197	848,026		-6,620,106		5,455,652
28J	1. Incremental Costs		304,612	13,706	296,668	65,966	230,169	1,209,586	2,017,134	235,900	4,900	4,378,641
	2. Advance Payments		304,612	13,706	296,668	65,966	230,169	1,209,586	2,017,134	235,900	4,900	4,378,641
Totals Unadjusted for past payments	1. Incremental Costs	294,000	1,063,612	2,976,824	6,109,542	4,687,954	2,341,825	2,021,794	2,017,134	235,900	4,900	21,753,485
	2. Advance Payments	701,366	2,052,677	5,799,024	11,913,984	8,867,779	3,551,064	1,766,259	-1,529,912	-15,877,056	4,900	17,250,085
Current Adjustments	1. Advance Payments and Adjustments - Amendment 2 (g	0	8,056,000	9,094,963	1,523,252	8,310,651	3,426,736	1,086,045	-4,244,807	-14,381,396 (k		12,871,444
	2. Interest Credits-Amendment 2 (h									-1,532,433 (k		-1,532,433
	3. Advance Payments and Adjustments-Amendment 5 (g	0	1,240,000	1,483,180	2,469,325	-927,035	1,729,160	3,215,258	2,967,475	1,690,000	-9,433,822	4,383,541
	4. Interest Credits-Amendment 5 (i										-2,726,703	-2,726,703
	5. Net Required Advance of Funds	0	9,296,000	10,578,143	3,992,577	7,383,616	5,155,896	4,301,303	-1,277,332	-14,223,829	-12,210,525 (k	12,995,849
		SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT										
25	1. Incremental Costs	0	0	24,882	61,126	51,012	32,344	12,792				182,156
	2. Advance Payments	0	0	44,062	108,243	90,333	57,275	22,653		-176,989		145,577
Totals Unadjusted for past payments	1. Incremental Costs	0	0	24,882	61,126	51,012	32,344	12,792				182,156
	2. Advance Payments	0	0	44,062	108,243	90,333	57,275	22,653		-176,989		145,577
Current Adjustments	1. Advance Payments and Adjustments (g	0	0	0	184,422	49,052	44,911	61,588	-20,263	-174,133		145,577
	2. Interest Credit									-6,332		-6,332
	3. Net Required Advance of Funds	0	0	0	184,422	49,052	44,911	61,588	-20,263 (k	-180,465 (k		139,245
		ANTELOPE VALLEY-EAST KERN WATER AGENCY										
29A	1. Incremental Costs	0	0	8,000	14,000	26,000	26,000	11,000				85,000
	2. Advance Payments	0	0	17,132	29,982	55,680	55,680	23,558		-119,077		62,955
29F	1. Incremental Costs	0	0	3,000	4,000	14,000	2,000	1,000				24,000
	2. Advance Payments	0	0	10,313	13,751	48,127	6,875	3,437		-73,542		8,961
Totals Unadjusted for past payments	1. Incremental Costs	0	0	11,000	18,000	40,000	28,000	12,000				109,000
	2. Advance Payments	0	0	27,445	43,733	103,807	62,555	26,995		-192,619		71,916
Current Adjustments	1. Advance Payments and Adjustments (g				85,495	52,625	101,648	34,062	-12,794	-189,120		71,916
	2. Interest Credit	0	0	0						-16,234		-16,234
	3. Net Required Advance of Funds	0	0	0	85,495	52,625	101,648	34,062	-12,794	-205,354 (k		55,682

TABLE B-10: CAPITAL COSTS OF EACH AQUEDUCT REACH TO BE REIM-

(in dollars)

Calendar Year	UPPER FEATHER DIVISION	NORTH BAY AQUEDUCT				SOUTH BAY AQUEDUCT			
		Reach 1	Reach 2	Reach 3	Total	Reach 1	Reach 2	Reach 4	Reach 5
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1952	0	0	0	0	0	97	34	30	60
1953	0	0	0	0	0	477	166	144	315
1954	0	0	0	0	0	1,466	508	437	1,013
1955	0	0	0	0	0	1,944	674	560	1,335
1956	0	0	0	0	0	18,789	6,515	5,090	13,248
1957	0	13,290	3,391	9,953	26,634	45,090	15,639	12,285	35,218
1958	2	19,183	5,022	25,799	50,004	195,998	80,965	7,719	23,292
1959	6	7,247	2,183	18,145	27,575	496,204	148,718	25,117	17,975
1960	6	8,314	4,002	7,101	19,417	1,129,159	68,701	71,597	70,862
1961	7	2,089	10,370	3,643	16,102	3,224,099	229,499	306,972	80,936
1962	270	523	1,403-	1,326	446	1,513,157	238,264	695,282	38,457
1963	55	3,988	338-	3,021	6,671	478,668	66,964	2,284,777	221,315
1964	7,791	36,875	18,034	28,630	83,539	2,510,902	13,554	176,720	280,433
1965	3,137	72,191	25,696	191,683	289,570	738,707	143,896	77,107	489,237
1966	-48	68,799	18,971	466,842	554,612	744,421	130,843	122,600	1,827,990
1967	50	57,744	21,169	1,571,385	1,650,298	308,139	7,305	246,899	3,734,470
1968	51,574	70,369	24,638	851,050	946,057	819,763	3,765	65,807	3,028,330
1969	234,242	63,035	26,535	51,553	141,123	430,823	2,925	354	945,559
1970	16,235	65,720	46,250	13,302	125,272	62,181	2,659	12,159	165,827
1971	27,205	21,641	29,763	11,259	62,663	28,836	3,714	6,220	26,853
1972	0	17,476	14,693	11,339	43,508	29,977	802	3,430	30,705
1973	0	20,633	78,237	40,300	139,170	24,500	4,200	7,500	56,800
1974	0	63,636	151,496	16,400	231,532	12,400	3,100	5,300	12,500
1975	0	260,935	96,551	16,200	373,686	2,100	0	1,100	3,100
1976	0	429,532	182,063	41,000	652,595	1,000	0	0	3,000
1977	0	559,968	295,066	118,000	973,034	2,000	0	0	2,000
1978	0	3,221,721	1,113,789	1,181,000	5,516,510	1,000	0	0	1,000
1979	0	3,908,041	608,295	760,000	5,276,336	0	0	0	1,000
1980	0	276,000	13,000	89,000	378,000	0	0	0	1,000
1981	0	40,000	14,000	1,000	55,000	0	0	0	1,000
1982	0	14,000	1,000	0	15,000	0	0	0	1,000
1983	0	12,000	0	0	12,000	0	0	0	1,000
1984	0	0	0	0	0	0	0	0	1,000
1985	0	0	0	0	0	0	0	0	1,000
TOTAL	340,532	9,334,950	2,802,473	5,523,931	17,666,354	12,821,897	1,173,410	4,135,206	11,118,830

Calendar Year	SOUTH BAY AQUEDUCT (continued)					CALIFORNIA AQUEDUCT NORTH SAN JOAQUIN DIVISION			
	Reach 6	Reach 7	Reach 8	Reach 9	Total	Reach 1	Reach 2A	Reach 2B	Subtotal
	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1952	8	66	72	132	499	3,973	3,303	1,505	8,781
1953	38	327	336	641	2,444	10,459	8,653	3,980	23,092
1954	123	1,005	1,003	1,954	7,509	13,690	11,243	5,199	30,132
1955	160	1,293	1,149	2,454	9,569	7,326	5,990	2,771	16,087
1956	1,559	11,959	11,043	28,372	96,575	9,241	5,177	2,403	16,821
1957	3,559	28,676	27,385	563,114	731,066	11,212	5,637	2,615	19,464
1958	2,246	17,877	17,390	560,914	906,401	18,533	15,669	7,284	41,486
1959	369	3,389	3,750	150,062	845,584	121,996	99,053	44,815	265,864
1960	966	3,774	4,358	360,064	1,709,481	190,440	103,257	49,143	342,840
1961	4,409	20,048	21,600	794-	3,886,769	163,216	197,928	44,457	405,601
1962	13,791	163,388	177,069	208,825	3,048,233	622,556	492,158	187,619	1,302,333
1963	236,921	1,276,865	940,644	129,384	5,635,538	2,014,372	1,539,946	688,589	4,242,907
1964	29,244	1,787,492	2,328,102	2,938,360	10,064,807	4,725,779	2,399,085	709,246	7,834,110
1965	15,500	395,840	599,056	1,913,483	4,372,826	5,984,652	6,970,994	3,050,954	16,006,600
1966	16,926	34,174	181,472	761,180	3,819,606	8,711,138	14,260,962	5,723,491	28,695,591
1967	45,325-	134,323	143,088	345,970	4,874,869	9,838,850	10,795,740	6,703,597	27,338,187
1968	83,881	780-	65,747	235,725	4,302,238	6,475,541	893,440	1,316,126	8,685,107
1969	4,170	11,511	162,503	28,597	1,586,442	3,597,471	781,686	454,072	4,833,229
1970	2,540	7,362	20,537	15,161-	258,104	2,275,581	154,786	114,884	2,545,251
1971	4,233	7,385	18,108	39,516	134,865	124,865	217,242	76,264	418,371
1972	1,058	442	4,905	32,368	103,687	178,703	52,296	8,580	239,579
1973	400	55,400	5,400	12,800	167,000	210,493	56,757	77,840	345,090
1974	1,200	7,200	4,200	10,900	56,800	120,810	52,741	57,225	230,776
1975	0	0	1,000	3,000	10,300	183,521	24,095	13,587	221,203
1976	0	0	0	2,000	6,000	469,179	122,482	17,401	609,062
1977	0	0	0	1,000	5,000	870,090	3,346	1,338	874,774
1978	0	0	0	1,000	3,000	1,483,839	2,008	1,338	1,487,185
1979	0	0	0	1,000	2,000	1,904,828	669	669	1,906,166
1980	0	0	0	1,000	2,000	477,210	669	669	478,548
1981	0	0	0	1,000	2,000	445,754	669	669	447,092
1982	0	0	0	1,000	2,000	794,459	669	669	795,797
1983	0	0	0	1,000	2,000	1,325,214	669	669	1,326,552
1984	0	0	0	1,000	2,000	1,366,710	669	669	1,368,048
1985	0	0	0	1,000	2,000	337,996	669	669	339,334
TOTAL	378,076	3,969,016	4,739,917	8,322,860	46,659,212	55,089,697	39,280,357	19,371,006	113,741,060

BURSED THRU CAPITAL COST COMPONENT OF TRANSPORTATION CHARGE

(in dollars)

Calendar Year	CALIFORNIA AQUEDUCT (continued)								
	SAN LUIS DIVISION						SOUTH SAN JOAQUIN DIVISION		
	Reach 3	Reach 4	Reach 5	Reach 6	Reach 7	Subtotal	Reach 8C	Reacn 8D	Reach 9
	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)
1952	2,556	3,641	4,131	1,050	1,296	12,674	14	717	1,168
1953	7,164	10,410	11,380	2,944	3,631	35,529	51	2,666	4,370
1954	8,895	12,875	14,176	3,655	4,508	44,109	52	2,708	4,215
1955	4,362	6,215	7,048	1,793	2,210	21,628	18	876	1,166
1956	3,959	5,640	6,400	1,627	2,007	19,633	70	3,628	4,809
1957	4,317	6,149	6,978	1,773	2,187	21,404	204	10,523	13,947
1958	14,827	24,705	28,223	7,064	9,111	83,930	351	17,876	23,618
1959	29,084	48,261	49,131	13,018	17,221	156,715	373	18,828	24,554
1960	34,782	55,272	51,068	17,128	32,809	191,059	1,060	44,430	27,623
1961	182,367	301,656	179,382	41,258	72,069	776,732	1,852	78,659	35,782
1962	561,887	565,811	263,809	24,618	28,194	1,444,319	4,150	162,635	65,434
1963	2,255,612	2,103,938	2,579,869	71,195	34,748	7,045,362	4,218	167,836	85,238
1964	4,344,158	5,091,433	1,098,369	171,391	266,192	10,971,543	2,299	98,934	125,795
1965	3,766,059	5,875,665	2,982,119	1,114,653	697,619	14,436,115	10,244	532,649	597,191
1966	2,527,485	8,829,273	5,994,931	4,380,568	7,956,911	29,689,168	130,846	5,467,155	2,635,835
1967	43,092-	2,141,027	7,286,956	254,516	6,987,072	16,626,479	133,783	5,152,204	3,532,998
1968	188,129	742,456	1,152,964	236,667	569,092	2,889,308	47,841	642,930	1,015,007
1969	3,145	170,832	123,474	116,447	172,987	586,885	57,646	129,987	100,313
1970	35,837	117,842	162,080	52,262	144,948	512,969	13,743	126,952	121,167
1971	49,154	184,700	348,445	79,115	174,040	835,454	5,615	39,934	33,945
1972	32,948	129,542	167,866	45,763	92,994	469,113	10,146	16,066	20,562
1973	29,597	149,962	128,719	10,864	143,948	463,090	5,044	52,477	47,918
1974	124,767	73,429	147,634	10,670	150,447	506,947	6,499	108,543	93,605
1975	11,329	32,010	87,300	4,850	64,020	199,509	3,977	32,301	20,079
1976	4,248	6,790	6,790	1,940	3,880	23,648	1,940	15,617	10,670
1977	3,540	7,760	5,820	1,940	3,880	22,940	970	8,730	6,790
1978	708	1,940	970	0	970	4,588	970	118,340	0
1979	9,913	52,380	193,030	4,850	131,920	392,093	970	0	0
1980	30,448	158,110	579,090	13,580	392,850	1,174,078	970	0	0
1981	59,480	311,370	1,138,780	27,160	772,120	2,308,910	970	0	0
1982	50,275	263,840	965,150	23,280	654,750	1,957,295	970	0	0
1983	21,951	237,650	616,920	77,600	381,210	1,335,331	970	0	0
1984	0	1,220,260	1,915,750	684,820	928,290	4,749,120	970	0	0
1985	0	824,500	1,293,980	462,690	626,620	3,207,790	970	0	0
TOTAL	14,359,891	29,767,344	29,598,732	7,962,749	21,526,751	103,215,467	450,766	13,054,201	8,653,796

Calendar Year	CALIFORNIA AQUEDUCT (continued)								
	SOUTH SAN JOAQUIN DIVISION (continued)								
	Reach 10A	Reach 11B	Reach 12D	Reach 12E	Reach 13B	Reach 14A	Reach 14B	Reach 14C	Reach 15A
	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
1952	735	1,350	2,148	1,065	1,761	514	174	183	1,872
1953	2,696	5,019	7,983	3,962	6,548	1,885	640	671	6,972
1954	2,962	5,098	8,108	4,025	6,650	2,071	702	737	6,998
1955	1,158	1,650	2,624	1,303	2,151	808	273	288	2,191
1956	4,809	6,831	10,867	5,393	8,914	3,492	1,138	1,197	9,068
1957	13,947	19,811	31,512	15,641	25,845	11,743	3,305	3,471	26,291
1958	23,620	43,443	69,038	34,277	56,676	32,357	10,300	10,793	54,222
1959	24,557	63,321	100,549	49,934	82,609	58,907	19,543	20,465	74,675
1960	49,582	69,576	85,113	42,553	66,587	70,354	21,501	21,114	68,513
1961	73,967	49,355	96,124	54,229	28,330	230,519	101,658	74,072	144,970
1962	59,192	57,950	73,146	42,143	44,470	193,126	73,314	57,299	132,454
1963	54,704	98,742	180,150	85,238	61,176	402,769	119,022	93,411	96,839
1964	128,195	371,386	292,427	171,588	73,929	1,089,424	716,453	511,961	573,587
1965	649,796	1,317,936	1,387,089	939,657	187,869	3,387,206	1,676,594	1,455,997	469,018
1966	2,876,259	3,866,697	644,890	427,839	395,877	4,915,082	991,001	762,904	1,749,279
1967	3,673,841	4,840,343	2,035,445	1,222,569	1,201,589	2,711,863	574,722	505,229	1,630,780
1968	1,061,276	1,389,186	5,025,844	3,020,346	8,330,157	9,776,070	1,648,985	1,853,342	7,435,198
1969	166,181	245,730	815,686	527,301	3,752,395	14,447,763	1,751,111	1,626,627	9,573,450
1970	122,905	101,640	122,734	93,679	305,295	10,844,495	1,306,371	1,018,583	8,845,537
1971	29,304	49,072	61,267	49,212	341,476	3,010,543	206,420	51,826	3,360,149
1972	25,446	30,903	38,837	20,461	75,808	1,408,186	97,327	22,668	1,028,324
1973	55,165	32,924	74,981	83,129	70,034	979,171	44,135	36,278	1,425,085
1974	99,231	59,170	97,970	85,651	99,716	367,048	71,489	61,207	274,510
1975	20,079	13,677	17,266	14,744	23,668	85,942	18,236	15,423	63,729
1976	11,349	9,215	11,737	8,633	15,326	43,165	11,640	9,797	29,197
1977	6,790	6,790	7,760	4,850	8,730	22,310	7,760	6,790	13,580
1978	0	0	0	0	0	970	0	0	970
1979	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0
TOTAL	9,237,746	12,756,815	11,301,295	7,009,422	15,273,586	54,097,783	9,473,814	8,222,333	37,097,458

TABLE B-10: CAPITAL COSTS OF EACH AQUEDUCT REACH TO BE REIM-

(in dollars)

Calendar Year	CALIFORNIA AQUEDUCT (continued)								
	SOUTH SAN JOAQUIN DIVISION (continued)		TEHACHAPI DIVISION			MOJAVE DIVISION			
	Reach 16A	Subtotal	Reach 17E	Reach 17F	Subtotal	Reach 18A	Reach 19	Reach 19C	Reach 20A
	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)
1952	4,547	16,245	9,352	4,202	13,554	4,208	1,563	0	2,634
1953	16,933	60,396	30,601	13,702	44,303	12,971	4,819	0	7,453
1954	17,016	61,342	45,716	20,622	66,338	17,118	6,360	0	9,779
1955	5,946	19,852	25,776	11,706	37,482	5,773	2,145	0	2,602
1956	22,125	82,341	41,107	18,284	59,391	6,210	2,307	0	2,511
1957	64,157	240,397	114,072	50,736	164,808	22,988	8,542	0	9,293
1958	145,117	521,688	167,712	74,241	241,953	38,944	14,588	89	15,864
1959	219,967	758,282	145,252	59,864	205,116	41,071	24,170	248	24,497
1960	208,104	776,110	175,794	45,955	221,749	29,199	27,273	1,409	43,052
1961	198,907	1,168,424	389,697	86,738	476,435	37,601	37,858	1,756	36,108
1962	170,773	1,136,086	360,802	84,533	445,335	70,051	274,124	1,301	11,116
1963	481,431	1,930,774	1,209,466	127,648	1,337,114	27,420	425,179	2,845	23,116
1964	1,812,267	5,968,245	1,903,944	797,471	2,701,415	96,897	729,511	5,913	51,097
1965	1,252,192	13,863,438	2,578,369	2,377,302	4,955,671	127,394	741,549	6,282	125,077
1966	2,993,311	27,856,975	5,409,650	9,642,211	15,051,861	388,552	1,730,342	10,629	172,250
1967	3,440,513	30,655,879	26,199,105	12,554,415	38,753,520	1,351,279	926,889	19,951	672,928
1968	7,504,041	48,750,223	32,817,249	7,541,586	40,358,835	147,992	7,322,859	69,003	2,076,649
1969	13,309,482	46,503,672	40,726,124	7,065,028	47,791,152	223,048	2,544,517	5,307	6,215,348
1970	14,234,742	37,257,843	37,074,907	7,184,255	44,259,162	2,168,386	1,180,429	4,738	3,864,093
1971	8,250,199	15,488,962	21,091,310	7,037,812	28,129,122	1,578,369	345,932	10,914	1,259,939
1972	3,117,149	5,911,883	10,438,885	44,508	10,483,393	136,913	428,038	20,552	486,385
1973	2,789,602	5,695,943	7,629,728	41,613	7,671,341	35,793	266,265	6,230	195,164
1974	471,905	1,896,544	871,836	70,228	942,064	38,315	242,403	1,000	176,152
1975	88,561	417,682	502,654	215,631	718,285	25,899	115,527	3,062	86,524
1976	48,597	226,883	416,227	93,993	510,220	4,462	24,929	125,355	22,892
1977	26,190	128,040	42,680	0	42,680	2,910	7,760	1,254,116	7,760
1978	970	122,220	141,620	0	141,620	0	970	926,346	3,880
1979	0	970	618,860	0	618,860	0	970	445,863	2,910
1980	0	970	3,088,480	0	3,088,480	0	970	0	2,910
1981	0	970	5,194,350	0	5,194,350	0	970	86,181	2,910
1982	0	970	7,047,050	0	7,047,050	0	970	118,684	2,910
1983	0	970	4,263,150	0	4,263,150	0	970	140,282	2,910
1984	0	970	1,256,150	0	1,256,150	0	970	5,528,093	2,910
1985	0	970	970	0	970	0	970	4,921,966	2,910
TOTAL	60,894,144	247,523,159	212,028,645	55,264,284	267,292,929	6,639,763	17,443,638	13,718,115	15,624,533

Calendar Year	CALIFORNIA AQUEDUCT (continued)								
	MOJAVE DIVISION (continued)							SANTA ANA DIVISION	
	Reach 20B	Reach 21	Reach 22A	Reach 22B	Reach 23	Reach 24	Subtotal	Reach 25	Reach 26A
	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)
1952	917	5,954	36	2,071	2,133	2,481	21,997	3,429	5,759
1953	3,498	18,356	73	5,917	7,083	7,651	67,821	10,570	17,758
1954	4,678	24,232	380	8,805	8,073	10,100	89,525	13,953	23,442
1955	2,275	8,174	185	2,833	2,803	3,408	30,198	4,708	7,908
1956	2,731	8,785	221	2,989	3,047	3,662	32,463	5,059	8,500
1957	10,109	32,521	822	11,064	11,274	13,556	120,169	18,726	31,461
1958	17,254	55,127	1,443	19,381	19,124	23,330	205,144	31,915	53,566
1959	19,265	60,924	1,681	23,867	21,823	50,959	268,505	40,907	61,033
1960	36,839	58,008	9,625	125,866	22,305	106,865	460,441	65,833	99,965
1961	36,293	24,665	14,101	214,231	10,643	356,464	769,720	27,320	59,415
1962	10,937	9,617	4,271	165,272	4,566	276,141	827,396	11,082	38,156
1963	23,705	21,048	9,735	177,978	7,577	269,484	988,087	32,361	119,242
1964	73,911	40,243	24,594	275,312	7,719	247,529	1,552,726	74,976	223,998
1965	352,242	105,752	68,774	852,816	11,383	624,950	3,016,219	300,934	237,662
1966	1,356,445	183,201	191,641	1,792,547	29,935	1,045,420	6,900,962	448,344	421,538
1967	1,910,467	532,872	392,745	3,206,494	61,745	2,401,163	11,476,533	3,318,910	707,270
1968	2,302,208	1,189,692	1,468,477	4,401,580	108,649	2,768,865	21,855,974	7,872,908	1,378,416
1969	5,496,400	2,637,885	1,677,089	7,795,055	267,396	11,111,577	37,973,622	6,532,923	1,987,348
1970	5,122,572	3,598,898	2,118,433	23,883,427	1,270,464	17,065,999	60,277,439	1,714,370	7,445,803
1971	1,144,400	952,472	452,094	17,270,334	1,986,193	5,717,007	30,717,654	960,936	10,124,175
1972	641,914	536,012	326,107	3,838,440	50,089	993,425	7,457,875	1,466,369	5,835,789
1973	142,590	99,231	64,408	3,743,265	181,099	4,316,276	9,050,321	114,072	3,460,100
1974	142,881	95,545	62,468	3,908,518	237,553	605,761	5,510,596	25,026	3,065,685
1975	170,720	46,269	32,980	5,909,531	29,682	126,738	6,546,932	15,132	2,513,949
1976	17,945	10,088	7,857	714,599	2,134	28,324	958,585	5,044	678,127
1977	4,850	2,910	1,940	132,890	0	24,030	1,439,166	1,940	8,730
1978	0	0	0	2,910	0	0	934,106	970	970
1979	0	0	0	0	126,100	4,227	580,070	970	0
1980	0	0	0	0	0	0	3,880	970	0
1981	0	0	0	0	0	0	90,061	970	0
1982	0	0	0	0	0	0	122,564	970	0
1983	0	0	0	0	0	0	144,162	970	0
1984	0	0	0	0	0	0	5,531,973	970	0
1985	0	0	0	0	0	0	4,925,846	970	0
TOTAL	19,048,046	10,358,481	6,932,180	78,487,992	4,490,592	48,205,392	220,948,732	23,125,507	38,615,765

BURSED THRU CAPITAL COST COMPONENT OF TRANSPORTATION CHARGE

(in dollars)

Calendar Year	CALIFORNIA AQUEDUCT (continued)								
	SANTA ANA DIVISION (continued)				WEST BRANCH				
	Reach 28G[a]	Reach 28H	Reach 28J	Subtotal	Reach 29A	Reach 29 F	Reach 29G	Reach 29H	Reach 29J
	(55)	(56)	(57)	(58)	(59)	(60)	(61)	(62)	(63)
1952	4,922	4,170	3,106	21,386	3,007	139	180	472	569
1953	16,026	11,842	9,748	65,944	9,352	353	244	1,803	1,731
1954	18,531	18,618	12,507	87,051	7,601	1,234	2,293	2,418	4,282
1955	6,226	6,255	4,269	29,366	1,047	601	1,117	1,178	2,086
1956	6,683	6,713	4,609	31,564	502	718	1,332	1,405	2,488
1957	24,732	24,848	17,062	116,829	1,860	2,656	4,931	5,202	9,209
1958	42,088	42,289	29,404	199,262	3,372	4,627	8,430	9,115	16,383
1959	48,405	48,635	44,569	243,549	7,079	8,633	15,582	17,052	32,874
1960	70,337	70,609	115,434	422,178	16,130	10,534	15,487	21,883	52,126
1961	34,475	37,570	710,547	869,327	20,261	7,885	6,466	18,406	39,407
1962	21,781	21,844	60,003	152,866	45,351	25,700	21,294	62,020	136,084
1963	42,900	41,612	1,856,684	2,092,799	92,422	52,604	37,356	113,258	256,635
1964	95,085	51,410	108,067	553,536	159,703	59,342	76,073	150,161	335,001
1965	100,984	82,985	144,493	867,058	368,878	60,700	325,158	127,506	605,837
1966	173,901	320,075	572,826	1,936,684	491,568	239,739	1,172,631	349,494	3,278,240
1967	228,705	299,011	1,158,206	5,712,102	1,522,393	974,420	1,051,565	912,658	31,744,215
1968	772,713	306,158	695,644	11,025,839	3,985,017	394,384	335,494	1,131,986	36,754,961
1969	1,095,531	1,528,736	1,072,627	12,217,165	6,721,798	334,049	664,682	1,202,289	8,640,119
1970	1,843,276	1,063,669	3,888,238	15,955,356	8,084,318	6,196,844	2,657,307	3,047,381	8,041,514
1971	16,531,754	6,624,533	12,441,097	46,682,495	4,359,776	3,863,468	1,341,913	8,450,038	5,715,749
1972	1,519,178	12,438,466	22,726,342	43,986,144	1,919,378	272,202	1,233,302	19,288,454	23,876,307-
1973	239,299	396,222	5,423,674	9,633,367	1,830,196	108,155	596,647	10,399,590	1,786,449-
1974	147,052	126,779	1,123,421	4,487,963	349,588	112,811	407,109	2,666,884	221,451
1975	39,285	36,084	184,726	2,789,176	107,088	40,546	182,651	85,679	129,398
1976	6,790	8,148	66,709	764,818	14,356	6,402	4,559	19,200	16,393
1977	1,940	2,910	6,790	22,310	3,880	0	0	3,880	11,640
1978	0	0	0	1,940	1,940	0	0	970	10,670
1979	0	0	1,276	2,246	970	0	0	0	10,670
1980	0	0	0	970	970	0	0	0	5,820
1981	0	0	0	970	970	0	0	0	970
1982	0	0	0	970	970	0	0	0	970
1983	0	0	0	970	970	0	0	0	970
1984	0	0	0	970	970	0	0	0	970
1985	0	0	0	970	970	0	0	0	970
TOTAL	23,132,599	23,620,191	52,482,078	160,976,140	30,134,651	12,778,746	10,163,803	48,090,382	70,417,646

Calendar Year	CALIFORNIA AQUEDUCT (continued)								GRAND TOTAL
	WEST BRANCH (continued)		COASTAL BRANCH					TOTAL	
	Reach 30	Subtotal	Reach 31A	Reach 33A	Reach 34	Reach 35	Subtotal		
	(64)	(65)	(66)	(67)	(68)	(69)	(70)	(71)	(72)
1952	1,448	5,815	0	0	0	0	0	100,452	100,951
1953	4,470	17,953	0	0	0	0	0	315,038	317,482
1954	5,909	23,737	0	0	0	0	0	402,234	409,743
1955	1,999	8,028	0	0	0	0	0	162,641	172,210
1956	2,136	8,581	0	0	0	0	0	250,794	347,369
1957	7,907	31,765	0	0	0	0	0	714,836	1,472,536
1958	14,341	56,268	0	0	0	0	0	1,349,731	2,306,138
1959	40,281	121,501	28,068	47,320	7,380	7,531	90,299	2,109,831	2,982,996
1960	59,178	175,338	33,431	62,041	8,201	11,217	114,890	2,704,605	4,433,509
1961	114,271	206,696	10,995	17,626	1,572	3,859	34,052	4,706,987	8,609,865
1962	369,987	660,436	6,727	7,850	631	1,599	16,807	5,985,578	9,034,527
1963	464,072	1,016,347	16,260	14,703	1,047	2,642	34,652	18,688,042	24,330,306
1964	1,451,938	2,232,218	309,988	27,191	1,959	4,926	344,064	32,157,857	42,313,994
1965	3,600,398	5,088,477	734,075	38,219	2,737	6,901	781,932	59,015,510	63,681,043
1966	9,709,740	15,241,412	2,240,530	44,267	2,929	7,418	2,295,144	127,667,797	132,041,967
1967	18,262,735	54,467,986	6,273,628	48,590	3,304	8,348	6,333,870	191,364,556	197,889,773
1968	16,884,076	59,485,918	2,655,289	39,073	2,521	6,406	2,703,289	195,754,493	201,054,362
1969	17,824,421	35,387,358	406,574	34,948	2,018	5,139	448,679	185,741,762	187,703,569
1970	23,156,102	51,183,466	238,932	30,845	1,730	4,411	275,918	212,267,404	212,667,015
1971	17,551,682	41,282,626	150,696	38,691	2,173	5,513	197,073	163,751,757	163,976,490
1972	4,076,129	2,913,158	124,606	26,010	1,384	3,603	155,603	71,616,748	71,763,943
1973	8,159,128	19,307,267	412,400	21,059	115	2,344	435,918	52,602,337	52,908,507
1974	3,521,289	7,279,132	179,800	19,262	121	365	199,548	21,053,570	21,341,902
1975	1,116,627	1,661,989	7,400	771,934	88,865	204,158	1,072,357	13,627,133	14,011,119
1976	409,667	470,577	22,000	1,606,768	162,529	541,702	2,332,999	5,896,792	6,555,387
1977	96,482	115,882	813,000	4,519,257	384,748	773,176	6,490,181	9,135,973	10,114,007
1978	74,325	87,905	117,000	20,516,076	2,222,485	6,169,547	29,025,108	31,804,672	37,324,182
1979	1,272,959	1,284,599	83,000	18,991,433	798,583	5,005,810	24,878,826	29,663,830	34,942,166
1980	1,834,270	1,841,060	202,000	1,663,000	257,000	777,000	2,899,000	9,486,986	9,866,986
1981	401,580	403,520	225,000	254,000	18,000	46,000	543,000	8,988,873	9,045,873
1982	970	2,910	177,000	141,000	7,000	19,000	344,000	10,271,556	10,288,556
1983	970	2,910	167,000	62,000	0	0	229,000	7,303,045	7,317,045
1984	970	2,910	128,000	0	0	0	128,000	13,038,141	13,040,141
1985	970	2,910	385,000	0	0	0	385,000	8,863,790	8,865,790
TOTAL	130,493,427	302,078,655	16,148,399	49,043,163	3,979,032	13,618,615	82,789,209	1,498,565,351	1,563,231,449

a) Includes excess capacity costs in the following years allocated to the Metropolitan Water District and repaid under Article 24(e) of their contract; 1970, $362,000; 1971, $6,198,000; 1972, $139,000.

TABLE B-11: MINIMUM OMP&R COSTS OF EACH AQUEDUCT REACH TO BE

(in dollars)

Calendar Year	UPPER FEATHER DIVISION	NORTH BAY AQUEDUCT				SOUTH BAY AQUEDUCT			
		Reach 1	Reach 2	Reach 3	Total	Reach 1	Reach 2	Reach 4	Reach 5
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1962	0	0	0	0	0	36,867	5,993	0	0
1963	0	0	0	0	0	145,898	20,414	0	0
1964	0	0	0	0	0	146,565	12,375	19,235	0
1965	0	0	0	0	0	255,288	45,813	46,355	0
1966	0	0	0	0	0	259,685	31,651	63,213	0
1967	0	0	0	0	0	411,223	33,983	107,681	0
1968	0	0	0	0	0	346,045	28,114	61,732	0
1969	0	0	0	90,198	90,198	432,528	43,900	69,849	0
1970	0	0	0	95,056	95,056	352,674	41,498	61,225	108,001
1971	59	0	0	39,581	39,581	329,490	28,483	49,321	45,860
1972	80	0	0	39,317	39,317	332,905	31,697	59,572	152,844
1973	229	0	0	39,070	39,070	305,203	39,256	49,902	106,878
1974	234	0	0	41,739	41,739	322,900	43,109	51,891	109,878
1975	237	0	0	42,582	42,582	318,750	42,225	50,957	108,948
1976	229	0	0	44,463	44,463	315,808	41,829	50,449	107,960
1977	221	0	0	49,654	49,654	313,744	41,683	50,388	107,517
1978	220	0	0	57,533	57,533	315,254	41,676	50,390	108,458
1979	218	0	0	50,603	50,603	313,157	41,676	50,548	107,823
1980	251	105,562	24,889	60,788	191,239	318,279	42,429	51,374	109,700
1981	258	100,097	24,570	56,229	180,896	319,346	42,601	51,589	110,141
1982	261	99,931	24,484	56,215	180,630	320,747	42,719	51,867	110,557
1983	261	99,989	24,488	58,221	182,698	325,083	43,139	53,275	113,344
1984	245	98,951	24,247	57,785	180,983	324,754	42,839	53,071	113,723
1985	252	99,399	24,359	58,989	182,747	326,832	42,958	53,096	113,869
1986	255	99,480	24,377	58,038	181,895	326,136	43,054	53,329	114,067
1987	256	99,730	24,458	58,094	182,282	325,358	42,985	52,994	113,623
1988	227	97,903	23,987	57,298	179,188	322,085	42,411	52,530	112,140
1989	241	98,909	24,266	57,681	180,856	324,108	42,639	52,592	112,622
1990	241	99,150	24,362	58,681	182,193	325,121	42,657	52,650	112,516
1991	241	99,125	24,352	58,681	182,158	325,101	42,630	52,560	112,236
1992	255	99,951	24,559	59,059	183,569	327,169	42,957	52,962	110,820
1993	260	100,260	24,632	58,212	183,104	326,962	43,028	52,914	112,010
1994	260	100,262	24,633	58,212	183,107	327,932	42,988	52,781	117,781
1995	260	100,248	24,627	58,212	183,087	327,922	42,976	52,737	112,810
1996	257	100,042	24,577	59,111	183,730	327,385	42,911	52,711	112,684
1997	257	100,032	24,574	58,111	182,717	327,385	42,912	52,713	112,685
1998	257	100,069	24,588	58,111	182,768	327,380	42,906	52,692	112,663
1999	257	100,027	24,572	58,111	182,710	327,401	42,934	52,787	112,769
2000	257	99,970	24,549	58,111	182,630	327,377	42,901	52,677	112,645
2001	257	100,002	24,561	58,111	182,674	327,369	42,891	52,643	112,608
2002	257	100,048	24,580	58,111	182,739	327,388	42,916	52,728	112,702
2003	257	100,048	24,580	58,111	182,739	327,388	42,917	52,732	112,707
2004	257	100,017	24,568	58,111	182,696	327,371	42,893	52,652	112,617
2005	257	100,002	24,561	58,111	182,674	327,336	42,846	52,491	112,438
2006	257	100,017	24,568	58,111	182,696	327,360	42,879	52,600	112,561
2007	257	99,986	24,555	58,111	182,652	327,333	42,843	52,479	112,424
2008	257	100,048	24,580	58,111	182,739	327,390	42,919	52,736	112,712
2009	257	100,002	24,561	58,111	182,674	327,369	42,891	52,642	112,606
2010	257	100,048	24,580	58,111	182,739	327,383	42,910	52,708	112,681
2011	257	100,064	24,586	58,111	182,761	327,413	42,949	52,837	112,826
2012	257	100,002	24,561	58,111	182,674	327,356	42,874	52,586	112,544
2013	257	100,017	24,568	58,111	182,696	327,387	42,914	52,724	112,699
2014	257	100,048	24,580	58,111	182,739	327,365	42,885	52,623	112,585
2015	257	100,002	24,561	58,111	182,674	327,342	42,855	52,522	112,472
2016	257	100,017	24,568	58,111	182,696	327,394	42,924	52,754	112,733
2017	257	100,002	24,561	58,111	182,674	327,344	42,858	52,530	112,482
2018	257	100,017	24,568	58,111	182,696	327,344	42,858	52,530	112,480
2019	257	99,970	24,549	58,111	182,630	327,328	42,836	52,459	112,401
2020(a	257	100,017	24,568	58,111	182,696	327,392	42,921	52,744	112,721

a) And each year thereafter for the remainder of the project repayment period.

REIMBURSED THRU MINIMUM OMP&R COMPONENT OF TRANSPORTATION CHARGE

(in dollars)

Calendar Year	SOUTH BAY AQUEDUCT (continued)					CALIFORNIA AQUEDUCT			
						NORTH SAN JOAQUIN DIVISION			
	Reach 6	Reach 7	Reach 8	Reach 9	Total	Reach 1	Reach 2A	Reach 2B	Subtotal
	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1962	0	0	0	0	42,860	0	0	0	0
1963	0	0	0	0	166,312	0	0	0	0
1964	0	0	0	0	178,175	0	0	0	0
1965	2,111	7,137	5,060	12,566	374,330	0	0	0	0
1966	3,824	11,461	10,188	24,250	404,272	0	0	0	0
1967	1,806	9,606	14,016	31,040	609,355	0	0	0	0
1968	1,346	9,778	13,981	32,514	493,510	990,932	278,900	117,386	1,387,218
1969	1,580	6,851	10,788	31,501	596,997	927,964	328,346	192,366	1,448,676
1970	1,556	5,535	8,366	25,065	603,920	967,920	315,667	151,422	1,435,009
1971	1,129	5,061	10,832	28,250	498,426	1,089,373	275,799	119,959	1,485,131
1972	3,234	12,491	14,933	43,138	650,814	1,045,880	278,994	138,532	1,463,406
1973	5,174	8,532	6,350	30,567	551,862	1,127,614	238,283	116,962	1,482,859
1974	7,022	8,277	6,941	33,372	583,390	1,289,710	257,012	138,443	1,685,165
1975	6,930	7,874	6,780	33,588	576,052	1,400,891	280,472	151,050	1,832,413
1976	6,800	7,738	6,588	33,263	570,435	1,403,766	280,100	150,553	1,834,419
1977	6,767	7,701	6,556	32,943	567,299	1,381,787	278,457	149,972	1,810,216
1978	6,765	7,699	6,555	32,933	569,730	1,376,856	275,653	148,507	1,801,016
1979	6,753	7,687	6,543	32,876	567,063	1,504,292	279,838	150,655	1,934,785
1980	6,882	7,833	6,667	33,527	576,691	1,401,462	283,768	152,816	1,838,046
1981	6,910	7,863	6,694	33,664	578,808	1,416,843	286,232	154,115	1,857,190
1982	6,918	7,874	6,702	33,709	581,093	1,411,347	287,060	154,550	1,852,957
1983	6,919	7,874	6,703	33,712	590,049	1,417,651	292,082	157,143	1,866,876
1984	6,858	7,806	6,645	33,404	589,100	1,404,663	289,270	155,629	1,849,562
1985	6,886	7,839	6,672	33,548	591,700	1,401,266	288,049	155,027	1,844,342
1986	6,893	7,846	6,679	33,508	591,512	1,400,125	291,128	156,601	1,847,854
1987	6,901	7,854	6,687	33,546	589,948	1,400,213	290,380	156,222	1,846,815
1988	6,791	7,728	6,579	33,007	583,271	1,524,249	287,964	154,867	1,967,080
1989	6,845	7,789	6,630	33,267	586,492	1,389,624	288,538	155,217	1,833,379
1990	6,845	7,789	6,630	33,267	587,475	1,390,878	288,138	155,009	1,834,025
1991	6,845	7,789	6,630	33,267	587,058	1,390,876	288,099	154,989	1,833,964
1992	6,897	7,849	6,682	33,523	588,859	1,401,316	291,894	156,998	1,850,208
1993	6,919	7,873	6,702	33,628	590,036	1,404,798	291,923	157,033	1,853,754
1994	6,919	7,873	6,702	33,628	596,604	1,405,394	291,292	156,708	1,853,394
1995	6,919	7,873	6,702	33,628	591,567	1,405,348	290,659	156,381	1,852,388
1996	6,904	7,857	6,689	33,558	590,699	1,403,226	290,189	156,126	1,849,541
1997	6,904	7,857	6,689	33,558	590,703	1,402,622	290,687	156,383	1,849,692
1998	6,904	7,857	6,689	33,558	590,649	1,402,523	289,328	155,683	1,847,534
1999	6,904	7,857	6,689	33,558	590,899	1,402,604	290,448	156,259	1,849,311
2000	6,904	7,857	6,689	33,558	590,608	1,402,683	291,550	156,829	1,851,062
2001	6,904	7,857	6,689	33,558	590,519	1,402,627	290,769	156,426	1,849,822
2002	6,904	7,857	6,689	33,558	590,742	1,402,581	290,116	156,088	1,848,785
2003	6,904	7,857	6,689	33,558	590,752	1,402,548	289,669	155,859	1,848,076
2004	6,904	7,857	6,689	33,558	590,541	1,402,609	290,520	156,297	1,849,426
2005	6,904	7,857	6,689	33,558	590,119	1,402,541	289,565	155,804	1,847,910
2006	6,904	7,857	6,689	33,558	590,408	1,402,569	289,965	156,011	1,848,545
2007	6,904	7,857	6,689	33,558	590,087	1,402,581	290,116	156,088	1,848,785
2008	6,904	7,857	6,689	33,558	590,765	1,402,578	290,085	156,072	1,848,735
2009	6,904	7,857	6,689	33,558	590,516	1,402,627	290,765	156,423	1,849,815
2010	6,904	7,857	6,689	33,558	590,690	1,402,531	289,434	155,736	1,847,701
2011	6,904	7,857	6,689	33,558	591,033	1,402,581	290,122	156,092	1,848,795
2012	6,904	7,857	6,689	33,558	590,368	1,402,602	290,420	156,246	1,849,268
2013	6,904	7,857	6,689	33,558	590,732	1,402,642	290,964	156,526	1,850,132
2014	6,904	7,857	6,689	33,558	590,466	1,402,528	289,387	155,713	1,847,628
2015	6,904	7,857	6,689	33,558	590,199	1,402,573	290,013	156,035	1,848,621
2016	6,904	7,857	6,689	33,558	590,813	1,402,669	291,339	156,720	1,850,728
2017	6,904	7,857	6,689	33,558	590,222	1,402,581	290,121	156,091	1,848,793
2018	6,904	7,857	6,689	33,558	590,220	1,402,514	289,202	155,617	1,847,333
2019	6,904	7,857	6,689	33,558	590,032	1,402,575	290,046	156,054	1,848,675
2020 (a	6,904	7,857	6,689	33,558	590,786	1,402,649	291,069	156,581	1,850,299

TABLE B-11: MINIMUM OMP&R COSTS OF EACH AQUEDUCT REACH TO BE

(in dollars)

Calendar Year	CALIFORNIA AQUEDUCT (continued)								
	SAN LUIS DIVISION						SOUTH SAN JOAQUIN DIVISION		
	Reach 3	Reach 4	Reach 5	Reach 6	Reach 7	Subtotal	Reach 8C	Reach 8D	Reach 9
	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)
1962	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0
1968	93,796	230,462	87,640	34,475	63,111	509,484	0	0	0
1969	94,522	425,065	191,615	56,119	249,278	1,016,599	10,692	132,687	107,158
1970	92,817	445,777	229,370	71,401	190,699	1,030,064	12,122	156,493	155,306
1971	100,566	507,881	182,758	70,483	163,052	1,024,740	25,914	180,659	120,236
1972	110,994	578,623	187,332	82,136	155,081	1,114,166	22,264	175,964	141,629
1973	128,833	637,798	149,052	51,953	99,623	1,067,259	34,586	186,328	146,167
1974	133,859	678,548	155,090	53,894	103,658	1,125,049	35,541	192,161	150,779
1975	132,594	672,471	154,208	53,591	102,641	1,115,505	35,183	188,798	148,139
1976	130,856	665,469	152,716	53,054	101,459	1,103,554	34,927	187,846	147,146
1977	131,274	662,470	153,833	53,442	101,894	1,102,913	34,679	187,021	146,777
1978	130,086	662,578	152,631	53,028	101,374	1,099,697	34,650	186,310	145,732
1979	131,688	655,645	154,089	53,477	101,420	1,096,319	34,641	187,266	147,140
1980	134,825	670,919	156,723	54,408	103,464	1,120,339	35,139	189,755	148,963
1981	136,623	673,904	158,646	55,046	104,456	1,128,675	35,305	191,087	150,104
1982	137,224	677,215	159,519	55,331	104,879	1,134,168	35,363	191,650	150,595
1983	140,359	692,386	175,634	60,898	112,246	1,181,523	35,443	194,257	153,077
1984	138,024	687,704	174,736	60,616	111,488	1,172,568	35,116	192,692	151,874
1985	137,537	688,665	170,505	59,160	109,742	1,165,609	35,242	192,518	151,575
1986	139,552	685,584	164,516	56,925	106,658	1,153,235	35,245	193,908	152,866
1987	139,158	683,956	163,709	56,676	106,395	1,149,894	35,272	193,598	152,532
1988	136,808	671,621	162,201	56,086	104,789	1,131,505	34,718	191,611	151,169
1989	137,456	678,600	162,668	56,293	105,521	1,140,538	34,977	192,320	151,590
1990	137,208	680,440	162,639	56,283	105,510	1,142,080	34,976	192,306	151,577
1991	137,184	679,497	162,617	56,277	105,501	1,141,076	34,976	192,295	151,566
1992	140,056	686,440	165,356	57,197	107,021	1,156,070	35,273	194,378	153,297
1993	140,278	688,385	165,159	57,152	107,111	1,158,085	35,373	194,554	153,365
1994	139,886	688,028	164,621	56,979	106,894	1,156,408	35,365	194,280	153,102
1995	139,491	687,672	164,085	56,808	106,678	1,154,734	35,357	194,005	152,842
1996	139,063	686,147	163,859	56,724	106,477	1,152,270	35,285	193,707	152,624
1997	139,373	686,372	164,199	56,832	106,614	1,153,390	35,290	193,879	152,790
1998	138,527	685,705	163,195	56,512	106,209	1,150,148	35,274	193,366	152,300
1999	139,223	686,318	164,118	56,806	106,580	1,153,045	35,288	193,837	152,750
2000	139,910	686,783	164,818	57,030	106,862	1,155,403	35,299	194,197	153,091
2001	139,424	686,376	164,205	56,834	106,615	1,153,454	35,290	193,883	152,791
2002	139,015	686,168	163,891	56,733	106,489	1,152,296	35,285	193,723	152,639
2003	138,740	685,913	163,507	56,611	106,335	1,151,106	35,279	193,527	152,454
2004	139,269	686,273	164,049	56,785	106,552	1,152,928	35,287	193,804	152,716
2005	138,674	685,697	163,181	56,507	106,204	1,150,263	35,274	193,360	152,293
2006	138,925	685,963	163,582	56,636	106,366	1,151,472	35,280	193,566	152,490
2007	139,016	685,916	163,510	56,612	106,336	1,151,390	35,279	193,529	152,454
2008	138,997	686,172	163,896	56,735	106,492	1,152,292	35,285	193,726	152,642
2009	139,421	686,424	164,275	56,857	106,644	1,153,621	35,291	193,919	152,827
2010	138,592	685,837	163,393	56,575	106,288	1,150,685	35,278	193,468	152,396
2011	139,020	686,272	164,048	56,784	106,554	1,152,678	35,288	193,802	152,716
2012	139,207	686,176	163,904	56,738	106,495	1,152,520	35,285	193,729	152,646
2013	139,546	686,565	164,490	56,926	106,731	1,154,258	35,295	194,029	152,931
2014	138,563	685,671	163,142	56,495	106,188	1,150,059	35,273	193,339	152,275
2015	138,954	685,939	163,546	56,624	106,350	1,151,413	35,280	193,546	152,472
2016	139,780	686,797	164,838	57,036	106,870	1,155,321	35,299	194,207	153,101
2017	139,020	685,939	163,546	56,624	106,351	1,151,480	35,280	193,547	152,472
2018	138,447	685,538	162,941	56,430	106,107	1,149,463	35,271	193,238	152,178
2019	138,974	685,865	163,436	56,589	106,306	1,151,170	35,279	193,490	152,418
2020 (a	139,612	686,584	164,519	56,934	106,743	1,154,392	35,295	194,043	152,945

REIMBURSED THRU MINIMUM OMP&R COMPONENT OF TRANSPORTATION CHARGE

(in dollars)

Calendar Year	CALIFORNIA AQUEDUCT (continued)								
	SOUTH SAN JOAQUIN DIVISION (continued)								
	Reach 10A	Reach 11B	Reach 12D	Reach 12E	Reach 13B	Reach 14A	Reach 14B	Reach 14C	Reach 15A
	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
1962	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0
1969	111,835	69,508	0	0	0	0	0	0	0
1970	154,589	99,112	136,990	136,230	144,599	0	0	0	0
1971	134,187	79,161	103,241	90,323	154,935	619,893	148,005	109,886	473,515
1972	137,177	89,084	123,131	118,057	135,583	788,742	127,653	106,606	545,892
1973	135,660	96,188	122,660	108,668	178,001	824,531	158,455	117,653	635,571
1974	140,155	98,344	123,153	110,135	182,352	846,960	159,775	120,631	647,061
1975	137,485	95,357	117,304	106,684	178,270	827,691	153,475	117,732	631,570
1976	136,797	94,675	116,561	106,123	177,162	822,915	152,774	117,150	628,948
1977	136,378	94,396	116,483	105,592	176,311	814,848	152,112	116,606	621,877
1978	135,393	93,679	115,379	104,965	175,297	813,767	151,411	116,004	621,464
1979	136,928	94,500	117,333	105,617	176,533	814,009	153,087	117,130	619,846
1980	138,511	95,722	118,483	107,110	178,883	761,891	155,100	118,793	628,835
1981	139,643	96,426	119,657	107,816	180,106	764,379	156,247	119,629	629,930
1982	140,140	96,729	120,193	108,106	180,617	767,921	157,062	120,205	631,644
1983	142,782	98,200	123,403	109,356	182,923	778,004	160,206	122,358	638,027
1984	141,685	97,417	122,525	108,456	181,436	775,303	159,500	121,758	635,732
1985	141,280	97,273	121,816	108,446	181,332	778,738	159,436	121,767	638,550
1986	142,633	98,047	123,414	109,126	182,570	779,938	160,657	122,618	639,296
1987	142,256	97,858	122,894	108,996	182,310	777,953	160,246	122,349	638,829
1988	141,136	96,925	122,370	107,775	180,366	770,972	159,245	121,454	631,234
1989	141,424	97,234	122,316	108,244	181,083	774,243	159,345	121,626	634,836
1990	141,409	97,225	122,297	108,237	181,071	776,867	159,885	121,995	636,881
1991	141,398	97,220	122,286	108,233	181,061	776,789	159,831	121,957	636,862
1992	143,085	98,305	123,941	109,357	182,991	781,718	161,787	123,395	639,878
1993	143,091	98,369	123,788	109,495	183,182	782,625	161,543	123,269	641,177
1994	142,812	98,213	123,447	109,363	182,940	782,335	161,340	123,130	641,170
1995	142,534	98,059	123,110	109,233	182,698	781,914	161,044	122,927	641,109
1996	142,345	97,914	122,986	109,055	182,410	781,819	160,905	122,803	641,085
1997	142,521	98,012	123,200	109,138	182,563	780,994	160,979	122,853	640,219
1998	141,999	97,722	122,566	108,892	182,109	780,757	160,812	122,740	640,214
1999	142,479	97,989	123,149	109,117	182,527	781,107	161,059	122,910	640,266
2000	142,841	98,191	123,590	109,289	182,842	781,688	161,469	123,188	640,307
2001	142,524	98,014	123,203	109,138	182,566	781,368	161,243	123,034	640,286
2002	142,362	97,923	123,006	109,062	182,423	781,455	161,303	123,075	640,353
2003	142,163	97,813	122,764	108,968	182,251	781,143	161,084	122,926	640,305
2004	142,444	97,969	123,105	109,100	182,495	781,180	161,110	122,943	640,316
2005	141,994	97,719	122,558	108,888	182,104	780,461	160,603	122,598	640,140
2006	142,202	97,835	122,812	108,986	182,286	780,718	160,785	122,722	640,233
2007	142,165	97,813	122,766	108,969	182,252	780,463	160,606	122,598	640,161
2008	142,365	97,925	123,010	109,062	182,426	781,506	161,339	123,101	640,377
2009	142,561	98,034	123,248	109,155	182,598	781,521	161,349	123,107	640,335
2010	142,104	97,780	122,691	108,940	182,199	781,157	161,095	122,934	640,336
2011	142,444	97,969	123,105	109,101	182,495	781,811	161,554	123,247	640,450
2012	142,368	97,928	123,014	109,065	182,430	780,900	160,913	122,809	640,252
2013	142,672	98,095	123,385	109,209	182,694	781,734	161,502	123,211	640,369
2014	141,973	97,708	122,534	108,879	182,086	780,572	160,682	122,651	640,186
2015	142,184	97,824	122,788	108,979	182,268	780,622	160,719	122,675	640,212
2016	142,854	98,197	123,604	109,293	182,852	782,117	161,770	123,395	640,453
2017	142,183	97,824	122,789	108,977	182,268	780,585	160,692	122,658	640,139
2018	141,870	97,649	122,407	108,830	181,996	780,381	160,548	122,558	640,163
2019	142,125	97,793	122,718	108,951	182,218	780,332	160,515	122,536	640,135
2020 (a	142,687	98,105	123,401	109,215	182,707	781,391	161,256	123,045	640,320

TABLE B-11: MINIMUM OMP&R COSTS OF EACH AQUEDUCT REACH TO BE

(in dollars)

Calendar Year	CALIFORNIA AQUEDUCT (continued)								
	SOUTH SAN JOAQUIN DIVISION (continued)		TEHACHAPI DIVISION			MOJAVE DIVISION			
	Reach 16A	Subtotal	Reach 17E	Reach 17F	Subtotal	Reach 18A	Reach 19	Reach 19C	Reach 20A
	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)
1962	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0
1969	0	431,880	0	0	0	0	0	0	0
1970	0	995,441	0	0	0	0	0	0	0
1971	95,208-	2,144,747	76,039-	0	76,039-	0	0	0	0
1972	970,860	3,482,642	1,251,274	29,096	1,280,370	74,442	167,155	0	172,636
1973	956,110	3,700,578	1,366,186	11,120	1,377,306	46,934	277,666	0	211,193
1974	977,400	3,784,447	1,401,141	11,631	1,412,772	50,580	286,851	0	215,968
1975	955,568	3,693,256	1,359,669	11,983	1,371,652	50,502	289,344	0	216,784
1976	949,729	3,672,753	1,340,208	11,047	1,351,255	50,366	289,670	0	217,605
1977	938,450	3,641,530	1,307,265	9,824	1,317,089	49,923	286,612	0	215,405
1978	936,844	3,630,895	1,303,606	9,914	1,313,520	51,070	292,269	0	220,558
1979	936,809	3,640,839	1,312,484	9,977	1,322,461	51,212	293,102	0	221,541
1980	949,181	3,626,366	1,365,951	10,173	1,376,124	52,083	297,586	0	225,044
1981	950,590	3,640,919	1,371,021	10,166	1,381,187	51,933	297,508	0	224,764
1982	954,227	3,654,452	1,378,540	10,259	1,388,799	52,434	299,943	0	227,004
1983	964,418	3,702,454	1,388,376	10,585	1,398,961	54,101	307,859	0	234,501
1984	962,309	3,685,803	1,356,810	10,615	1,367,425	54,280	308,284	0	235,358
1985	965,493	3,693,466	1,355,187	10,641	1,365,828	54,403	309,063	0	235,882
1986	967,280	3,707,598	1,353,927	10,642	1,364,569	54,410	309,083	5,664	235,709
1987	965,990	3,701,083	1,349,132	10,701	1,359,833	54,703	310,531	5,671	237,016
1988	957,975	3,666,950	1,341,883	10,619	1,352,502	54,323	307,943	5,568	235,441
1989	961,956	3,681,194	1,347,165	10,685	1,357,850	54,643	309,836	5,618	236,813
1990	965,404	3,690,130	1,353,668	10,893	1,364,561	55,716	314,942	5,618	241,650
1991	965,267	3,689,741	1,352,739	10,869	1,363,608	55,603	314,402	5,618	241,136
1992	971,016	3,718,421	1,357,016	11,046	1,368,062	56,499	319,024	5,666	245,101
1993	970,929	3,720,760	1,357,268	10,901	1,368,169	55,733	315,543	5,687	241,637
1994	972,041	3,719,538	1,358,197	11,086	1,369,283	56,690	320,088	5,687	245,943
1995	971,858	3,716,690	1,359,126	11,078	1,370,204	56,649	319,900	5,687	245,764
1996	970,804	3,713,742	1,359,587	11,097	1,370,684	56,756	320,300	5,672	246,257
1997	971,282	3,713,720	1,358,658	11,083	1,369,741	56,678	319,918	5,672	245,893
1998	971,493	3,710,244	1,358,658	11,135	1,369,793	56,964	321,286	5,672	247,188
1999	971,658	3,714,136	1,358,658	11,149	1,369,807	57,025	321,573	5,672	247,462
2000	971,829	3,717,821	1,358,658	11,202	1,369,860	57,293	322,844	5,672	248,663
2001	971,981	3,715,321	1,358,658	11,146	1,369,804	57,006	321,485	5,672	247,377
2002	972,117	3,714,726	1,358,658	11,230	1,369,888	57,436	323,520	5,672	249,308
2003	972,445	3,713,122	1,358,658	11,247	1,369,905	57,525	323,946	5,672	249,710
2004	971,985	3,714,454	1,358,658	11,236	1,369,894	57,464	323,655	5,672	249,435
2005	971,409	3,709,401	1,358,658	11,202	1,369,860	57,288	322,812	5,672	248,636
2006	971,608	3,711,523	1,358,658	11,188	1,369,846	57,229	322,541	5,672	248,378
2007	971,146	3,710,201	1,358,658	11,114	1,369,772	56,845	320,723	5,672	246,657
2008	972,272	3,715,036	1,358,658	11,266	1,369,924	57,636	324,474	5,672	250,210
2009	971,808	3,715,753	1,358,658	11,175	1,369,833	57,157	322,192	5,672	248,049
2010	972,200	3,712,578	1,358,658	11,276	1,369,934	57,681	324,681	5,672	250,406
2011	972,708	3,716,690	1,358,658	11,334	1,369,992	57,978	326,098	5,672	251,747
2012	971,568	3,712,907	1,358,658	11,177	1,369,835	57,175	322,285	5,672	248,137
2013	972,398	3,717,524	1,358,658	11,321	1,369,979	57,914	325,797	5,672	251,464
2014	971,703	3,709,861	1,358,658	11,260	1,369,918	57,588	324,248	5,672	249,994
2015	971,461	3,711,030	1,358,658	11,176	1,369,834	57,164	322,235	5,672	248,086
2016	972,368	3,719,510	1,358,658	11,258	1,369,916	57,576	324,189	5,672	249,939
2017	971,176	3,710,590	1,358,658	11,151	1,369,809	57,029	321,589	5,672	247,475
2018	971,598	3,708,687	1,358,658	11,163	1,369,821	57,084	321,853	5,672	247,725
2019	970,969	3,709,479	1,358,658	11,098	1,369,756	56,753	320,287	5,672	246,241
2020 (a	971,761	3,716,171	1,358,658	11,184	1,369,842	57,193	322,372	5,672	248,220

REIMBURSED THRU MINIMUM OMP&R COMPONENT OF TRANSPORTATION CHARGE

(in dollars)

Calendar Year	CALIFORNIA AQUEDUCT (continued)								
	MOJAVE DIVISION (continued)							SANTA ANA DIVISION	
	Reach 20B	Reach 21	Reach 22A	Reach 22B	Reach 23	Reach 24	Subtotal	Reach 25	Reach 26A
	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)
1962	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0
1971	0	0	0	8,590-	0	0	8,590-	0	0
1972	161,152	125,254	89,301	1,137,414	39,145	263,194	2,229,693	0	0
1973	204,118	101,363	78,731	1,012,290	15,708	213,677	2,161,680	10,819	736,730
1974	207,178	107,022	80,489	1,040,040	16,791	204,177	2,209,096	12,549	899,102
1975	207,720	111,900	80,297	1,056,688	15,430	209,042	2,237,707	11,643	873,713
1976	208,160	112,281	80,076	1,015,705	14,782	131,154-	1,857,491	11,130	843,447
1977	206,128	111,179	79,152	995,732	14,571	205,988	2,164,690	10,909	829,046
1978	210,658	113,707	80,306	1,015,636	14,567	279,335	2,278,106	10,767	821,008
1979	211,504	114,173	80,354	1,014,064	14,987	459,432	2,460,369	10,840	825,187
1980	214,833	115,953	81,561	1,028,590	14,714	326,203	2,356,567	10,969	838,321
1981	214,536	115,818	81,555	1,026,548	14,768	33,957	2,061,387	11,014	841,932
1982	216,541	116,942	82,034	1,037,124	14,786	258,542	2,305,350	11,031	842,848
1983	223,205	120,688	83,495	1,070,352	14,786	636,101	2,745,088	11,031	844,777
1984	223,872	121,105	83,348	1,077,326	14,662	208,762	2,326,997	10,927	838,562
1985	224,381	121,374	83,597	1,081,679	14,721	26,050-	2,099,050	10,977	841,478
1986	224,422	121,395	83,638	1,079,854	14,735	336,300	2,465,210	10,920	842,166
1987	225,602	122,049	83,936	1,084,746	14,751	117,498	2,256,503	10,932	842,042
1988	223,971	121,210	83,047	1,075,961	14,525	494,765	2,616,754	10,760	830,703
1989	225,301	121,919	83,595	1,081,104	14,635	186,758-	1,946,706	10,842	837,094
1990	229,602	124,337	84,535	1,096,641	14,635	92,639	2,260,315	10,842	837,094
1991	229,143	124,080	84,435	1,097,479	14,635	271;518	2,438,049	10,842	837,094
1992	232,776	126,089	85,482	1,105,906	14,742	767,291	2,958,576	10,924	841,549
1993	229,741	124,367	84,919	1,098,567	14,786	150,758	2,321,738	10,956	844,660
1994	233,568	126,521	85,756	1,111,402	14,786	107,066-	2,093,375	10,956	844,660
1995	233,410	126,429	85,721	1,109,812	14,786	709,182	2,907,340	10,956	844,660
1996	233,818	126,670	85,744	1,112,958	14,756	452,886	2,655,817	10,934	843,216
1997	233,496	126,489	85,674	1,111,808	14,756	3,264-	2,197,120	10,934	843,216
1998	234,647	127,139	85,926	1,116,917	14,756	21,337-	2,189,158	10,934	843,216
1999	234,888	127,271	85,979	1,116,656	14,756	248,161	2,459,443	10,934	843,216
2000	235,958	127,875	86,213	1,117,443	14,756	554,124	2,770,841	10,934	843,216
2001	234,812	127,229	85,964	1,111,707	14,756	543,801	2,749,809	10,934	843,216
2002	236,528	128,195	86,337	1,120,339	14,756	303,485-	1,918,606	10,934	843,216
2003	236,885	128,396	86,416	1,120,155	14,756	441,958	2,665,419	10,934	843,216
2004	236,642	128,258	86,364	1,118,667	14,756	239,278	2,460,191	10,934	843,216
2005	235,933	127,861	86,208	1,117,500	14,756	771,229	2,987,895	10,934	843,216
2006	235,703	127,733	86,158	1,116,234	14,756	337,717-	1,876,687	10,934	843,216
2007	234,171	126,868	85,821	1,110,961	14,756	997,633	3,200,107	10,934	843,216
2008	237,330	128,646	86,513	1,124,695	14,756	366,315	2,596,247	10,934	843,216
2009	235,410	127,568	86,093	1,114,105	14,756	102,962	2,313,964	10,934	843,216
2010	237,506	128,745	86,552	1,126,011	14,756	307,152	2,539,162	10,934	843,216
2011	238,698	129,417	86,812	1,128,218	14,756	393,133-	1,846,263	10,934	843,216
2012	235,489	127,611	86,113	1,115,194	14,756	1,133,220	3,345,652	10,934	843,216
2013	238,445	129,273	86,757	1,125,594	14,756	257,864-	1,977,808	10,934	843,216
2014	237,143	128,540	86,473	1,119,757	14,756	724,332	2,948,503	10,934	843,216
2015	235,445	127,586	86,102	1,116,422	14,756	221,477	2,434,945	10,934	843,216
2016	237,091	128,510	86,461	1,119,717	14,756	275,329	2,499,240	10,934	843,216
2017	234,900	127,276	85,981	1,113,026	14,756	355,149-	1,852,555	10,934	843,216
2018	235,124	127,405	86,030	1,114,948	14,756	1,047,202	3,257,799	10,934	843,216
2019	233,804	126,663	85,741	1,109,195	14,756	360,313-	1,838,799	10,934	843,216
2020 (a	235,563	127,653	86,126	1,115,048	14,756	279,316	2,491,919	10,934	843,216

TABLE B-11: MINIMUM OMP&R COSTS OF EACH AQUEDUCT REACH TO BE

(in dollars)

Calendar Year	CALIFORNIA AQUEDUCT (continued)								
	SANTA ANA DIVISION (continued)				WEST BRANCH				
	Reach 28G	Reach 28H	Reach 28J	Subtotal	Reach 29A	Reach 29F	Reach 29G	Reach 29H	Reach 29J
	(55)	(56)	(57)	(58)	(59)	(60)	(61)	(62)	(63)
1962	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	10,748-	0	0	0	0
1972	0	0	0	0	677,796	107,359	296,461	130,205	107,485
1973	43,201	0	0	790,750	687,872	330,130	146,130	178,889	172,051
1974	50,761	64,615	134,218	1,161,245	700,571	346,655	219,824	207,097	175,171
1975	48,296	63,494	93,107-	904,039	664,733	335,340	252,954	174,928	150,922
1976	46,866	61,670	440,336	1,403,449	659,219	335,953	306,165	184,524	145,170
1977	46,153	60,882	1,681-	945,309	653,816	340,232	282,604	184,265	137,159
1978	45,769	60,168	114,958	1,052,670	653,275	347,679	232,941	193,998	131,617
1979	45,876	60,347	514,641	1,456,891	651,647	342,171	193,799	197,281	136,680
1980	46,859	61,558	115,121-	842,586	663,958	337,909	205,334	201,229	139,778
1981	47,048	61,794	249,659	1,211,447	666,287	338,519	181,252	199,406	140,631
1982	47,110	61,871	224,305	1,187,165	668,309	340,348	182,352	204,109	140,718
1983	47,114	61,878	234,539	1,199,339	671,199	345,223	190,458	219,934	142,582
1984	46,694	61,350	210,270	1,167,803	666,010	343,984	190,224	224,408	142,000
1985	46,891	61,598	302,750	1,263,694	669,498	345,198	190,664	224,376	142,273
1986	46,938	61,656	127,864	1,089,544	670,014	345,389	190,714	224,051	145,055
1987	46,992	61,724	150,758	1,112,448	670,919	346,713	190,422	227,268	153,491
1988	46,224	60,761	418,816	1,367,264	662,001	342,482	188,971	229,018	152,449
1989	46,595	61,225	42,932	998,688	666,949	345,542	191,131	231,512	159,454
1990	46,595	61,225	244,426	1,200,182	667,656	349,080	192,971	243,062	159,454
1991	46,595	61,225	178,079	1,133,835	667,583	348,709	193,707	241,851	161,312
1992	46,959	61,683	273,098	1,234,213	672,748	353,166	193,811	249,006	160,877
1993	47,107	61,868	238,024	1,202,615	674,134	351,448	193,705	240,404	161,079
1994	47,107	61,868	282,023	1,246,614	674,774	354,643	196,293	250,833	162,937
1995	47,107	61,868	214,000	1,178,591	674,722	354,386	196,158	249,989	162,008
1996	47,009	61,746	144,725	1,107,630	673,560	354,307	195,285	251,722	163,732
1997	47,009	61,746	242,600	1,205,505	673,528	354,150	195,204	251,197	165,590
1998	47,009	61,746	315,035	1,277,940	673,763	355,315	195,811	255,011	165,590
1999	47,009	61,746	333,048	1,295,953	673,812	355,565	195,940	255,817	165,590
2000	47,009	61,746	250,509	1,213,414	673,937	356,186	196,260	257,840	165,590
2001	47,009	61,746	260,884	1,223,789	673,776	355,381	195,844	255,220	165,590
2002	47,009	61,746	148,726	1,111,631	674,096	356,983	196,675	260,446	165,590
2003	47,009	61,746	506,747	1,469,652	674,121	357,122	196,747	260,897	165,590
2004	47,009	61,746	151,718	1,114,623	674,108	357,044	196,708	260,642	165,590
2005	47,009	61,746	295,976	1,258,881	673,941	356,217	196,278	257,951	165,590
2006	47,009	61,746	297,409	1,260,314	673,907	356,046	196,186	257,384	165,590
2007	47,009	61,746	190,102	1,153,007	673,705	355,025	195,655	254,054	165,590
2008	47,009	61,746	244,299	1,207,204	674,212	357,574	196,984	262,376	165,590
2009	47,009	61,746	336,297	1,299,202	673,924	356,126	196,230	257,653	165,590
2010	47,009	61,746	187,755	1,150,660	674,279	357,890	197,147	263,409	165,590
2011	47,009	61,746	263,756	1,226,661	674,469	358,844	197,644	266,522	165,590
2012	47,009	61,746	444,228	1,407,133	673,902	356,010	196,172	257,272	165,590
2013	47,009	61,746	27,592	990,497	674,385	358,430	197,430	265,167	165,590
2014	47,009	61,746	511,688	1,474,593	674,184	357,413	196,897	261,847	165,590
2015	47,009	61,746	320,051	1,282,956	673,886	355,932	196,130	257,018	165,590
2016	47,009	61,746	317,989	1,280,894	674,120	357,097	196,735	260,819	165,590
2017	47,009	61,746	141,833	1,104,738	673,786	355,440	195,872	255,406	165,590
2018	47,009	61,746	433,495	1,396,400	673,852	355,767	196,042	256,476	165,590
2019	47,009	61,746	8,003	970,908	673,680	354,902	195,594	253,662	165,590
2020 (a	47,009	61,746	256,758	1,219,663	673,945	356,236	196,288	258,005	165,590

REIMBURSED THRU MINIMUM OMP&R COMPONENT OF TRANSPORTATION CHARGE

(in dollars)

Calendar Year	CALIFORNIA AQUEDUCT (continued)								GRAND TOTAL
	WEST BRANCH (continued)		COASTAL BRANCH					TOTAL	
	Reach 30	Subtotal	Reach 31A	Reach 33A	Reach 34	Reach 35	Subtotal		
	(64)	(65)	(66)	(67)	(68)	(69)	(70)	(71)	(72)
1962	0	0	0	0	0	0	0	0	42,860
1963	0	0	0	0	0	0	0	0	166,312
1964	0	0	0	0	0	0	0	0	178,175
1965	0	0	0	0	0	0	0	0	374,330
1966	0	0	0	0	0	0	0	0	404,272
1967	0	0	0	0	0	0	0	0	609,355
1968	0	0	0	0	0	0	0	1,896,702	2,390,212
1969	0	0	479,249	0	0	0	479,249	3,376,404	4,063,599
1970	0	0	561,068	0	0	0	561,068	4,021,582	4,720,558
1971	0	10,748-	677,159	0	0	0	677,159	5,236,400	5,774,466
1972	419,386	1,738,692	624,164	0	0	0	624,164	11,933,133	12,623,344
1973	597,934	2,113,006	614,597	0	0	0	614,597	13,308,035	13,899,196
1974	664,629	2,313,947	620,985	0	0	0	620,985	14,312,706	14,938,069
1975	574,209	2,153,086	612,536	0	0	0	612,536	13,920,194	14,539,065
1976	482,325	2,113,356	610,533	0	0	0	610,533	13,946,810	14,564,137
1977	603,578	2,201,654	606,812	0	0	0	606,812	13,790,213	14,407,387
1978	537,889	2,097,399	609,751	0	0	0	609,751	13,883,054	14,510,537
1979	582,164	2,103,742	607,115	0	0	0	607,115	14,622,521	15,240,405
1980	613,475	2,161,683	612,180	240,733	12,127	24,978	890,018	14,211,729	14,979,910
1981	642,457	2,168,552	610,835	208,893	7,390	14,872	841,990	14,291,347	15,051,309
1982	365,077	1,900,913	608,360	207,251	7,270	14,485	837,366	14,261,170	15,023,154
1983	814,576	2,383,972	611,986	210,076	10,101	19,988	852,151	15,330,364	16,103,372
1984	587,361	2,153,987	608,074	208,160	10,010	19,806	846,050	14,570,195	15,340,523
1985	654,976	2,226,985	610,013	207,919	9,370	18,529	845,831	14,504,805	15,279,504
1986	857,922	2,433,145	610,930	207,841	9,206	18,197	846,174	14,907,329	15,680,991
1987	598,546	2,187,359	610,214	208,459	9,517	18,820	847,010	14,460,945	15,233,431
1988	8,530	1,583,451	601,742	205,576	9,276	18,340	834,934	14,520,440	15,283,126
1989	984,965	2,579,553	605,705	205,792	8,555	16,896	836,948	14,374,856	15,142,445
1990	838,281	2,450,504	606,846	206,753	9,241	18,271	841,111	14,782,908	15,552,817
1991	646,264	2,259,426	606,811	206,248	8,880	17,549	839,488	14,699,187	15,468,644
1992	727,527	2,357,135	611,310	207,258	8,737	17,262	844,567	15,487,252	16,259,935
1993	73,767-	1,547,003	612,780	207,642	8,664	17,112	846,198	14,018,322	14,791,722
1994	1,514,286	3,153,766	612,647	207,296	8,417	16,619	844,979	15,437,357	16,217,328
1995	559,901	2,197,164	612,502	208,167	9,039	17,865	847,573	15,224,684	15,999,598
1996	519,121	2,157,727	611,562	207,780	8,995	17,772	846,109	14,853,520	15,628,206
1997	891,464	2,531,133	611,636	207,479	8,780	17,344	845,239	14,865,540	15,639,217
1998	840,986	2,486,476	611,488	207,333	8,675	17,137	844,633	14,875,926	15,649,600
1999	179,311-	1,467,413	611,648	207,108	8,514	16,814	844,084	14,153,192	14,927,058
2000	1,545,557	3,195,370	611,637	207,653	8,904	17,592	845,786	16,119,557	16,893,052
2001	657,408	2,303,219	611,510	207,592	8,860	17,507	845,469	15,210,687	15,984,137
2002	940,301	2,594,091	611,547	207,868	9,057	17,901	846,373	14,556,396	15,330,134
2003	502,231	2,156,708	611,471	207,700	8,938	17,660	845,769	15,219,757	15,993,505
2004	1,233,013	2,887,105	611,458	207,089	8,500	16,783	843,830	15,392,451	15,165,945
2005	369,463-	1,280,514	611,191	206,769	8,271	16,330	842,561	14,447,285	15,220,335
2006	1,639,798	3,288,911	611,336	206,960	8,409	16,603	843,308	15,350,606	15,123,967
2007	32,676	1,676,705	611,218	206,534	8,104	15,994	841,850	14,951,817	15,724,813
2008	1,133,041	2,789,777	611,501	207,226	8,598	16,985	844,310	15,523,525	16,297,286
2009	452,972	2,102,495	611,469	206,874	8,347	16,480	843,170	14,647,853	15,421,300
2010	825,870	2,484,185	611,414	207,302	8,653	17,090	844,459	15,099,364	15,873,050
2011	715,407	2,378,476	611,609	207,467	8,771	17,325	845,172	14,384,727	15,158,778
2012	1,180,167	2,829,113	611,367	206,653	8,189	16,164	842,373	16,508,801	17,282,100
2013	333,666	1,994,668	611,563	206,984	8,426	16,637	843,610	13,898,476	14,672,161
2014	730,887	2,386,818	611,294	207,064	8,483	16,752	843,593	15,730,973	16,504,435
2015	508,447	2,157,003	611,269	206,524	8,097	15,980	841,870	14,797,672	15,570,802
2016	535,187	2,189,548	611,641	206,913	8,375	16,536	843,465	14,908,622	15,682,388
2017	633,560	2,279,654	611,262	206,563	8,125	16,036	841,986	14,159,605	14,932,758
2018	1,299,171	2,946,898	611,197	206,615	8,163	16,110	842,085	16,518,486	17,291,659
2019	566,223	2,209,651	611,194	206,243	7,897	15,577	840,911	13,939,349	14,712,268
2020	714,544	2,364,608	611,582	206,794	8,291	16,365	843,032	15,009,926	15,783,665

TABLE B-12: VARIABLE OMP&R COSTS TO BE REIMBURSED

(in dollars)

CALENDAR YEAR	NORTH BAY AQUEDUCT			SOUTH BAY AQUEDUCT		CALIFORNIA AQUEDUCT						
	Reach 1 Calhoun and Travis Pumping Plants	Reach 3 Cordelia Pumping Plant	Total	Reach 1 South Bay and Del Valle Pumping Plants (a	Total	Reach 1 Delta Pumping Plant	Reach 4 Dos Amigos Pumping Plant	Reach 14A Buena Vista Pumping Plant	Reach 15A Wheeler Ridge Pumping Plant	Reach 16A Wind Gap Pumping Plant	Reach 17E A. D. Edmonston Pumping Plant	Reach 22B Pear-blossom Pumping Plant
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1961	0	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	36,964	36,964	0	0	0	0	0	0	0
1963	0	0	0	57,703	57,703	0	0	0	0	0	0	0
1964	0	0	0	74,094	74,094	0	0	0	0	0	0	0
1965	0	0	0	142,540	142,540	0	0	0	0	0	0	0
1966	0	0	0	192,522	192,522	0	0	0	0	0	0	0
1967	0	0	0	218,493	218,493	16,134	0	0	0	0	0	0
1968	0	7,149	7,149	338,779	338,779	432,820	214,979	0	0	0	0	0
1969	0	8,693	8,693	258,963	258,963	272,786	148,354	0	0	0	0	0
1970	0	13,705	13,705	396,110	396,110	367,922	229,445	11	0	0	0	0
1971	0	10,296	10,296	366,720	366,720	563,438	235,168	137,259	9,959	0	0	0
1972	0	16,000	16,000	638,919	638,919	1,070,216	510,108	227,971	73,976	140,845	430,724	8,543
1973	0	17,000	17,000	555,512	555,512	862,945	494,865	400,014	372,998	694,492	2,280,632	439,191
1974	0	13,000	13,000	558,628	558,628	940,644	497,565	451,614	480,366	950,717	3,201,923	853,051
1975	0	12,000	12,000	540,417	540,417	1,146,832	633,964	611,966	662,119	1,311,213	4,391,212	1,182,890
1976	0	15,000	15,000	536,695	536,695	1,373,319	735,427	762,919	764,256	1,665,425	5,644,476	1,451,474
1977	0	11,000	11,000	544,601	544,601	1,831,351	815,429	768,468	895,700	1,821,331	6,151,359	1,518,269
1978	0	10,000	10,000	588,346	588,346	1,546,704	984,671	920,040	997,952	2,185,068	7,495,155	1,847,702
1979	0	12,000	12,000	552,413	552,413	2,856,493	866,464	992,737	1,064,987	2,303,568	8,050,961	1,785,658
1980	3,664	26,200	29,864	584,511	584,511	2,626,876	1,005,448	1,917,315	1,131,633	2,589,221	8,543,585	1,842,636
1981	3,701	26,200	29,901	576,123	576,123	3,209,498	1,084,187	1,176,489	1,191,772	2,578,183	8,988,977	1,869,007
1982	5,598	30,200	35,798	618,137	618,137	3,510,639	1,214,616	1,325,488	1,269,744	2,894,280	9,548,629	2,115,009
1983	10,313	40,200	50,513	781,448	781,448	5,419,902	1,566,522	1,533,393	1,554,116	3,264,289	11,724,072	2,587,603
1984	11,296	44,200	55,496	842,070	842,070	5,603,073	1,809,716	1,805,760	1,679,827	3,517,860	12,696,760	3,007,722
1985	12,307	46,200	58,507	880,472	880,472	5,014,687	1,996,424	2,063,455	1,774,176	3,714,557	13,389,932	3,118,822
1986	13,343	64,200	77,543	872,357	872,357	6,455,040	2,087,244	2,103,850	2,012,433	4,202,602	13,762,036	3,095,361
1987	19,170	62,200	81,370	837,865	837,865	6,391,644	2,174,887	2,245,247	2,197,456	4,582,256	15,245,501	2,474,189
1988	21,247	64,200	85,447	861,176	861,176	7,647,570	2,349,551	2,459,158	2,259,537	5,062,883	15,637,042	2,557,486
1989	32,032	65,200	97,232	865,441	865,441	7,339,244	2,468,312	2,521,180	2,512,477	5,216,372	17,545,575	2,608,188
1990	49,695	69,200	118,895	914,145	914,145	7,590,355	2,788,855	3,031,336	2,895,627	6,379,978	20,322,077	2,814,192
1991	49,730	71,200	120,930	921,958	921,958	7,653,650	2,822,680	3,048,064	2,914,755	6,423,333	20,470,571	3,022,487
1992	49,752	71,200	120,952	918,916	918,916	8,519,575	2,773,627	3,158,529	3,065,851	6,704,867	21,658,072	2,734,436
1993	48,797	89,200	137,997	914,178	914,178	8,029,048	2,721,265	2,961,592	2,835,783	6,249,385	19,937,724	2,944,803
1994	49,794	91,200	140,994	912,116	912,116	7,890,327	2,786,486	3,124,621	3,036,575	6,642,352	23,004,121	2,939,688
1995	49,814	92,200	142,014	918,604	918,604	7,643,369	2,821,686	3,172,402	3,084,965	6,751,120	23,397,759	2,918,480
1996	51,788	95,200	146,988	931,317	931,317	7,753,130	2,878,444	3,241,773	3,151,430	6,896,030	23,916,115	2,994,105
1997	51,801	95,200	147,001	918,604	918,604	8,082,835	2,856,015	3,210,378	3,331,675	7,243,161	23,703,404	2,964,358
1998	54,750	100,200	154,950	949,896	949,896	7,447,154	2,978,275	3,513,150	3,461,194	7,524,145	24,608,709	3,065,582
1999	52,808	99,200	152,008	942,073	942,073	7,985,714	2,936,330	3,302,302	3,428,736	7,456,901	24,411,279	3,039,501
2000	49,888	93,200	143,088	887,313	887,313	8,747,634	2,859,837	3,424,654	3,423,038	7,787,707	26,005,131	2,845,858
2001	51,844	95,200	147,044	900,025	900,025	8,383,202	2,914,249	3,533,934	3,532,811	8,043,373	25,279,852	2,697,152
2002	54,779	100,200	154,979	937,183	937,183	8,031,841	3,057,798	3,687,985	3,681,360	7,953,090	26,300,008	2,806,320
2003	54,779	101,200	155,979	949,896	949,896	7,880,218	3,094,546	3,746,264	3,739,915	8,525,350	26,729,907	2,831,156
2004	52,822	96,200	149,022	908,825	908,825	8,393,139	3,002,000	3,588,120	3,799,088	8,167,283	27,278,358	2,747,406
2005	51,844	95,200	147,044	897,091	897,091	7,807,565	2,952,740	3,526,210	3,524,044	8,024,878	26,801,685	2,864,039
2006	52,822	97,200	150,022	911,759	911,759	8,152,463	3,033,995	3,582,519	3,792,528	8,154,727	27,234,921	2,726,344
2007	50,866	93,200	144,066	879,490	879,490	8,230,563	2,914,678	3,484,174	3,689,457	7,935,310	26,513,313	2,785,984
2008	54,779	100,200	154,979	940,118	940,118	8,354,567	3,212,999	3,943,212	3,986,212	8,573,206	28,643,006	3,060,758
2009	51,844	95,200	147,044	900,025	900,025	8,723,435	3,083,889	3,793,029	3,838,506	8,258,501	27,605,458	2,712,576
2010	54,779	101,200	155,979	950,873	950,873	8,074,651	3,284,500	4,033,416	4,079,202	8,773,199	29,320,836	3,104,751
2011	55,757	103,200	158,957	962,608	962,608	8,449,481	3,315,267	4,090,062	4,135,859	8,893,549	29,719,960	2,893,219
2012	51,844	95,200	147,044	896,113	896,113	8,721,454	3,111,311	3,754,084	4,007,689	8,586,551	28,936,834	2,806,275
2013	52,822	97,200	150,022	913,715	913,715	8,938,092	3,148,380	3,882,694	3,928,935	8,885,371	29,952,000	2,730,105
2014	54,779	99,200	153,979	932,294	932,294	8,226,881	3,231,181	3,966,775	4,016,338	9,083,557	30,624,108	2,752,091
2015	51,844	95,200	147,044	892,202	892,202	8,591,097	3,147,876	3,826,196	4,090,857	8,767,989	29,572,992	2,901,264
2016	52,822	97,200	150,022	910,781	910,781	9,398,260	3,252,838	4,098,128	4,193,859	8,986,019	30,305,085	2,762,024
2017	51,844	94,200	146,044	891,224	891,224	8,690,691	3,104,597	3,831,563	3,886,573	8,787,581	29,643,063	2,661,101
2018	52,822	97,200	150,022	915,671	915,671	8,287,289	3,275,381	4,072,492	4,166,439	9,353,708	30,119,408	2,882,426
2019	49,888	93,200	143,088	876,556	876,556	8,706,817	3,097,298	3,782,890	4,045,360	8,681,460	29,290,413	2,605,676
2020 (b	52,822	97,200	150,022	915,671	915,671	9,483,815	3,286,633	3,997,104	4,277,825	9,175,363	30,962,251	2,786,047

a) The relatively minor estimated costs of Del Valle Pumping Plant have been combined with those of South Bay Pumping Plant to simplify the allocation procedure.

b) And each year thereafter for the remainder of the project repayment period.

THRU VARIABLE OMP&R COMPONENT OF TRANSPORTATION CHARGE

(in dollars)

CALENDAR YEAR	CALIFORNIA AQUEDUCT (continued)										GRAND TOTAL
	Reach 24 Silver-wood Lake (c	Reach 26 A Devil Canyon Powerplant	Reach 28J Lake Perris (c	Reach 29A Oso Pumping Plant	Reach 29H Pyramid Lake (c	Reach 29J Castaic Powerplant	Reach 30 Castaic Lake (c	Reach 31A Las Perillas and Badger Hill Pumping Plants	Reach 33A Devil's Den Sawtooth and Polonio PP's and San Luis Obispo Pwp	Total	
	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
1961	0	0	0	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	36,964
1963	0	0	0	0	0	0	0	0	0	0	57,703
1964	0	0	0	0	0	0	0	0	0	0	74,094
1965	0	0	0	0	0	0	0	0	0	0	142,540
1966	0	0	0	0	0	0	0	0	0	0	192,522
1967	0	0	0	0	0	0	0	0	0	16,134	234,627
1968	0	0	0	0	0	0	0	123,311	0	771,110	1,117,038
1969	0	0	0	0	0	0	0	82,624	0	503,764	771,420
1970	0	0	0	0	0	0	0	141,105	0	738,483	1,148,298
1971	0	0	0	0	0	0	0	163,183	0	1,109,007	1,486,023
1972	2,624	0	0	75,916	3,185	-196,102	63,089	241,047	0	2,652,142	3,307,061
1973	0	-748,773	0	211,791	0	-1,142,776	9,640	154,319	0	4,029,338	4,601,852
1974	24,199	-1,390,558	49,183	249,340	0	-1,181,007	0	140,907	0	5,267,944	5,839,572
1975	23,029	-1,945,256	295,885	218,113	0	-1,737,776	7,978	140,141	0	6,942,310	7,494,727
1976	387,268	-2,980,348	0	216,043	0	-1,976,680	100,636	157,081	0	8,301,296	8,852,989
1977	19,706	-3,069,152	190,862	249,741	0	-2,298,154	0	163,197	0	9,058,107	9,613,709
1978	0	-3,811,347	68,839	257,323	0	-2,641,947	37,870	186,032	0	10,074,062	10,672,410
1979	0	-3,660,308	0	276,637	0	-3,070,886	0	148,689	0	11,615,000	12,179,413
1980	0	-3,749,742	335,168	290,624	0	-3,375,156	0	176,330	89,036	12,622,974	13,237,349
1981	222,919	-4,049,477	0	324,609	0	-3,447,123	0	184,428	92,279	13,425,748	14,031,771
1982	0	-4,086,804	0	324,301	0	-3,290,018	254,658	203,231	112,469	15,396,242	16,050,177
1983	0	-4,986,510	0	319,159	0	-3,604,713	0	267,955	204,239	19,850,027	20,681,989
1984	59,509	-4,587,660	39,153	326,238	0	-3,547,355	61,533	306,423	236,994	23,015,553	23,913,119
1985	312,594	-4,291,429	0	359,822	0	-3,725,346	0	327,368	272,186	24,327,248	25,266,226
1986	0	-4,905,289	116,809	415,088	0	-4,152,111	0	338,497	303,683	25,835,243	26,785,145
1987	161,690	-3,995,470	79,343	673,193	0	-5,351,927	79,074	342,751	376,798	27,676,632	28,595,867
1988	0	-4,419,574	0	754,946	0	-5,202,791	710,172	357,775	405,526	30,579,281	31,525,903
1989	482,201	-4,343,892	198,601	1,063,579	0	-5,408,880	0	374,763	425,205	33,002,925	33,965,597
1990	184,724	-4,633,680	0	1,222,817	0	-5,949,423	0	414,395	554,390	37,615,643	38,648,683
1991	0	-4,865,736	64,682	1,233,256	0	-6,093,392	52,207	414,470	545,929	37,706,956	38,749,843
1992	0	-4,449,894	0	1,312,047	0	-6,338,280	0	409,625	546,936	40,095,391	41,135,258
1993	131,335	-4,607,883	691	1,285,491	0	-6,278,310	820,384	404,776	571,899	38,007,983	39,060,158
1994	407,294	-4,998,192	0	1,475,697	0	-6,620,950	0	408,779	572,790	40,669,558	41,722,698
1995	0	-4,493,156	44,338	1,425,878	0	-6,304,871	168,658	410,815	675,839	41,717,282	42,777,900
1996	0	-4,782,434	112,564	1,452,147	0	-6,717,519	206,485	439,420	688,328	42,230,018	43,308,324
1997	302,071	-4,762,000	0	1,538,923	0	-6,688,971	0	442,442	683,379	42,907,670	43,973,277
1998	323,725	-4,915,976	0	1,701,997	0	-7,227,352	0	462,198	700,624	43,643,425	44,748,274
1999	28,024	-4,891,202	0	1,679,585	0	-6,989,370	953,442	456,361	695,565	44,493,168	45,587,252
2000	0	-4,480,109	11,539	1,677,005	0	-7,131,932	0	431,812	774,836	46,377,010	47,407,412
2001	0	-4,743,163	0	1,748,495	0	-6,889,982	66,403	439,757	799,842	45,805,925	46,852,992
2002	620,518	-4,388,249	124,177	1,923,233	0	-6,949,195	0	462,473	853,029	48,164,388	49,256,551
2003	0	-4,414,648	0	1,856,812	0	-7,316,862	242,034	469,435	864,441	48,248,568	49,354,444
2004	44,922	-4,484,339	124,759	1,968,118	0	-7,504,214	0	449,796	820,349	48,394,785	49,452,630
2005	0	-4,571,774	0	1,751,799	0	-7,494,008	1,173,694	444,925	820,961	47,626,758	48,670,896
2006	654,579	-4,868,317	0	1,875,311	0	-7,435,584	0	452,813	835,572	48,191,871	49,253,651
2007	0	-4,589,115	69,528	1,944,541	0	-7,684,030	735,037	436,059	791,738	47,257,237	48,280,793
2008	0	-4,769,921	32,864	2,085,390	0	-8,197,347	0	467,593	857,976	50,250,515	51,345,612
2009	189,759	-4,621,389	0	2,122,682	0	-7,561,140	294,626	446,899	818,038	49,704,869	50,751,938
2010	0	-4,662,348	97,713	2,255,688	0	-7,939,313	0	473,508	871,613	51,767,416	52,874,266
2011	732,558	-4,810,111	2,070	2,299,085	0	-7,853,387	23,049	479,419	880,380	53,250,460	54,372,025
2012	0	-4,919,680	0	2,127,187	0	-8,190,356	0	444,930	797,583	50,183,862	51,227,017
2013	590,492	-4,738,746	264,759	2,192,946	0	-8,176,026	428,891	453,797	825,831	53,307,521	54,371,258
2014	0	-4,887,684	0	2,257,683	0	-8,293,531	0	463,651	850,183	52,291,233	53,377,507
2015	69,092	-4,669,776	0	2,167,956	0	-8,585,667	225,999	442,953	787,842	51,336,670	52,375,920
2016	8,279	-4,743,628	0	2,119,945	0	-8,365,358	200,319	452,814	813,168	53,481,752	54,542,553
2017	677,149	-4,938,765	124,526	2,191,421	0	-8,897,666	81,044	441,972	792,712	51,077,563	52,114,830
2018	0	-5,067,816	0	2,330,206	0	-8,876,146	0	455,769	802,453	51,801,608	52,867,301
2019	683,442	-5,116,288	263,638	2,462,950	0	-9,059,702	155,437	435,074	758,619	50,793,084	51,812,728
2020(b	0	-5,129,391	0	2,493,918	0	-9,034,850	0	455,768	802,453	53,556,936	54,622,629

c) These values represent a proportionate allocation of the total variable OMP&R costs of pumping and power recovery plants (Table B-3) associated with net annual withdrawals from reservoir storage for the project transportation facilities. The allocation is determined annually by applying the following ratio, calculated from the data shown in Table B-6: "Reservoir Storage Changes" (withdrawals, as a positive value) conveyed thru each plant, in acre-feet ÷ "Total" annual quantity conveyed thru each plant, in acre-feet. The costs so determined are accumulated for all upstream plants for each year, for each respective reservoir.

TABLE B-13: CAPITAL AND OPERATING COSTS OF PROJECT CONSERVATION FACILITIES TO BE REIMBURSED THRU DELTA WATER CHARGE

(in dollars)

Calendar Year	INITIAL PROJECT CONSERVATION FACILITIES (Portions of Upper Feather Lakes, Oroville-Thermalito Facilities, Delta Facilities and California Aqueduct)			ADDITIONAL PROJECT CONSERVATION FACILITIES							Total (e
					Trans-Basin Diversion Works		Storage				
							Initial Storage		Reserved Storage		
	Capital Costs (a	Operating Costs (b	Project Power Revenues	Planning and Preoperating Costs (a&(c	Capital Costs (a	Operating Costs (d	Capital Costs (a	Operating Costs (d	Capital Costs (a	Operating Costs (d	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1952	171,317	0	0	0	0	0	0	0	0	0	171,317
1953	312,174	0	0	0	0	0	0	0	0	0	312,174
1954	308,605	0	0	0	0	0	0	0	0	0	308,605
1955	194,635	0	0	0	0	0	0	0	0	0	194,635
1956	1,362,880	0	0	0	0	0	0	0	0	0	1,362,880
1957	6,206,101	0	0	0	0	0	0	0	0	0	6,206,101
1958	9,535,599	0	0	0	0	0	0	0	0	0	9,535,599
1959	11,383,076	0	0	0	0	0	0	0	0	0	11,383,076
1960	14,851,566	0	0	0	0	0	0	0	0	0	14,851,566
1961	18,731,847	0	0	0	0	0	0	0	0	0	18,731,847
1962	9,085,777	79	0	0	0	0	0	0	0	0	9,085,856
1963	73,679,769	176	0	0	0	0	0	0	0	0	73,679,945
1964	62,643,130	58	0	135,720	0	0	0	0	0	0	62,778,908
1965	71,115,874	142	0	676,685	0	0	0	0	0	0	71,792,701
1966	131,357,222	188	0	1,271,283	0	0	0	0	0	0	132,628,693
1967	94,815,671	2,782	0	1,337,845	0	0	0	0	0	0	96,156,298
1968	40,251,573	1,218,261	951,000	904,423	0	0	0	0	0	0	41,423,257
1969	5,584,608	3,160,077	10,978,000	749,989	0	0	0	0	0	0	-1,483,326
1970	4,263,380	4,914,444	16,150,000	565,282	0	0	0	0	0	0	-6,406,894
1971	4,129,257	5,867,784	16,150,000	477,907	0	0	0	0	0	0	-5,675,052
1972	4,783,724	5,625,387	16,150,000	343,229	0	0	0	0	0	0	-5,397,660
1973	5,805,215	6,330,396	16,150,000	210,045	0	0	0	0	0	0	-3,804,344
1974	5,079,597	6,309,192	16,150,000	217,598	0	0	0	0	0	0	-4,543,613
1975	6,767,638	6,323,446	16,818,000	217,187	0	0	0	0	0	0	-3,509,729
1976	19,650,021	6,107,470	16,538,000	215,986	0	0	0	0	0	0	9,435,477
1977	41,861,793	6,116,436	16,504,000	214,728	0	0	0	0	0	0	31,688,957
1978	38,819,640	5,936,240	16,730,000	214,658	0	0	0	0	0	0	28,240,538
1979	25,674,751	5,618,321	16,759,000	214,215	0	0	0	0	0	0	14,748,287
1980	2,792,086	6,993,652	16,383,000	219,195	0	0	0	0	0	0	-6,378,067
1981	6,657,817	7,077,546	16,150,000	312,407	0	0	0	0	0	0	-2,102,230
1982	7,541,928	6,946,102	16,159,000	469,347	0	0	0	0	0	0	-1,192,623
1983	6,529,797	6,628,262	18,709,000	469,403	0	0	0	0	0	0	-5,081,538
1984	5,902,877	6,209,611	34,770,000	611,392	2,175,000	0	0	0	0	0	-19,871,120
1985	288,244	5,334,968	19,289,000	469,900	2,175,000	0	0	0	0	0	-11,020,888
Subtotal, 1952-1985	738,139,189	102,721,020	297,479,000	10,518,424	4,350,000	0	0	0	0	0	558,249,633
1986	0	5,561,081	17,722,000	371,104	5,800,000	0	0	0	0	0	-5,989,815
1987	0	5,527,408	16,150,000	219,657	5,800,000	0	0	0	0	0	-4,602,935
1988	0	5,673,598	20,879,000	277,863	26,100,000	0	0	0	0	0	11,172,461
1989	0	6,668,428	16,590,000	329,189	26,100,000	0	0	0	0	0	16,507,617
1990	0	5,201,747	21,374,000	329,189	26,100,000	0	0	0	0	0	10,256,936
1991	0	6,476,711	16,150,000	329,189	26,100,000	0	0	0	0	0	16,755,900
1992	0	4,484,718	16,150,000	217,014	23,925,000	0	0	0	0	0	12,476,732
1993	0	7,544,471	16,150,000	171,547	20,300,000	0	0	0	0	0	11,866,018
1994	0	6,332,866	16,150,000	171,547	20,300,000	0	0	0	0	0	10,654,413
1995	0	6,324,770	16,443,000	171,547	20,300,000	0	0	0	0	0	10,353,317
1996	0	5,595,532	16,150,000	0	20,300,000	121,538	5,834,000 (f	914,768	0	45,720	16,661,558
1997	0	6,488,536	18,261,000	0	20,300,000	121,538	5,834,000	914,768	0	45,720	15,443,562
1998	0	5,846,089	16,150,000	0	0	1,716,538	5,834,000	914,768	0	45,720	-1,792,885
1999	0	5,126,155	16,595,000	0	0	1,716,538	5,834,000	914,768	0	45,720	-2,957,819
2000	0	5,077,118	16,570,000	0	0	1,716,538	5,834,000	914,768	0	45,720	-2,981,856
2001	0	6,951,079	16,150,000	0	0	1,716,538	5,834,000	914,768	0	45,720	-687,895
2002	0	4,835,324	16,150,000	0	0	1,716,538	5,834,000	914,768	0	45,720	-2,803,650
2003	0	4,982,169	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000 (f	645,720	2,064,195
2004	0	5,826,545	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	2,908,571
2005	0	6,113,442	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	3,195,468
2006	0	7,223,516	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	4,305,542
2007	0	7,963,250	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	5,045,276
2008	0	5,962,475	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	3,044,501
2009	0	7,165,946	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	4,247,972
2010	0	5,283,182	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	2,365,208
2011	0	4,624,864	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	1,706,890
2012	0	5,661,304	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	2,743,330
2013	0	5,330,781	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	2,412,807
2014	0	4,955,100	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	2,037,126
2015	0	7,125,902	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	4,207,928
2016	0	5,221,023	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	2,303,049
2017	0	8,412,166	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	5,494,192
2018	0	5,513,741	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	2,595,767
2019	0	9,277,301	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	6,359,327
2020	0	5,842,592	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	2,924,618
2021	0	5,842,592	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	2,924,618
2022	0	5,842,592	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	2,924,618
2023	0	5,842,592	16,437,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	2,637,618
2024	0	5,842,592	23,076,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	-4,001,382
2025	0	5,842,592	19,289,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	-214,382
2026	0	5,842,592	17,722,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	1,352,618
2027	0	5,842,592	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	2,924,618
2028	0	5,842,592	20,879,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	-1,804,382
2029	0	5,842,592	16,590,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,000	2,484,618
2030	0	5,842,592	21,374,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	-2,299,382
2031	0	5,842,592	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	2,924,618
2032	0	5,842,592	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	2,924,618
2033	0	5,842,592	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	2,924,618
2034	0	5,842,592	16,150,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	2,924,618
2035	0	5,842,592	28,098,000	0	0	1,716,538	5,834,000	914,768	4,121,000	645,720	-9,023,382
Subtotal, 1986-2035	0	299,839,810	856,999,000	2,587,846	241,425,000	65,471,520	233,360,000	36,590,720	135,993,000	21,628,800	179,897,696
TOTAL, 1952-2035	738,139,189	402,560,830	1,154,780,000	13,106,270	245,775,000	65,471,520	233,360,000	36,590,720	135,993,000	21,628,800	738,147,329

a) Reimbursed thru payments of the capital cost component of the Delta Water Charge, except for a portion of the costs of the Initial Project Conservation Facilities that will be reimbursed thru project power revenues.
b) Reimbursed thru payments of the minimum OMP&R component of the Delta Water Charge, except for $1,500,000 annually from 1970 thru 2035 that will be reimbursed thru project power revenues.
c) Under the proposed long-term amendments of Articles 22(e) and 22(g), those planning and preoperating costs of Additional Project Conservation Facilities which are incurred thru the current year will be included in current calculations of the Delta Water Charge.
d) Reimbursed thru minimum OMP&R component of the Delta Water Charge.
e) Total of all columns, treating the values shown in Column 3 as negative costs.
f) Initial repayments of capital costs at 3-1/2 percent interest under a federal Water Supply Act of 1958 contract.

TABLE B-14: CAPITAL COSTS OF TRANSPORTATION FACILITIES ALLOCATED TO EACH CONTRACTOR

(in dollars)

CALENDAR YEAR	NORTH BAY AREA			SOUTH BAY AREA				CENTRAL COASTAL AREA		
	Napa County FC & WCD	Solano County FC & WCD	Total	Alameda County FC & WCD Zone 7	Alameda County Water District	Santa Clara County FC & WD	Total	San Luis Obispo County FC & WCD	Santa Barbara County FC & WCD	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1952	0	0	0	84	100	409	593	121	286	407
1953	0	0	0	325	407	1,814	2,546	338	791	1,129
1954	0	0	0	826	1,095	5,166	7,087	424	991	1,415
1955	0	0	0	986	1,330	6,319	8,635	212	498	710
1956	0	0	0	8,940	12,156	64,038	85,134	221	516	737
1957	16,594	10,040	26,634	21,845	29,568	650,256	701,669	286	665	951
1958	35,435	14,569	50,004	67,967	68,139	733,901	870,007	794	1,857	2,651
1959	21,899	5,676	27,575	154,463	143,213	493,973	791,649	22,201	57,971	80,172
1960	12,004	7,413	19,417	296,866	275,154	1,020,215	1,592,235	28,643	75,141	103,784
1961	8,603	7,499	16,102	854,260	798,727	1,917,133	3,570,120	14,321	35,885	50,206
1962	975	-529	446	544,937	576,657	1,685,452	2,807,046	19,483	46,488	65,971
1963	4,474	2,197	6,671	654,725	1,079,905	3,248,997	4,983,627	69,924	164,915	234,839
1964	50,489	33,050	83,539	694,862	1,239,937	7,233,475	9,168,274	145,809	343,518	489,327
1965	230,650	58,920	289,570	344,538	455,267	3,354,835	4,154,640	261,027	613,751	874,778
1966	501,782	52,830	554,612	571,259	543,939	2,212,252	3,327,450	604,631	1,416,249	2,020,880
1967	1,602,799	47,499	1,650,298	745,893	721,717	2,252,339	3,719,949	948,394	2,219,380	3,167,774
1968	888,871	57,186	946,057	710,207	655,334	1,919,907	3,285,448	359,223	842,679	1,201,902
1969	87,210	53,913	141,123	269,556	257,776	762,134	1,289,466	84,725	201,043	285,768
1970	57,876	67,396	125,272	63,063	61,065	146,747	270,875	52,629	125,650	178,279
1971	31,722	30,941	62,663	14,256	16,526	90,012	120,794	35,911	87,323	123,234
1972	24,145	19,363	43,508	13,918	13,283	67,681	94,882	25,768	62,423	88,191
1973	79,659	59,511	139,170	18,217	31,118	91,749	141,084	54,843	129,264	184,107
1974	102,042	129,490	231,532	7,670	9,348	35,937	52,955	29,494	69,083	98,577
1975	158,511	215,175	373,686	2,890	2,737	10,180	15,807	283,191	792,691	1,075,882
1976	284,469	368,126	652,595	5,139	4,692	13,264	23,095	601,085	1,729,305	2,330,390
1977	458,379	514,655	973,034	9,049	8,268	20,759	38,076	1,638,929	4,339,629	5,978,558
1978	2,906,918	2,609,592	5,516,510	14,538	13,291	32,697	60,526	7,541,515	21,436,329	28,977,844
1979	2,557,902	2,718,434	5,276,336	18,331	16,759	40,962	76,052	6,619,869	18,246,123	24,865,992
1980	204,047	173,953	378,000	4,700	4,296	11,264	20,260	696,630	2,101,491	2,798,121
1981	22,497	32,503	55,000	4,400	4,021	10,610	19,031	125,548	322,107	447,655
1982	5,971	9,029	15,000	7,730	7,065	17,864	32,659	80,258	199,216	279,474
1983	4,777	7,223	12,000	12,797	11,699	28,905	53,401	50,636	118,213	168,849
1984	0	0	0	13,193	12,061	29,768	55,022	47,120	110,010	157,130
1985	0	0	0	3,371	3,081	8,368	14,820	60,138	140,401	200,539
TOTAL	10,360,700	7,305,654	17,666,354	6,155,801	7,079,731	28,219,382	41,454,914	20,504,341	56,031,882	76,536,223

CALENDAR YEAR	SAN JOAQUIN VALLEY AREA									
	Devil's Den Water District	Dudley Ridge Water District	Empire West Side Irrigation District	Hacienda Water District	Kern County Water Agency		County of Kings	Oak Flat Water District	Tulare Lake Basin Water Storage District	Total
					Municipal and Industrial	Agriculture				
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1952	86	394	19	59	958	9,401	19	13	735	11,684
1953	241	1,089	55	160	2,954	28,240	55	32	2,022	34,848
1954	302	1,366	67	201	3,450	33,366	68	43	2,551	41,414
1955	153	684	36	100	1,532	15,157	37	22	1,286	19,007
1956	156	711	34	104	2,789	24,725	34	24	1,285	29,862
1957	203	917	37	135	6,242	51,362	38	29	1,544	60,507
1958	567	2,559	115	377	14,026	119,384	119	58	4,531	141,736
1959	3,792	7,800	383	1,149	26,289	259,323	397	377	14,497	314,012
1960	4,723	10,217	488	1,505	30,235	309,691	499	498	18,604	376,460
1961	5,779	22,463	1,092	3,309	53,285	561,253	1,116	618	41,271	690,186
1962	11,911	51,608	2,525	7,603	98,910	1,072,195	2,583	1,899	95,174	1,344,408
1963	46,148	203,187	10,390	29,933	355,771	3,892,245	10,629	6,051	383,841	4,938,195
1964	96,720	334,021	17,251	49,207	611,855	6,845,753	17,646	12,081	634,417	8,618,951
1965	175,469	548,807	27,992	80,845	1,119,178	12,379,852	28,638	22,154	1,035,215	15,418,150
1966	416,792	1,138,164	53,910	167,667	2,277,814	25,826,200	55,140	39,418	2,062,606	32,0 7,711
1967	655,382	873,998	40,490	128,751	2,067,347	24,429,770	41,418	35,263	1,565,442	29,8 7,861
1968	242,959	214,287	10,517	31,567	1,144,534	11,985,962	10,757	12,380	395,806	14,048,769
1969	51,484	97,378	4,934	14,345	634,565	6,580,143	5,046	7,376	183,000	7,578,271
1970	29,857	55,413	2,757	8,162	432,385	4,272,147	2,821	4,073	103,113	4,910,728
1971	16,215	23,132	1,163	3,408	195,090	1,633,409	1,189	588	43,297	1,917,491
1972	12,052	13,000	659	1,916	87,092	757,997	674	390	24,452	898,232
1973	33,763	15,325	745	2,258	87,884	958,146	763	451	28,181	1,127,516
1974	16,601	15,188	686	2,236	51,304	610,562	701	294	26,839	724,411
1975	2,323	8,035	388	1,184	19,116	198,787	396	349	14,684	245,262
1976	4,110	11,249	569	1,656	21,938	242,812	583	997	21,127	305,041
1977	63,311	15,532	798	2,288	26,823	763,166	816	1,460	29,418	903,612
1978	14,738	27,666	1,325	4,077	44,731	563,792	1,355	2,484	50,419	710,587
1979	14,870	39,585	2,057	5,833	64,867	757,757	2,103	3,185	75,412	965,669
1980	21,334	29,183	1,517	4,300	53,426	639,688	1,550	799	55,599	807,396
1981	27,397	48,938	2,541	7,212	89,612	1,007,221	2,598	746	93,230	1,279,495
1982	23,790	48,606	2,526	7,162	93,044	973,659	2,581	1,329	92,599	1,245,296
1983	22,598	46,551	2,418	6,859	83,813	931,025	2,473	2,216	88,682	1,186,635
1984	33,385	108,294	5,623	15,953	176,452	2,016,000	5,750	2,285	206,309	2,570,051
1985	42,328	63,166	3,281	9,306	101,351	1,354,495	3,353	566	120,336	1,698,182
TOTAL	2,091,539	4,078,513	199,393	600,827	10,080,662	112,104,685	203,945	160,548	7,517,524	137,037,636

TABLE B-14: CAPITAL COSTS OF TRANSPORTATION FACILITIES ALLOCATED TO EACH CONTRACTOR

(in dollars)

CALENDAR YEAR	SOUTHERN CALIFORNIA AREA									
	Antelope Valley-East Kern Water Agency	Castaic Lake Water Agency	Coachella Valley County Water District	Crestline-Lake Arrowhead Water Agency	Desert Water Agency	Littlerock Creek Irrigation District	Mojave Water Agency	Palmdale Irrigation District	San Bernardino Valley Municipal Water District	San Gabriel Valley Municipal Water District
	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
1952	3,198	790	866	257	1,430	70	1,725	424	6,214	1,582
1953	10,188	2,552	2,721	818	4,489	228	5,423	1,349	19,501	4,965
1954	12,963	3,221	3,535	1,055	5,835	294	7,051	1,721	25,193	6,436
1955	5,498	1,438	1,400	411	2,312	120	2,808	728	9,439	2,429
1956	9,473	2,626	2,152	603	3,550	187	4,362	1,227	13,041	3,407
1957	26,429	7,106	6,410	1,839	10,573	547	12,895	3,470	41,301	10,694
1958	49,897	13,624	11,796	3,355	19,451	1,010	23,785	6,512	74,298	19,301
1959	70,278	20,800	16,166	4,755	26,659	1,375	32,248	9,146	101,854	26,277
1960	76,348	23,577	21,295	6,608	35,118	1,507	41,674	10,211	145,400	36,869
1961	129,343	39,940	35,050	12,482	57,810	2,307	64,974	16,839	235,832	57,883
1962	204,418	65,012	44,917	14,132	74,086	3,454	87,277	25,755	258,744	65,836
1963	567,060	179,257	111,139	30,837	183,293	9,566	225,088	71,375	570,491	151,275
1964	1,116,396	360,959	214,670	56,803	354,031	18,882	440,321	140,961	1,054,343	283,720
1965	1,941,148	681,065	393,605	105,829	649,133	33,493	803,664	249,345	1,957,844	524,991
1966	4,056,605	1,533,396	834,171	221,554	1,375,715	71,141	1,708,678	530,448	4,058,111	1,093,278
1967	5,062,728	2,876,148	1,102,348	303,066	1,818,005	90,322	2,232,439	667,753	5,975,614	1,591,142
1968	6,015,016	3,039,740	1,376,155	376,303	2,269,554	109,198	2,787,051	796,885	8,080,016	2,148,346
1969	5,950,122	2,448,736	1,726,211	548,794	2,846,921	124,107	3,331,218	881,162	11,046,827	2,811,167
1970	5,214,174	2,670,901	2,106,217	711,377	3,473,667	110,097	3,982,890	757,671	14,043,853	3,522,236
1971	2,714,725	1,804,506	1,120,547	354,737	1,848,026	51,177	2,181,066	365,956	8,466,132	2,065,296
1972	1,032,638	322,868	344,498	97,347	568,144	19,982	690,522	139,752	2,884,861	747,057
1973	779,337	727,083	300,652	120,204	495,857	13,681	528,730	100,783	2,676,940	651,328
1974	214,732	241,266	165,644	49,651	273,182	4,286	327,986	30,368	1,348,221	354,080
1975	102,867	65,451	193,559	50,426	319,212	2,231	397,100	15,862	1,271,921	343,591
1976	187,810	29,501	32,952	8,629	54,343	1,130	67,534	8,300	255,111	68,706
1977	1,290,633	13,489	10,912	3,000	17,996	634	22,134	4,722	54,750	14,584
1978	982,070	19,099	10,164	2,570	16,764	936	21,154	7,035	45,751	12,587
1979	547,450	64,576	18,810	5,727	31,021	1,702	38,142	12,786	101,428	27,799
1980	215,919	113,895	39,136	9,897	64,543	3,616	80,986	27,147	175,168	48,090
1981	448,836	120,450	65,706	16,617	108,362	6,071	135,967	45,578	293,998	80,713
1982	580,000	139,787	83,612	21,145	137,890	7,723	172,937	57,969	374,069	102,678
1983	448,993	93,538	55,923	14,142	92,228	5,168	115,754	38,801	250,247	68,708
1984	5,781,932	76,910	45,789	11,579	75,513	4,250	95,187	31,909	204,925	56,352
1985	5,030,964	33,014	19,635	4,967	32,383	1,826	40,916	13,717	87,963	24,211
TOTAL	50,880,188	17,836,321	10,518,363	3,171,516	17,347,096	702,318	20,711,686	5,073,667	66,209,401	17,027,534

CALENDAR YEAR	SOUTHERN CALIFORNIA AREA (Continued)				FEATHER RIVER AREA				FUTURE CONTRACTOR	GRAND TOTAL
	San Gorgonio Pass Water Agency	The Metropolitan Water District of Southern California (a	Ventura County Flood Control District	Total	City of Yuba City	County of Butte	Plumas County FC & WCD	Total	South Bay	
	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1952	982	70,280	373	88,191	0	0	0	0	76	100,951
1953	3,079	222,101	1,202	278,616	0	0	0	0	343	317,482
1954	3,999	286,001	1,518	358,822	0	0	0	0	1,005	409,743
1955	1,505	113,842	683	142,613	0	0	0	0	1,245	172,210
1956	2,109	175,813	1,252	219,802	0	0	0	0	11,834	347,369
1957	6,627	521,638	3,373	652,902	0	0	0	0	29,873	1,472,536
1958	11,948	963,104	6,475	1,204,556	0	0	2	2	37,182	2,306,138
1959	16,290	1,374,816	9,797	1,710,461	0	0	6	6	59,121	2,982,996
1960	22,937	1,783,684	11,039	2,216,267	0	0	6	6	125,340	4,433,509
1961	36,231	3,252,255	18,712	3,959,658	0	0	7	7	323,586	8,609,865
1962	40,934	3,634,577	29,595	4,548,737	0	0	270	270	267,649	9,034,527
1963	93,374	11,152,549	84,082	13,429,386	0	0	55	55	737,533	24,330,306
1964	174,702	18,465,436	167,483	22,848,707	0	0	7,791	7,791	1,097,405	42,313,994
1965	323,565	34,491,448	313,070	42,468,200	0	0	3,137	3,137	472,568	63,681,043
1966	673,230	76,384,513	698,095	93,238,935	0	0	-48	-48	862,427	132,041,967
1967	983,769	133,929,135	1,308,245	157,940,714	0	0	50	50	1,573,127	197, 89,773
1968	1,330,548	150,507,861	1,391,902	180,228,575	0	0	51,574	51,574	1,292,037	201,154,362
1969	1,752,321	143,154,240	1,102,984	177,724,810	0	0	234,242	234,242	449,889	187,703,569
1970	2,200,304	167,106,783	1,181,503	207,081,673	0	0	16,235	16,235	83,953	212,667,015
1971	1,286,285	138,680,359	766,912	161,705,724	0	0	27,205	27,205	19,379	163,976,490
1972	465,474	46,941,704	67,883	54,322,730	0	0	0	0	16,400	55,463,943
1973	410,140	44,198,238	278,793	51,281,766	0	0	0	0	34,864	52,908,507
1974	220,559	16,903,471	92,081	20,225,447	0	0	0	0	8,980	21,341,902
1975	212,964	9,296,331	26,673	12,298,188	0	0	0	0	2,294	14,011,119
1976	42,700	2,472,227	12,475	3,241,418	0	0	0	0	2,848	6,555,387
1977	8,997	768,874	6,094	2,216,819	0	0	0	0	3,908	10,114,007
1978	7,713	918,428	8,898	2,053,169	0	0	0	0	5,546	37,324,182
1979	17,064	2,858,770	25,929	3,751,204	0	0	0	0	6,913	34,942,166
1980	29,535	5,005,846	47,407	5,861,185	0	0	0	0	2,024	9,866,986
1981	49,569	5,814,498	56,411	7,242,776	0	0	0	0	1,916	9,045,873
1982	63,070	6,904,775	67,362	8,713,017	0	0	0	0	3,110	10,288,556
1983	42,193	4,620,463	45,074	5,891,232	0	0	0	0	4,928	7,317,045
1984	34,554	3,796,908	37,060	10,252,868	0	0	0	0	5,070	13,040,141
1985	14,832	1,630,369	15,905	6,950,702	0	0	0	0	1,547	8,865,790
TOTAL	10,584,103	1,038,401,337	7,886,340	1,266,349,870	0	0	340,532	340,532	7,545,920	1,546,931,449

a) Costs from Table B-10, allocated to MWD, are reduced herein by $16,300,000 in 1972 under provisions of Contract Amendment No. 7.

TABLE B-15: CAPITAL COST COMPONENT OF TRANSPORTATION CHARGE FOR EACH CONTRACTOR[a]

(in dollars)

CALENDAR YEAR	NORTH BAY AREA			SOUTH BAY AREA				CENTRAL COASTAL AREA		
	Napa County FC & WCD	Solano County FC & WCD	Total	Alameda County FC & WCD, Zone 7	Alameda County Water District	Santa Clara County FC & WD	Total	San Luis Obispo County FC & WCD	Santa Barbara County FC & WCD	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1963	0	0	0	102,387	100,010	356,363	558,760	0	0	0
1964	0	0	0	119,163	153,682	517,842	790,687	7,805	19,323	27,128
1965	0	0	0	149,796	215,308	877,352	1,242,456	13,431	32,611	46,042
1966	20,606	0	20,606	164,984	237,936	1,044,090	1,447,010	22,565	54,152	76,717
1967	45,545	0	45,545	190,168	264,970	1,154,041	1,609,179	40,898	97,185	138,083
1968	125,206	0	125,206	223,050	300,840	1,265,985	1,789,875	55,224	130,891	186,115
1969	169,384	0	169,384	254,359	333,411	1,361,406	1,949,176	59,190	140,353	199,543
1970	173,718	0	173,718	266,242	346,222	1,399,284	2,011,748	61,275	145,381	206,656
1971	176,594	0	176,594	269,022	349,257	1,406,578	2,024,857	62,641	148,709	211,350
1972	178,171	0	178,171	317,446	350,079	1,411,052	2,078,577	63,638	151,209	214,847
1973	179,371	29,445	208,816	318,138	350,739	1,414,415	2,083,292	64,267	152,790	217,057
1974	183,330	32,403	215,733	319,043	352,285	1,418,975	2,090,303	64,836	154,179	219,015
1975	188,402	38,839	227,241	319,424	352,750	1,420,762	2,092,936	65,361	155,417	220,778
1976	196,280	49,533	245,813	319,568	352,886	1,421,267	2,093,721	180,968	431,850	612,818
1977	210,418	67,829	278,247	319,823	353,119	1,421,927	2,094,869	210,842	517,798	728,640
1978	233,200	93,408	326,608	320,273	353,530	1,422,958	2,096,761	292,299	733,481	1,025,780
1979	377,677	223,107	600,784	320,996	354,191	1,424,584	2,099,771	667,119	1,798,886	2,466,005
1980	504,807	358,216	863,023	321,907	355,024	1,426,619	2,103,550	996,133	2,705,736	3,701,869
1981	514,948	366,862	881,810	322,140	355,237	1,427,179	2,104,556	1,030,756	2,810,182	3,840,938
1982	516,066	368,477	884,543	322,359	355,437	1,427,707	2,105,503	1,036,996	2,826,191	3,863,187
1983	516,363	368,926	885,289	322,743	355,788	1,428,594	2,107,125	1,040,984	2,836,092	3,877,076
1984	516,600	369,285	885,885	323,379	356,370	1,430,031	2,109,780	1,043,501	2,841,967	3,885,468
1985	516,600	369,285	885,885	324,035	356,969	1,431,510	2,112,514	1,045,843	2,847,435	3,893,278
1986	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
1987	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
1988	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
1989	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
1990	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
1991	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
1992	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
1993	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
1994	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
1995	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
1996	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
1997	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
1998	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
1999	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
2000	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
2001	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
2002	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
2003	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
2004	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
2005	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
2006	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
2007	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
2008	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
2009	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
2010	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
2011	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
2012	516,600	369,285	885,885	324,202	357,122	1,431,926	2,113,250	1,048,832	2,854,413	3,903,245
2013	516,600	369,285	885,885	215,756	257,112	1,075,563	1,548,431	1,048,832	2,854,413	3,903,245
2014	516,600	369,285	885,885	181,388	203,440	914,085	1,298,913	1,041,027	2,835,090	3,876,117
2015	516,600	369,285	885,885	145,207	141,814	554,575	841,596	1,035,401	2,821,802	3,857,203
2016	495,994	369,285	865,279	127,405	119,187	387,836	634,428	1,026,267	2,800,260	3,826,527
2017	471,055	369,285	840,340	98,104	92,152	277,885	468,141	1,007,934	2,757,228	3,765,162
2018	391,395	369,285	760,680	60,110	56,282	165,942	282,334	993,608	2,723,521	3,717,129
2019	347,217	369,285	716,502	24,172	23,712	70,521	118,405	989,642	2,714,060	3,703,702
2020	342,882	369,285	712,167	10,617	10,900	32,642	54,159	987,557	2,709,032	3,696,589
2021	340,006	369,285	709,291	7,465	7,865	25,348	40,678	986,191	2,705,704	3,691,895
2022	338,429	369,285	707,714	6,756	7,044	20,875	34,675	985,194	2,703,204	3,688,398
2023	337,229	339,840	677,069	6,065	6,383	17,511	29,959	984,565	2,701,623	3,686,188
2024	333,270	336,882	670,152	5,159	4,837	12,951	22,947	983,996	2,700,234	3,684,230
2025	328,199	330,446	658,645	4,778	4,372	11,165	20,315	983,471	2,698,995	3,682,466
2026	320,320	319,752	640,072	4,635	4,236	10,659	19,530	867,864	2,422,563	3,290,427
2027	306,182	301,455	607,637	4,379	4,003	10,000	18,382	837,989	2,336,615	3,174,604
2028	283,400	275,877	559,277	3,929	3,592	8,968	16,489	756,533	2,120,932	2,877,465
2029	138,924	146,177	285,101	3,207	2,931	7,343	13,481	381,713	1,055,526	1,437,239
2030	11,794	11,069	22,863	2,296	2,099	5,307	9,702	52,699	148,677	201,376
2031	1,652	2,423	4,075	2,062	1,885	4,747	8,694	18,076	44,231	62,307
2032	534	808	1,342	1,843	1,685	4,220	7,748	11,836	28,222	40,058
2033	237	359	596	1,459	1,334	3,332	6,125	7,847	18,321	26,168
2034	0	0	0	823	753	1,895	3,471	5,331	12,446	17,777
2035	0	0	0	168	153	416	737	2,989	6,978	9,967
TOTAL	25,830,005	18,464,248	44,294,253	15,901,682	17,856,105	71,596,309	105,354,096	52,441,598	142,720,646	195,162,244

a) Unadjusted for prior overpayments or underpayments of charges.

TABLE B-15: CAPITAL COST COMPONENT OF

(in dollars)

CALENDAR YEAR	SAN JOAQUIN VALLEY AREA									
	Devil's Den Water District	Dudley Ridge Water District	Empire West Side Irrigation District	Hacienda Water District	Kern County Water Agency		County of Kings	Oak Flat Water District	Tulare Lake Basin Water Storage District	Total
					Municipal and Industrial	Agricultural				
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1963	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	62,895	0	0	0	0	62,895
1966	0	0	0	0	118,519	0	0	0	0	118,519
1967	0	0	0	0	231,728	0	0	0	0	231,728
1968	31,563	67,591	3,154	0	334,477	371,510	8,426	3,807	54,988	875,516
1969	42,652	67,709	9,463	11,707	391,362	762,951	8,961	4,138	197,282	1,496,225
1970	48,623	74,208	9,463	12,194	422,900	927,979	9,212	4,304	142,744	1,651,627
1971	57,154	84,607	9,463	11,219	444,390	1,232,521	9,352	4,635	153,517	2,006,858
1972	65,684	94,533	9,463	12,682	454,086	1,845,593	9,411	8,882	493,767	2,994,101
1973	74,215	103,986	9,463	14,145	458,415	2,128,610	9,445	5,131	175,512	2,978,922
1974	82,745	113,912	9,463	16,096	462,783	2,383,725	9,483	5,297	193,018	3,276,522
1975	91,275	123,838	9,463	17,560	465,333	2,653,189	9,517	5,628	210,524	3,586,327
1976	99,806	133,764	9,463	19,023	466,283	3,003,174	9,537	5,793	228,031	3,974,874
1977	108,336	143,689	9,463	20,486	467,373	3,372,293	9,566	6,124	245,986	4,383,316
1978	108,336	153,615	9,463	22,438	468,706	3,748,587	9,607	6,456	263,492	4,790,700
1979	108,336	163,541	9,463	23,901	470,929	4,116,111	9,674	6,621	280,998	5,189,574
1980	108,336	173,467	9,463	25,364	474,153	4,491,607	9,778	6,952	298,504	5,597,624
1981	108,336	183,393	9,463	27,315	476,809	4,915,735	9,855	7,118	316,011	6,054,035
1982	108,336	193,792	9,463	28,779	481,262	5,307,176	9,985	7,449	333,517	6,479,759
1983	108,336	202,772	9,463	30,242	485,887	5,752,829	10,113	7,614	351,023	6,958,279
1984	108,336	213,171	9,463	31,705	490,052	6,154,634	10,236	7,945	368,530	7,394,072
1985	108,336	223,097	9,463	33,656	498,822	6,546,075	10,522	8,111	386,036	7,824,118
1986	108,336	233,023	9,463	35,120	503,859	6,934,327	10,688	8,442	403,991	8,247,249
1987	108,336	242,949	9,463	36,583	503,859	7,329,755	10,688	8,607	421,497	8,671,737
1988	108,336	252,875	9,463	38,046	503,859	7,698,873	10,688	8,938	439,004	9,070,082
1989	108,336	262,801	9,463	39,997	503,859	7,965,149	10,688	9,269	456,510	9,366,072
1990	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
1991	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
1992	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
1993	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
1994	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
1995	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
1996	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
1997	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
1998	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
1999	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
2000	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
2001	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
2002	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
2003	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
2004	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
2005	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
2006	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
2007	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
2008	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
2009	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
2010	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
2011	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
2012	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
2013	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
2014	108,336	272,726	9,463	41,461	503,859	8,241,788	10,688	9,435	493,767	9,691,523
2015	108,336	272,726	9,463	41,461	440,965	8,241,788	10,688	9,435	493,767	9,628,629
2016	108,336	272,726	9,463	41,461	385,341	8,241,788	10,688	9,435	493,767	9,573,005
2017	108,336	272,726	9,463	41,461	272,131	8,241,788	10,688	9,435	493,767	9,459,795
2018	108,336	272,726	9,463	41,461	169,382	8,241,788	2,262	9,435	493,767	9,348,620
2019	108,336	272,726	9,463	41,461	112,498	8,241,788	1,727	9,435	493,767	9,291,201
2020	108,336	272,726	9,463	41,461	80,959	8,241,788	1,476	9,435	493,767	9,259,411
2021	108,336	272,726	9,463	41,461	59,469	8,241,788	1,336	9,435	493,767	9,237,781
2022	108,336	272,726	9,463	41,461	49,773	8,241,788	1,277	9,435	493,767	9,228,026
2023	108,336	272,726	9,463	41,461	45,445	8,241,788	1,244	9,435	493,767	9,223,665
2024	108,336	272,726	9,463	41,461	41,077	8,241,788	1,206	9,435	493,767	9,219,259
2025	108,336	272,726	9,463	41,461	38,527	8,241,788	1,171	9,435	493,767	9,216,674
2026	108,336	272,726	9,463	41,461	37,577	8,241,788	1,151	9,435	493,767	9,215,704
2027	108,336	272,726	9,463	41,461	36,486	8,241,788	1,122	9,435	493,767	9,214,584
2028	108,336	272,726	9,463	41,461	35,153	8,241,788	1,082	9,435	493,767	9,213,211
2029	108,336	272,726	9,463	41,461	32,930	8,241,788	1,014	9,435	493,767	9,210,920
2030	108,336	272,726	9,463	41,461	29,706	8,241,788	910	9,435	493,767	9,207,592
2031	108,336	272,726	9,463	41,461	27,051	8,241,788	833	9,435	493,767	9,204,860
2032	108,336	272,726	9,463	41,461	22,597	8,241,788	704	9,435	493,767	9,200,277
2033	108,336	272,726	9,463	41,461	17,973	8,241,788	575	9,435	493,767	9,195,524
2034	108,336	272,726	9,463	41,461	13,807	8,241,788	452	9,435	493,767	9,191,235
2035	108,336	272,726	9,463	41,461	5,037	8,241,788	167	9,435	493,767	9,182,180
TOTAL	6,985,541	16,051,729	637,175	2,415,464	25,192,959	468,764,651	534,405	581,271	29,127,764	550,290,959

a) Unadjusted for prior overpayments or underpayments of charges.

TRANSPORTATION CHARGE FOR EACH CONTRACTOR[a]

(in dollars)

CALENDAR YEAR	SOUTHERN CALIFORNIA AREA									
	Antelope Valley-East Kern Water Agency	Castaic Lake Water Agency	Coachella Valley County Water District	Crestline Lake Arrowhead Water Agency	Desert Water Agency	Littlerock Creek Irrigation District	Mojave Water Agency	Palmdale Irrigation District	San Bernardino Valley Municipal Water District	San Gabriel Valley Municipal Water District
	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
1963	32,473	0	0	0	0	0	0	0	50,873	0
1964	60,657	19,093	13,845	4,156	35,974	1,110	27,379	7,942	79,227	33,878
1965	116,143	37,033	24,514	6,979	39,844	2,049	49,264	14,948	131,629	34,512
1966	212,619	70,882	44,077	12,239	72,107	3,713	89,207	27,341	228,936	60,605
1967	414,236	147,093	85,536	23,250	140,481	7,249	174,130	53,705	430,627	114,941
1968	665,859	290,041	140,323	38,313	230,838	11,738	285,084	86,892	727,621	194,023
1969	964,811	441,118	208,720	57,015	343,637	17,165	423,603	126,498	1,129,205	300,797
1970	1,260,537	562,823	294,514	84,291	485,131	23,334	589,167	170,293	1,678,243	440,515
1971	1,519,686	695,569	399,195	119,647	657,776	28,806	787,121	207,950	2,376,235	615,573
1972	1,654,611	785,255	454,887	137,278	749,624	31,349	895,522	226,138	2,797,010	718,221
1973	1,705,934	801,302	472,009	142,116	777,862	32,342	929,841	233,084	2,940,390	755,350
1974	1,744,668	837,438	486,952	148,090	802,506	33,022	956,120	238,093	3,073,436	787,722
1975	1,755,340	849,429	495,184	150,558	816,084	33,235	972,421	239,602	3,140,444	805,316
1976	1,760,452	852,682	504,804	153,064	831,949	33,346	992,157	240,391	3,203,660	822,392
1977	1,769,787	854,149	506,442	153,493	834,650	33,402	995,514	240,803	3,216,339	825,807
1978	1,833,932	854,819	506,984	153,642	835,544	33,434	996,614	241,038	3,219,060	826,532
1979	1,882,742	855,768	507,490	153,770	836,377	33,480	997,665	241,388	3,221,334	827,158
1980	1,909,951	858,978	508,424	154,055	837,919	33,565	999,561	242,023	3,226,375	828,539
1981	1,920,682	864,638	510,369	154,546	841,127	33,745	1,003,586	243,372	3,235,081	830,929
1982	1,942,990	870,625	513,635	155,372	846,513	34,046	1,010,344	245,638	3,249,693	834,941
1983	1,971,816	877,572	517,791	156,423	853,366	34,430	1,018,939	248,519	3,268,285	840,044
1984	1,994,132	882,221	520,570	157,126	857,950	34,687	1,024,692	250,447	3,280,722	843,459
1985	2,281,499	886,044	522,846	157,702	861,703	34,898	1,029,423	252,033	3,290,907	846,260
1986	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
1987	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
1988	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
1989	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
1990	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
1991	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
1992	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
1993	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
1994	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
1995	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
1996	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
1997	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
1998	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
1999	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
2000	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
2001	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
2002	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
2003	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
2004	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
2005	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
2006	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
2007	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
2008	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
2009	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
2010	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
2011	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
2012	2,531,543	887,685	523,822	157,948	863,312	34,989	1,031,456	252,715	3,295,279	847,463
2013	2,499,069	887,685	523,822	157,948	850,173	34,989	1,031,456	252,715	3,244,406	834,571
2014	2,470,886	868,592	509,977	153,793	841,063	33,879	1,004,077	244,773	3,216,052	827,052
2015	2,415,400	850,652	499,308	150,970	823,468	32,940	982,192	237,767	3,163,650	812,951
2016	2,318,923	816,803	479,745	145,710	791,205	31,276	942,250	225,374	3,066,343	786,858
2017	2,117,306	740,591	438,286	134,698	722,831	27,740	857,327	199,010	2,864,652	732,522
2018	1,865,684	597,644	383,498	119,636	632,474	23,251	746,372	165,822	2,567,658	653,440
2019	1,566,732	446,566	315,102	100,933	519,675	17,824	607,853	126,216	2,166,074	546,666
2020	1,271,006	324,862	229,308	73,658	378,181	11,655	442,289	82,422	1,617,036	406,948
2021	1,011,856	192,116	124,627	38,301	205,536	6,183	244,335	44,765	919,044	231,890
2022	876,932	102,430	68,935	20,671	113,688	3,640	135,934	26,577	498,269	129,242
2023	825,609	86,383	51,813	15,832	85,450	2,647	101,615	19,631	354,889	92,113
2024	786,875	50,246	36,870	9,858	60,806	1,967	75,337	14,622	221,843	59,741
2025	776,203	38,255	28,638	7,390	47,229	1,754	59,035	13,112	154,835	42,147
2026	771,090	35,002	19,018	4,884	31,363	1,643	39,299	12,324	91,619	25,071
2027	761,756	33,536	17,380	4,455	28,663	1,587	35,943	11,912	78,940	21,656
2028	697,610	32,866	16,837	4,306	27,768	1,555	34,842	11,677	76,219	20,931
2029	648,801	31,916	16,332	4,179	26,935	1,509	33,791	11,327	73,945	20,305
2030	621,592	28,707	15,397	3,894	25,393	1,424	31,895	10,692	68,904	18,924
2031	610,860	23,046	13,452	3,402	22,185	1,244	27,870	9,342	60,198	16,534
2032	588,553	17,060	10,187	2,576	16,800	943	21,113	7,077	45,586	12,522
2033	559,726	10,112	6,031	1,525	9,946	559	12,518	4,196	26,994	7,419
2034	537,411	5,463	3,252	822	5,363	302	6,764	2,268	14,557	4,004
2035	250,044	1,641	976	247	1,609	91	2,034	682	4,372	1,203
TOTAL	126,577,142	44,384,241	26,191,096	7,897,409	43,166,190	1,749,450	51,572,807	12,635,746	164,763,950	42,373,725

TABLE B-15: CAPITAL COST COMPONENT OF TRANSPORTATION CHARGE FOR EACH CONTRACTOR[a]

(in dollars)

CALENDAR YEAR	SOUTHERN CALIFORNIA AREA (continued)				FEATHER RIVER AREA				FUTURE CONTRACTOR	GRAND TOTAL
	San Gorgonio Pass Water Agency	The Metropolitan Water District of Southern California	Ventura County Flood Control District	Total	City of Yuba City	County of Butte	Plumas County FC & WCD	Total	South Bay	
	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1963	0	674,248	0	757,594	0	0	0	0	45,404	1,361,758
1964	21,038	1,228,540	8,920	1,541,759	0	0	0	0	82,060	2,441,634
1965	21,344	2,146,289	17,244	2,641,792	0	0	406	406	136,602	4,130,193
1966	37,425	3,860,546	32,804	4,752,501	0	0	562	562	160,089	6,576,004
1967	70,885	7,656,927	67,500	9,386,560	0	0	559	559	202,953	11,614,607
1968	119,780	14,313,328	132,521	17,236,361	0	0	562	562	281,139	20,494,774
1969	185,909	21,793,708	201,700	26,193,886	0	0	3,125	3,125	345,354	30,356,693
1970	273,001	28,908,605	256,519	35,026,973	0	0	14,767	14,767	367,714	39,453,203
1971	382,358	37,213,966	315,241	45,319,123	0	0	15,574	15,574	371,887	50,126,243
1972	446,288	44,106,508	353,357	53,356,048	0	0	16,926	16,926	372,850	59,211,520
1973	469,422	46,439,554	356,731	56,055,937	0	0	16,926	16,926	373,665	61,934,615
1974	489,807	48,636,247	370,587	58,604,688	0	0	16,926	16,926	375,398	64,798,585
1975	500,769	49,476,365	375,163	59,609,910	0	0	16,926	16,926	375,844	66,129,962
1976	511,353	49,938,401	376,489	60,221,140	0	0	16,926	16,926	375,958	67,541,250
1977	513,475	50,061,273	377,109	60,382,243	0	0	16,926	16,926	376,099	68,260,340
1978	513,922	50,099,487	377,412	60,492,420	0	0	16,926	16,926	376,294	69,125,489
1979	514,306	50,145,134	377,854	60,594,466	0	0	16,926	16,926	376,569	71,344,095
1980	515,154	50,287,217	379,143	60,780,904	0	0	16,926	16,926	376,913	73,440,809
1981	516,622	50,536,013	381,499	61,072,209	0	0	16,926	16,926	377,013	74,347,487
1982	519,085	50,824,998	384,303	61,432,183	0	0	16,926	16,926	377,109	75,159,210
1983	522,220	51,168,172	387,651	61,865,228	0	0	16,926	16,926	377,263	76,087,186
1984	524,317	51,397,813	389,891	62,158,027	0	0	16,926	16,926	377,508	76,827,666
1985	526,034	51,586,523	391,733	62,667,605	0	0	16,926	16,926	377,760	77,778,086
1986	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	78,557,453
1987	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	78,981,941
1988	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	79,380,286
1989	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	79,676,276
1990	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
1991	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
1992	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
1993	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
1994	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
1995	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
1996	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
1997	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
1998	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
1999	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
2000	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
2001	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
2002	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
2003	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
2004	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
2005	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
2006	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
2007	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
2008	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
2009	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
2010	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
2011	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
2012	526,772	51,667,554	392,523	63,013,061	0	0	16,926	16,926	377,837	80,001,727
2013	518,751	50,993,306	392,523	62,221,414	0	0	16,926	16,926	332,433	78,599,857
2014	514,111	50,439,014	383,604	61,506,873	0	0	16,926	16,926	295,777	77,572,014
2015	505,428	49,521,265	375,280	60,371,271	0	0	16,520	16,520	241,235	75,842,339
2016	489,346	47,807,008	359,720	58,260,561	0	0	16,364	16,364	217,748	73,393,912
2017	455,886	44,010,627	325,024	53,626,500	0	0	16,367	16,367	174,884	68,351,189
2018	406,992	37,354,226	260,003	45,776,700	0	0	16,364	16,364	96,698	59,998,525
2019	340,863	29,873,847	190,824	36,819,175	0	0	13,801	13,801	32,483	50,695,269
2020	253,771	22,758,949	136,005	27,986,090	0	0	2,159	2,159	10,123	41,720,698
2021	144,413	14,453,588	77,283	17,693,937	0	0	1,352	1,352	5,951	31,380,885
2022	80,484	7,561,046	39,167	9,657,015	0	0	0	0	4,987	23,320,815
2023	57,349	5,228,000	35,793	6,957,124	0	0	0	0	4,172	20,578,177
2024	36,965	3,031,307	21,936	4,408,373	0	0	0	0	2,440	18,007,401
2025	26,003	2,191,189	17,360	3,403,150	0	0	0	0	1,993	16,983,243
2026	15,419	1,729,153	16,034	2,791,919	0	0	0	0	1,879	15,959,531
2027	13,296	1,606,281	15,414	2,630,819	0	0	0	0	1,738	15,647,764
2028	12,849	1,568,067	15,111	2,520,638	0	0	0	0	1,543	15,188,623
2029	12,466	1,522,420	14,669	2,418,595	0	0	0	0	1,268	13,366,604
2030	11,618	1,380,337	13,380	2,232,157	0	0	0	0	924	11,674,614
2031	10,150	1,131,542	11,024	1,940,849	0	0	0	0	824	11,221,609
2032	7,686	842,556	8,221	1,580,880	0	0	0	0	728	10,831,033
2033	4,552	499,382	4,873	1,147,833	0	0	0	0	574	10,376,820
2034	2,455	269,741	2,632	855,034	0	0	0	0	329	10,067,846
2035	737	81,031	790	345,457	0	0	0	0	77	9,538,418
TOTAL	26,338,948	2,583,377,702	19,626,162	3,150,654,568	0	0	846,300	846,300	18,891,852	4,065,494,272

a) Unadjusted for prior overpayments or underpayments of charges.

TABLE B-16: MINIMUM OMP&R COMPONENT OF TRANSPORTATION CHARGE FOR EACH CONTRACTOR[a]

(in dollars)

CALENDAR YEAR	NORTH BAY AREA			SOUTH BAY AREA				CENTRAL COASTAL AREA		
	Napa County FC & WCD	Solano County FC & WCD	Total	Alameda County FC & WCD, Zone 7	Alameda County Water District	Santa Clara County FC & WD	Total	San Luis Obispo County FC & WCD	Santa Barbara County FC & WCD	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1962	0	0	0	9,686	8,856	0	18,542	0	0	0
1963	0	0	0	37,585	34,365	81,889	153,839	0	0	0
1964	0	0	0	39,672	36,968	88,089	164,729	0	0	0
1965	0	0	0	77,397	74,721	193,527	345,645	0	0	0
1966	0	0	0	78,729	78,093	216,184	373,006	0	0	0
1967	0	0	0	121,882	118,773	322,087	562,742	0	0	0
1968	0	0	0	106,258	102,832	285,552	494,642	10,295	24,035	34,330
1969	90,198	0	90,198	130,386	124,266	333,789	588,441	59,619	139,185	198,804
1970	95,056	0	95,056	126,083	119,291	317,139	562,513	68,287	159,420	227,707
1971	39,581	0	39,581	107,707	102,201	279,267	489,175	70,808	165,313	236,121
1972	39,317	0	39,317	126,540	121,842	346,320	594,702	71,613	167,190	238,803
1973	39,070	0	39,070	114,530	109,229	297,501	521,260	67,783	158,246	226,029
1974	41,739	0	41,739	122,038	116,279	317,522	555,839	69,836	163,037	232,873
1975	42,582	0	42,582	121,634	115,754	316,378	553,766	69,907	163,200	233,107
1976	44,463	0	44,463	120,646	114,780	313,589	549,015	69,695	162,711	232,406
1977	49,654	0	49,654	119,856	114,043	311,480	545,379	75,017	175,130	250,147
1978	57,533	0	57,533	120,284	114,432	312,426	547,142	75,243	175,658	250,901
1979	50,603	0	50,603	120,965	115,057	313,829	549,851	75,673	176,668	252,341
1980	112,719	78,520	191,239	121,762	115,865	316,530	554,157	154,166	376,406	530,572
1981	105,857	75,039	180,896	122,298	116,375	317,909	556,582	142,169	341,775	483,944
1982	105,743	74,887	180,630	122,705	116,758	318,888	558,351	141,386	339,718	481,104
1983	107,773	74,925	182,698	124,517	118,459	323,024	566,000	144,397	350,426	494,823
1984	106,828	74,155	180,983	124,255	118,187	322,048	564,490	143,264	347,662	490,926
1985	108,256	74,491	182,747	124,750	118,652	323,317	566,719	142,988	346,168	489,156
1986	107,344	74,551	181,895	124,678	118,598	323,157	566,433	148,811	359,537	508,348
1987	107,531	74,751	182,282	124,360	118,298	322,473	565,131	149,046	360,511	509,557
1988	105,821	73,367	179,188	124,355	118,232	321,672	564,259	147,694	357,028	504,722
1989	106,716	74,140	180,856	123,667	117,628	320,535	561,830	147,160	354,820	501,980
1990	107,850	74,343	182,193	123,907	117,850	321,065	562,822	147,925	357,518	505,443
1991	107,836	74,322	182,158	123,840	117,786	320,899	562,525	147,582	356,242	503,824
1992	108,625	74,944	183,569	124,362	118,303	322,380	565,045	148,471	358,124	506,595
1993	107,930	75,174	183,104	124,530	118,462	322,907	565,899	148,734	358,641	507,375
1994	107,931	75,176	183,107	125,553	119,381	325,254	570,188	148,479	357,722	506,201
1995	107,924	75,163	183,087	124,821	118,720	323,545	567,086	149,020	359,811	508,831
1996	108,721	75,009	183,730	124,640	118,549	323,050	566,239	148,752	359,122	507,874
1997	107,716	75,001	182,717	124,636	118,544	323,039	566,219	148,571	358,415	506,986
1998	107,735	75,033	182,768	124,624	118,533	323,015	566,172	148,426	357,940	506,366
1999	107,713	74,997	182,710	124,670	118,577	323,125	566,372	148,325	357,483	505,808
2000	107,681	74,949	182,630	124,619	118,527	323,000	566,146	148,706	358,893	507,599
2001	107,698	74,976	182,674	124,602	118,511	322,959	566,072	148,634	358,669	507,303
2002	107,724	75,015	182,739	124,641	118,549	323,058	566,248	148,807	359,333	508,140
2003	107,724	75,015	182,739	124,643	118,551	323,060	566,254	148,674	358,869	507,543
2004	107,707	74,989	182,696	124,607	118,514	322,968	566,089	148,289	357,387	505,676
2005	107,698	74,976	182,674	124,529	118,438	322,786	565,753	148,027	356,471	504,498
2006	107,707	74,989	182,696	124,583	118,490	322,910	565,983	148,180	357,010	505,190
2007	107,689	74,963	182,652	124,524	118,434	322,771	565,729	147,886	355,922	503,808
2008	107,724	75,015	182,739	124,647	118,553	323,065	566,265	148,379	357,725	506,104
2009	107,698	74,976	182,674	124,601	118,511	322,958	566,070	148,159	356,875	505,034
2010	107,724	75,015	182,739	124,632	118,540	323,031	566,203	148,402	357,853	506,255
2011	107,732	75,029	182,761	124,694	118,601	323,182	566,477	148,551	358,356	506,907
2012	107,698	74,976	182,674	124,574	118,483	322,896	565,953	147,994	356,276	504,270
2013	107,707	74,989	182,696	124,640	118,548	323,054	566,242	148,246	357,186	505,432
2014	107,724	75,015	182,739	124,591	118,500	322,937	566,028	148,229	357,222	505,451
2015	107,698	74,976	182,674	124,544	118,453	322,821	565,818	147,884	355,907	503,791
2016	107,707	74,989	182,696	124,657	118,562	323,089	566,308	148,218	357,051	505,269
2017	107,698	74,976	182,674	124,549	118,457	322,830	565,836	147,914	356,005	503,919
2018	107,707	74,989	182,696	124,548	118,457	322,827	565,832	147,917	356,069	503,986
2019	107,681	74,949	182,630	124,515	118,423	322,748	565,686	147,691	355,187	502,878
2020	107,707	74,989	182,696	124,651	118,558	323,077	566,286	148,123	356,723	504,846
2021	107,707	74,989	182,696	124,651	118,558	323,077	566,286	148,123	356,723	504,846
2022	107,707	74,989	182,696	124,651	118,558	323,077	566,286	148,123	356,723	504,846
2023	107,707	74,989	182,696	124,651	118,558	323,077	566,286	148,123	356,723	504,846
2024	107,707	74,989	182,696	124,651	118,558	323,077	566,286	148,123	356,723	504,846
2025	107,707	74,989	182,696	124,651	118,558	323,077	566,286	148,123	356,723	504,846
2026	107,707	74,989	182,696	124,651	118,558	323,077	566,286	148,123	356,723	504,846
2027	107,707	74,989	182,696	124,651	118,558	323,077	566,286	148,123	356,723	504,846
2028	107,707	74,989	182,696	124,651	118,558	323,077	566,286	148,123	356,723	504,846
2029	107,707	74,989	182,696	124,651	118,558	323,077	566,286	148,123	356,723	504,846
2030	107,707	74,989	182,696	124,651	118,558	323,077	566,286	148,123	356,723	504,846
2031	107,707	74,989	182,696	124,651	118,558	323,077	566,286	148,123	356,723	504,846
2032	107,707	74,989	182,696	124,651	118,558	323,077	566,286	148,123	356,723	504,846
2033	107,707	74,989	182,696	124,651	118,558	323,077	566,286	148,123	356,723	504,846
2034	107,707	74,989	182,696	124,651	118,558	323,077	566,286	148,123	356,723	504,846
2035	107,707	74,989	182,696	124,651	118,558	323,077	566,286	148,123	356,723	504,846
TOTAL	6,621,803	4,197,578	10,819,381	8,771,164	8,350,569	22,712,582	39,834,315	9,063,897	21,796,696	30,860,593

a) Unadjusted for prior overpayments or underpayments of charges.

TABLE B-16: MINIMUM OMP&R COMPONENT OF

(in dollars)

CALENDAR YEAR	SAN JOAQUIN VALLEY AREA									
	Devil's Den Water District	Dudley Ridge Water District	Empire West Side Irrigation District	Hacienda Water District	Kern County Water Agency		County of Kings	Oak Flat Water District	Tulare Lake Basin Water Storage District	Total
					Municipal and Industrial	Agricultural				
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1962	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0
1968	7,322	33,096	1,719	4,876	53,144	593,601	1,758	2,142	63,049	760,707
1969	41,890	45,889	2,259	6,761	83,157	1,205,795	2,310	2,123	84,890	1,475,074
1970	47,957	46,306	2,257	6,822	100,092	1,376,112	2,310	2,168	85,238	1,669,262
1971	49,729	47,693	2,306	7,027	104,697	1,610,168	2,359	2,302	87,416	1,913,697
1972	50,295	48,787	2,368	7,185	120,414	1,658,413	2,422	2,234	89,590	1,981,708
1973	47,611	48,637	2,351	7,166	121,968	1,684,240	2,404	2,300	89,107	2,005,784
1974	49,064	53,278	2,587	7,846	130,378	1,780,957	2,645	2,604	97,836	2,127,195
1975	49,121	55,583	2,708	8,187	132,886	1,805,981	2,771	2,830	102,291	2,162,358
1976	48,975	55,380	2,700	8,158	132,286	1,798,629	2,760	2,834	101,925	2,153,647
1977	52,696	54,936	2,679	8,094	131,252	1,762,170	2,740	2,795	101,092	2,118,454
1978	52,854	54,705	2,667	8,058	130,675	1,758,050	2,727	2,781	100,665	2,113,182
1979	53,164	56,950	2,782	8,389	134,547	1,798,848	2,844	3,002	104,926	2,165,452
1980	53,242	55,785	2,719	8,218	132,921	1,778,116	2,782	2,837	102,658	2,139,278
1981	53,255	56,292	2,744	8,293	133,973	1,788,551	2,806	2,867	103,598	2,152,379
1982	53,111	56,329	2,744	8,298	134,197	1,789,156	2,808	2,859	103,657	2,153,159
1983	53,653	57,468	2,801	8,465	136,666	1,817,542	2,866	2,878	105,778	2,188,117
1984	53,292	56,976	2,778	8,392	135,564	1,803,974	2,843	2,852	104,870	2,171,541
1985	53,372	56,759	2,767	8,362	135,219	1,801,653	2,830	2,844	104,461	2,168,267
1986	57,521	56,626	2,758	8,342	135,257	1,778,304	2,822	2,847	104,182	2,148,659
1987	57,448	56,542	2,756	8,329	135,027	1,775,531	2,817	2,846	104,027	2,145,323
1988	57,197	58,220	2,844	8,576	137,340	1,797,069	2,909	3,050	107,260	2,174,465
1989	57,023	56,115	2,734	8,265	134,105	1,762,989	2,794	2,826	103,238	2,130,089
1990	57,115	56,152	2,736	8,271	134,233	1,765,029	2,798	2,827	103,311	2,132,472
1991	57,108	56,134	2,735	8,269	134,199	1,764,625	2,797	2,827	103,275	2,131,969
1992	57,572	56,727	2,763	8,357	135,549	1,781,513	2,827	2,851	104,364	2,152,523
1993	57,700	56,829	2,769	8,371	135,729	1,784,422	2,832	2,857	104,554	2,156,063
1994	57,682	56,786	2,765	8,365	135,623	1,783,218	2,830	2,857	104,479	2,154,605
1995	57,660	56,732	2,763	8,357	135,491	1,781,727	2,827	2,856	104,384	2,152,797
1996	57,568	56,633	2,759	8,342	135,290	1,779,035	2,822	2,851	104,199	2,149,499
1997	57,579	56,661	2,760	8,347	135,348	1,779,626	2,822	2,851	104,246	2,150,240
1998	57,545	56,554	2,755	8,333	135,095	1,776,947	2,819	2,848	104,056	2,146,952
1999	57,576	56,647	2,760	8,345	135,325	1,779,386	2,822	2,850	104,221	2,149,932
2000	57,597	56,726	2,763	8,357	135,520	1,781,419	2,826	2,852	104,366	2,152,426
2001	57,570	56,664	2,760	8,348	135,365	1,779,750	2,823	2,851	104,253	2,150,384
2002	57,564	56,623	2,759	8,342	135,274	1,778,849	2,822	2,850	104,175	2,149,258
2003	57,551	56,586	2,758	8,336	135,181	1,777,815	2,820	2,849	104,107	2,148,003
2004	57,564	56,646	2,760	8,346	135,323	1,779,255	2,822	2,850	104,220	2,149,786
2005	57,526	56,562	2,755	8,334	135,102	1,776,838	2,820	2,849	104,073	2,146,859
2006	57,544	56,599	2,759	8,338	135,200	1,777,920	2,821	2,849	104,136	2,148,166
2007	57,537	56,603	2,758	8,339	135,192	1,777,754	2,821	2,850	104,141	2,147,995
2008	57,561	56,620	2,759	8,342	135,276	1,778,829	2,822	2,850	104,173	2,149,232
2009	57,569	56,668	2,760	8,349	135,377	1,779,872	2,823	2,851	104,259	2,150,528
2010	57,543	56,567	2,757	8,333	135,145	1,777,431	2,820	2,848	104,080	2,147,524
2011	57,572	56,631	2,759	8,344	135,310	1,779,255	2,822	2,850	104,191	2,149,734
2012	57,554	56,634	2,760	8,344	135,284	1,778,809	2,822	2,850	104,200	2,149,257
2013	57,580	56,686	2,761	8,349	135,434	1,780,487	2,825	2,851	104,294	2,151,267
2014	57,531	56,553	2,755	8,333	135,090	1,776,755	2,819	2,848	104,054	2,146,738
2015	57,540	56,601	2,759	8,339	135,195	1,777,825	2,821	2,850	104,137	2,148,067
2016	57,594	56,718	2,762	8,355	135,520	1,781,447	2,826	2,852	104,352	2,152,426
2017	57,540	56,606	2,759	8,339	135,198	1,777,873	2,821	2,850	104,145	2,148,131
2018	57,520	56,534	2,753	8,329	135,039	1,776,197	2,819	2,848	104,023	2,146,062
2019	57,533	56,596	2,758	8,338	135,171	1,777,532	2,821	2,850	104,131	2,147,730
2020	57,584	56,692	2,762	8,350	135,437	1,780,499	2,825	2,851	104,305	2,151,305
2021	57,584	56,692	2,762	8,350	135,437	1,780,499	2,825	2,851	104,305	2,151,305
2022	57,584	56,692	2,762	8,350	135,437	1,780,499	2,825	2,851	104,305	2,151,305
2023	57,584	56,692	2,762	8,350	135,437	1,780,499	2,825	2,851	104,305	2,151,305
2024	57,584	56,692	2,762	8,350	135,437	1,780,499	2,825	2,851	104,305	2,151,305
2025	57,584	56,692	2,762	8,350	135,437	1,780,499	2,825	2,851	104,305	2,151,305
2026	57,584	56,692	2,762	8,350	135,437	1,780,499	2,825	2,851	104,305	2,151,305
2027	57,584	56,692	2,762	8,350	135,437	1,780,499	2,825	2,851	104,305	2,151,305
2028	57,584	56,692	2,762	8,350	135,437	1,780,499	2,825	2,851	104,305	2,151,305
2029	57,584	56,692	2,762	8,350	135,437	1,780,499	2,825	2,851	104,305	2,151,305
2030	57,584	56,692	2,762	8,350	135,437	1,780,499	2,825	2,851	104,305	2,151,305
2031	57,584	56,692	2,762	8,350	135,437	1,780,499	2,825	2,851	104,305	2,151,305
2032	57,584	56,692	2,762	8,350	135,437	1,780,499	2,825	2,851	104,305	2,151,305
2033	57,584	56,692	2,762	8,350	135,437	1,780,499	2,825	2,851	104,305	2,151,305
2034	57,584	56,692	2,762	8,350	135,437	1,780,499	2,825	2,851	104,305	2,151,305
2035	57,584	56,692	2,762	8,350	135,437	1,780,499	2,825	2,851	104,305	2,151,305
TOTAL	3,747,331	3,773,702	183,959	555,900	8,949,835	118,561,273	188,159	189,910	6,945,233	143,095,302

a) Unadjusted for prior overpayments or underpayments of charges.

TRANSPORTATION CHARGE FOR EACH CONTRACTOR[a]

(in dollars)

CALENDAR YEAR	SOUTHERN CALIFORNIA AREA									
	Antelope Valley-East Kern Water Agency	Castaic Lake Water Agency	Coachella Valley County Water District	Crestline Lake Arrowhead Water Agency	Desert Water Agency	Littlerock Creek Irrigation District	Mojave Water Agency	Palmdale Irrigation District	San Bernardino Valley Municipal Water District	San Gabriel Valley Municipal Water District
	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
1962	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0
1968	56,975	17,267	10,242	2,589	16,889	952	21,346	7,155	45,803	12,606
1969	89,124	27,012	16,022	4,052	26,424	1,492	33,390	11,193	71,658	19,722
1970	111,237	33,711	20,009	5,061	33,000	1,860	41,676	13,971	89,491	24,627
1971	162,505	48,967	29,040	7,345	47,891	2,719	60,396	20,413	129,875	35,721
1972	354,947	138,242	109,907	30,696	181,259	6,704	221,740	47,935	543,101	144,481
1973	383,375	152,424	111,472	30,428	183,845	7,260	226,196	52,542	651,932	173,897
1974	399,056	161,875	115,288	31,306	190,131	7,542	234,308	54,574	692,319	184,884
1975	397,244	156,933	115,628	31,430	190,696	7,528	234,924	54,363	690,499	184,358
1976	395,032	155,237	110,608	26,782	182,416	7,494	231,757	54,103	603,227	166,462
1977	390,350	156,326	112,527	30,609	185,582	7,409	228,579	53,466	669,100	178,610
1978	390,794	153,225	114,181	31,755	188,307	7,435	230,441	53,631	688,208	182,576
1979	395,685	154,769	116,911	34,236	192,811	7,522	232,283	54,269	732,923	191,663
1980	396,825	156,333	116,360	32,772	191,898	7,553	233,953	54,486	708,910	187,397
1981	398,471	157,007	113,586	29,172	187,326	7,578	234,417	54,686	645,469	175,138
1982	400,159	150,271	116,606	32,165	192,305	7,618	235,898	54,947	698,773	185,801
1983	406,742	164,399	122,979	37,521	202,815	7,757	241,078	55,930	794,235	205,335
1984	403,739	157,379	118,288	32,099	195,080	7,711	240,439	55,575	696,818	186,156
1985	403,862	159,286	116,056	29,201	191,399	7,716	240,796	55,601	645,832	176,298
1986	409,769	164,801	119,763	33,737	197,511	7,723	240,781	55,628	726,495	192,042
1987	409,478	158,126	117,672	31,031	194,061	7,721	241,093	55,621	678,489	182,727
1988	409,823	142,507	121,270	35,688	200,004	7,724	240,553	55,640	759,433	198,305
1989	407,614	167,967	114,105	27,110	188,179	7,690	240,163	55,389	608,020	168,766
1990	409,788	164,828	118,041	30,876	194,673	7,749	242,385	55,764	674,974	182,211
1991	409,547	159,762	119,827	33,103	197,619	7,741	242,291	55,723	714,554	189,917
1992	413,189	163,082	126,001	39,590	207,805	7,815	244,553	56,257	830,428	212,958
1993	412,571	141,800	119,191	31,748	196,569	7,790	243,528	56,104	691,562	185,724
1994	413,711	184,168	117,330	28,719	193,506	7,828	245,151	56,334	637,725	175,495
1995	413,511	158,892	125,606	38,914	207,157	7,821	244,964	56,307	818,877	210,807
1996	413,343	157,774	123,065	35,725	202,962	7,823	245,140	56,299	762,022	199,729
1997	413,228	167,615	118,320	30,000	195,134	7,821	244,988	56,275	660,241	179,848
1998	413,289	166,353	118,357	29,831	195,190	7,827	245,448	56,313	657,207	179,336
1999	413,660	139,565	121,191	33,221	199,865	7,832	245,599	56,365	717,478	191,119
2000	414,271	185,222	124,519	37,098	205,356	7,848	245,998	56,464	786,395	204,636
2001	413,718	161,635	124,085	36,888	204,645	7,834	245,321	56,369	782,644	203,787
2002	414,167	169,283	115,825	26,388	191,015	7,850	246,194	56,468	596,065	167,534
2003	414,160	157,711	123,480	35,721	203,640	7,852	246,220	56,473	761,937	199,899
2004	414,228	177,017	121,358	33,174	200,142	7,849	246,131	56,477	716,655	191,049
2005	413,667	134,543	126,634	39,789	208,845	7,839	245,772	56,393	834,201	213,920
2006	413,738	187,553	115,236	25,898	190,042	7,840	245,698	56,394	587,379	165,753
2007	413,207	145,014	128,590	42,529	212,066	7,823	245,010	56,289	882,915	223,293
2008	414,431	174,447	122,903	34,824	202,694	7,859	246,639	56,520	746,015	196,866
2009	413,930	156,347	119,708	31,406	197,419	7,842	245,611	56,410	685,207	184,828
2010	414,307	166,338	122,325	34,092	201,737	7,856	246,690	56,507	732,963	194,329
2011	414,944	163,632	115,396	25,387	190,302	7,871	247,195	56,617	578,294	164,238
2012	413,781	175,457	130,272	44,302	214,850	7,838	245,627	56,394	914,407	229,544
2013	414,981	153,546	116,697	27,062	192,452	7,873	247,028	56,617	608,016	170,010
2014	414,052	163,723	126,357	39,253	208,387	7,852	246,188	56,469	824,666	212,132
2015	413,637	157,694	120,939	32,890	199,448	7,837	245,640	56,374	711,633	189,989
2016	414,690	158,721	121,869	33,659	200,978	7,861	246,417	56,544	725,296	192,789
2017	413,452	160,921	114,869	25,634	189,437	7,831	245,311	56,337	582,659	164,767
2018	413,347	178,465	129,288	43,199	213,221	7,830	245,410	56,331	894,799	225,681
2019	413,051	159,055	114,573	25,506	188,949	7,818	244,807	56,262	580,429	164,247
2020	414,025	163,276	121,564	33,623	200,488	7,843	245,719	56,428	724,667	192,543
2021	414,025	163,276	121,564	33,623	200,488	7,843	245,719	56,428	724,667	192,543
2022	414,025	163,276	121,564	33,623	200,488	7,843	245,719	56,428	724,667	192,543
2023	414,025	163,276	121,564	33,623	200,488	7,843	245,719	56,428	724,667	192,543
2024	414,025	163,276	121,564	33,623	200,488	7,843	245,719	56,428	724,667	192,543
2025	414,025	163,276	121,564	33,623	200,488	7,843	245,719	56,428	724,667	192,543
2026	414,025	163,276	121,564	33,623	200,488	7,843	245,719	56,428	724,667	192,543
2027	414,025	163,276	121,564	33,623	200,488	7,843	245,719	56,428	724,667	192,543
2028	414,025	163,276	121,564	33,623	200,488	7,843	245,719	56,428	724,667	192,543
2029	414,025	163,276	121,564	33,623	200,488	7,843	245,719	56,428	724,667	192,543
2030	414,025	163,276	121,564	33,623	200,488	7,843	245,719	56,428	724,667	192,543
2031	414,025	163,276	121,564	33,623	200,488	7,843	245,719	56,428	724,667	192,543
2032	414,025	163,276	121,564	33,623	200,488	7,843	245,719	56,428	724,667	192,543
2033	414,025	163,276	121,564	33,623	200,488	7,843	245,719	56,428	724,667	192,543
2034	414,025	163,276	121,564	33,623	200,488	7,843	245,719	56,428	724,667	192,543
2035	414,025	163,276	121,564	33,623	200,488	7,843	245,719	56,428	724,667	192,543
TOTAL	26,602,802	10,436,643	7,745,396	2,131,179	12,773,742	503,146	15,680,665	3,624,416	45,862,925	12,204,695

TABLE B-16: MINIMUM OMP&R COMPONENT OF TRANSPORTATION CHARGE FOR EACH CONTRACTOR[a]

(in dollars)

CALENDAR YEAR	SOUTHERN CALIFORNIA AREA (continued)				FEATHER RIVER AREA				FUTURE CONTRACTOR	GRAND TOTAL
	San Gorgonio Pass Water Agency	The Metropolitan Water District of Southern California	Ventura County Flood Control District	Total	City of Yuba City	County of Butte	Plumas County FC & WCD	Total	South Bay	
	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1962	0	0	0	0	0	0	0	0	0	18,542
1963	0	0	0	0	0	0	0	0	12,473	166,312
1964	0	0	0	0	0	0	0	0	13,446	178,175
1965	0	0	0	0	0	0	0	0	28,685	374,330
1966	0	0	0	0	0	0	0	0	31,266	404,272
1967	0	0	0	0	0	0	0	0	46,613	609,355
1968	7,722	851,678	8,321	1,059,545	0	0	0	0	40,988	2,390,212
1969	12,083	1,337,893	13,018	1,663,083	0	0	0	0	47,999	4,063,599
1970	15,089	1,677,493	16,246	2,083,471	0	0	0	0	82,549	4,720,558
1971	21,895	2,449,912	23,599	3,040,278	0	0	59	59	55,555	5,774,466
1972	89,185	7,735,537	64,433	9,668,167	0	0	80	80	100,567	12,623,344
1973	107,611	8,876,953	70,358	11,028,293	0	0	229	229	78,531	13,899,196
1974	114,440	9,637,560	74,535	11,897,818	0	0	234	234	82,371	14,938,069
1975	114,110	9,214,826	72,645	11,465,184	0	0	237	237	81,831	14,539,065
1976	102,491	9,393,314	72,166	11,501,089	0	0	229	229	81,088	14,561,937
1977	110,547	9,167,576	72,197	11,362,878	0	0	221	221	80,654	14,407,387
1978	113,108	9,235,855	70,931	11,460,447	0	0	220	220	81,112	14,510,537
1979	119,013	9,837,217	71,486	12,140,788	0	0	218	218	81,152	15,240,405
1980	116,165	9,207,560	72,098	11,482,310	0	0	251	251	82,103	14,979,910
1981	108,115	9,411,523	72,312	11,594,800	0	0	258	258	82,450	15,051,309
1982	115,066	9,307,128	70,179	11,566,916	0	0	261	261	82,733	15,023,154
1983	127,740	10,145,538	75,096	12,587,165	0	0	261	261	84,308	16,103,372
1984	115,193	9,566,923	72,622	11,848,022	0	0	245	245	84,316	15,340,523
1985	108,721	9,579,784	73,268	11,787,820	0	0	252	252	84,543	15,279,504
1986	119,036	9,848,424	75,099	12,190,809	0	0	255	255	84,592	15,680,991
1987	112,922	9,484,678	72,929	11,746,548	0	0	256	256	84,334	15,233,431
1988	123,161	9,414,557	67,799	11,776,464	0	0	227	227	83,801	15,283,126
1989	103,808	9,518,832	76,077	11,683,720	0	0	241	241	83,729	15,142,445
1990	112,561	9,816,904	75,119	12,085,873	0	0	241	241	83,773	15,552,817
1991	117,613	9,683,110	73,467	12,004,274	0	0	241	241	83,653	15,468,644
1992	132,650	10,259,535	74,707	12,768,570	0	0	255	255	83,378	16,259,935
1993	114,826	9,026,009	67,750	11,295,172	0	0	260	260	83,849	14,791,722
1994	108,087	10,467,103	81,656	12,716,813	0	0	260	260	86,154	16,217,328
1995	131,230	10,015,860	73,375	12,503,321	0	0	260	260	84,216	15,999,598
1996	123,967	9,735,661	72,992	12,136,502	0	0	257	257	84,105	15,628,206
1997	110,943	9,888,065	76,217	12,148,695	0	0	257	257	84,103	15,639,217
1998	110,597	9,907,444	75,801	12,162,993	0	0	257	257	84,092	15,649,600
1999	118,313	9,126,578	67,048	11,437,834	0	0	257	257	84,145	14,927,058
2000	127,160	10,922,933	82,011	13,399,911	0	0	257	257	84,083	16,893,052
2001	126,620	10,055,562	74,273	12,493,381	0	0	257	257	84,066	15,984,137
2002	102,847	9,668,956	76,789	11,839,381	0	0	257	257	84,111	15,330,134
2003	124,055	10,100,452	72,994	12,504,594	0	0	257	257	84,115	15,993,505
2004	118,259	10,315,713	79,319	12,677,371	0	0	257	257	84,070	16,165,945
2005	133,247	9,256,062	65,401	11,736,313	0	0	257	257	83,981	15,220,335
2006	101,690	10,457,663	82,749	12,637,633	0	0	257	257	84,042	16,123,967
2007	139,415	9,675,429	68,817	12,240,397	0	0	257	257	83,975	15,724,813
2008	122,056	10,404,833	78,485	12,808,572	0	0	257	257	84,117	16,297,286
2009	114,191	9,647,220	72,553	11,932,672	0	0	257	257	84,065	15,421,300
2010	120,391	10,012,612	75,823	12,385,970	0	0	257	257	84,102	15,873,050
2011	100,663	9,528,970	74,960	11,668,469	0	0	257	257	84,173	15,158,778
2012	143,490	11,140,896	78,798	13,795,656	0	0	257	257	84,033	17,282,100
2013	104,448	9,011,763	71,664	11,182,157	0	0	257	257	84,110	14,672,161
2014	132,067	10,513,063	74,960	13,019,169	0	0	257	257	84,053	16,504,435
2015	117,570	9,759,570	72,976	12,086,197	0	0	257	257	83,998	15,570,802
2016	119,387	9,839,747	73,348	12,191,306	0	0	257	257	84,126	15,682,388
2017	101,056	9,311,638	74,026	11,447,938	0	0	257	257	84,003	14,932,758
2018	140,964	11,180,524	79,764	13,808,823	0	0	257	257	84,003	17,291,659
2019	100,727	9,100,290	73,410	11,229,124	0	0	257	257	83,963	14,712,268
2020	119,245	9,939,909	74,824	12,294,154	0	0	257	257	84,121	15,783,665
2021	119,245	9,939,909	74,824	12,294,154	0	0	257	257	84,121	15,783,665
2022	119,245	9,939,909	74,824	12,294,154	0	0	257	257	84,121	15,783,665
2023	119,245	9,939,909	74,824	12,294,154	0	0	257	257	84,121	15,783,665
2024	119,245	9,939,909	74,824	12,294,154	0	0	257	257	84,121	15,783,665
2025	119,245	9,939,909	74,824	12,294,154	0	0	257	257	84,121	15,783,665
2026	119,245	9,939,909	74,824	12,294,154	0	0	257	257	84,121	15,783,665
2027	119,245	9,939,909	74,824	12,294,154	0	0	257	257	84,121	15,783,665
2028	119,245	9,939,909	74,824	12,294,154	0	0	257	257	84,121	15,783,665
2029	119,245	9,939,909	74,824	12,294,154	0	0	257	257	84,121	15,783,665
2030	119,245	9,939,909	74,824	12,294,154	0	0	257	257	84,121	15,783,665
2031	119,245	9,939,909	74,824	12,294,154	0	0	257	257	84,121	15,783,665
2032	119,245	9,939,909	74,824	12,294,154	0	0	257	257	84,121	15,783,665
2033	119,245	9,939,909	74,824	12,294,154	0	0	257	257	84,121	15,783,665
2034	119,245	9,939,909	74,824	12,294,154	0	0	257	257	84,121	15,783,665
2035	119,245	9,939,909	74,824	12,294,154	0	0	257	257	84,121	15,783,665
TOTAL	7,556,231	631,769,470	4,795,850	781,687,160	0	0	16,031	16,031	5,732,382	1,012,045,164

a) Unadjusted for prior overpayments or underpayments of charges.

TABLE B-17: UNIT VARIABLE OMP&R COMPONENT OF TRANSPORTATION CHARGE[a]

(in dollars per acre-foot)

Calendar Year	NORTH BAY AQUEDUCT				SOUTH BAY AQUEDUCT		CALIFORNIA AQUEDUCT			
	Reach 1 Calhoun and Travis Pumping Plants		Reach 3 Cordelia Pumping Plant		Reach 1 South Bay and Del Valle Pumping Plant (b		Reach 1 Delta Pumping Plant		Reach 4 Dos Amigos Pumping Plant	
	Unit Rate	Cumulative Unit Rate	Unit Rate	Cumulative Unit Rate	Unit Rate	Cumulative Unit Rate	Unit Rate	Cumulative Unit Rate	Unit Rate	Cumulative Unit Rate
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1962	0	0	0	0	4.1504604	4.1504604	0	0	0	0
1963	0	0	0	0	4.5633057	4.5633057	0	0	0	0
1964	0	0	0	0	3.5433026	3.5433026	0	0	0	0
1965	0	0	0	0	4.1891495	4.1891495	0	0	0	0
1966	0	0	0	0	3.5059458	3 5059458	0	0	0	0
1967	0	0	0	0	3.8492152	5.2475511	1 3983359	1.3983359	0	0
1968	0	0	5.8887974	5 8887974	3.3524219	4.8283992	1.4759773	1.4759773	1.1368295	2 6128068
1969	0	0	3.2352066	3.2352066	3.7147550	4.7425189	1.0277639	1.0277639	.7699142	1.7976781
1970	0	0	3.7880044	3.7880044	4.4228450	5.4287257	1.0058807	1 0058807	.8488531	1.8547338
1971	0	0	4 0840936	4 0840936	3.7198734	4.5844864	.8646130	8646130	.4308140	1.2954270
1972	0	0	4.3871675	4.3871675	4 6155997	5.6578792	1.0422795	1 0422795	.5795296	1.6218091
1973	0	0	4 4052863	4.4052863	4.3566954	5.1972596	.8405642	.8405642	5523154	1.3928796
1974	0	0	3.3205619	3.3205619	4.5639542	5.4584489	.8944947	8944947	.5373312	1.4318259
1975	0	0	2 8598665	2.8598665	4.3406988	5.2580357	.9173369	.9173369	5648917	1.4822286
1976	0	0	3.5352345	3.5352345	4.2426482	5.2134147	9707665	9707665	.5724614	1.5432279
1977	0	0	2.5647004	2.5647004	4.2348445	5.4124526	1 1776081	1 1776081	.5730980	1.7507061
1978	0	0	2 3068051	2 3068051	4.5014996	5.4294228	.9279232	9279232	.6426328	1.5705560
1979	0	0	1.7647059	1 7647059	4.1221866	5.7196232	1.5974366	1.5974366	.5250661	2 1225027
1980	2402623	.2402623	3.0823529	3.3226152	4.2727412	5.6607394	1.3879982	1.3879982	.5740287	1 9620269
1981	2139306	2139306	2.8172043	3.0311349	4.1210515	5.6960989	1 5750474	1.5750474	.5725487	2 1475961
1982	.2870769	2870769	2.9900990	3.2771759	4.3286905	5.9673011	1.6386106	1.6386106	.6087853	2.2473959
1983	.4903947	4903947	3.7570093	4 2474040	5.3523836	7.6981573	2.3457737	2.3457737	.7252763	3 0710500
1984	5029386	.5029386	3.9115044	4 4144430	5.6476861	7.9570372	2.3093511	2.3093511	.7964058	3.1057569
1985	4948532	.4948532	3.8500000	4 3448532	5.7811687	7.7478519	1.9666832	1.9666832	.8344094	2 8010926
1986	4691632	4691632	4.8636364	5 3327996	5.6100129	7 9795791	2.3695662	2.3695662	8142025	3 1837687
1987	.5931312	.5931312	4.4428571	5.0359883	5.2828815	7 4993835	2.2165020	2.2165020	.7996309	3.0161329
1988	.5378987	.5378987	4.3972603	4.9351590	5 3248547	7 8580121	2 5331574	2.5331574	8238417	3 3569991
1989	.6910895	.6910895	4.3466667	5.0377562	5.1884952	7.4856485	2 2971533	2.2971533	.8166377	3.1137910
1990	.9323640	.9323640	4.4645161	5.3968801	5.3178883	7.5583634	2.2404751	2 2404751	8687392	3.1092143
1991	9074818	.9074818	4.1882353	5.0957171	5.2117467	7.4468221	2.2350754	2.2350754	8707310	3.1058064
1992	8916129	8916129	3.9555556	4 8471685	5.0411380	7 5007408	2.4596028	2.4596028	8463958	3.3059986
1993	8591021	8591021	4 6947368	5.5538389	4.9265318	7.2631302	2.3365984	2.3365984	.8384850	3 1750834
1994	8614879	.8614879	4 5600000	5 4214879	4 8516809	7.0991416	2.2474607	2.2474607	8400434	3.0875041
1995	8471769	8471769	4.3904762	5.2376531	4 8861915	7 0440012	2 1578097	2 1578097	8426744	3 0004841
1996	.8660201	.8660201	4.3272727	5 1932928	4.9538138	7 1291935	2.1753797	2.1753797	8540529	3 0294326
1997	.8562149	.8562149	4 1938326	5 0500475	4.8861915	7 1321080	2 2459165	2 2459165	8387209	3 0846374
1998	.8931485	.8931485	4 2638298	5 1569783	5.0526383	7 1062832	2 0536449	2 0536449	8676415	2.9212864
1999	8517419	.8517419	4.0991736	4 9509155	5.0110266	7 2229604	2 2119338	2 2119338	8594338	3.0713676
2000	7943949	.7943949	3 7280000	4 5223949	4.7197500	7 0878047	2 3680547	2.3680547	8170225	3.1850772
2001	8255414	.8255414	3 8080000	4 6335414	4 7873670	7 0448745	2 2575075	2.2575075	8279641	3 0854716
2002	8722771	8722771	4.0080000	4 8802771	4 9850160	7.1499391	2.1649231	2.1649231	8696092	3 0345323
2003	8722771	.8722771	4 0480000	4 9202771	5.0526383	7.1545093	2.1018710	2.1018710	8703686	2 9722396
2004	8411146	.8411146	3 8480000	4 6891146	4.8341755	7.0565533	2.2223778	2 2223778	8378573	3 0602351
2005	8255414	.8255414	3 8080000	4.6335414	4 7717606	6 8587200	2 0869594	2.0869594	.8323627	2 9193221
2006	8411146	8411146	3.8880000	4 7291146	4.8497819	6.9935657	2 1437838	2.1437838	8406425	2.9844263
2007	8099682	.8099682	3.7280000	4 5379682	4 6781383	6.8430870	2 1649487	2.1649487	.8078294	2 9727781
2008	8722771	.8722771	4.0080000	4.8802771	5.0006277	7.1612887	2.1606610	2.1606610	8747680	3 0354290
2009	.8255414	8255414	3 8080000	4 6335414	4 7873670	7 0443264	2 2569594	2.2569594	8399702	3 0969296
2010	8722771	8722771	4.0480000	4 9202771	5.0578351	7.1261969	2 0683618	2 0683618	8852653	2.9536271
2011	8878503	.8878503	4 1280000	5.0158503	5.1202553	7.2861132	2 1658579	2 1658579	8942016	3 0600595
2012	8255414	.8255414	3 8080000	4 6335414	4.7665585	6.9748008	2 2082423	2 2082423	.8284017	3 0366440
2013	8411146	.8411146	3.8880000	4 7291146	4.8601862	7.1452549	2 2850687	2 2850687	.8468348	3 1319035
2014	.8722771	.8722771	3 9680000	4 8402771	4.9590106	7 0208597	2 0618491	2.0618491	8511286	2 9129777
2015	.8255414	8255414	3.8080000	4 6335414	4 7457553	6.8962093	2 1504540	2.1504540	8281018	2.9785558
2016	.8411146	8411146	3 8880000	4 7291146	4.8445798	7 1827503	2 3381705	2.3381705	8502385	3 1884090
2017	8255414	8255414	3.7680000	4.5935414	4.7405532	6 9062221	2 1656689	2 1656689	.8128843	2 9785532
2018	8411146	8411146	3.8880000	4.7291146	4 8705904	6 9062039	2 0356135	2 0356135	.8447255	2.8803390
2019	7943949	7943949	3 7280000	4.5223949	4 6625319	6 8177982	2 1552663	2 1552663	.8053116	2 9605779
2020 (c	8411146	8411146	3.8880000	4 7291146	4 8705904	7 1707008	2 3001104	2 3001104	8363998	3 1365102

a) Unit rates as shown constitute the rate for the indicated pumping plants, powerplants and reservoirs. Cumulative unit rates as shown constitute the total rate, cumulative from the Sacramento-San Joaquin Delta, applicable to deliveries from or downstream of the indicated pumping plants and powerplants.

b) The relatively minor estimated costs of the Del Valle Pumping Plant have been combined with those of the South Bay Pumping Plant to simplify the allocation procedure.

c) And each year thereafter for the remainder of the project repayment period .

(in dollars per acre-foot)

Calendar Year	CALIFORNIA AQUEDUCT (Continued)									
	Reach 14A Buena Vista Pumping Plant		Reach 15A Wheeler Ridge Pumping Plant		Reach 16A Wind Gap Pumping Plant		Reach 17E A. D. Edmonston Pumping Plant		Reach 22B Pearblossom Pumping Plant	
	Unit Rate	Cumulative Unit Rate	Unit Rate	Cumulative Unit Rate	Unit Rate	Cumulative Unit Rate	Unit Rate	Cumulative Unit Rate	Unit Rate	Cumulative Unit Rate
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1962	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0
1970	3.6666667	5.5214005	0	0	0	0	0	0	0	0
1971	1.3521456	2.6475726	2.8037725	5.4513451	0	0	0	0	0	0
1972	1.0505710	2.6723801	.9444647	3.6168448	1.9490816	5.5659264	6.3816764	11.9476028	5.2056856	17.1532884
1973	.9084851	2.3013647	1.0245887	3.3259534	2.0279713	5.3539247	6.7310823	12.0850070	3.0454962	15.1305032
1974	.8105903	2.2424162	.9347598	3.1771760	1.9077542	5.0849302	6.4686225	11.5535527	2.9968634	14.5504161
1975	.8593256	2.3415542	.9909301	3.3324843	2.0062966	5.3387809	6.8030715	12.1418524	2.9788289	15.1206813
1976	.9210804	2.4643083	.9812281	3.4455364	2.1843505	5.6298869	7.4922519	13.1221388	2.8740925	15.9962313
1977	.8342443	2.5849504	1.0378800	3.6228304	2.1586861	5.7815165	7.3823269	13.1638434	2.7788350	15.9426784
1978	.9321691	2.5027251	1.0803589	3.5830840	2.4204932	6.0035772	8.4644546	14.4680318	3.1484115	17.6164433
1979	.9260624	3.0485651	1.0730369	4.1216020	2.3799708	6.5015728	8.4970744	14.9986472	2.9334974	17.9321446
1980	.9961218	2.9581487	1.0963694	4.0545181	2.5751509	6.6296690	8.6925401	15.3222091	2.9786524	18.3008615
1981	.9679729	3.1155690	1.0690317	4.1846007	2.3761724	6.5607731	8.4784476	15.0392207	2.8660242	17.9052449
1982	1.0440628	3.2914587	1.0926781	4.3841368	2.5696141	6.9537509	8.6888820	15.6426329	3.0811901	18.7238230
1983	1.1071461	4.1781961	1.2286494	5.4068455	2.6634277	8.0702732	9.8093218	17.8795950	3.6305159	21.5101109
1984	1.2462506	4.3520075	1.2695629	5.6215704	2.7439254	8.3654958	10.2174545	18.5829503	4.0867846	22.6697349
1985	1.3569839	4.1580765	1.2813471	5.4394236	2.7705699	8.2099935	10.3196423	18.5296358	4.2044593	22.7340951
1986	1.2790576	4.4628263	1.3409572	5.8037835	2.8882993	8.6920828	9.7982241	18.4903069	4.0808768	22.5711837
1987	1.2814610	4.2975939	1.3740428	5.6716367	2.9552209	8.6268576	10.1979117	18.8247693	4.2738748	23.0986441
1988	1.3400616	4.6970607	1.3481365	6.0451972	3.1159175	9.1611147	9.9907948	19.1519095	4.0724802	23.2243897
1989	1.2830225	4.3968135	1.3926249	5.7894384	2.9785203	8.7679587	10.4095291	19.1774878	4.1318489	23.3093367
1990	1.4402471	4.5494614	1.4924892	6.0419506	3.3843649	9.4263155	11.1971499	20.6234654	4.1153204	24.7387858
1991	1.4283853	4.5341917	1.4800797	6.0142714	3.3554075	9.3696789	11.1004370	20.4701159	4.3564809	24.8265968
1992	1.4576530	4.7636516	1.5311952	6.2948468	3.4432315	9.7380783	11.5382950	21.2763733	3.8892231	25.1655964
1993	1.3884540	4.5635374	1.4406437	6.0041811	3.2660917	9.2702728	10.8168252	20.0870980	4.1890997	24.2761977
1994	1.4187853	4.5062894	1.4901817	5.9964711	3.3501196	9.3465907	12.0281666	21.3747573	4.2428255	25.6175828
1995	1.4216953	4.4221794	1.4926134	5.9147928	3.3557244	9.2705172	12.0506248	21.3211420	4.1302440	25.4513860
1996	1.4401766	4.4696092	1.5104956	5.9801048	3.3947931	9.3748979	12.1949136	21.5698115	4.2586477	25.8284592
1997	1.4058961	4.4905335	1.5723532	6.0628867	3.5094370	9.5723237	11.8890933	21.4614170	4.2467497	25.7081667
1998	1.5217632	4.4430496	1.6143600	6.0574096	3.6017865	9.6591961	12.1897466	21.8489427	4.3933110	26.2422537
1999	1.4418849	4.5132525	1.6130168	6.1262693	3.6012073	9.7274766	12.2027902	21.9302668	4.2846620	26.2149288
2000	1.4439755	4.6290527	1.5509322	6.1799849	3.6186817	9.7986666	12.4911529	22.2898195	4.0072116	26.2970311
2001	1.4793578	4.5648294	1.5883298	6.1531592	3.7079389	9.8610981	12.0435875	21.9046856	3.7930359	25.6977215
2002	1.5476039	4.5821362	1.6594449	6.2415811	3.6761500	9.9177311	12.5643244	22.4820555	4.1176819	26.5997374
2003	1.5481261	4.5203657	1.6583003	6.1786660	3.8746834	10.0533494	12.5488404	22.6021898	3.9784101	26.5805999
2004	1.4674974	4.5277325	1.6659297	6.1936622	3.6699288	9.8635910	12.6566371	22.5202281	3.9049993	26.4252274
2005	1.4648479	4.3841700	1.5713964	5.9555664	3.6683143	9.6238807	12.6577083	22.2815890	4.0215100	26.3030990
2006	1.4510363	4.4354626	1.6458205	6.0812831	3.6253897	9.7066728	12.4980255	22.2046983	3.9659485	26.1706468
2007	1.4118338	4.3846119	1.6018582	5.9864701	3.5295717	9.5160418	12.1730371	21.6890789	3.9303649	25.6194438
2008	1.5568763	4.5923053	1.6832444	6.2755497	3.7062551	9.9818048	12.7701132	22.7519180	4.3032174	27.0551354
2009	1.4984942	4.5954238	1.6219314	6.2173552	3.5725923	9.7899475	12.3160187	22.1059662	3.8423550	25.9483212
2010	1.5694305	4.5230576	1.6958605	6.2189181	3.7326613	9.9515794	12.8589612	22.8105406	4.3822255	27.1927661
2011	1.5931269	4.6531864	1.7213261	6.3745125	3.7881687	10.1626812	13.0492811	23.2119623	4.2113206	27.4232829
2012	1.4352672	4.4719112	1.6351240	6.1070352	3.5837020	9.6907372	12.4416695	22.1324067	3.9298053	26.0622120
2013	1.5063095	4.6382130	1.6282234	6.2664364	3.7681490	10.0345854	13.0919393	23.1265247	4.0225090	27.1490337
2014	1.4934303	4.4064080	1.6119841	6.0183921	3.7280401	9.7464322	12.9414956	22.6879278	3.8509634	26.5388912
2015	1.4378164	4.4163722	1.6386272	6.0549994	3.5912086	9.6462080	12.4711363	22.1173443	4.0731372	26.1904815
2016	1.5259677	4.7143767	1.6635741	6.3779508	3.6439760	10.0219268	12.6492920	22.6712188	3.8635752	26.5347940
2017	1.4302023	4.4087555	1.5457036	5.9544591	3.5730069	9.5274660	12.4069212	21.9343872	3.9010902	25.8354774
2018	1.4878042	4.3681432	1.6195126	5.9876558	3.7152535	9.7029093	12.3064447	22.0093540	4.0271408	26.0364948
2019	1.3980221	4.3586000	1.5918548	5.9504548	3.4917370	9.4421918	12.1230787	21.5652705	3.8698574	25.4351279
2020 (C	1.4330133	4.5695235	1.6298339	6.1993574	3.5705970	9.7699544	12.3873779	22.1573323	3.8894974	26.0468297

OF TRANSPORTATION CHARGE[a]

(in dollars per acre-foot)

Calendar Year	CALIFORNIA AQUEDUCT (continued)									
	Reach 26A Devil Canyon Powerplant		Reach 29A Oso Pumping Plant		Reach 29J Castaic Powerplant		Reach 31A Las Perillas and Badger Hill Pumping Plants		Reach 33 Devil's Den, Sawtooth, and Polonio Pumping Plants and San Luis Obispo Powerplant	
	Unit Rate	Cumulative Unit Rate	Unit Rate	Cumulative Unit Rate	Unit Rate	Cumulative Unit Rate	Unit Rate	Cumulative Unit Rate	Unit Rate	Cumulative Unit Rate
	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
1962	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	1.5601285	4.1729353	0	0
1969	0	0	0	0	0	0	1.3312709	3.1289490	0	0
1970	0	0	0	0	0	0	1.6868701	3.5416039	0	0
1971	0	0	0	0	0	0	1 4705013	2.7659283	0	0
1972	0	0	1.1587560	13.1063588	-2.9845839	10 1217749	1.9797709	3.6015800	0	0
1973	-5 2435084	9.8869948	1.0927157	13 1777227	-5.8974065	7 2803162	1.5862122	2.9790918	0	0
1974	-4 8858198	9.6645963	1.1910483	12.7446010	-5.6426517	7 1019493	1 8620020	3.2938279	0	0
1975	-5.0456399	10.0750414	.9734776	13.1153300	-7.7575477	5.3577823	1.7056876	3.1879162	0	0
1976	-5 8697174	10.1265139	.9792752	14.1014140	-8.9616906	5.1397234	1.7475747	3.2908026	0	0
1977	-5.8367201	10.1059583	.9765235	14.1403669	-8.9876965	5.1526704	1.6680772	3.4187833	0	0
1978	-6 7480399	10.8684034	.9763514	15.4443832	-10.0259445	5.4184387	1 7772025	3.3477585	0	0
1979	-6.2852688	11.6468758	.9164869	15.9151341	-10.1752353	5.7398988	1.3407484	3.4632511	0	0
1980	-6.3773950	11.9234665	.9073494	16.2295585	-10.5704823	5 6590762	1.3972266	3.3592535	9.8928889	13.2521424
1981	-6.4313653	11.4738796	9062228	15.9454435	-9 6639305	6.2815130	1.3712045	3.5188006	8.8729808	12.3917814
1982	-6.3145335	12.4092895	.9091652	16.5517981	-9 2754426	7 2763555	1.4241836	3.6715795	8.7866406	12.4582201
1983	-7.4451414	14.0649695	.7586380	18.6382330	-8.6195911	10.0186419	1.7686865	4.8397365	13.4367763	18.2765128
1984	-7.0087694	15.6609655	.7431384	19.3260887	-8.1361178	11.1899709	1.9127528	5.0185097	13.0935912	18.1121009
1985	-6 4242949	16.3098002	.7463638	19.2759996	-7.7838404	11.4921592	1.9279564	4 7290490	12 0971556	16.8262046
1986	-7.3735578	15.1976259	.7320776	19.2223845	-7.3749751	11.8474094	1.8921129	5.0758816	11.4166541	16.4925357
1987	-8 2152315	14 8834126	8095224	19.6342917	-6.4707682	13 1635235	1.8241139	4 8402468	12.2735505	17.1137973
1988	-8 4646710	14.7597187	.8910195	20.0429290	-6.1770106	13.8659184	1.8179573	5.1749564	11.4879887	16 6629451
1989	-8.0510424	15.2582943	1.1089344	20.2864222	-5.6720638	14.6143584	1 8210010	4 9347920	10.2706522	15.2054442
1990	-8 0796530	16.6591328	1.1866249	21.8100903	-5.8071479	16.0029424	1.9202734	5.0294877	11.5497917	16 5792794
1991	-8 4475911	16.3790057	1.1802709	21.6503868	-5.8681041	15.7822827	1.9002490	5.0060554	10.8506549	15 8567103
1992	-7 6030174	17.5625790	1 2334747	22.5098480	-5.9981830	16 5116650	1.8583204	5.1643190	10.3926882	15.5570072
1993	-7 8023281	16.4738696	1.2539835	21.3410815	-6.1695652	15.1715163	1.8172578	4.9923412	10.4095195	15 4018607
1994	-8 4577501	17.1598327	1.3419087	22.7166660	-6.0648072	16.6518588	1.8163677	4.9038718	10.0045412	14.9084130
1995	-7 6308845	17 8205015	1.2843314	22 6054734	-5 7228047	16 8826687	1.8068365	4.8073206	11.3458626	16.1531832
1996	-8 1713998	17 6570594	1.2868511	22.8566626	-6.0007316	16 8559310	1 9131879	4.9426205	11.1235941	16.0662146
1997	-8.0441907	17.6639760	1.3258577	22.7872747	-5.8079109	16.9793638	1.9071438	4.9917812	10.6456935	15.6374747
1998	-8 2995273	17.9427264	1.4415160	23.2904587	-6.1682615	17.1221972	1.9726299	4.8939163	10 5345903	15.4285066
1999	-8 2529629	17.9619659	1.4663538	23.3966206	-6.1503625	17.2462581	1.9286789	5.0000465	10.1070183	15.1070648
2000	-7 5628465	18.7341846	1.3738060	23.6636255	-5.8858892	17.7777363	1.8072556	4.9923328	10.8927783	15.8851111
2001	-7.9948153	17.7029062	1.4135536	23.3182392	-5.6109629	17 7072763	1.8228413	4.9083129	10.8900568	15.7983697
2002	-7 4749962	19 1247412	1.5255287	24 0075842	-5 5518055	18 4557787	1.8988093	4.9333416	11.2596225	16 1929641
2003	-7 4341950	19 1464049	1.4650098	24.0671996	-5.8142321	18.2529675	1.9092543	4.8814939	11 0720726	15.9535665
2004	-7 6334237	18 7918037	1.5131222	24.0333503	-5.8095641	18 2237862	1.8123189	4.8725540	10.2049958	15.0775498
2005	-7.6916686	18.6114304	1.3967017	23.6782907	-6.0181238	17.6601669	1.7761597	4.6954818	9.9269770	14.6224588
2006	-8 1868629	17.9837839	1.3987551	23 6034534	-5.5835278	18.0199256	1.8076327	4.7920590	10 1036518	14.8957108
2007	-7 7645269	17.8549169	1.4751488	23.1642277	-5.8692558	17.2949719	1 7407545	4.7135326	9.5736155	14.2871481
2008	-8.0373135	19.0178219	1.5103860	24.2623040	-5.9760494	18.2862546	1.8666387	4.9020677	10.3745586	15.2766263
2009	-7.7607795	18.1875417	1.5332198	23.6391860	-5.4971718	18.1420142	1.7840279	4.8809575	9.8916324	14.7725899
2010	-7.8930944	19.2996717	1.5877293	24 3982699	-5 6239371	18 7743328	1.8902435	4.8438706	10.5394559	15 3833265
2011	-8 0716994	19.3515835	1.5971333	24.8090956	-5.4899322	19.3191634	1.9138483	4.9739078	10.6454655	15 6193733
2012	-8.2503438	17 8118682	1 4562785	23 5886852	-5 6419067	17 9467785	1 7761597	4.8128037	9.6442926	14.4570963
2013	-8.1329947	19.0160390	1.5039616	24 6304863	-5.6420901	18 9883962	1.8115649	4.9434684	9 9858646	14 9293330
2014	-8 1891329	18.3497583	1.5044199	24 1923477	-5.5597848	18 6325629	1.8509062	4.7638839	10.2803265	15.0442104
2015	-7 8203674	18 3701141	1 4376149	23 5549592	-5 7275088	17 8274504	1 7682914	4 7468472	9 5265054	14 2733526
2016	-7 9404553	18 5943387	1 3856708	24.0568896	-5.5002500	18.5566396	1 8076327	4.9960417	9 8327449	14 8287866
2017	-8.3629501	17.4725273	1 4082841	23 3426713	-5.7512161	17 5914552	1.7643593	4.7429125	9.5853930	14.3283055
2018	-8 4753173	17.5611775	1.4741608	23.4835148	-5 6474811	17 8360337	1.8194331	4.6997721	9.7031802	14.4029523
2019	-8 7848954	16 6502325	1.5473112	23 1125817	-5.7239863	17 3885954	1.7368224	4.6974003	9 1731439	13.8705442
2020(c	-8 5704110	17 4764187	1 5279488	23 6852811	-5.5660732	18.1192079	1.8194331	4 9559433	9 7031802	14 6591235

TABLE B-18: VARIABLE OMP&R COMPONENT OF

(in dollars)

CALENDAR YEAR	NORTH BAY AREA			SOUTH BAY AREA				CENTRAL COASTAL AREA		
	Napa County FC & WCD	Solano County FC & WCD	Total	Alameda County FC & WCD, Zone 7	Alameda County Water District	Santa Clara County FC & WD	Total	San Luis Obispo County FC & WCD	Santa Barbara County FC & WCD	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1962	0	0	0	2,050	34,914	0	36,964	0	0	0
1963	0	0	0	7,899	49,804	0	57,703	0	0	0
1964	0	0	0	5,928	68,166	0	74,094	0	0	0
1965	0	0	0	10,913	68,731	62,896	142,540	0	0	0
1966	0	0	0	19,321	52,112	121,089	192,522	0	0	0
1967	0	0	0	19,108	56,924	158,595	234,627	0	0	0
1968	7,149	0	7,149	29,612	119,826	338,495	487,933	0	0	0
1969	8,693	0	8,693	31,466	3,856	295,289	330,611	0	0	0
1970	13,705	0	13,705	50,210	0	435,986	486,196	0	0	0
1971	10,296	0	10,296	23,001	27,328	401,628	451,957	0	0	0
1972	16,000	0	16,000	59,345	156,559	567,293	783,197	0	0	0
1973	17,000	0	17,000	70,683	97,709	493,740	662,132	0	0	0
1974	13,000	0	13,000	80,786	106,986	480,343	668,115	0	0	0
1975	12,000	0	12,000	84,128	107,789	462,708	654,625	0	0	0
1976	15,000	0	15,000	89,671	111,045	458,780	659,496	0	0	0
1977	11,000	0	11,000	99,589	120,157	476,296	696,042	0	0	0
1978	10,000	0	10,000	106,416	125,420	477,789	709,625	0	0	0
1979	12,000	0	12,000	126,403	136,699	503,327	766,429	0	0	0
1980	28,242	1,622	29,864	135,858	140,386	498,145	774,389	13,252	106,017	119,269
1981	28,190	1,711	29,901	146,959	148,098	501,257	796,314	12,392	116,482	128,874
1982	33,099	2,699	35,798	164,698	162,310	525,123	852,131	24,916	134,549	159,465
1983	45,447	5,066	50,513	227,866	218,628	677,437	1,123,931	54,829	222,973	277,802
1984	49,883	5,613	55,496	250,647	235,529	700,219	1,186,395	81,504	246,324	327,828
1985	52,138	6,369	58,507	259,553	238,634	681,811	1,179,998	126,197	252,392	378,589
1986	70,393	7,150	77,543	282,477	256,144	702,204	1,240,825	164,926	273,776	438,702
1987	70,504	10,866	81,370	279,727	249,730	659,946	1,189,403	213,921	311,471	525,392
1988	72,053	13,394	85,447	308,034	271,101	691,506	1,270,641	258,276	329,927	588,203
1989	75,566	21,666	97,232	307,660	267,237	673,709	1,248,606	304,109	325,396	629,505
1990	83,652	35,243	118,895	325,009	278,904	695,370	1,299,283	414,482	381,323	795,805
1991	86,627	34,303	120,930	331,384	285,958	700,001	1,317,343	396,417	401,381	797,798
1992	87,249	33,703	120,952	345,034	299,279	720,072	1,364,385	388,925	429,793	818,718
1993	105,523	32,474	137,997	334,104	300,693	711,788	1,346,585	385,046	461,132	846,178
1994	108,430	32,564	140,994	326,560	298,164	709,914	1,334,638	372,711	480,840	853,551
1995	109,991	32,023	142,014	324,024	295,848	704,400	1,324,272	403,830	558,367	962,197
1996	114,252	32,736	146,988	327,942	299,426	712,920	1,340,288	401,655	592,521	994,176
1997	114,636	32,365	147,001	328,077	299,548	713,211	1,340,836	390,937	612,880	1,003,817
1998	121,189	33,761	154,950	326,889	298,464	710,628	1,335,981	385,713	640,391	1,026,104
1999	119,812	32,196	152,008	332,256	303,364	722,296	1,357,916	377,676	661,992	1,039,668
2000	113,060	30,028	143,088	326,040	297,688	708,779	1,332,507	397,127	732,828	1,129,955
2001	115,839	31,205	147,044	324,064	295,884	704,488	1,324,436	394,959	765,383	1,160,342
2002	122,007	32,972	154,979	328,897	300,298	714,993	1,344,188	404,824	821,954	1,226,778
2003	123,007	32,972	155,979	329,107	300,490	715,451	1,345,048	398,839	846,720	1,245,559
2004	117,228	31,794	149,022	324,601	296,375	705,656	1,326,632	376,938	835,100	1,212,038
2005	115,839	31,205	147,044	315,501	288,066	685,872	1,289,439	365,561	843,716	1,209,277
2006	118,228	31,794	150,022	321,704	293,730	699,356	1,314,790	372,393	859,482	1,231,875
2007	113,449	30,617	144,066	314,782	287,410	684,309	1,286,501	357,179	824,370	1,181,549
2008	122,007	32,972	154,979	329,419	300,774	716,129	1,346,322	381,916	881,461	1,263,377
2009	115,839	31,205	147,044	324,039	295,861	704,433	1,324,333	369,315	852,378	1,221,693
2010	123,007	32,972	155,979	327,805	299,300	712,620	1,339,725	384,583	887,618	1,272,201
2011	125,396	33,561	158,957	335,161	306,017	728,611	1,369,789	390,484	901,237	1,291,721
2012	115,839	31,205	147,044	320,841	292,941	697,480	1,311,262	361,427	834,175	1,195,602
2013	118,228	31,794	150,022	328,682	300,101	714,525	1,343,308	373,234	861,421	1,234,655
2014	121,007	32,972	153,979	322,959	294,876	702,087	1,319,922	376,105	868,051	1,244,156
2015	115,839	31,205	147,044	317,226	289,641	689,620	1,296,487	356,834	823,571	1,180,405
2016	118,228	31,794	150,022	330,407	301,675	718,275	1,350,357	370,720	855,620	1,226,340
2017	114,839	31,205	146,044	317,686	290,061	690,623	1,298,370	358,208	826,743	1,184,951
2018	118,228	31,794	150,022	317,685	290,061	690,620	1,298,366	360,074	831,050	1,191,124
2019	113,060	30,028	143,088	313,618	286,347	681,781	1,281,746	346,765	800,330	1,147,095
2020	118,228	31,794	150,022	329,852	301,170	717,070	1,348,092	366,479	845,830	1,212,309
2021	118,228	31,794	150,022	329,852	301,170	717,070	1,348,092	366,479	845,830	1,212,309
2022	118,228	31,794	150,022	329,852	301,170	717,070	1,348,092	366,479	845,830	1,212,309
2023	118,228	31,794	150,022	329,852	301,170	717,070	1,348,092	366,479	845,830	1,212,309
2024	118,228	31,794	150,022	329,852	301,170	717,070	1,348,092	366,479	845,830	1,212,309
2025	118,228	31,794	150,022	329,852	301,170	717,070	1,348,092	366,479	845,830	1,212,309
2026	118,228	31,794	150,022	329,852	301,170	717,070	1,348,092	366,479	845,830	1,212,309
2027	118,228	31,794	150,022	329,852	301,170	717,070	1,348,092	366,479	845,830	1,212,309
2028	118,228	31,794	150,022	329,852	301,170	717,070	1,348,092	366,479	845,830	1,212,309
2029	118,228	31,794	150,022	329,852	301,170	717,070	1,348,092	366,479	845,830	1,212,309
2030	118,228	31,794	150,022	329,852	301,170	717,070	1,348,092	366,479	845,830	1,212,309
2031	118,228	31,794	150,022	329,852	301,170	717,070	1,348,092	366,479	845,830	1,212,309
2032	118,228	31,794	150,022	329,852	301,170	717,070	1,348,092	366,479	845,830	1,212,309
2033	118,228	31,794	150,022	329,852	301,170	717,070	1,348,092	366,479	845,830	1,212,309
2034	118,228	31,794	150,022	329,852	301,170	717,070	1,348,092	366,479	845,830	1,212,309
2035	118,228	31,794	150,022	329,852	301,170	717,070	1,348,092	366,479	845,830	1,212,309
TOTAL	5,974,541	1,551,522	7,526,063	18,329,143	17,317,786	44,685,039	80,331,968	18,532,863	37,826,415	56,359,278

a) Unadjusted for prior overpayments or underpayments of charges.

TRANSPORTATION CHARGE FOR EACH CONTRACTOR[a]

(in dollars)

CALENDAR YEAR	SAN JOAQUIN VALLEY AREA									
	Devil's Den Water District	Dudley Ridge Water District	Empire West Side Irrigation District	Hacienda Water District	Kern County Water Agency		County of Kings	Oak Flat Water District	Tulare Lake Basin Water Storage District	Total
					Municipal and Industrial	Agricultural				
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1962	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0
1968	30,805	68,874	5,168	0	0	444,625	2,351	4,552	65,581	621,956
1969	31,196	56,402	101	5,109	0	323,298	180	3,100	12,730	432,116
1970	41,575	74,945	7,311	17,764	0	500,856	0	5,946	0	648,397
1971	34,547	53,181	7,760	8,626	0	758,583	4,793	6,236	150,044	1,023,770
1972	50,080	68,834	9,398	9,489	0	1,186,058	2,270	8,511	409,575	1,744,215
1973	30,813	38,514	5,362	5,850	15,145	803,612	2,089	3,194	160,460	1,065,039
1974	31,950	34,507	4,295	4,725	16,721	683,479	2,148	2,862	61,568	842,255
1975	34,111	38,834	4,447	5,336	72,122	724,618	2,372	3,119	69,516	954,475
1976	38,503	43,674	4,629	6,019	81,996	845,623	2,469	3,398	78,396	1,104,707
1977	43,419	53,221	5,252	7,353	98,004	1,026,714	2,976	4,357	95,939	1,337,235
1978	42,516	51,044	4,712	7,224	99,482	1,092,964	2,984	3,619	92,192	1,396,737
1979	43,983	73,438	6,367	10,400	187,849	1,408,151	4,245	6,390	132,869	1,873,692
1980	42,663	72,007	5,886	10,203	190,447	1,465,676	4,317	5,830	130,475	1,927,504
1981	44,688	83,327	6,443	12,026	213,192	1,707,408	4,940	6,773	151,190	2,229,987
1982	46,629	92,143	6,742	13,260	239,211	1,937,574	5,619	7,374	166,982	2,515,534
1983	61,464	131,748	9,213	19,041	326,596	2,761,990	8,599	10,791	240,157	3,569,599
1984	63,735	140,070	9,317	20,188	357,318	3,053,635	9,628	11,085	254,983	3,919,959
1985	60,059	132,211	8,403	19,327	356,424	3,025,282	9,524	9,637	240,894	3,861,761
1986	64,463	156,960	9,552	22,923	414,617	3,540,285	11,780	12,085	286,539	4,519,204
1987	61,471	155,029	9,049	22,621	425,070	3,591,115	12,065	11,526	283,215	4,571,161
1988	65,722	179,600	10,071	26,185	484,619	4,120,631	13,428	13,679	328,315	5,242,250
1989	62,672	173,127	9,341	25,533	472,347	4,017,650	12,456	12,864	316,672	5,102,662
1990	63,874	179,401	9,327	26,428	510,295	4,250,561	12,437	12,771	342,013	5,407,107
1991	63,576	179,205	9,317	26,399	508,705	4,237,791	12,423	12,740	341,638	5,391,794
1992	65,587	190,756	9,918	28,101	536,477	4,456,676	13,224	14,020	363,660	5,678,419
1993	63,403	183,203	9,525	26,988	513,223	4,276,621	12,700	13,319	349,259	5,448,241
1994	62,280	178,149	9,262	26,243	508,230	4,204,103	12,350	12,811	339,626	5,353,054
1995	61,053	173,128	9,001	25,504	498,126	4,113,965	12,002	12,300	330,053	5,235,132
1996	62,770	174,798	9,088	25,750	503,277	4,169,478	12,118	12,400	333,238	5,302,917
1997	63,396	177,983	9,254	26,219	511,403	4,229,617	12,339	12,802	339,310	5,382,323
1998	62,152	168,558	8,764	24,831	497,665	4,111,526	11,686	11,706	321,342	5,218,230
1999	63,501	177,218	9,214	26,106	513,579	4,238,405	12,286	12,608	337,851	5,390,768
2000	63,402	183,779	9,555	27,073	526,980	4,331,877	12,740	13,498	350,358	5,519,262
2001	62,335	178,032	9,257	26,227	517,243	4,249,775	12,342	12,868	339,402	5,407,481
2002	62,654	175,092	9,104	25,794	514,551	4,233,203	12,138	12,340	333,799	5,378,675
2003	61,996	171,498	8,917	25,264	510,475	4,181,361	11,888	11,981	326,947	5,310,327
2004	61,881	176,575	9,181	26,012	515,851	4,225,320	12,241	12,668	336,626	5,376,355
2005	59,632	168,445	8,758	24,814	497,385	4,062,736	11,677	11,896	321,126	5,166,469
2006	60,859	172,201	8,953	25,367	505,013	4,137,098	11,938	12,220	328,287	5,261,936
2007	59,862	171,530	8,918	25,269	499,650	4,094,055	11,891	12,340	327,005	5,210,520
2008	62,256	175,144	9,106	25,802	516,209	4,235,907	12,142	12,316	333,897	5,382,779
2009	61,988	178,693	9,291	26,324	517,886	4,256,958	12,388	12,865	340,663	5,417,056
2010	61,517	170,424	8,861	25,106	507,622	4,161,158	11,814	11,790	324,899	5,283,191
2011	63,168	176,565	9,181	26,011	522,621	4,287,121	12,240	12,345	336,606	5,445,858
2012	61,123	175,215	9,110	25,811	509,841	4,178,533	12,147	12,587	334,031	5,318,398
2013	62,782	180,710	9,396	26,621	527,222	4,310,985	12,527	13,025	344,510	5,487,778
2014	60,501	168,079	8,739	24,761	499,598	4,083,181	11,652	11,753	320,427	5,188,691
2015	60,285	171,862	8,935	25,318	503,237	4,118,709	11,914	12,258	327,641	5,240,159
2016	63,450	183,971	9,566	27,101	532,029	4,371,124	12,754	13,328	350,725	5,564,048
2017	60,235	171,862	8,936	25,318	501,034	4,104,813	11,915	12,344	327,641	5,224,098
2018	59,687	166,196	8,641	24,483	494,218	4,043,157	11,521	11,603	316,837	5,136,343
2019	59,657	170,825	8,882	25,165	496,949	4,073,938	11,842	12,285	325,663	5,185,206
2020	62,940	180,976	9,409	26,660	521,249	4,286,636	12,546	13,111	345,016	5,458,543
2021	62,940	180,976	9,409	26,660	521,249	4,286,636	12,546	13,111	345,016	5,458,543
2022	62,940	180,976	9,409	26,660	521,249	4,286,636	12,546	13,111	345,016	5,458,543
2023	62,940	180,976	9,409	26,660	521,249	4,286,636	12,546	13,111	345,016	5,458,543
2024	62,940	180,976	9,409	26,660	521,249	4,286,636	12,546	13,111	345,016	5,458,543
2025	62,940	180,976	9,409	26,660	521,249	4,286,636	12,546	13,111	345,016	5,458,543
2026	62,940	180,976	9,409	26,660	521,249	4,286,636	12,546	13,111	345,016	5,458,543
2027	62,940	180,976	9,409	26,660	521,249	4,286,636	12,546	13,111	345,016	5,458,543
2028	62,940	180,976	9,409	26,660	521,249	4,286,636	12,546	13,111	345,016	5,458,543
2029	62,940	180,976	9,409	26,660	521,249	4,286,636	12,546	13,111	345,016	5,458,543
2030	62,940	180,976	9,409	26,660	521,249	4,286,636	12,546	13,111	345,016	5,458,543
2031	62,940	180,976	9,409	26,660	521,249	4,286,636	12,546	13,111	345,016	5,458,543
2032	62,940	180,976	9,409	26,660	521,249	4,286,636	12,546	13,111	345,016	5,458,543
2033	62,940	180,976	9,409	26,660	521,249	4,286,636	12,546	13,111	345,016	5,458,543
2034	62,940	180,976	9,409	26,660	521,249	4,286,636	12,546	13,111	345,016	5,458,543
2035	62,940	180,976	9,409	26,660	521,249	4,286,636	12,546	13,111	345,016	5,458,543
TOTAL	3,894,966	10,136,403	573,320	1,481,972	27,707,738	233,635,755	687,245	742,491	19,293,628	298,153,518

TABLE B-18: VARIABLE OMP&R COMPONENT OF

(in dollars)

CALENDAR YEAR	SOUTHERN CALIFORNIA AREA									
	Antelope Valley-East Kern Water Agency	Castaic Lake Water Agency	Coachella Valley County Water District	Crestline Lake Arrowhead Water Agency	Desert Water Agency	Littlerock Creek Irrigation District	Mojave Water Agency	Palmdale Irrigation District	San Bernardino Valley Municipal Water District	San Gabriel Valley Municipal Water District
	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
1962	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0
1972	694	0	0	7,958	0	4,038	943	0	21,871	0
1973	593	0	87,756	13,163	136,174	3,504	8,171	0	474,576	0
1974	573	0	93,123	16,878	145,505	4,621	7,857	0	483,231	118,873
1975	279,853	8,573	105,845	21,924	166,328	6,314	176,005	1,214	528,941	131,982
1976	341,811	19,017	121,571	27,834	191,955	8,397	315,765	3,936	556,958	141,771
1977	382,389	29,370	134,254	32,364	207,254	9,610	314,708	7,899	581,092	149,570
1978	463,671	40,638	162,811	40,871	246,630	13,311	347,749	17,362	652,105	170,634
1979	495,672	72,323	180,452	46,802	268,983	15,598	425,710	28,498	727,931	193,338
1980	613,796	100,165	199,188	53,072	311,114	17,620	507,666	41,371	780,987	196,737
1981	663,085	126,258	216,744	57,117	340,199	19,100	568,313	73,993	785,962	193,221
1982	752,664	160,807	249,514	65,159	393,200	21,587	669,190	111,690	887,263	213,191
1983	931,636	246,458	312,908	81,093	494,732	26,820	843,195	167,353	1,047,838	246,418
1984	1,042,875	301,010	357,456	92,038	566,743	29,918	888,654	215,191	1,221,555	279,705
1985	1,114,391	334,421	386,230	98,893	613,819	32,057	891,177	255,709	1,329,248	296,838
1986	1,204,798	366,085	411,023	104,731	654,564	34,021	934,447	268,109	1,291,798	281,763
1987	1,321,376	433,080	448,831	113,876	727,606	36,896	1,009,411	286,135	1,324,624	281,000
1988	1,440,849	489,467	479,631	121,230	789,629	39,645	1,068,322	304,515	1,372,655	283,681
1989	1,540,298	546,577	509,846	128,434	850,790	41,999	1,130,503	318,346	1,480,054	298,452
1990	1,760,115	628,916	571,467	143,484	942,547	47,434	1,256,730	356,786	1,690,902	331,517
1991	1,856,942	654,964	573,495	143,994	945,893	47,081	1,261,191	354,134	1,680,486	331,512
1992	2,044,357	685,234	581,327	145,960	958,810	48,936	1,278,413	368,082	1,801,920	361,438
1993	2,038,605	629,618	560,780	140,802	924,923	46,200	1,233,230	347,506	1,690,219	344,633
1994	2,284,155	691,054	591,766	148,581	976,031	49,161	1,301,373	369,783	1,760,598	364,817
1995	2,392,488	700,631	587,926	147,618	969,699	49,038	1,292,931	368,855	1,828,382	384,923
1996	2,536,112	699,521	596,638	149,805	984,064	49,609	1,312,085	373,158	1,811,614	387,395
1997	2,638,382	704,645	593,858	149,108	979,481	49,362	1,305,976	371,282	1,812,324	393,553
1998	2,803,521	710,570	606,196	152,204	999,829	50,252	1,333,106	377,987	1,840,924	405,864
1999	2,931,238	715,720	605,566	152,046	998,789	50,439	1,331,718	379,393	1,842,897	412,408
2000	3,097,276	737,776	607,463	152,523	1,001,918	51,267	1,335,889	385,613	1,922,128	436,508
2001	3,044,331	734,852	593,616	149,047	979,083	50,380	1,305,443	378,951	1,816,318	417,434
2002	3,125,246	765,914	614,454	154,280	1,013,451	51,708	1,351,266	388,939	1,962,198	456,124
2003	3,141,329	757,497	614,012	154,167	1,012,720	51,985	1,350,295	391,018	1,964,423	462,003
2004	3,130,418	756,287	610,422	153,266	1,006,801	51,796	1,342,401	389,601	1,928,039	458,520
2005	3,096,342	732,897	607,602	152,558	1,002,149	51,247	1,336,198	385,471	1,909,532	459,330
2006	3,085,720	747,828	604,541	151,791	997,101	51,069	1,329,470	384,141	1,845,135	448,694
2007	3,015,045	717,741	591,808	148,594	976,102	49,884	1,301,467	375,222	1,831,915	450,481
2008	3,162,459	758,880	624,973	156,921	1,030,801	52,329	1,374,401	393,607	1,951,230	484,956
2009	3,073,265	752,895	599,406	150,500	988,632	50,844	1,318,176	382,432	1,866,043	468,873
2010	3,171,268	779,135	628,152	157,718	1,036,044	52,464	1,381,392	394,622	1,980,146	502,757
2011	3,226,912	801,745	633,478	159,055	1,044,827	53,387	1,393,102	401,567	1,985,472	509,527
2012	3,076,232	744,793	602,038	151,162	992,971	50,905	1,323,961	382,891	1,827,498	473,794
2013	3,214,247	788,017	627,143	157,465	1,034,377	53,192	1,379,171	400,089	1,951,045	511,152
2014	3,153,550	773,251	613,049	153,928	1,011,132	52,182	1,348,175	392,501	1,882,686	498,196
2015	3,073,979	739,838	604,999	151,905	997,858	50,871	1,330,476	382,630	1,884,774	503,892
2016	3,150,168	770,101	612,956	153,902	1,010,974	52,144	1,347,968	392,212	1,907,778	515,062
2017	3,048,394	730,046	596,800	149,845	984,333	50,449	1,312,443	379,465	1,792,682	488,883
2018	3,059,362	740,196	601,443	151,010	991,990	50,622	1,322,653	380,762	1,801,777	496,102
2019	2,998,559	721,627	587,552	147,525	969,079	49,599	1,292,105	373,079	1,708,313	475,032
2020	3,080,327	751,948	601,682	151,071	992,385	50,962	1,323,179	383,322	1,793,080	503,320
2021	3,080,327	751,948	601,682	151,071	992,385	50,962	1,323,179	383,322	1,793,080	503,320
2022	3,080,327	751,948	601,682	151,071	992,385	50,962	1,323,179	383,322	1,793,080	503,320
2023	3,080,327	751,948	601,682	151,071	992,385	50,962	1,323,179	383,322	1,793,080	503,320
2024	3,080,327	751,948	601,682	151,071	992,385	50,962	1,323,179	383,322	1,793,080	503,320
2025	3,080,327	751,948	601,682	151,071	992,385	50,962	1,323,179	383,322	1,793,080	503,320
2026	3,080,327	751,948	601,682	151,071	992,385	50,962	1,323,179	383,322	1,793,080	503,320
2027	3,080,327	751,948	601,682	151,071	992,385	50,962	1,323,179	383,322	1,793,080	503,320
2028	3,080,327	751,948	601,682	151,071	992,385	50,962	1,323,179	383,322	1,793,080	503,320
2029	3,080,327	751,948	601,682	151,071	992,385	50,962	1,323,179	383,322	1,793,080	503,320
2030	3,080,327	751,948	601,682	151,071	992,385	50,962	1,323,179	383,322	1,793,080	503,320
2031	3,080,327	751,948	601,682	151,071	992,385	50,962	1,323,179	383,322	1,793,080	503,320
2032	3,080,327	751,948	601,682	151,071	992,385	50,962	1,323,179	383,322	1,793,080	503,320
2033	3,080,327	751,948	601,682	151,071	992,385	50,962	1,323,179	383,322	1,793,080	503,320
2034	3,080,327	751,948	601,682	151,071	992,385	50,962	1,323,179	383,322	1,793,080	503,320
2035	3,080,327	751,948	601,682	151,071	992,385	50,962	1,323,179	383,322	1,793,080	503,320
TOTAL	147,306,273	37,177,606	32,129,021	8,071,337	52,745,794	2,696,284	70,961,855	19,636,252	99,717,367	24,765,674

a) Unadjusted for prior overpayments or underpayments of charges.

TRANSPORTATION CHARGE FOR EACH CONTRACTOR

(in dollars)

CALENDAR YEAR	SOUTHERN CALIFORNIA AREA (continued)				FEATHER RIVER AREA				FUTURE CONTRACTOR	GRAND TOTAL
	San Gorgonio Pass Water Agency	The Metropolitan Water District of Southern California	Ventura County Flood Control District	Total	City of Yuba City	County of Butte	Plumas County FC & WCD	Total	South Bay	
	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1962	0	0	0	0	0	0	0	0	0	36,964
1963	0	0	0	0	0	0	0	0	0	57,703
1964	0	0	0	0	0	0	0	0	0	74,094
1965	0	0	0	0	0	0	0	0	0	142,540
1966	0	0	0	0	0	0	0	0	0	192,522
1967	0	0	0	0	0	0	0	0	0	234,627
1968	0	0	0	0	0	0	0	0	0	1,117,038
1969	0	0	0	0	0	0	0	0	0	771,420
1970	0	0	0	0	0	0	0	0	0	1,148,298
1971	0	0	0	0	0	0	0	0	0	1,486,023
1972	0	728,145	0	763,649	0	0	0	0	0	3,307,061
1973	0	2,133,746	0	2,857,683	0	0	0	0	0	4,601,854
1974	0	3,445,541	0	4,316,202	0	0	0	0	0	5,839,572
1975	0	4,446,648	0	5,873,627	0	0	0	0	0	7,494,727
1976	0	5,344,769	0	7,073,784	0	0	0	0	0	8,852,987
1977	0	5,720,923	0	7,569,433	0	0	0	0	0	9,613,710
1978	0	6,400,268	0	8,556,050	0	0	0	0	0	10,672,412
1979	0	7,071,985	0	9,527,292	0	0	0	0	0	12,179,413
1980	81,079	7,477,869	5,659	10,386,323	0	0	0	0	0	13,237,349
1981	89,495	7,700,645	12,562	10,846,694	0	0	0	0	0	14,031,770
1982	109,202	8,831,953	21,829	12,487,249	0	0	0	0	0	16,050,177
1983	137,838	11,083,780	40,076	15,660,145	0	0	0	0	0	20,681,990
1984	169,138	13,203,208	55,950	18,423,441	0	0	0	0	0	23,913,119
1985	192,456	14,173,179	68,952	19,787,370	0	0	0	0	0	25,266,225
1986	196,048	14,666,706	94,780	20,508,873	0	0	0	0	0	26,785,147
1987	208,368	15,905,704	131,634	22,228,541	0	0	0	0	0	28,595,867
1988	222,871	17,546,609	180,257	24,339,361	0	0	0	0	0	31,525,902
1989	247,185	19,561,279	233,828	26,887,591	0	0	0	0	0	33,965,596
1990	288,203	22,689,433	320,059	31,027,593	0	0	0	0	0	38,648,683
1991	283,358	22,673,280	315,647	31,121,977	0	0	0	0	0	38,749,842
1992	303,834	24,244,241	330,233	33,152,785	0	0	0	0	0	41,135,259
1993	284,997	22,736,212	303,432	31,281,157	0	0	0	0	0	39,060,158
1994	296,865	24,873,240	333,037	34,040,461	0	0	0	0	0	41,722,698
1995	308,294	25,745,848	337,652	35,114,285	0	0	0	0	0	42,777,900
1996	305,468	25,981,368	337,119	35,523,956	0	0	0	0	0	43,308,325
1997	305,587	26,456,157	339,587	36,099,302	0	0	0	0	0	43,973,279
1998	310,409	27,079,706	342,444	37,013,012	0	0	0	0	0	44,748,277
1999	310,742	27,571,013	344,926	37,646,895	0	0	0	0	0	45,587,255
2000	324,101	28,874,584	355,555	39,282,601	0	0	0	0	0	47,407,413
2001	306,261	28,683,825	354,146	38,813,687	0	0	0	0	0	46,852,990
2002	330,858	30,568,379	369,115	41,151,932	0	0	0	0	0	49,256,552
2003	331,232	30,701,792	365,059	41,297,532	0	0	0	0	0	49,354,445
2004	325,099	30,871,454	364,477	41,388,581	0	0	0	0	0	49,452,628
2005	321,977	30,450,164	353,203	40,858,670	0	0	0	0	0	48,670,899
2006	311,119	30,978,019	360,399	41,295,027	0	0	0	0	0	49,253,650
2007	308,891	30,345,107	345,900	40,458,157	0	0	0	0	0	48,280,793
2008	329,007	32,512,866	365,725	43,198,155	0	0	0	0	0	51,345,612
2009	314,644	32,313,262	362,840	42,641,812	0	0	0	0	0	50,751,938
2010	333,884	34,030,100	375,486	44,823,168	0	0	0	0	0	52,874,264
2011	334,783	35,175,461	386,384	46,105,700	0	0	0	0	0	54,372,025
2012	308,146	32,961,383	358,935	43,254,709	0	0	0	0	0	51,227,015
2013	328,977	35,330,853	379,767	46,155,495	0	0	0	0	0	54,371,258
2014	317,451	34,902,007	372,652	45,470,760	0	0	0	0	0	53,377,508
2015	317,803	34,116,247	356,549	44,511,821	0	0	0	0	0	52,375,916
2016	321,682	35,645,705	371,132	46,251,784	0	0	0	0	0	54,542,551
2017	302,275	34,073,923	351,829	44,261,367	0	0	0	0	0	52,114,830
2018	303,809	34,834,999	356,720	45,091,445	0	0	0	0	0	52,867,300
2019	288,049	34,097,303	347,771	44,055,593	0	0	0	0	0	51,812,728
2020	302,342	36,157,660	362,385	46,453,663	0	0	0	0	0	54,622,629
2021	302,342	36,157,660	362,385	46,453,663	0	0	0	0	0	54,622,629
2022	302,342	36,157,660	362,385	46,453,663	0	0	0	0	0	54,622,629
2023	302,342	36,157,660	362,385	46,453,663	0	0	0	0	0	54,622,629
2024	302,342	36,157,660	362,385	46,453,663	0	0	0	0	0	54,622,629
2025	302,342	36,157,660	362,385	46,453,663	0	0	0	0	0	54,622,629
2026	302,342	36,157,660	362,385	46,453,663	0	0	0	0	0	54,622,629
2027	302,342	36,157,660	362,385	46,453,663	0	0	0	0	0	54,622,629
2028	302,342	36,157,660	362,385	46,453,663	0	0	0	0	0	54,622,629
2029	302,342	36,157,660	362,385	46,453,663	0	0	0	0	0	54,622,629
2030	302,342	36,157,660	362,385	46,453,663	0	0	0	0	0	54,622,629
2031	302,342	36,157,660	362,385	46,453,663	0	0	0	0	0	54,622,629
2032	302,342	36,157,660	362,385	46,453,663	0	0	0	0	0	54,622,629
2033	302,342	36,157,660	362,385	46,453,663	0	0	0	0	0	54,622,629
2034	302,342	36,157,660	362,385	46,453,663	0	0	0	0	0	54,622,629
2035	302,342	36,157,660	362,385	46,453,663	0	0	0	0	0	54,622,629
TOTAL	15,848,957	1,645,483,448	17,201,467	2,173,741,335	0	0	0	0	0	2,616,112,162

TABLE B-19: TOTAL TRANSPORTATION

(in dollars)

Sheet 1 of 4

CALENDAR YEAR	NORTH BAY AREA			SOUTH BAY AREA				CENTRAL COASTAL AREA		
	Napa County FC & WCD	Solano County FC & WCD	Total	Alameda County FC & WCD Zone 7	Alameda County Water District	Santa Clara County FC & WD	Total	San Luis Obispo County FC & WCD	Santa Barbara County FC & WCD	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1962	0	0	0	11,736	43,770	0	55,506	0	0	0
1963	0	0	0	147,871	184,179	438,252	770,302	0	0	0
1964	0	0	0	164,763	258,816	605,931	1,029,510	7,805	19,323	27,128
1965	0	0	0	238,106	358,760	1,133,775	1,730,641	13,431	32,611	46,042
1966	20,606	0	20,606	263,034	368,141	1,381,363	2,012,538	22,565	54,152	76,717
1967	45,545	0	45,545	331,158	440,667	1,634,723	2,406,548	40,898	97,185	138,083
1968	132,355	0	132,355	358,920	523,498	1,890,032	2,772,450	65,519	154,926	220,445
1969	268,275	0	268,275	416,211	461,533	1,990,484	2,868,228	118,809	279,538	398,347
1970	282,479	0	282,479	442,535	465,513	2,152,409	3,060,457	129,562	304,801	434,363
1971	226,471	0	226,471	399,730	478,786	2,087,473	2,965,989	133,449	314,022	447,471
1972	233,488	0	233,488	503,331	628,480	2,324,665	3,456,476	135,251	318,399	453,650
1973	235,441	29,445	264,886	503,351	557,677	2,205,656	3,266,684	132,050	311,036	443,086
1974	238,069	32,403	270,472	521,867	575,550	2,216,840	3,314,257	134,672	317,216	451,888
1975	242,984	38,839	281,823	525,186	576,293	2,199,848	3,301,327	135,268	318,617	453,885
1976	255,743	49,533	305,276	529,885	578,711	2,193,636	3,302,232	250,663	594,561	845,224
1977	271,072	67,829	338,901	539,268	587,319	2,209,703	3,336,290	285,859	692,928	978,787
1978	300,733	93,408	394,141	546,973	593,382	2,213,173	3,353,528	367,542	909,139	1,276,681
1979	440,280	223,107	663,387	568,364	605,947	2,241,740	3,416,051	742,792	1,975,554	2,718,346
1980	645,768	438,358	1,084,126	579,527	611,275	2,241,294	3,432,096	1,163,551	3,188,159	4,351,710
1981	648,995	443,612	1,092,607	591,397	619,710	2,246,345	3,457,452	1,185,317	3,268,439	4,453,756
1982	654,908	446,063	1,100,971	609,762	634,505	2,271,718	3,515,985	1,203,298	3,300,458	4,503,756
1983	669,583	448,917	1,118,500	675,126	692,875	2,429,055	3,797,056	1,240,210	3,409,491	4,649,701
1984	673,311	449,053	1,122,364	698,281	710,086	2,452,298	3,860,665	1,268,269	3,435,953	4,704,222
1985	676,994	450,145	1,127,139	708,338	714,255	2,436,638	3,859,231	1,315,028	3,445,995	4,761,023
1986	694,337	450,986	1,145,323	731,357	731,864	2,457,287	3,920,508	1,362,569	3,487,726	4,850,295
1987	694,635	454,902	1,149,537	728,289	725,150	2,414,345	3,867,784	1,411,799	3,526,395	4,938,194
1988	694,474	456,046	1,150,520	756,591	746,455	2,445,104	3,948,150	1,454,802	3,541,368	4,996,170
1989	698,882	465,091	1,163,973	755,529	741,987	2,426,170	3,923,686	1,500,101	3,534,629	5,034,730
1990	708,102	478,871	1,186,973	773,118	753,876	2,448,361	3,975,355	1,611,239	3,593,254	5,204,493
1991	711,063	477,910	1,188,973	779,426	760,866	2,452,826	3,993,118	1,592,831	3,612,036	5,204,867
1992	712,474	477,932	1,190,406	793,598	774,704	2,474,378	4,042,680	1,586,228	3,642,330	5,228,558
1993	730,053	476,933	1,206,986	782,836	776,277	2,466,621	4,025,734	1,582,612	3,674,186	5,256,798
1994	732,961	477,025	1,209,986	776,315	774,667	2,467,094	4,018,076	1,570,022	3,692,975	5,262,997
1995	734,515	476,471	1,210,986	773,047	771,690	2,459,871	4,004,608	1,601,682	3,772,591	5,374,273
1996	739,573	477,030	1,216,603	776,784	775,097	2,467,896	4,019,777	1,599,239	3,806,056	5,405,295
1997	738,952	476,651	1,215,603	776,915	775,214	2,468,176	4,020,305	1,588,340	3,825,708	5,414,048
1998	745,524	478,079	1,223,603	775,715	774,119	2,465,569	4,015,403	1,582,971	3,852,744	5,435,715
1999	744,125	476,478	1,220,603	781,128	779,063	2,477,347	4,037,538	1,574,833	3,873,888	5,448,721
2000	737,341	474,262	1,211,603	774,861	773,337	2,463,705	4,011,903	1,594,665	3,946,134	5,540,799
2001	740,137	475,466	1,215,603	772,868	771,517	2,459,373	4,003,758	1,592,425	3,978,465	5,570,890
2002	746,331	477,272	1,223,603	777,740	775,969	2,469,977	4,023,686	1,602,463	4,035,700	5,638,163
2003	747,331	477,272	1,224,603	777,952	776,163	2,470,437	4,024,552	1,596,345	4,060,002	5,656,347
2004	741,535	476,068	1,217,603	773,410	772,011	2,460,550	4,005,971	1,574,059	4,046,900	5,620,959
2005	740,137	475,466	1,215,603	764,232	763,626	2,440,584	3,968,442	1,562,420	4,054,600	5,617,020
2006	742,535	476,068	1,218,603	770,489	769,342	2,454,192	3,994,023	1,569,405	4,070,905	5,640,310
2007	737,738	474,865	1,212,603	763,508	762,966	2,439,006	3,965,480	1,553,897	4,034,705	5,588,602
2008	746,331	477,272	1,223,603	778,268	776,449	2,471,120	4,025,837	1,579,127	4,093,599	5,672,726
2009	740,137	475,466	1,215,603	772,842	771,494	2,459,317	4,003,653	1,566,306	4,063,666	5,629,972
2010	747,331	477,272	1,224,603	776,639	774,962	2,467,577	4,019,178	1,581,817	4,099,884	5,681,701
2011	749,728	477,875	1,227,603	784,057	781,740	2,483,719	4,049,516	1,587,867	4,114,006	5,701,873
2012	740,137	475,466	1,215,603	769,617	768,546	2,452,302	3,990,465	1,558,253	4,044,864	5,603,117
2013	742,535	476,068	1,218,603	669,078	675,761	2,113,142	3,457,981	1,570,312	4,073,020	5,643,332
2014	745,331	477,272	1,222,603	628,938	616,816	1,939,109	3,184,863	1,565,361	4,060,363	5,625,724
2015	740,137	475,466	1,215,603	586,977	549,908	1,567,016	2,703,901	1,540,119	4,001,280	5,541,399
2016	721,929	476,068	1,197,997	582,469	539,424	1,429,200	2,551,093	1,545,205	4,012,931	5,558,136
2017	693,592	475,466	1,169,058	540,339	500,670	1,291,338	2,332,347	1,514,056	3,939,976	5,454,032
2018	617,330	476,068	1,093,398	502,343	464,800	1,179,389	2,146,532	1,501,599	3,910,640	5,412,239
2019	567,958	474,262	1,042,220	462,305	428,482	1,075,050	1,965,837	1,484,098	3,869,577	5,353,675
2020	568,817	476,068	1,044,885	465,120	430,628	1,072,789	1,968,537	1,502,159	3,911,585	5,413,744
2021	565,941	476,068	1,042,009	461,968	427,593	1,065,495	1,955,056	1,500,793	3,908,257	5,409,050
2022	564,364	476,068	1,040,432	461,259	426,772	1,061,022	1,949,053	1,499,796	3,905,757	5,405,553
2023	563,164	446,623	1,009,787	460,568	426,111	1,057,658	1,944,337	1,499,167	3,904,176	5,403,343
2024	559,205	443,665	1,002,870	459,662	424,565	1,053,098	1,937,325	1,498,598	3,902,787	5,401,385
2025	554,134	437,229	991,363	459,281	424,100	1,051,312	1,934,693	1,498,073	3,901,548	5,399,621
2026	546,255	426,535	972,790	459,138	423,964	1,050,806	1,933,908	1,382,466	3,625,116	5,007,582
2027	532,117	408,238	940,355	458,882	423,731	1,050,147	1,932,760	1,352,591	3,539,168	4,891,759
2028	509,335	382,660	891,995	458,432	423,320	1,049,115	1,930,867	1,271,135	3,323,485	4,594,620
2029	364,859	252,960	617,819	457,710	422,659	1,047,490	1,927,859	896,315	2,258,079	3,154,394
2030	237,729	117,852	355,581	456,799	421,827	1,045,454	1,924,080	567,301	1,351,230	1,918,531
2031	227,587	109,206	336,793	456,565	421,613	1,044,894	1,923,072	532,678	1,246,784	1,779,462
2032	226,469	107,591	334,060	456,346	421,413	1,044,367	1,922,126	526,438	1,230,775	1,757,213
2033	226,172	107,142	333,314	455,962	421,062	1,043,479	1,920,503	522,449	1,220,874	1,743,323
2034	225,935	106,783	332,718	455,326	420,481	1,042,042	1,917,849	519,933	1,214,999	1,734,932
2035	225,935	106,783	332,718	454,671	419,881	1,040,563	1,915,115	517,591	1,209,531	1,727,122
TOTAL	38,426,349	24,213,348	62,639,697	43,001,989	43,524,460	138,993,930	225,520,379	80,038,358	202,343,757	282,382,115

a) Unadjusted for prior overpayments or underpayments of charges.

CHARGE FOR EACH CONTRACTOR[a]

(in dollars)

CALENDAR YEAR	SAN JOAQUIN VALLEY AREA									
	Devil's Den Water District	Dudley Ridge Water District	Empire West Side Irrigation District	Hacienda Water District	Kern County Water Agency		County of Kings	Oak Flat Water District	Tulare Lake Basin Water Storage District	Total
					Municipal and Industrial	Agricultural				
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1962	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0
1965	0	0	0	0	62,895	0	0	0	0	62,895
1966	0	0	0	0	118,519	0	0	0	0	118,519
1967	0	0	0	0	231,728	0	0	0	0	231,728
1968	69,690	169,561	10,041	4,876	387,621	1,409,736	12,535	10,501	183,618	2,258,179
1969	115,738	170,000	11,823	23,577	474,519	2,292,044	11,451	9,361	294,902	3,403,415
1970	138,155	195,459	19,031	36,780	522,992	2,804,947	11,522	12,418	227,982	3,969,286
1971	141,430	185,481	19,529	26,872	549,087	3,601,272	16,504	13,173	390,977	4,944,325
1972	166,059	212,154	21,229	29,356	574,500	4,690,064	14,103	19,627	992,932	6,720,024
1973	152,639	191,137	17,176	27,161	595,528	4,616,462	13,938	10,625	425,079	6,049,745
1974	163,759	201,697	16,345	28,667	609,882	4,848,161	14,276	10,763	352,422	6,245,972
1975	174,507	218,255	16,618	31,083	670,341	5,183,788	14,660	11,577	382,331	6,703,160
1976	187,284	232,818	16,792	33,200	680,565	5,647,426	14,766	12,025	408,352	7,233,228
1977	204,451	251,846	17,394	35,933	696,629	6,161,177	15,282	13,276	443,017	7,839,005
1978	203,706	259,364	16,842	37,720	698,863	6,599,601	15,318	12,856	456,349	8,300,619
1979	205,483	293,929	18,612	42,690	793,325	7,323,110	16,763	16,013	518,793	9,228,718
1980	204,241	301,259	18,068	43,785	797,521	7,735,399	16,877	15,619	531,637	9,664,406
1981	206,279	323,012	18,650	47,634	823,974	8,411,694	17,601	16,758	570,799	10,436,401
1982	208,076	342,264	18,949	50,337	854,670	9,033,906	18,412	17,682	604,156	11,148,452
1983	223,453	391,988	21,477	57,748	949,149	10,332,361	21,578	21,283	696,958	12,715,995
1984	225,363	410,217	21,558	60,285	982,934	11,012,243	22,707	21,882	728,383	13,485,572
1985	221,767	412,067	20,633	61,345	990,465	11,373,010	22,876	20,592	731,391	13,854,146
1986	230,320	446,609	21,773	66,385	1,053,733	12,252,916	25,290	23,374	794,712	14,915,112
1987	227,255	454,520	21,268	67,533	1,063,956	12,696,401	25,570	22,979	808,739	15,388,221
1988	231,255	490,695	22,378	72,807	1,125,818	13,616,573	27,025	25,667	874,579	16,486,797
1989	228,031	492,043	21,538	73,795	1,110,311	13,745,788	25,938	24,959	876,420	16,598,823
1990	229,325	508,279	21,526	76,160	1,148,387	14,257,378	25,923	25,033	939,091	17,231,102
1991	229,020	508,065	21,515	76,129	1,146,763	14,244,204	25,908	25,002	938,680	17,215,286
1992	231,495	520,209	22,144	77,919	1,175,885	14,479,977	26,739	26,306	961,791	17,522,465
1993	229,439	512,758	21,757	76,820	1,152,811	14,302,831	26,220	25,611	947,580	17,295,827
1994	228,298	507,661	21,490	76,069	1,147,712	14,229,109	25,868	25,103	937,872	17,199,182
1995	227,049	502,586	21,227	75,322	1,137,476	14,137,480	25,517	24,591	928,204	17,079,452
1996	228,674	504,157	21,310	75,553	1,142,426	14,190,301	25,628	24,686	931,204	17,143,939
1997	229,311	507,370	21,477	76,027	1,150,610	14,251,031	25,849	25,088	937,323	17,224,086
1998	228,033	497,838	20,982	74,625	1,136,619	14,130,261	25,193	23,989	919,165	17,056,705
1999	229,413	506,591	21,437	75,912	1,152,763	14,259,579	25,796	24,893	935,839	17,232,223
2000	229,335	513,231	21,781	76,891	1,166,359	14,355,084	26,254	25,785	948,491	17,363,211
2001	228,241	507,422	21,480	76,036	1,156,467	14,271,313	25,853	25,154	937,422	17,249,388
2002	228,554	504,441	21,326	75,597	1,153,684	14,253,840	25,648	24,625	931,741	17,219,456
2003	227,883	500,810	21,138	75,061	1,149,515	14,200,964	25,396	24,265	924,821	17,149,853
2004	227,781	505,947	21,404	75,819	1,155,033	14,246,363	25,751	24,953	934,613	17,217,664
2005	225,494	497,733	20,976	74,609	1,136,346	14,081,362	25,185	24,180	918,966	17,004,851
2006	226,739	501,526	21,175	75,166	1,144,072	14,156,806	25,447	24,504	926,190	17,101,625
2007	225,735	500,859	21,139	75,069	1,138,701	14,113,597	25,400	24,625	924,913	17,050,038
2008	228,153	504,490	21,328	75,605	1,155,344	14,256,524	25,652	24,601	931,837	17,223,534
2009	227,893	508,087	21,514	76,134	1,157,122	14,278,618	25,899	25,151	938,689	17,259,107
2010	227,396	499,717	21,081	74,900	1,146,626	14,180,377	25,322	24,073	922,746	17,122,238
2011	229,076	505,922	21,403	75,816	1,161,790	14,308,164	25,750	24,630	934,564	17,287,115
2012	227,013	504,575	21,333	75,616	1,148,984	14,199,130	25,657	24,872	931,998	17,159,178
2013	228,698	510,122	21,620	76,431	1,166,515	14,333,260	26,040	25,311	942,571	17,330,568
2014	226,368	497,358	20,957	74,555	1,138,547	14,101,724	25,159	24,036	918,248	17,026,952
2015	226,161	501,189	21,157	75,118	1,079,397	14,138,322	25,423	24,543	925,545	17,016,855
2016	229,380	513,415	21,791	76,917	1,052,890	14,394,359	26,268	25,615	948,844	17,289,479
2017	226,111	501,194	21,158	75,118	908,363	14,124,474	25,424	24,629	925,553	16,832,024
2018	225,543	495,456	20,857	74,273	798,639	14,061,142	16,602	23,886	914,627	16,631,025
2019	225,526	500,147	21,103	74,964	744,618	14,093,258	16,390	24,570	923,561	16,624,137
2020	228,860	510,394	21,634	76,471	737,645	14,308,923	16,847	25,397	943,088	16,869,259
2021	228,860	510,394	21,634	76,471	716,155	14,308,923	16,707	25,397	943,088	16,847,629
2022	228,860	510,394	21,634	76,471	706,459	14,308,923	16,648	25,397	943,088	16,837,874
2023	228,860	510,394	21,634	76,471	702,131	14,308,923	16,615	25,397	943,088	16,833,513
2024	228,860	510,394	21,634	76,471	697,763	14,308,923	16,577	25,397	943,088	16,829,107
2025	228,860	510,394	21,634	76,471	695,213	14,308,923	16,542	25,397	943,088	16,826,522
2026	228,860	510,394	21,634	76,471	694,263	14,308,923	16,522	25,397	943,088	16,825,552
2027	228,860	510,394	21,634	76,471	693,172	14,308,923	16,493	25,397	943,088	16,824,432
2028	228,860	510,394	21,634	76,471	691,839	14,308,923	16,453	25,397	943,088	16,823,059
2029	228,860	510,394	21,634	76,471	689,616	14,308,923	16,385	25,397	943,088	16,820,768
2030	228,860	510,394	21,634	76,471	686,392	14,308,923	16,281	25,397	943,088	16,817,440
2031	228,860	510,394	21,634	76,471	683,737	14,308,923	16,204	25,397	943,088	16,814,708
2032	228,860	510,394	21,634	76,471	679,283	14,308,923	16,075	25,397	943,088	16,810,125
2033	228,860	510,394	21,634	76,471	674,659	14,308,923	15,946	25,397	943,088	16,805,372
2034	228,860	510,394	21,634	76,471	670,493	14,308,923	15,823	25,397	943,088	16,801,083
2035	228,860	510,394	21,634	76,471	661,723	14,308,923	15,538	25,397	943,088	16,792,028
TOTAL	14,627,838	29,961,834	1,394,454	4,453,336	61,850,532	820,961,679	1,409,809	1,513,672	55,366,625	991,539,779

TABLE B-19: TOTAL TRANSPORTATION

(in dollars)

CALENDAR YEAR	SOUTHERN CALIFORNIA AREA									
	Antelope Valley-East Kern Water Agency	Castaic Lake Water Agency	Coachella Valley County Water District	Crestline Lake Arrowhead Water Agency	Desert Water Agency	Littlerock Creek Irrigation District	Mojave Water Agency	Palmdale Irrigation District	San Bernardino Valley Municipal Water District	San Gabriel Valley Municipal Water District
	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
1962	0	0	0	0	0	0	0	0	0	0
1963	32,473	0	0	0	0	0	0	0	50,873	0
1964	60,657	19,093	13,845	4,156	35,974	1,110	27,379	7,942	79,227	33,878
1965	116,143	37,033	24,514	6,979	39,844	2,049	49,264	14,948	131,629	34,512
1966	212,619	70,882	44,077	12,239	72,107	3,713	89,207	27,341	228,936	60,605
1967	414,236	147,093	85,536	23,250	140,481	7,249	174,130	53,705	430,627	114,941
1968	722,834	307,308	150,565	40,902	247,727	12,690	306,430	94,047	773,424	206,629
1969	1,053,935	468,130	224,742	61,067	370,061	18,657	456,993	137,691	1,200,863	320,519
1970	1,371,774	596,534	314,523	89,352	518,131	25,194	630,843	184,264	1,767,734	465,142
1971	1,682,191	744,536	428,235	126,992	705,667	31,525	847,517	228,363	2,506,110	651,294
1972	2,010,252	923,497	564,794	175,932	930,883	42,091	1,118,205	274,073	3,361,982	862,702
1973	2,089,902	953,726	671,237	185,707	1,097,881	43,106	1,164,208	285,626	4,066,898	929,247
1974	2,144,297	999,313	695,363	196,274	1,138,142	45,185	1,198,285	292,667	4,248,986	1,091,479
1975	2,432,437	1,014,935	716,657	203,912	1,173,108	47,077	1,383,350	295,179	4,359,884	1,121,656
1976	2,497,295	1,026,936	736,983	207,680	1,206,320	49,237	1,539,679	298,430	4,363,845	1,130,625
1977	2,542,526	1,039,845	753,223	216,466	1,227,486	50,421	1,538,801	302,168	4,466,531	1,153,987
1978	2,688,397	1,048,682	783,976	226,268	1,270,481	54,180	1,574,804	312,031	4,559,373	1,179,742
1979	2,774,099	1,082,860	804,853	234,808	1,298,171	56,600	1,655,658	324,155	4,682,188	1,212,159
1980	2,920,572	1,115,476	823,972	239,899	1,340,931	58,738	1,741,180	337,880	4,716,272	1,212,673
1981	2,982,238	1,147,903	840,699	240,835	1,368,652	60,423	1,806,316	372,051	4,666,512	1,199,288
1982	3,095,813	1,181,703	879,755	252,696	1,432,018	63,251	1,915,432	412,275	4,835,729	1,233,933
1983	3,310,194	1,288,429	953,678	275,037	1,550,913	69,007	2,103,212	471,802	5,110,358	1,291,797
1984	3,440,746	1,340,610	996,314	281,263	1,619,773	72,316	2,153,785	521,213	5,199,095	1,309,320
1985	3,799,752	1,379,751	1,025,132	285,796	1,666,921	74,671	2,161,396	563,343	5,265,987	1,319,396
1986	4,146,110	1,418,571	1,054,608	296,416	1,715,387	76,733	2,206,684	576,452	5,313,572	1,321,268
1987	4,262,397	1,478,891	1,090,325	302,855	1,784,979	79,606	2,281,960	594,471	5,298,392	1,311,190
1988	4,382,215	1,519,659	1,124,723	314,866	1,852,945	82,358	2,340,331	612,870	5,427,367	1,329,449
1989	4,479,455	1,602,229	1,147,773	313,492	1,902,281	84,678	2,402,122	626,450	5,383,353	1,314,681
1990	4,701,446	1,681,429	1,213,330	332,308	2,000,532	90,172	2,530,571	665,265	5,661,155	1,361,191
1991	4,798,032	1,702,411	1,217,144	335,045	2,006,824	89,811	2,534,938	662,572	5,690,319	1,368,892
1992	4,989,089	1,736,001	1,231,150	343,498	2,029,927	91,740	2,554,422	677,054	5,927,627	1,421,859
1993	4,982,719	1,659,103	1,203,793	330,498	1,984,804	88,979	2,508,214	656,325	5,677,060	1,377,820
1994	5,229,409	1,762,907	1,232,918	335,248	2,032,849	91,978	2,577,980	678,832	5,693,602	1,387,775
1995	5,337,542	1,747,208	1,237,354	344,480	2,040,168	91,848	2,569,351	677,877	5,942,538	1,443,193
1996	5,480,998	1,744,980	1,243,525	343,478	2,050,338	92,421	2,588,681	682,172	5,868,915	1,434,587
1997	5,583,153	1,759,945	1,236,000	337,056	2,037,927	92,172	2,582,420	680,272	5,767,844	1,420,864
1998	5,748,353	1,764,608	1,248,375	339,983	2,058,331	93,068	2,610,010	687,015	5,793,410	1,432,663
1999	5,876,441	1,742,970	1,250,579	343,215	2,061,966	93,260	2,608,773	688,473	5,855,654	1,450,990
2000	6,043,090	1,810,683	1,255,804	347,569	2,070,586	94,104	2,613,343	694,792	6,003,802	1,488,607
2001	5,989,592	1,784,172	1,241,523	343,883	2,047,040	93,203	2,582,220	688,035	5,894,241	1,468,684
2002	6,070,956	1,822,882	1,254,101	338,616	2,067,778	94,547	2,628,916	698,122	5,853,542	1,471,121
2003	6,087,032	1,802,893	1,261,314	347,836	2,079,672	94,826	2,627,971	700,206	6,021,639	1,509,365
2004	6,076,189	1,820,989	1,255,602	344,388	2,070,255	94,634	2,619,988	698,793	5,939,973	1,497,032
2005	6,041,552	1,755,125	1,258,058	350,295	2,074,306	94,075	2,613,426	694,579	6,039,012	1,520,713
2006	6,031,001	1,823,066	1,243,599	335,637	2,050,455	93,898	2,606,624	693,250	5,727,793	1,461,910
2007	5,959,795	1,750,440	1,244,220	349,071	2,051,480	92,696	2,577,933	684,226	6,010,109	1,521,237
2008	6,108,433	1,821,012	1,271,698	349,693	2,096,807	95,177	2,652,496	702,842	5,992,524	1,529,285
2009	6,018,738	1,796,927	1,242,936	339,854	2,049,363	93,675	2,595,243	691,557	5,846,529	1,501,164
2010	6,117,118	1,833,158	1,274,299	349,758	2,101,093	95,309	2,659,538	703,844	6,008,388	1,544,549
2011	6,173,399	1,853,062	1,272,696	342,390	2,098,441	96,247	2,671,753	710,899	5,859,045	1,521,228
2012	6,021,556	1,807,935	1,256,132	353,412	2,071,133	93,732	2,601,044	692,000	6,037,184	1,550,801
2013	6,128,297	1,829,248	1,267,662	342,475	2,077,002	96,054	2,657,655	709,421	5,803,467	1,515,733
2014	6,038,488	1,805,566	1,249,383	346,974	2,060,582	93,913	2,598,440	693,743	5,923,404	1,537,380
2015	5,903,016	1,748,184	1,225,246	335,765	2,020,774	91,648	2,558,308	676,771	5,760,057	1,506,832
2016	5,883,781	1,745,625	1,214,570	333,271	2,003,157	91,281	2,536,635	674,130	5,699,417	1,494,709
2017	5,579,152	1,631,558	1,149,955	310,177	1,896,601	86,020	2,415,081	634,812	5,239,993	1,386,172
2018	5,338,393	1,516,305	1,114,229	313,845	1,837,685	81,703	2,314,435	602,915	5,264,234	1,375,223
2019	4,978,342	1,327,248	1,017,227	273,964	1,677,703	75,241	2,144,765	555,557	4,454,816	1,185,945
2020	4,765,358	1,240,086	952,554	258,352	1,571,054	70,460	2,011,187	522,172	4,134,783	1,102,811
2021	4,506,208	1,107,340	847,873	222,995	1,398,409	64,988	1,813,233	484,515	3,436,791	927,753
2022	4,371,284	1,017,654	792,181	205,365	1,306,561	62,445	1,704,832	466,327	3,016,016	825,105
2023	4,319,961	1,001,607	775,059	200,526	1,278,323	61,452	1,670,513	459,381	2,872,636	787,976
2024	4,281,227	965,470	760,116	194,552	1,253,679	60,772	1,644,235	454,372	2,739,590	755,604
2025	4,270,555	953,479	751,884	192,084	1,240,102	60,559	1,627,933	452,862	2,672,582	738,010
2026	4,265,442	950,226	742,264	189,578	1,224,236	60,448	1,608,197	452,074	2,609,366	720,934
2027	4,256,108	948,760	740,626	189,149	1,221,536	60,392	1,604,841	451,662	2,596,687	717,519
2028	4,191,962	948,090	740,083	189,000	1,220,641	60,360	1,603,740	451,427	2,593,966	716,794
2029	4,143,153	947,140	739,578	188,873	1,219,808	60,314	1,602,689	451,077	2,591,692	716,168
2030	4,115,944	943,931	738,643	188,588	1,218,266	60,229	1,600,793	450,442	2,586,651	714,787
2031	4,105,212	938,270	736,698	188,096	1,215,058	60,049	1,596,768	449,092	2,577,945	712,397
2032	4,082,905	932,284	733,433	187,270	1,209,673	59,748	1,590,011	446,827	2,563,333	708,385
2033	4,054,078	925,336	729,277	186,219	1,202,819	59,364	1,581,416	443,946	2,544,741	703,282
2034	4,031,763	920,687	726,498	185,516	1,198,236	59,107	1,575,662	442,018	2,532,304	699,867
2035	3,744,396	916,865	724,222	184,941	1,194,482	58,896	1,570,932	440,432	2,522,119	697,066
TOTAL	300,486,217	91,998,490	66,065,513	18,099,925	108,685,726	4,948,880	138,215,327	35,896,414	310,344,242	79,344,094

a) Unadjusted for prior overpayments or underpayments of charges.

CHARGE FOR EACH CONTRACTOR(a

(in dollars)

CALENDAR YEAR	SOUTHERN CALIFORNIA AREA (continued)				FEATHER RIVER AREA				FUTURE CONTRACTOR	GRAND TOTAL
	San Gorgonio Pass Water Agency	The Metropolitan Water District of Southern California	Ventura County Flood Control District	Total	City of Yuba City	County of Butte	Plumas County FC & WCD	Total	South Bay	
	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1962	0	0	0	0	0	0	0	0	0	55,506
1963	0	674,248	0	757,594	0	0	0	0	57,877	1,585,773
1964	21,038	1,228,540	8,920	1,541,759	0	0	0	0	95,506	2,693,903
1965	21,344	2,146,289	17,244	2,641,792	0	0	406	406	165,287	4,647,063
1966	37,425	3,860,546	32,804	4,752,501	0	0	562	562	191,355	7,172,798
1967	70,885	7,656,927	67,500	9,386,560	0	0	559	559	249,566	12,458,589
1968	127,502	15,165,006	140,842	18,295,906	0	0	562	562	322,127	24,002,024
1969	197,992	23,131,601	214,718	27,856,969	0	0	3,125	3,125	393,353	35,191,712
1970	288,090	30,586,098	272,765	37,110,444	0	0	14,767	14,767	450,263	45,322,059
1971	404,253	39,663,878	338,840	48,359,401	0	0	15,633	15,633	427,442	57,386,732
1972	535,473	52,570,190	417,790	63,787,864	0	0	17,006	17,006	473,417	75,141,925
1973	577,033	57,450,253	427,089	69,941,913	0	0	17,155	17,155	452,196	80,435,665
1974	604,247	61,719,348	445,122	74,818,708	0	0	17,160	17,160	457,769	85,576,226
1975	614,879	63,137,839	447,808	76,948,721	0	0	17,163	17,163	457,675	88,163,754
1976	613,844	64,676,484	448,655	78,796,013	0	0	17,155	17,155	457,046	90,956,174
1977	624,022	64,949,772	449,306	79,314,554	0	0	17,147	17,147	456,753	92,281,437
1978	627,030	65,735,610	448,343	80,508,917	0	0	17,146	17,146	457,406	94,308,438
1979	633,319	67,054,336	449,340	82,262,546	0	0	17,144	17,144	457,721	98,763,913
1980	712,398	66,972,646	456,900	82,649,537	0	0	17,177	17,177	459,016	101,658,068
1981	714,232	67,648,181	466,373	83,513,703	0	0	17,184	17,184	459,463	103,430,566
1982	743,353	68,964,079	476,311	85,486,348	0	0	17,187	17,187	459,842	106,232,541
1983	787,798	72,397,490	502,823	90,112,538	0	0	17,187	17,187	461,571	112,872,548
1984	808,648	74,167,944	518,463	92,429,490	0	0	17,171	17,171	461,824	116,081,308
1985	827,211	75,339,486	533,953	94,242,795	0	0	17,178	17,178	462,303	118,323,815
1986	841,856	76,182,684	562,402	95,712,743	0	0	17,181	17,181	462,429	121,023,591
1987	848,062	77,057,936	597,086	96,988,150	0	0	17,182	17,182	462,171	122,811,239
1988	872,804	78,628,720	640,579	99,128,886	0	0	17,153	17,153	461,638	126,189,314
1989	877,765	80,747,665	702,428	101,584,372	0	0	17,167	17,167	461,566	128,784,317
1990	927,536	84,173,891	787,701	106,126,527	0	0	17,167	17,167	461,610	134,203,227
1991	927,743	84,023,944	781,637	106,139,312	0	0	17,167	17,167	461,490	134,220,213
1992	963,256	86,171,330	797,463	108,934,416	0	0	17,181	17,181	461,215	137,396,921
1993	926,595	83,429,775	763,705	105,589,390	0	0	17,186	17,186	461,686	133,853,607
1994	931,724	87,007,897	807,216	109,770,335	0	0	17,186	17,186	463,991	137,941,753
1995	966,296	87,429,262	803,550	110,630,667	0	0	17,186	17,186	462,053	138,779,225
1996	956,207	87,384,583	802,634	110,673,519	0	0	17,183	17,183	461,942	138,938,258
1997	943,302	88,011,776	808,327	111,261,058	0	0	17,183	17,183	461,940	139,614,223
1998	947,778	88,654,704	810,768	112,189,066	0	0	17,183	17,183	461,929	140,399,604
1999	955,827	88,365,145	804,497	112,097,790	0	0	17,183	17,183	461,982	140,516,040
2000	978,033	91,465,071	830,089	115,695,573	0	0	17,183	17,183	461,920	144,302,192
2001	959,653	90,406,941	820,942	114,320,129	0	0	17,183	17,183	461,903	142,838,854
2002	960,477	91,904,889	838,427	116,004,374	0	0	17,183	17,183	461,948	144,588,413
2003	982,059	92,469,798	830,576	116,815,187	0	0	17,183	17,183	461,952	145,349,677
2004	970,130	92,854,721	836,319	117,079,013	0	0	17,183	17,183	461,907	145,620,300
2005	981,996	91,373,780	811,127	115,608,044	0	0	17,183	17,183	461,818	143,892,961
2006	939,581	93,103,236	835,671	116,945,721	0	0	17,183	17,183	461,879	145,379,344
2007	975,078	91,688,090	807,240	115,711,615	0	0	17,183	17,183	461,812	144,007,333
2008	977,835	94,585,253	836,733	119,019,788	0	0	17,183	17,183	461,954	147,644,625
2009	955,607	93,628,036	827,916	117,587,545	0	0	17,183	17,183	461,902	146,174,965
2010	981,047	95,710,266	843,832	120,222,199	0	0	17,183	17,183	461,939	148,749,041
2011	962,218	96,371,985	853,867	120,787,230	0	0	17,183	17,183	462,010	149,532,530
2012	978,408	95,769,833	830,256	120,063,426	0	0	17,183	17,183	461,870	148,510,842
2013	952,176	95,335,922	843,954	119,559,066	0	0	17,183	17,183	416,543	147,643,276
2014	963,629	95,854,084	831,216	119,996,802	0	0	17,183	17,183	379,830	147,453,957
2015	940,801	93,397,082	804,805	116,969,289	0	0	16,777	16,777	325,233	143,789,057
2016	930,415	93,292,460	804,200	116,703,651	0	0	16,621	16,621	301,874	143,618,851
2017	859,217	87,396,188	750,879	109,335,805	0	0	16,624	16,624	258,887	135,398,777
2018	851,765	83,369,749	696,487	104,676,968	0	0	16,621	16,621	180,701	130,157,484
2019	729,639	73,071,440	612,005	92,103,892	0	0	14,058	14,058	116,446	117,220,265
2020	675,358	68,856,518	573,214	86,733,907	0	0	2,416	2,416	94,244	112,126,992
2021	566,000	60,551,157	514,492	76,441,754	0	0	1,609	1,609	90,072	101,787,179
2022	502,071	53,658,615	476,376	68,404,832	0	0	257	257	89,108	93,727,109
2023	478,936	51,325,569	473,002	65,704,941	0	0	257	257	88,293	90,984,471
2024	458,552	49,128,876	459,145	63,156,190	0	0	257	257	86,561	88,413,695
2025	447,590	48,288,758	454,569	62,150,967	0	0	257	257	86,114	87,389,537
2026	437,006	47,826,722	453,243	61,539,736	0	0	257	257	86,000	86,365,825
2027	434,883	47,703,850	452,623	61,378,636	0	0	257	257	85,859	86,054,058
2028	434,436	47,665,636	452,320	61,268,455	0	0	257	257	85,664	85,594,917
2029	434,053	47,619,989	451,878	61,166,412	0	0	257	257	85,389	83,772,898
2030	433,205	47,477,906	450,589	60,979,974	0	0	257	257	85,045	82,080,908
2031	431,737	47,229,111	448,233	60,688,666	0	0	257	257	84,945	81,627,903
2032	429,273	46,940,125	445,430	60,328,697	0	0	257	257	84,849	81,237,327
2033	426,139	46,596,951	442,082	59,895,650	0	0	257	257	84,695	80,783,114
2034	424,042	46,367,310	439,841	59,602,851	0	0	257	257	84,450	80,474,140
2035	422,324	46,178,600	437,999	59,093,274	0	0	257	257	84,198	79,944,712
TOTAL	49,744,136	4,860,630,620	41,623,479	6,106,083,063	0	0	862,331	862,331	24,624,234	7,693,651,598

TABLE B-20: CALCULATION OF DELTA WATER RATES

[values in millions of dollars ($) or millions of acre-feet (AF) discounted to 1973 at 4.457 percent per annum, unless otherwise noted]

Procedure	Capital Cost Component	Minimum Operation, Maintenance, Power, and Replacement Component [a]	Total Delta Water Charge
In accordance with amendment to Articles 22(e) and 22(g)			
Commencing in 1974:			
Total costs of "initial conservation facilities" to be reimbursed, and project water entitlements to be delivered, during the project repayment period	$942.12[b] 70.60 AF	$157.37 70.60 AF	$1,099.49 70.60 AF
less, project power revenues to be realized during the project repayment period [c]	$411.12	$ 37.81	$ 448.93
less, Delta Water Charges paid, and project water entitlements, prior to 1974 [d]	$ 17.81 3.11 AF	$ 4.87 3.11 AF	$ 22.68 3.11 AF
Subtotal	$513.19 ÷ 67.49 AF	$114.69 ÷ 67.49 AF	$ 627.88 ÷ 67.49 AF
Rate applicable for remainder of the project repayment period	$ 7.60 per acre-foot	$ 1.70 per acre-foot	$ 9.30 per acre-foot
Commencing in 1988:			
Additional costs to be reimbursed during the project repayment period for additional conveyance works	$113.61	$ 11.03	$ 124.64
less, Delta Water Charges paid, and project water entitlements delivered, during the period 1974 thru 1987	$172.29 22.67 AF	$ 38.54 22.67 AF	$ 210.83 22.67 AF
Cumulative Subtotal	$454.51 ÷ 44.82 AF	$ 87.18 ÷ 44.82 AF	$ 541.69 ÷ 44.82 AF
Rate applicable for remainder of the project repayment period	$10.14 per acre-foot	$ 1.95 per acre-foot	$12.09 per acre-foot
Commencing in 1996:			
Additional costs to be reimbursed during the project repayment period for payments to the Corps of Engineers for initial block of storage	$ 41.39	$ 6.49	$ 47.88
less, Delta Water Charges paid, and project water entitlements delivered during the period 1988 thru 1995	$150.27 14.82 AF	$ 28.90 14.82 AF	$ 179.17 14.82 AF
Cumulative Subtotal	$345.63 ÷ 30.00 AF	$ 64.77 ÷ 30.00 AF	$ 410.40 ÷ 30.00 AF
Rate applicable for remainder of the project repayment period	$11.52 per acre-foot	$ 2.16 per acre-foot	$13.68 per acre-foot
Commencing in 2003:			
Additional costs to be reimbursed during the project repayment period for payments to the Corps of Engineers for reserved block of storage	$ 19.92	$ 3.23	$ 23.15
less, Delta Water Charges paid, and project water entitlements delivered, during the period 1996-2002	$110.13 9.56 AF	$ 20.65 9.56 AF	$ 130.78 9.56 AF
Cumulative Subtotal	$255.42 ÷ 20.44 AF	$ 47.35 ÷ 20.44 AF	$ 302.77 ÷ 20.44 AF
Rate applicable for remainder of the project repayment period	$12.49 per acre-foot	$ 2.32 per acre-foot	$14.81 per acre-foot
Calculation under original provisions of the Contract			
Commencing in 1974:			
Total costs of "initial" and "additional" project conservation facilities to be reimbursed, and project water entitlements to be delivered, during the project repayment period	$1,117.04[b] 70.60 AF	$178.12 70.60 AF	$1,295.16 70.60 AF
less, project power revenues to be realized during the project repayment period [c]	$ 411.12	$ 37.81	$ 448.93
less, Delta Water Charges paid, and project water entitlements delivered, prior to 1974 [d]	$ 17.81 3.11 AF	$ 4.87 3.11 AF	$ 22.68 3.11 AF
TOTAL	$ 688.11 ÷ 67.49 AF	$135.44 ÷ 67.49 AF	$ 823.55 ÷ 67.49 AF
Rate applicable for remainder of the project repayment period	$10.19 per acre-foot	$ 2.01 per acre-foot	$12.20 per acre-foot

a) Considering that all operating costs of project conservation facilities will not vary with annual amounts of project water delivered, and therefore are properly classified as "minimum" OMP&R costs.

b) Including net credits of $4,850,000 for settlement as to the magnitude of project capital costs incurred prior to December 31, 1960, and net credits of $4,887,668 for settlement as to the magnitude of project capital costs incurred during the 1961 through 1968 period.

c) Applying all conservation power revenues to reimbursement of capital costs, except that portion equal to specific operating costs of power facilities under the Oroville Revenue Bond Resolution ($1,500,000 annually).

d) Applying all Delta Water Charges paid prior to 1970 to reimbursement of capital costs (the Charge is not divided into components until 1970), and applying payments of $8,514 in 1970, $10,411 in 1971, and $16,996 in 1972 (under a short-term water supply contract with Mustang Water District), payments of $14,000 per year (1963 through 1973, under a short-term water supply contract with Last Chance Creek Water District) and payments from the Joint Water Districts Board of $5,500 per year (1968 through 1973) to reimbursement of minimum OMP&R costs.

TABLE B-21: EQUIVALENT UNIT CHARGES FOR WATER SUPPLY FOR EACH CONTRACTOR[a]

(in dollars per acre-foot)

Project Service Area and Water Supply Contractor	Transportation Charge				Delta Water Charge	Total Equivalent Unit Charge
	Capital Cost Component	Minimum OMP&R Component	Variable OMP&R Component	Total		
	(1)	(2)	(3)	(4)	(5)	(6)
FEATHER RIVER AREA						
City of Yuba City	0	0	0	0	12.84	12.84
County of Butte	0	0	0	0	13.05	13.05
Plumas County Flood Control and Water Conservation District	15.00	0.21		15.21	12.76	27.97
Feather River Area	0.81	0.01	0	0.82	12.96	13.78
NORTH BAY AREA						
Napa County Flood Control and Water Conservation District	29.85	6.81	4.57	41.23	13.15	54.38
Solano County Flood Control and Water Conservation District	13.40	2.62	0.79	16.81	14.52	31.33
North Bay Area	20.42	4.41	2.40	27.23	13.94	41.17
SOUTH BAY AREA						
Alameda County Flood Control and Water Conservation District, Zone 7	11.35	4.95	6.93	23.23	11.11	34.34
Alameda County Water District	13.19	4.75	7.29	25.23	11.67	36.90
Santa Clara County Flood Control and Water District	16.60	4.01	6.55	27.16	10.55	37.71
South Bay Area	14.93	4.33	6.77	26.03	10.87	36.90
SAN JOAQUIN VALLEY AREA						
County of Kings	3.47	0.99	2.68	7.14	11.49	18.63
Devil's Den Water District	7.72	4.26	4.18	16.16	9.87	26.03
Dudley Ridge Water District	4.27	1.21	2.58	8.06	10.33	18.39
Empire West Side Irrigation District	2.94	0.84	2.36	6.14	9.73	15.87
Hacienda Water District	4.37	1.24	2.58	8.19	10.40	18.59
Kern County Water Agency	7.48	2.40	3.62	13.50	11.46	24.96
Oak Flat Water District	1.49	0.54	1.73	3.76	9.88	13.64
Tulare Lake Basin Water Storage District	4.02	1.14	2.51	7.67	10.16	17.83
San Joaquin Valley Area	6.91	2.23	3.45	12.59	11.23	23.82
CENTRAL COASTAL AREA						
San Luis Obispo County Flood Control and Water Conservation District	61.75	10.84	15.43	88.02	13.32	101.34
Santa Barbara County Flood Control and Water Conservation District	88.81	13.82	15.28	117.91	16.35	134.26
Central Coastal Area	79.41	12.79	15.33	107.53	15.30	122.83
SOUTHERN CALIFORNIA AREA						
Antelope Valley-East Kern Water Agency	31.84	5.78	20.55	58.17	15.90	74.07
Castaic Lake Water Agency	36.01	6.42	15.10	57.53	13.05	70.58
Coachella Valley County Water District	33.68	7.59	23.50	64.77	12.32	77.09
Crestline-Lake Arrowhead Water Agency	40.45	8.31	23.58	72.34	12.22	84.56
Desert Water Agency	34.22	7.72	23.59	65.53	12.36	77.89
Littlerock Creek Irrigation District	23.16	5.04	19.73	47.93	12.17	60.10
Mojave Water Agency	30.31	7.03	23.68	61.02	12.51	73.53
Palmdale Irrigation District	25.91	5.63	20.72	52.26	14.98	67.24
San Bernardino Valley Municipal Water District	42.60	9.03	15.46	67.09	11.91	79.00
San Gabriel Valley Municipal Water District	47.54	10.43	15.56	73.53	14.18	87.71
San Gorgonio Pass Water Agency	52.68	11.51	16.83	81.02	12.71	93.73
The Metropolitan Water District of Southern California	46.95	8.72	15.16	70.83	15.20	86.03
Ventura County Flood Control District	40.74	7.55	16.58	64.87	13.25	78.12
Southern California Area	44.78	8.48	15.99	69.25	14.81	84.06
ALL AREAS	27.96	5.72	10.23	43.91	13.15	57.06

a) Hypothetical charges which, if assessed on all water delivered to date plus all entitlement water estimated to be delivered during the project repayment period, would produce a sum at the end of the period equivalent to those total charges required under a water supply contract, with interest at the project interest rate; 4.457 percent per annum.

TABLE B-22: EQUIVALENT UNIT COSTS OF WATER DELIVERED FROM OR THRU EACH AQUEDUCT REACH[a]

(in dollars per acre-foot)

Aqueduct Reach	Unit Costs of Reach (b				Cumulative Unit Costs from the Delta			
	Capital Costs	Minimum OMP&R	Variable OMP&R	Total	Capital Costs	Minimum OMP&R	Variable OMP&R	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
NORTH BAY AQUEDUCT								
1	9.82	2.00	.73	12.55	9.82	2.00	.73	12.55
2	3.08	.49	.00	3.57	12.90	2.49	.73	16.12
3	18.13	4.47	3.91	26.51	31.03	6.96	4.64	42.63
SOUTH BAY AQUEDUCT								
1	4.60	2.51	4.66	11.77	5.67	3.08	6.63	15.38
2	.45	.31	.00	.76	6.12	3.39	6.63	16.14
4	1.62	.46	.00	2.08	7.74	3.85	6.63	18.22
5	3.73	.71	.00	4.44	11.47	4.56	6.63	22.66
6	.14	.04	.00	.18	11.61	4.60	6.63	22.84
7	1.72	.07	.00	1.79	13.33	4.67	6.63	24.63
8	2.50	.09	.00	2.59	15.83	4.76	6.63	27.22
9	4.85	.38	.00	5.23	20.68	5.14	6.63	32.45
CALIFORNIA AQUEDUCT								
1	1.07	.57	1.97	3.61	1.07	.57	1.97	3.61
2A	.90	.13	.00	1.03	1.97	.70	1.97	4.64
2B	.44	.07	.00	.51	2.41	.77	1.97	5.15
3	.35	.06	.00	.41	2.76	.83	1.97	5.56
4	.67	.29	.77	1.73	3.43	1.12	2.74	7.29
5	.60	.07	.00	.67	4.03	1.19	2.74	7.96
6	.16	.02	.00	.18	4.19	1.21	2.74	8.14
7	.44	.05	.00	.49	4.63	1.26	2.74	8.63
8C	.00	.01	.00	.01	4.63	1.27	2.74	8.64
8D	.30	.08	.00	.38	4.93	1.35	2.74	9.02
9	.22	.07	.00	.29	5.15	1.42	2.74	9.31
10A	.25	.07	.00	.32	5.40	1.49	2.74	9.63
11B	.37	.05	.00	.42	5.77	1.54	2.74	10.05
12D	.35	.07	.00	.42	6.12	1.61	2.74	10.47
12E	.21	.06	.00	.27	6.33	1.67	2.74	10.74
13B	.48	.11	.00	.59	6.81	1.78	2.74	11.33
14A	1.74	.49	1.31	3.54	8.55	2.27	4.05	14.87
14B	.32	.10	.00	.42	8.87	2.37	4.05	15.29
14C	.29	.08	.00	.37	9.16	2.45	4.05	15.66
15A	1.26	.42	1.43	3.11	10.42	2.87	5.48	18.77
16A	2.13	.64	3.19	5.96	12.55	3.51	8.67	24.73
17E	7.30	.93	10.98	19.21	19.85	4.44	19.65	43.94
17F	2.08	.00	.00	2.08	21.93	4.44	19.65	46.02
18A	.51	.08	.00	.59	22.44	4.52	19.65	46.61
19	1.42	.44	.00	1.86	23.86	4.96	19.65	48.47
19C	.00	.00	.00	.00	23.86	4.96	19.65	48.47
20A	1.25	.36	.00	1.61	25.11	5.32	19.65	50.08
20B	1.60	.35	.00	1.95	26.71	5.67	19.65	52.03
21	.88	.19	.00	1.07	27.59	5.86	19.65	53.10
22A	.59	.13	.00	.72	28.18	5.99	19.65	53.82
22B	6.39	1.79	3.73	11.91	34.57	7.78	23.38	65.73
23	.41	.03	.00	.44	34.98	7.81	23.38	66.17
24	4.60	.45	.00	5.05	39.58	8.26	23.38	71.22
25	2.33	.01	.00	2.34	41.91	8.27	23.38	73.56
26A	3.47	1.52	-7.28	-2.29	45.38	9.79	16.10	71.27
28G	4.59	.18	.00	4.77	49.97	9.97	16.10	76.04
28H	5.27	.26	.00	5.53	55.24	10.23	16.10	81.57
28J	13.38	1.03	.00	14.41	68.62	11.26	16.10	95.98
WEST BRANCH								
29A	1.99	.87	1.28	4.14	23.92	5.31	20.93	50.16
29F	.83	.44	.00	1.27	24.75	5.75	20.93	51.43
29G	.68	.27	.00	.95	25.43	6.02	20.93	52.38
29H	2.94	.29	.00	3.23	28.37	6.31	20.93	55.61
29J	5.34	.20	-6.31	-.77	33.71	6.51	14.62	54.84
30	8.82	.83	.00	9.65	42.53	7.34	14.62	64.49
COASTAL BRANCH								
31A	4.43	3.64	1.76	9.83	9.36	4.99	4.50	18.85
33A	48.03	4.02	10.45	62.50	57.39	9.01	14.95	81.35
34	4.56	.19	.00	4.75	61.95	9.20	14.95	86.10
35	16.77	.42	.00	17.19	78.72	9.62	14.95	3.29

a) Representative of water transportation costs only; does not include conservation costs. The Delta Water Rate should be added to these values in order to approximate total water costs at canal side.

b) Hypothetical rates which, if assessed on all water delivered to date plus all entitlement water to be delivered during the project repayment period, would total a sum at the end of the period equivalant to all Transportation Charges, together with interest at the project interest rate; 4.457 percent per annum.

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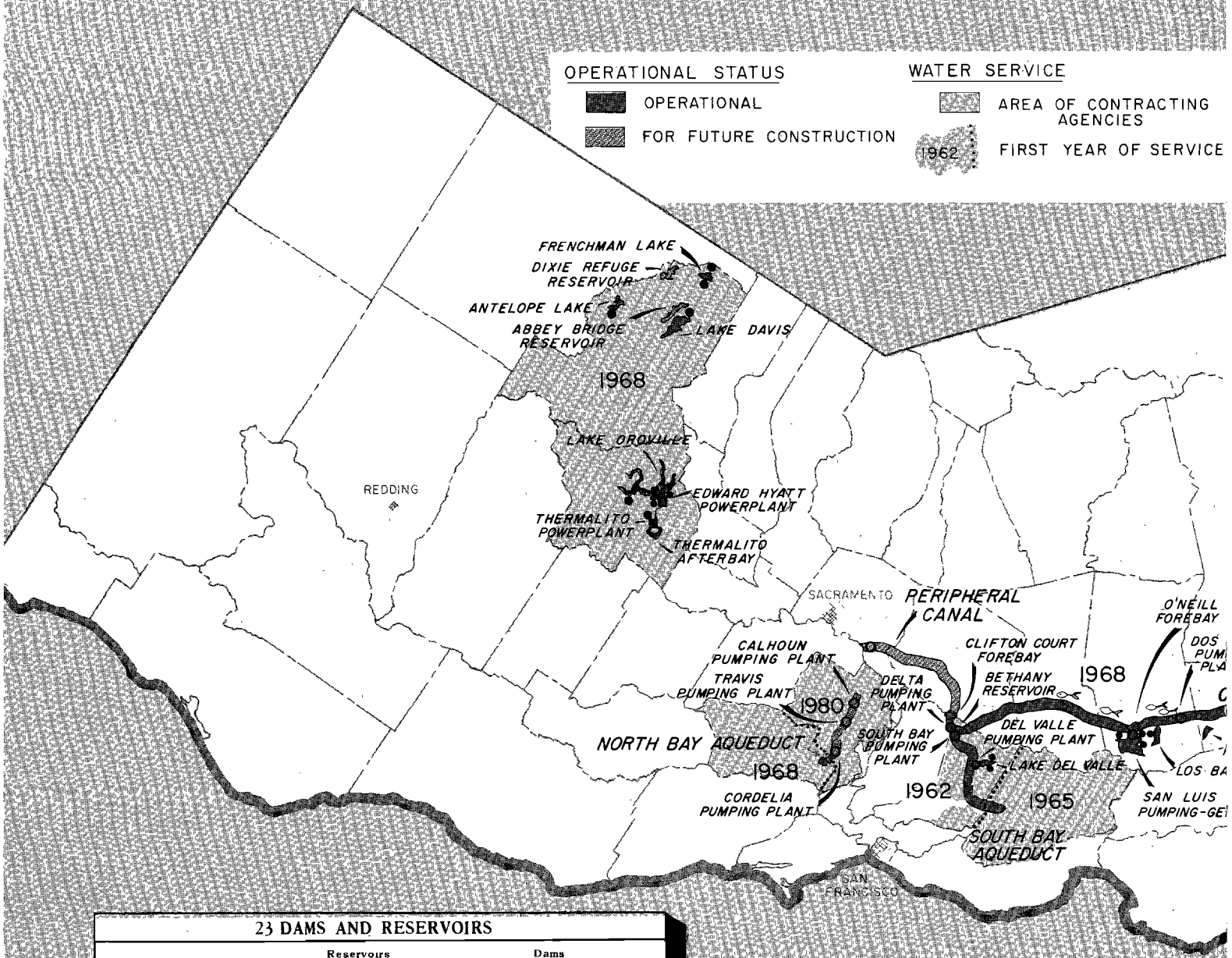


23 DAMS AND RESERVOIRS

Name of Reservoir	Reservoirs: Gross Capacity (Acre-feet)	Reservoirs: Surface Area (acres)[1]	Reservoirs: Shoreline (miles)	Dams: Structural Height (feet)	Dams: Crest Elevation (feet)[2]	Dams: Crest Length (feet)	Dams: Volume (cubic yards)
Frenchman Lake	55,477	1,580	21	139	5,607	720	537,000
Antelope Lake	22,566	931	15	120	5,025	1,320	380,000
Lake Davis	84,371	4,026	32	132	5,785	800	253,000
Abbey Bridge	45,000	1,950	21	117	5,475	1,150	500,000
Dixie Refuge	16,000	900	15	100	5,754	1,050	400,000
Lake Oroville	3,537,577	15,805	167	770	922	6,920	80,000,000
Thermalito Diversion Pool	13,328	323	10	143	233	1,300	154,000
Fish Barrier Pool	580	52	1	91	181	600	10,500
Thermalito Forebay	11,768	630	10	91	231	15,900	1,840,000
Thermalito Afterbay	57,041	4,302	26	39	142	42,000	5,020,000
Clifton Court Forebay	30,000	2,200	8	30	14	36,500	2,440,000
Bethany	4,804	161	6	121	250	3,940	1,400,000
Lake Del Valle	77,106	1,060	16	235	773	880	4,150,000
San Luis	2,027,834	12,700	65	385	554	18,600	77,645,000
O'Neill Forebay	56,426	2,700	12	88	233	14,350	3,000,000
Los Banos	34,562	623	12	167	384	1,370	2,100,000
Little Panoche	13,236	354	10	152	676	1,440	1,210,000
Buttes	21,800	580	6	190	2,790	2,230	3,130,000
Silverwood Lake	74,970	976	13	249	3,378	2,230	7,600,000
Lake Perris	120,000	2,240	10	128	1,600	11,600	20,000,000
Pyramid Lake	179,000	1,358	21	400	2,606	1,090	6,860,000
Elderberry Forebay	30,000	455	7	200	1,550	1,990	6,000,000
Castaic Lake	324,000	2,230	29	435	1,535	4,900	46,000,000
Totals	6,837,446	58,136	533			172,880	270,629,500

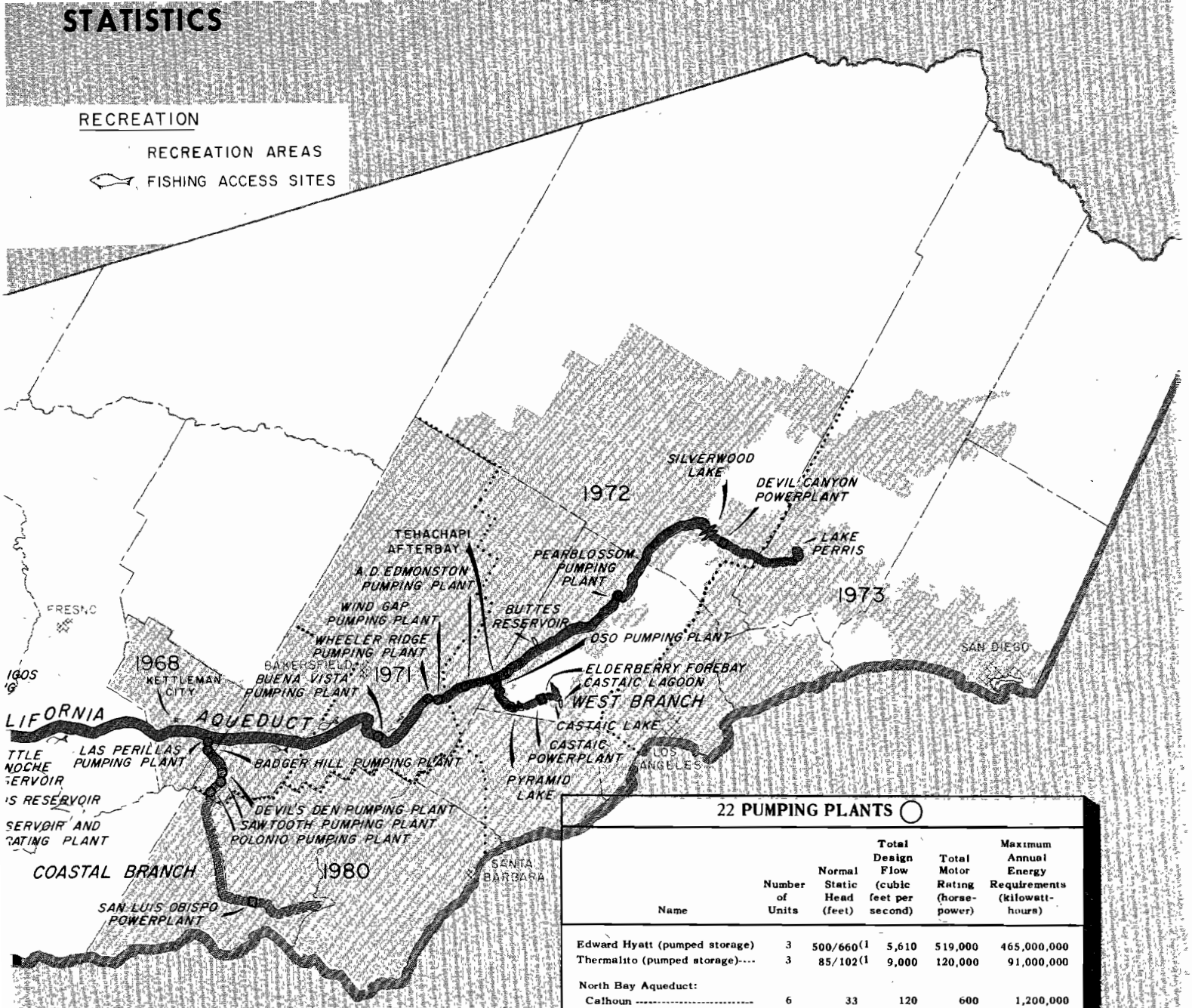
1) At maximum normal operating level.

2) Above sea level.

AQUEDUCTS

Name	Length (miles): Total	Canal	Pipeline	Tunnel	Channel and Reservoir
North Bay Aqueduct	26.5	14.3	12.2	0	0
South Bay Aqueduct	42.9	8.4	32.9	1.6	0
Peripheral Canal	43.0	42.0	1.0	0	0
Subtotal	112.4	64.7	46.1	1.6	0
California Aqueduct (main line):					
Delta to O'Neill Forebay	68.4	67.0	0	0	1.4
O'Neill Forebay to Kettleman City	105.7	103.5	0	0	2.2
Kettleman City to A. D. Edmonston Pumping Plant	120.9	120.9	0	0	0
A. D. Edmonston Pumping Plant thru Tehachapi Afterbay	10.6	0.2	2.5	7.9	0
Tehachapi Afterbay thru Lake Perris	138.4	93.4	38.3	3.8	2.9
Subtotal, main line	444.0	385.0	40.8	11.7	6.5
California Aqueduct (branches):					
West Branch	31.9	9.1	6.4	7.2	9.2
Coastal Branch	96.2	14.8	81.4	0	0
Subtotal, branches	128.2	23.9	87.8	7.2	9.2
Totals	684.5	473.6	174.7	20.5	15.7

STATISTICS



6 POWERPLANTS

Name	Number of Units	Normal Static Head (feet)	Total Design Flow (cubic feet per second)	Power Generator Output (kilowatts)	Maximum Annual Energy Output (kilowatt-hours)
Edward Hyatt	6	410/676(1	14,550	678,750	2,475,000,000
Thermalito	4	85/100(1	16,900	119,600	383,000,000
San Luis					
Total	8	99/327(1	13,120	424,000	
State Share			6,872	222,100	170,000,000
Devil Canyon	2	1,418	1,200	119,700	877,000,000
Castaic					
Total	7	1,063	18,400	1,250,000	
State Share(2			3,092	214,000	1,457,000,000
San Luis Obispo	1	730	111	5,900	41,000,000
Total, State Share					5,403,000,000

1) Minimum and maximum static heads.

2) The City of Los Angeles Department of Water and Power will construct and operate a 1,250,000-kilowatt Castaic Powerplant and will supply the Project with electrical power and energy equivalent to the generation from a 213,984-kilowatt powerplant the State originally planned to construct.

22 PUMPING PLANTS

Name	Number of Units	Normal Static Head (feet)	Total Design Flow (cubic feet per second)	Total Motor Rating (horse-power)	Maximum Annual Energy Requirements (kilowatt-hours)
Edward Hyatt (pumped storage)	3	500/660(1	5,610	519,000	465,000,000
Thermalito (pumped storage)	3	85/102(1	9,000	120,000	91,000,000
North Bay Aqueduct:					
Calhoun	6	33	120	600	1,200,000
Travis	6	0	120	900	1,800,000
Cordelia	3	448	48	3,100	14,400,000
South Bay Aqueduct:					
South Bay	9	545	330	27,750	166,000,000
Del Valle	4	0/38(2	120	1,000	2,000,000
California Aqueduct (main line):					
Delta	11	244	10,303	333,000	1,355,000,000
San Luis					
Total	8	99/327(2	11,000	504,000	
State Share			5,762	264,000	313,000,000
Dos Amigos					
Total	6	113	13,200	240,000	
State Share			7,100	130,000	573,000,000
Buena Vista	10(3	205	5,049	136,000	746,000,000
Wheeler Ridge	9(3	233	4,598	140,000	787,000,000
Wind Gap	9(3	518	4,410	308,000	1,760,600,000
A. D. Edmonston	14(3	1,926	4,095	1,040,000	5,916,000,000
Pearblossom	6	542	1,380	113,200	573,000,000
California Aqueduct (branches):					
Oso	8	220	3,128	93,800	429,000,000
Las Perillas	6	55	450	4,050	20,000,000
Badger Hill	6	151	450	10,500	56,000,000
Devil's Den	4	409	126	8,000	51,000,000
Sawtooth	4	331	126	6,500	41,000,000
Polonio	4	810	126	16,000	101,000,000
Peripheral Canal					
Total	16	10	21,800	30,500	
State Share			10,900	15,250	48,000,000
Total, State Share					13,511,000,000

1) Minimum and maximum total pumping heads.
2) Minimum and maximum static heads.
3) Includes one spare unit.

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	4	Water Quality Measurements at Selective Stations	none	none	none	none	none	none	none	none	none	none
	5	Monthly Power Operations in 1972	7	7	7	7	none	none	none	none	none	none
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