

SAN DIEGO
COUNTY WATER AUTHORITY



TWENTY-FOURTH ANNUAL REPORT

1970

SAN DIEGO COUNTY WATER AUTHORITY
Organized June 9, 1944

TWENTY-FOURTH ANNUAL REPORT

OF AUTHORITY OPERATIONS

FOR FISCAL YEAR ENDING JUNE 30, 1970

Linden B. Burzell
General Manager and Chief Engineer

SAN DIEGO, CALIFORNIA
1970

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SAN DIEGO COUNTY WATER AUTHORITY

Member Agencies, Date of Entry, and
Representative on Board of Directors on June 30, 1970

CITIES

Del Mar		Nov. 23, 1962
Jack D. Shelver		
Escondido		Oct. 9, 1950
Robert M. Dodd		
National City		June 9, 1944
Cleo Osburn		
Oceanside		June 9, 1944
Robert A. Weese		
San Diego		June 9, 1944
Baylor Brooks	Fred A. Heilbron	H. Fred Landgraf
David S. Casey	Gaylord Henry	Fred W. Simpson
John M. Cranston	Mrs. Edith Kamm	
R. E. Graham	George Kerrigan	

IRRIGATION DISTRICTS

Helix		June 9, 1944
Harry Griffen, Leland D. Pratt, M.J. Shelton		
San Dieguito		Dec. 13, 1948
Frank J. Cermak		
Santa Fe		Dec. 13, 1948
R. E. Badger		
South Bay		Nov. 3, 1952
Lloyd L. Lee, Alfred F. Poulter		
<i>(Includes City of Chula Vista, an independent member agency, from June 9, 1944, to Nov. 3, 1952)</i>		

MUNICIPAL WATER DISTRICTS

Bueno Colorado		June 11, 1954
Hans H. Doe		
Carlsbad		June 16, 1954
Allan O. Kelly		
De Luz Heights		June 28, 1967
George Yackey		
Olivenhain		July 25, 1960
Howard G. Golem		
Otay		Oct. 26, 1956
Ralph W. Chapman		
Poway		April 21, 1954
David R. Shephardson		
Rainbow		April 10, 1954
Walter R. Beck		
Ramona		August 27, 1957
John E. Langan		
Rincon del Diablo		June 14, 1954
Charles A. Crytser		
Rio San Diego		June 7, 1956
Charles C. Price		
<i>(Includes Lakeside I. D., an independent member agency from June 9, 1944 to June 7, 1956)</i>		
Valley Center		May 9, 1955
Cartwright Smith		
Yuima		Dec. 16, 1963
E.W. Blom		

PUBLIC UTILITY DISTRICT

Fallbrook		June 9, 1944
Ralph A. Brown		

OFFICERS OF BOARD OF DIRECTORS



Chairman
FRED A. HEILBRON
San Diego
7-44 to 6-70



Vice Chairman
R. E. BADGER
Santa Fe
Irrigation District
9-57 to 6-70



Secretary
HANS H. DOE
Bueno Colorado
Municipal Water District
6-54 to 6-70



Treasurer
HARRY GRIFFEN
Helix
Irrigation District
7-56 to 6-70



Controller
HOWARD G. GOLEM
Olivenhain Municipal
Water District
1-62 to 6-70

EXECUTIVE OFFICERS



LINDEN R. BURZELL
General Manager and
Chief Engineer



W. H. JENNINGS
General Counsel

ADMINISTRATIVE STAFF



ALLEN H. JONES
Assistant Chief
Engineer



HENRY LOZANO
Chief Accounting
Officer



JOSEPH E. LESTER
Superintendent



LINDA K. DeGROOT
Executive Secretary

BOARD OF DIRECTORS
1969-70
For Officers, See Page 5



WALTER R. BECK
Rainbow Municipal
Water District
9-62 to 6-70



E. W. BLOM
Yuma Municipal
Water District
1-64 to 6-70



BAYLOR BROOKS
San Diego
5-54 to 10-60
4-62 to 6-70



RALPH A. BROWN
Fallbrook Public
Utility District
7-67 to 6-70



DAVID S. CASEY
San Diego
5-66 to 6-70



FRANK J. CERMAK
San Dieguito
Irrigation District
7-66 to 6-70



RALPH W. CHAPMAN
Olney Municipal
Water District
1-64 to 6-70



JOHN M. CRANSTON
San Diego
10-64 to 6-70



CHARLES A. CRYTSEY
Rincon del Diablo
Municipal Water District
6-54 to 6-70



ROBERT M. DODD
Escondido
1-70 to 6-70



MICHAEL FLETCHER
Mesa
Irrigation District
10-63 to 11-69



R. E. GRAHAM
San Diego
7-63 to 6-70



GAYLORD L. HENRY
San Diego
11-64 to 6-70



MRS. EDITH KAMM
San Diego
8-65 to 6-70



ALLAN O. KELLY
Carlsbad Municipal
Water District
11-63 to 6-70



CHARLES G. KERCH
National City
5-57 to 8-65
7-66 to 3-70

BOARD OF DIRECTORS
1969-70
(Continued)



GEORGE KERRIGAN
San Diego
9-53 to 6-70



H. FRED LANDGRAF
San Diego
10-55 to 6-70



JOHN E. LANGAN
Ramona Municipal
Water District
4-61 to 6-70



LLOYD L. LEE
South Bay
Irrigation District
4-61 to 6-70



CLEO OSBURN
National City
3-70 to 6-70



ALFRED F. POULTER
South Bay
12-68 to 6-70



LELAND D. PRATT
Wells
Irrigation District
11-69 to 6-70



CHARLES C. PRICE
Rio San Diego
Municipal
Water District
7-58 to 6-70



M. J. SHELTON
Wells
Irrigation District
2-48 to 6-56
10-65 to 6-70



JACK D. SHELVER
Del Mar
12-69 to 6-70



DAVID R. SHEPARDSON
Poway Municipal
Water District
4-54 to 6-70



O. B. SHOLDERS
Del Mar
4-63 to 12-69



FRED W. SIMPSON
San Diego
7-44 to 6-70



CARTWRIGHT SMITH
Valley Center
Municipal Water District
3-65 to 6-70



ROBERT A. WEESE
Oceanside
3-53 to 6-70



GEORGE YACKEY
De Lux Heights
Municipal
Water District
6-68 to 6-70

COMMITTEES OF THE BOARD

June 30, 1970

Water Problems and Policy Committee

Hans H. Doe, *Chairman*
 R. E. Badger, *Vice Chairman*
 Baylor Brooks
 Ralph A. Brown
 David S. Casey
 John M. Cranston
 Charles A. Crytser
 R. E. Graham
 Harry Griffen
 Fred A. Heilbron
 Lloyd L. Lee
 Alfred F. Poulter
 Fred W. Simpson
 Cartwright Smith

Engineering and Operations Committee

Robert A. Weese, *Chairman*
 Baylor Brooks, *Vice Chairman*
 R. E. Badger
 E. W. Blom
 Frank J. Cermak
 Ralph W. Chapman
 Robert M. Dodd
 Hans H. Doe
 Howard G. Golem
 R. E. Graham
 Allan O. Kelly
 Lloyd L. Lee
 Leland D. Pratt
 M. J. Shelton
 George F. Yackey

Organization and Personnel Committee

Fred W. Simpson, *Chairman*
 David R. Shepardson, *Vice Chairman*
 Frank J. Cermak
 Ralph W. Chapman
 Howard G. Golem
 John E. Langan
 Cleo Osburn
 Charles C. Price
 Jack D. Shelver
 Cartwright Smith
 Robert A. Weese
 George F. Yackey

Finance and Insurance Committee

M. J. Shelton, *Chairman*
 Harry Griffen, *Vice Chairman*
 Walter R. Beck
 E. W. Blom
 David S. Casey
 Charles A. Crytser
 Gaylord L. Henry
 George Kerrigan
 H. Fred Landgraf
 John E. Langan
 Leland D. Pratt
 Charles C. Price
 Jack D. Shelver

Legal and Claims Committee

John M. Cranston, *Chairman*
 David R. Shepardson, *Vice Chairman*
 Walter R. Beck
 Gaylord L. Henry
 Mrs. Edith Kamm
 Allan O. Kelly
 George Kerrigan
 H. Fred Landgraf
 Cleo Osburn
 Alfred F. Poulter

Lands and Rights of Way Committee

Lloyd L. Lee, *Chairman*
 Ralph A. Brown
 Robert M. Dodd
 Harry Griffen
 Gaylord L. Henry
 H. Fred Landgraf
 David R. Shepardson

Public Education and Information Committee

Harry Griffen, *Chairman*
 Hans H. Doe
 R. E. Graham
 Fred A. Heilbron
 Lloyd L. Lee

Administrative Code Committee

Charles C. Price, *Chairman*
 Harry Griffen
 Mrs. Edith Kamm
 Lloyd L. Lee

STATISTICAL SUMMARY

	1969 - 70	1968 - 69	Percent Change
GROWTH OF AREA			
Number of Agencies	22	22	0
Total Area — Acres	753,200	748,813*	+ 0.6
Population	1,255,000	1,235,000*	+ 1.6
Assessed Valuation	\$2,512,409,091	\$2,282,094,360	+ 10.1
OPERATIONS			
Water Imported by Authority — ac. ft.	249,258	251,992	- 1.1
Water Production of Agencies — ac. ft.	322,589	284,182	+ 13.5
Local Water Used — ac. ft.	83,298	45,506	+ 83.0
Authority Water Used — ac. ft.	239,291	238,676	+ 0.3
Miles of Pipe Line	166	166	0
Miles of Patrol Roads Maintained	94	94	0
Number of Service Connections	52	52	0
FINANCIAL			
Revenues:			
Water Revenue	\$ 9,034,964	\$ 8,191,503	+ 10.3
Other Revenue	2,688,759	2,281,471	+ 17.9
Taxes	2,195,155	2,166,555	+ 1.3
Expenditures:			
Operation and Maintenance	\$ 364,430	\$ 308,007	+ 18.3
Purchase of Water	8,576,301	8,280,916	+ 3.6
Payments on Outstanding Debt	1,829,030	1,399,030	+ 30.7
Total Investment in Plant:			
Total Fixed Assets	\$ 121,196,892	\$ 120,074,145	+ 9.3
Long-term Debt	88,429,107	90,506,162	- 2.3

*Revised from last year's report.



Placing 38 ton section of 90 inch prestressed concrete cylinder pipe for Second Pipeline of Second San Diego Aqueduct.

Board of Directors
San Diego County Water Authority

December 11, 1970

Gentlemen:

The Twenty-Fourth Annual Report of the Authority covering activities during the fiscal year ending June 30, 1970, has been prepared and is transmitted herewith.

Excellent progress was made on construction of the Second Pipeline of the Second San Diego Aqueduct by contractors working for The Metropolitan Water District and the San Diego County Water Authority. By the time this report was ready for the printer, all the pipe was installed as far south as the Crossover Aqueduct near San Marcos. This facility will be placed in operation during the spring of 1971.

Shortly after the close of the fiscal year, the Water Authority was notified that Metropolitan Water District was proceeding immediately with construction of Auld Valley Reservoir in Southern Riverside County, with a scheduled completion date in the fall of 1973. This regulatory reservoir will provide the much needed storage necessary to maintain continuous service during future Colorado River Aqueduct shutdowns.

The Water Authority's facilities are being maintained at a high level of serviceability and adequate conveyance capacity is available to meet all foreseeable demands until the current expansion is completed.

Very truly yours,

Linden R. Burzell

Linden R. Burzell
General Manager and Chief Engineer



Figure A. Authority Area Within San Diego County.

REPORT OF ACTIVITIES

FISCAL YEAR - 1969 - 70

The San Diego County Water Authority was formed in 1944 under the County Water Authority Act passed by the State Legislature in 1943 to provide water for municipal, domestic and other beneficial uses throughout San Diego County. It now imports nearly all the water used in San Diego County from the Colorado River, 300 miles away, "wholesaling" the water to member agencies. It is a public corporation with the right to sue or to be sued and to acquire, hold or dispose of real and personal property. Its powers, privileges and duties as provided in the County Water Authority Act of 1943 are exercised through a Board of Directors. Like a municipal corporation, it can exercise power of eminent domain and condemn private property for public use. Moreover, the Authority is empowered to construct and maintain works and facilities across or alongside public lands, and may borrow money and incur indebtedness up to a maximum of 15 per cent of taxable property in its area. It may levy and collect taxes, enter into contracts, employ personnel and establish offices and may join other public corporations for the purpose of carrying out its powers.

BOARD OF DIRECTORS

During the fiscal year 1969-70 the Water Authority was governed by a board of directors consisting of thirty-four members, each appointed by the governing bodies of the Authority's 22 member agencies. Each of the Authority's member agencies may have one representative serving as a Water Authority director, plus an additional director for each \$115 million of assessed valuation as determined by the San Diego County Assessor. During the period of the present report, three agencies were represented by more than one director: the City of San Diego by ten, Helix Irrigation District by three and the South Bay Irrigation District by two.

The officers of the Board of Directors are elected biennially in July of even-numbered years by members of the Board of Directors. Directors Fred A. Heilbron, Ray E. Badger, and Hans H. Doe continue to occupy the offices of Chairman, Vice Chairman, and Secretary, respectively. The office of the Treasurer, a part-time appointive position, is held by Director Harry Griffen. The office of Controller, another part-time appointive position, is held by Director Howard G. Golem.

The Authority Board of Directors maintains eight permanent committees, each giving initial consideration to Board problems within its scope, as outlined in Section 2.2 of the Administrative Code. The results of committee deliberation are transmitted to the Board with

recommendation for action. The standing Committees are Finance and Insurance; Engineering and Operations; Organization and Personnel; Water Problems and Policy; Lands and Rights of Way; Legal and Claims; Public Education and Information, and Administrative Code. Directors are appointed to committees by the Chairman of the Board. Membership of each of the standing committees is shown on page 8 of this report. As special problems arise, special committees are appointed to meet the needs.

Mr. Leland D. Pratt was appointed to the Authority Board in November 1969, by the Helix Irrigation District to succeed Mr. Michael C. Fletcher.

In December, Mr. John E. Langan was reappointed to the Authority Board by Ramona Municipal Water District. Mr. Jack D. Shelver was appointed to the Authority Board to succeed Mr. O. B. Shoulders as the representative from the City of Del Mar.

Mr. Robert M. Dodd was appointed to the Authority Board to succeed Mr. David M. Brown by the City of Escondido in January 1970.

In March 1970, Mr. E. W. Blom was reappointed to the Authority Board by the Yuima Municipal Water District. The City of National City appointed Mr. Cleo Osburn to the Authority Board to succeed Mr. Charles G. Kerch.

Administration

The Water Authority employed a staff of 48 during the fiscal year. Twenty-two members of the total Water Authority staff serve in administration, engineering, financial, operation, maintenance, stenographic and clerical positions, and 26 serve in new project engineering design, surveying and inspection capacities or in temporary positions at the San Diego headquarters and the Fred A. Heilbron Operations Center.

During the fiscal year, recognition was given Irwin E. Nichols for 15 years of Water Authority service; Keith A. Harris, Henry G. Lozano and Peter H. Rusthoven for 10 years of service; L. R. Burzell, Wallace B. Cravath, Linda K. De Groot, and Richard N. Evans for 6 years of service; and James R. Alexander, Laurence E. Bragg, and John C. Holth for 3 years of service to the Water Authority.

Representatives of the Water Authority continued to undertake speaking engagements, appearing before community organizations, civic groups, schools and public bodies. The themes stressed by the speakers were Water Authority operations related to individual areas, outlines of the history and purpose of the Authority, the water supply from the Colorado River, and the planned supply from Northern California.

Under the direction of the Public Information and Education Committee, information concerning Authority activities was prepared and distributed to the news media by the Authority's public relations consultant.

A series of public relation tours of Authority facilities and pipelaying, commenced in January 1970, was continued until June at approximately two-week intervals. Twelve tours, consisting of a total of 200 guests invited by Directors from their districts, were made. These were well reported by the local press.

There was considerable increase in the use of graphics. A completely new information brochure was designed, published and distributed, and new color photo enlargements were provided for the Authority's display stand at the Southern California Exposition at Del Mar in June.

In the same month the Board authorized the issuance of a quarterly information publication of 500 copies to be called "San Diego Water News". The Summer Edition was published June 29, 1970.

One thousand feet of 16mm color film recording the progress of construction of the Second Pipeline, Second Aqueduct was exposed. This has been roughly edited and will remain available in archives for eventual production of a film record of the undertaking.

On July 11, the Mayor of the City of San Diego, Mr. Frank Curran, signed a Proclamation naming July 15 "San Diego County Water Authority Day". This Proclamation was handed to the Chairman of the Board, Mr. Fred A. Heilbron.

A special meeting of the Board was held at 10 A.M., July 15, 1969 to mark the 25th anniversary of the inaugural business meeting of the Board held at the same time and date a quarter of a century earlier. During the evening of July 15, the Directors were the hosts at a banquet at the Bahia Hotel at which they entertained approximately 300 guests.

In October 1969 the first pipes of Phase I of the Second Pipeline were laid at Twin Oaks Valley. This event was the subject of considerable press coverage.

Chairman Fred A. Heilbron, Director Hans H. Doe and Director Harry Griffen, as members of the Metropolitan Water District Board of Directors, are entitled to a choice of one-day tours of District construction activity, three-day or four-day tours of the State Water Project, and tours over the Colorado River Aqueduct system. Director Griffen conducted an inspection tour of the Colorado River Aqueduct system for civic and business leaders from San Diego County on May 8, 9, and 10. On May 29, 30, and 31, Chairman Heilbron hosted a tour of the Colorado River Aqueduct system for personnel from the Water Authority and its 22 member agencies. Four staff members of the Water Authority were privileged to participate.

GROWTH

Area

The area of the Authority increased during the fiscal year. Annexations to member agencies and the resulting change in boundaries increased the total acreage within the Authority by 4,387 acres. As of June 30, 1970, a total of 753,200 acres or 1177 square miles were included within the Authority. Ninety-six percent of the total population of San Diego County reside within the San Diego County Water Authority.

The boundaries of the Authority now encompass 28 percent of the area within San Diego County and 83 percent of all that area lying between the Cleveland National Forest and the Pacific Ocean as shown on Figure A.

Overlapping areas continue to exist in the Authority although efforts are being made to encourage member agencies to eliminate overlapping boundaries through appropriate action.

An overlapping area is land lying within the boundaries of two member agencies. The overlapping portion having been originally in one agency and subsequently annexed by the other, which was better able to serve the area with water. The major overlapping areas are due primarily to the expansion of cities into areas already within other member agencies of the Authority.

At the present time 11,353 acres lie within cities which overlap portions of adjacent member agencies. The Authority Act provides means to correct an overlapping area by exclusion from one agency or an area may be concurrently excluded from one agency and annexed to another by mutual consent, without the area being excluded from the Authority or the Metropolitan Water District, provided permission to do so is first obtained from the Authority.

The area within each member agency, the changes which have occurred therein during the past year, and the percentage of each agency's area to that of the entire Authority are shown in Table 1. As shown in this table, the City of San Diego continues to have the largest area, equal to 26.70 percent of the total area within the boundaries of the Authority.

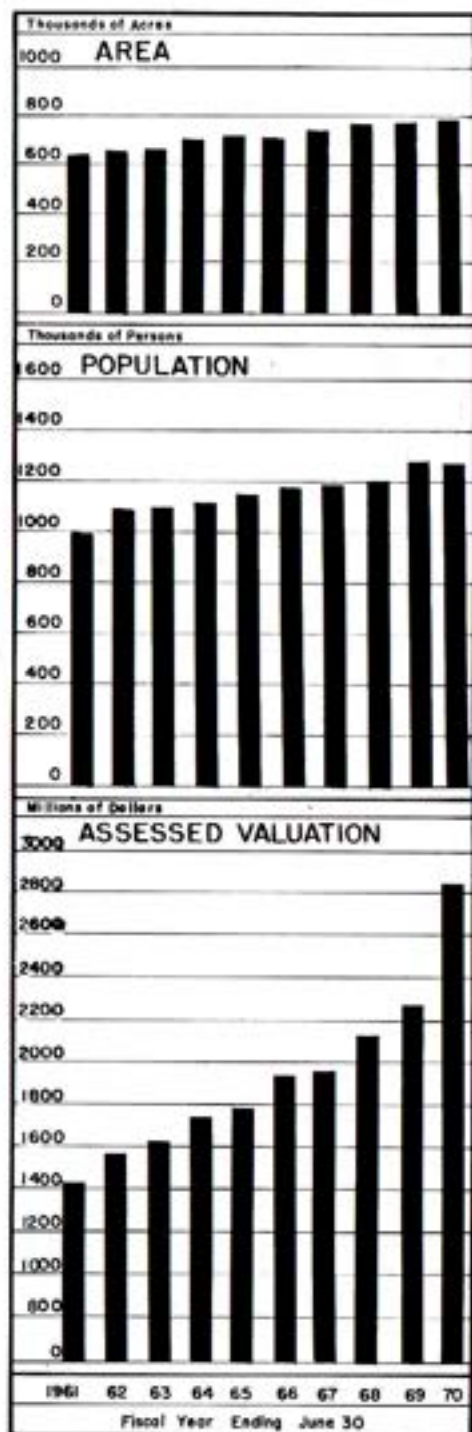
The Authority's 1969 Statement of Change of Boundaries, under state law required to be filed by the Executive Secretary of the Board of Directors prior to January 1, 1970 was filed with the State Board of Equalization, the County of San Diego, and The Metropolitan Water District of Southern California December 29, 1969. As shown on the Statement, there were 35 changes made during the year, 11 of which changed the boundaries of the Authority either by annexation or by exclusion. This Statement is the basis for determination of the assessed valuation by the Assessor of San Diego County who levies the Authority tax rate as established in August by the Authority Board of Directors.

Population

The population within the Authority area continued to expand at a steady rate. The population census figures for each decade beginning in 1910, together with the estimated population for the years 1955 and 1965, are shown in Table 2. Data pertaining to individual member agencies are shown in Table 3.

The City of San Diego continues to be the most populous member agency and now contains 675,800 persons or 54 percent of the total residing within the Authority. The De Luz District has the smallest population. The City of La Mesa is the most densely populated area within the Authority with 7.81 persons per acre. The City of National City has a density of 7.25 persons per acre.

The average population per acre of the Authority has increased 3 percent during the past ten years to 1.67 persons per acre or 1,066 persons per square mile.



Assessed Valuation

The Authority maintains a record of boundary changes. A Statement of Change of Boundaries is filed annually with the Assessor of San Diego County. The Assessor determines the assessed valuation of all taxable property lying within the Authority boundaries. This assessed valuation becomes the basis for the Authority's tax levy. The Auditor of the County certified to the Authority that the assessed valuation of taxable property for the 1969-70 tax levy was \$2,512,409,091, an increase of \$230,314,731 or 10.1 percent over 1968-69. The assessed valuation of taxable property of each member agency of the Authority is shown in Table 4. Prior to the compilation of this report, the assessed valuation for 1970-71 was received and has been included in Table 4 for convenience. This table shows that the assessed valuation of taxable property within the boundaries of the Authority increased by \$329,053,869 or 13.1 percent. The average assessed valuation for the Authority increased from \$3,354 per acre in 1969-70 to \$3,773 per acre in 1970-71.

WATER SUPPLY AND CONSUMPTION**Water Supply and System**

The San Diego County Water Authority continued to receive its entire supply of water from the Colorado River through the facilities of The Metropolitan Water District of Southern California. At the present time, the Authority has a preferential right to the District's water supply of about 8 percent. This preferential right results from payments in the form of taxes and annexation charges paid to Metropolitan Water District. Payments for water to the District are not included in the calculation of preferential right. The Metropolitan Water District delivered municipal water throughout the year on the basis of requirements and did not invoke preferential right as the basis for water deliveries.

Metropolitan Water District diverts Colorado River water into the San Diego Aqueducts near San Jacinto. The Water Authority accepts the delivery at a point approximately six miles inside San Diego County. The First Aqueduct has a reservoir at the northerly end where approximately 900 acre feet can be stored. There is no storage on the Second San Diego Aqueduct; however, Metropolitan Water District authorized construction of Auld Valley Reservoir, located in Southern Riverside County, construction to commence in the fall of 1970. When completed, up to 40,000 acre feet of water will be stored in this reservoir located at the southerly end of the canal section which has a capacity of 1,000 cubic feet per second.

Capacity of the First San Diego Aqueduct is 196 c.f.s. and the Second San Diego Aqueduct has a nominal capacity of 250 c.f.s. The three months of highest flow in the two aqueducts were October 1969 when 5,464 acre feet of water were stored and May and June 1970. The average flows for these months were 427.8, 426.7 and 442.4 c.f.s., respectively. During peak summer periods, it will be necessary for the Authority's member agencies to rely on storage until the second pipeline of the Second San Diego Aqueduct is completed in 1971.

The total water delivered by the Authority's system was 249,258 acre feet as compared with 251,992 acre feet during the previous year. The quantity delivered amounted to 78 per cent of the maximum of 320,000 acre feet which could be delivered, assuming continuous operation of both aqueducts at capacity for the entire year.

The lowest rate of flow occurred in December, 1969, as a consequence of heavy rainfall. Aqueduct flow was 12,245 acre feet in that month. Maximum monthly flow occurred in June 1970 with delivery of 26,325 acre feet.

Water Deliveries and Rates

Water deliveries to all member agencies are shown in Table 5. The agencies purchased 245,678 acre feet during the year; an additional 509 acre feet was placed in Authority storage, and 24,220 acre feet was stored by Metropolitan. Member agencies withdrew from storage a total of 2,454 acre feet. Based on the year's experience, aqueduct carrying capacity remains ample to meet member agencies' expanding requirements for several years.

The quantities of water delivered to individual member agencies for the eight-year period from 1962 to 1970 are shown in Table 6, together with the total quantity of water purchased by each agency since the Authority first began delivery of water in 1947. This year's sales showed a slight decrease from 1968-69.

The Water Authority charge for water is the rate charged by Metropolitan Water District plus a surcharge of \$1.25 per acre foot. Prior to September 1, 1964, the surcharge was \$2.00. In August, 1964, the Board of Directors of the Authority adopted a resolution which reduced the rate to \$1.25 which is sufficient presently to pay all Authority expense except capital cost.

The Metropolitan Water District maintains a policy of announcing its water rates for approximately two years in advance. During recent years, Metropolitan has increased its water rates each year.

and further annual increases are scheduled. A summary of County Water Authority water rates for untreated Colorado River water supplied and to be supplied to Authority members since July 1, 1958, follows:

SUMMARY OF WATER RATES
(Dollars Per Acre Foot)

From	To	MWD	Authority	Total	Agricultural Rebate	Resulting Agricultural Rate
7/1/58	1/1/61	15.00	2.00	17.00	3.00	14.00
1/1/61	1/1/62	17.00	2.00	19.00	4.25	14.75
1/1/62	1/1/63	19.00	2.00	21.00	5.50	15.50
1/1/63	1/1/64	21.00	2.00	23.00	6.75	16.25
1/1/64	7/1/64	24.00	2.00	26.00	9.00	17.00
7/1/64	9/1/64	25.00	2.00	27.00	9.75	17.25
9/1/64	7/1/65	25.00	1.25	26.25	9.75	16.50
7/1/65	7/1/66	28.00	1.25	29.25	12.00	17.25
7/1/66	7/1/67	31.00	1.25	32.25	14.00	18.25
7/1/67	7/1/68	34.00	1.25	35.25	16.00	19.25
7/1/68	7/1/69	37.00	1.25	38.25	18.00	20.25
7/1/69	7/1/70	40.00	1.25	41.25	20.00	21.25
7/1/70	7/1/71	44.00	1.25	45.25	23.00	22.25
7/1/71	7/1/72	48.00	1.25*	49.25*	26.00	23.25*
7/1/72		52.00	1.25*	53.25*	28.50	24.75*

*Subject to change.

In order to obtain the agricultural rebate, it is necessary for the Authority to certify to the Metropolitan Water District as to the quantities of water used for agricultural purposes. Rebates granted to the Authority by the District are paid in full to the agencies which have previously certified that such water was used for agricultural purposes.

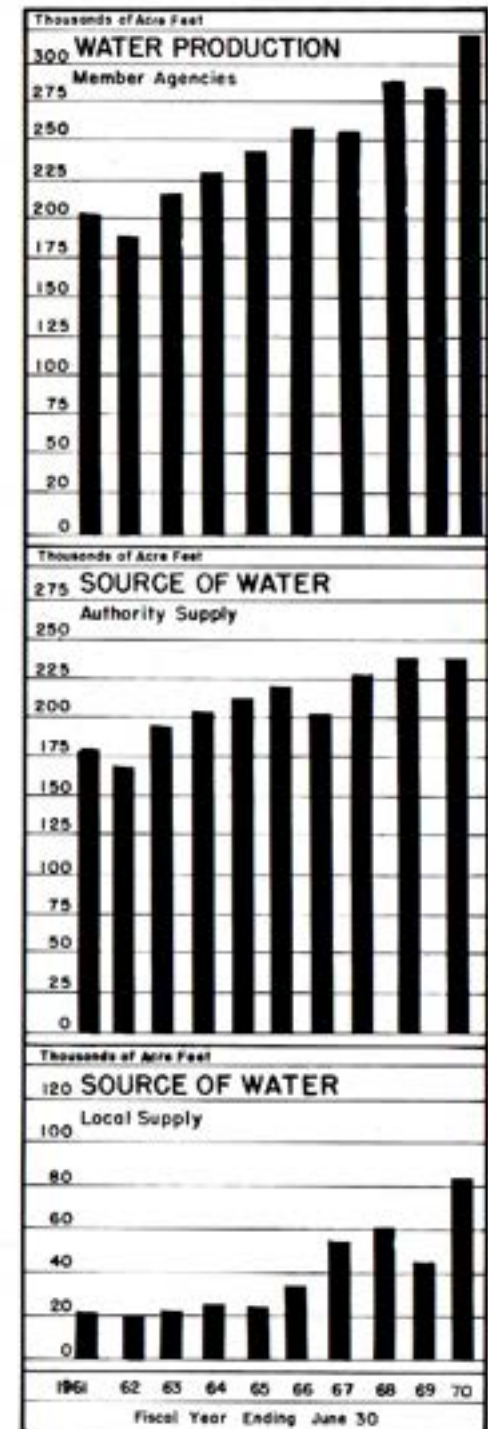
Water Production of Member Agencies

"Water production" describes that quantity of water which an agency must produce from all its sources to meet the demands of its consumers, plus the losses which occur between the sources of supply and the consumers, including leakage, losses from breaks, evaporation from distribution reservoirs, and waste resulting from normal operations. Sources of supply may include impounding reservoirs, wells, and the Authority system.

The total water production of the twenty-two member agencies is shown in Table 7. All member agencies reported an increase in water production compared to the previous year. The totals show an increase from 284,182 acrefeet in 1968-69 to 322,589 acre feet in 1969-70. This is the highest amount of water used during a fiscal year by the Authority. The maximum monthly production was 37,706 acre feet in August 1969 or 4 per cent above production in August 1968. The minimum monthly production occurred in January 1970, when 16,771 acre feet of water was produced or 6,117 acre feet more than was used in the minimum month the previous year.

Although rain and runoff was below normal this fiscal year, some agencies still have water in storage from the previous wet year. As a result, water use from local sources amounted to 83,298 acre feet or 25.8% of the total use.

The wells in Pauma Valley produced 7,909 acre feet of water for the several agencies within the Yuima District. The San Luis Rey River system and the Warner Ranch wells owned by the Vista Irrigation District, a sub-agency of Bueno Colorado Municipal Water District, produced 23,770 acre feet for distribution within Bueno Colorado Municipal Water District, Rincon del Diablo Municipal Water District and the City of Escondido. California American



SAN DIEGO COUNTY WATER AUTHORITY WATER PRODUCTION

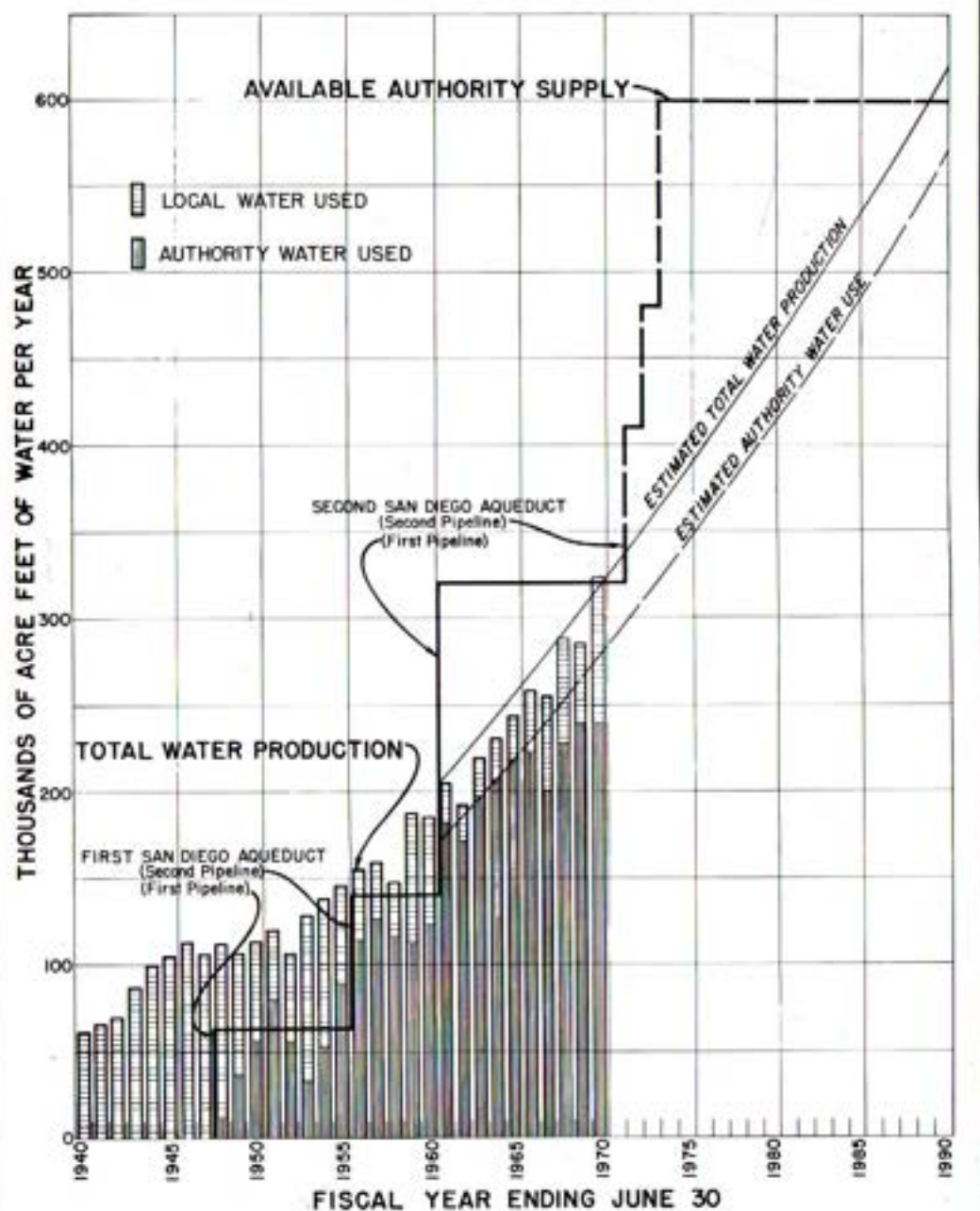


Figure B. Water Production of Authority Member Agencies

WATER SUPPLY AND CONSUMPTION

Water Company produced approximately 3,120 acre feet of local water within its service area which included National City and South Bay Irrigation District. The most extensive reservoir system within San Diego County Water Authority is owned by the City of San Diego. The City system produced 39,480 acre feet of local water during the year, including 6,147 acre feet which was delivered for use in areas outside of the Authority. Detailed statistics on water production are in Table 8.

A comparison of water production by the member agencies can be found in Table 9. This table lists water production based on area and population in acre feet per acre per year, and acre feet per capita per year. The water systems of members agencies are serving an estimated 324,500 acres out of the 753,200 acres or 43 percent of the total area of the County Water Authority.

The volume of water used per year per unit area varies a great deal depending on the state of development, type of soil, type of crop, and on other variables. The Rainbow and Yuima Municipal Water Districts are intensively irrigated agricultural districts with annual water requirements of 1.99 and 2.48 acre feet per acre, respectively. The relatively undeveloped Otay Municipal Water District and Ramona Municipal Water District report 0.32 and 0.26 of an acre foot per acre, respectively. Water production information for the De Luz District is not yet available. The Authority average is 0.98 of an acre foot per acre on the 324,500 acres served.

Per capita water use within the Authority increased to 0.25 of an acre foot per year. Yuima Municipal Water District reports 7.94 acre feet per capita based on a population of 1,250 persons which reflects the high agricultural demand.

Figure B shows the combined water production of the Authority member agencies and compares production with available local supply.

Columns representing annual production are shaded to show contrast between water obtained from local sources and that which has been supplied by the Water Authority from the Colorado River. The chart shows the expanding use of Authority water and the year to year changes in the quantity of available local water.

Projections of future production of water are based on the assumption that additional water will be available when needed. The staff of the Authority has predicted that aqueduct facilities now in operation will be adequate to meet all foreseeable demands on the Authority for service until completion of additional facilities of the Second Pipeline of the Second San Diego Aqueduct now under construction.

Agricultural Water Use

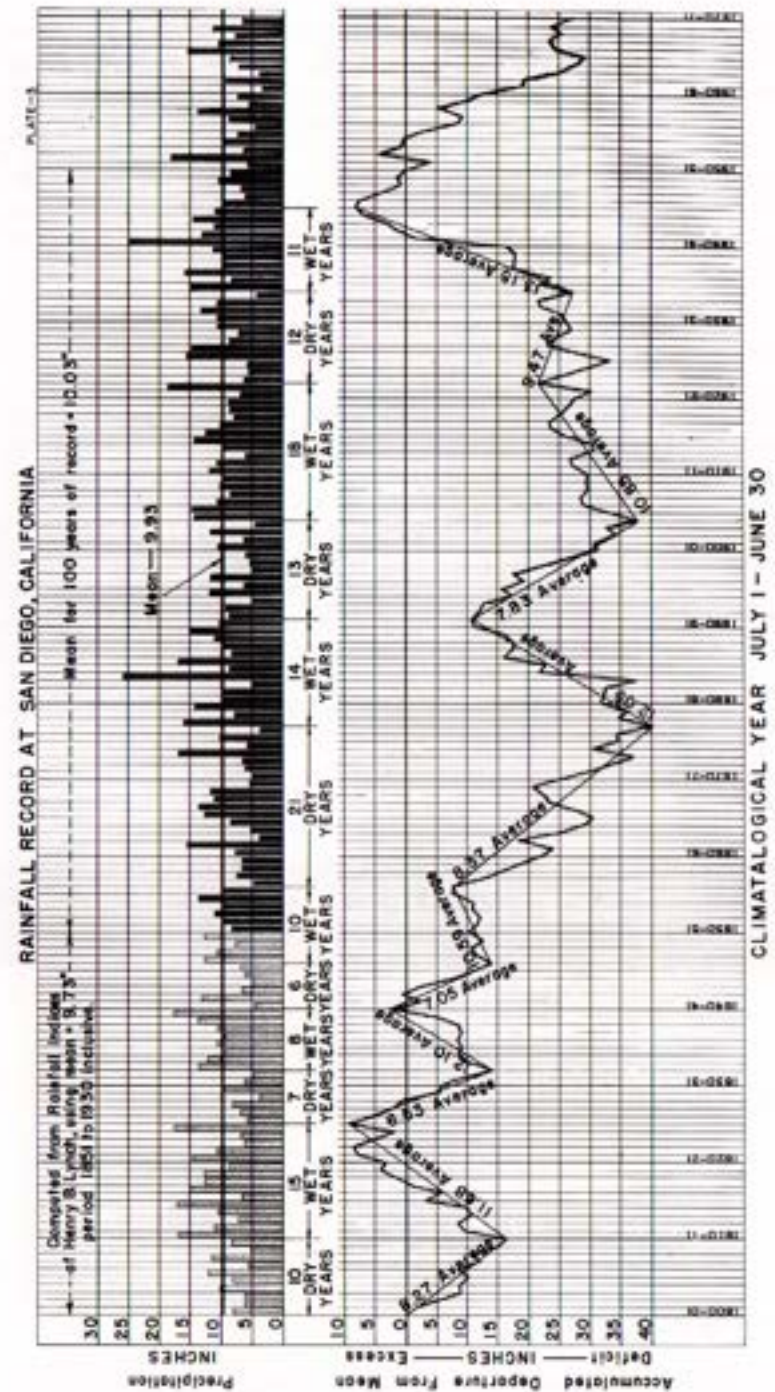
Agricultural water use amounted to 25.7 percent of the total of 322,589 acre feet produced by Authority agencies. The Metropolitan Water District allows a rebate for water used for agriculture. A rebate of \$20.00 per acre foot during the fiscal year justified extensive record keeping and reporting by member agencies. In order to obtain the rebate, each agency must certify to the Authority, with supporting data, the total quantity of water used for agricultural purposes. Table 10 shows quantities of water used in agriculture. This year's report shows that Yuima Municipal Water District had the highest percentage of agricultural water use at 98.7 percent.

Authority Facilities

The Authority system consists of the following facilities: The two San Diego Aqueducts south of Metropolitan's delivery point which is approximately six miles south of the Riverside County line; a portion of the Fallbrook-Oceanside Branch, extending southwesterly from the First San Diego Aqueduct at Rainbow; and the La Mesa-Sweetwater Canyon through Lakeside to a terminal point at Sweetwater Reservoir; plus a cross over aqueduct between the Second Aqueduct in Twin Oaks Valley to a point on the First Aqueduct just north of the City of Escondido. Treatment facilities are provided in a chlorination station in Rainbow Pass just north of the North San Diego County line where flows in both aqueducts are chlorinated.

The Authority does not own or operate storage facilities. It does, however, have a contractual right to store up to 40,000 acre feet of water in San Vicente Reservoir. The privilege results from an agreement with the City of San Diego which expires October 31, 1973. Under this agreement, the City charges \$2.20 per acrefoot for the maximum amount of water in storage each year, plus fifty cents per acre foot to cover pumping charges for any water transferred from storage to the City. Under the agreement the first of any water which might be lost over the spillway would be that stored by the Authority. During the fiscal year, a total of 500 acre feet of water was placed in San Vicente Reservoir by the Authority for the account of Rincon del Diablo Municipal Water District. A total of 2,446 acre feet was withdrawn, and 1,327 acre feet was lost by evaporation. The net result of the year's activities was a decrease of 3,273 acre feet to 19,610 acre feet in storage on June 30, 1970. Storage statistics are shown in Table 11. The Helix Irrigation District had the largest amount credited to its account at year's end, totaling 3,906 acre feet or about 20 percent of all Authority water stored in San Vicente Reservoir.

The Authority also has an agreement with the City of San Diego which permits it to store up to 2,500 acre feet of water in the City's Lower Otay Reservoir, which is the terminus of the Second San



Diego Aqueduct. This storage is for operational purposes only, and the water is transferred to the City of San Diego when water is requested by the City at this location. Storage capacity for member agencies is not provided at Lower Otay Reservoir. The City of San Diego makes a charge of \$1.00 per acre foot for the maximum amount of storage in any 12 month period or part thereof with a minimum annual charge of \$1,000 for use of the reservoir. In addition, there are pumping charges which vary from \$2.25 to \$1.50, depending on the elevation of the water in the reservoir.

The City of San Diego prefers to take direct deliveries of water at Otay from the aqueduct at a rate of flow determined by their treatment plant requirements. The City prefers not to have water delivered into the lake. For this reason, very close control is exercised by the Authority personnel in order to prevent spillage from the aqueduct into the Reservoir.

The Authority maintains a telemetering and supervisory control system which provides operators at Escondido with the rate of incoming flows from Metropolitan Water District, remote control and rate of flow indication in the Cross-Over Aqueduct and numerous service outlets along both the first and second aqueduct.

Communications with Metropolitan's San Jacinto operation center are maintained by a two-way radio system between the Authority's operation center and San Jacinto.

Water Quality

Chemical constituents of dissolved solids in the aqueduct water are shown in Tables 12 and 13. The breakdown is based on analyses of water delivered to the aqueducts at San Jacinto as made by the laboratory of the Metropolitan Water District at the La Verne treatment plant. Variation in total hardness ranged from a high of 362 p.p.m. to a low of 339 p.p.m. Hardness is reported as p.p.m. equivalent of calcium carbonate. Water temperatures varied from a low of 53° F. recorded in February 1970, to a high of 83° F. reported in September 1969.

Water Treatment

Throughout the year, Authority water continued to meet or exceed the minimum bacteriological quality standards as set forth in the United States Public Health Service Drinking Water Standards of 1962. Most agencies within the Authority complete their treatment of water by simple chlorination.

Over a period of years, the Metropolitan Water District and the Authority have controlled bacterial growth on aqueduct pipe walls by "slugging" with chlorine. A continuous chlorination program has been

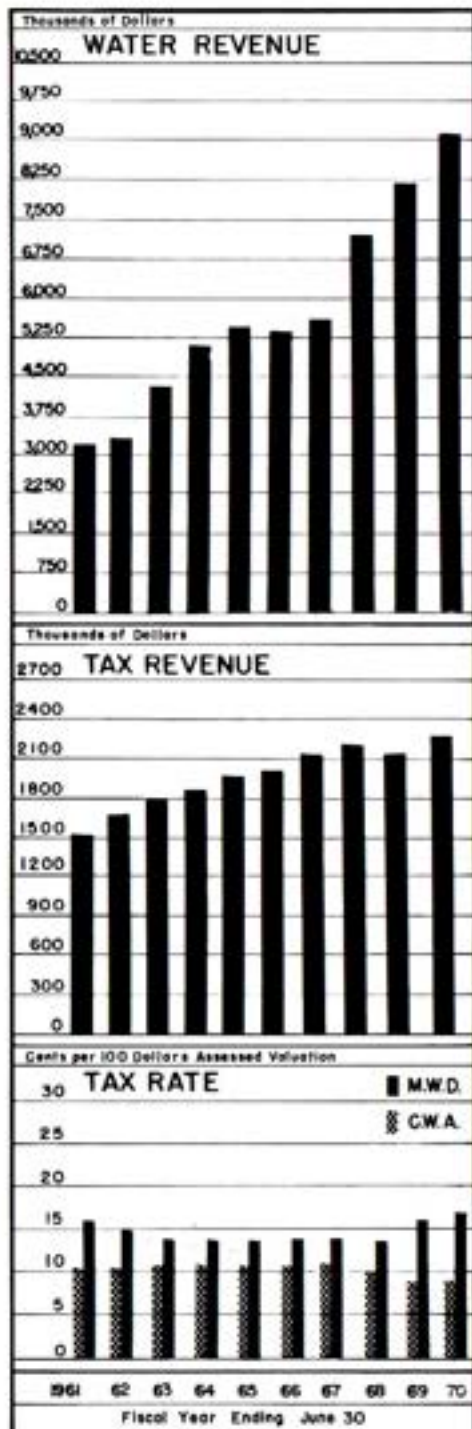
in operation on the Authority's portion of the aqueducts since 1965. The current policy is to apply chlorine on a continuous basis except for limited periods occasioned by mechanical shutdowns. The continuous chlorination program has proved successful and has resulted in fewer service problems. The rate of application of chlorine by the Authority ranged from 0.75 p.p.m. to 2.5 p.p.m., depending upon chlorine demand, temperature of the water, and other variables. A leak detector and automatic shutoff valve system provide protection against chlorine leakage. The chlorination station is located in Rainbow Pass, serving all three pipelines of the First and Second Aqueducts.

Several member agencies have large agricultural developments which are based on the use of irrigation water obtained from the Authority. The State Health Department has continued to recognize that Colorado River water supplied by the Authority meets drinking water standards after sterilization with chlorine. Current practice is to require dual chlorination with a time interval of at least one-half hour between the two points of application, where member agencies provide dual domestic and irrigation service. Six filtration plants are in operation within the Authority. These plants provide filtered water to the service area of seven member agencies: City of San Diego, City of National City, City of Del Mar; and San Dieguito, Santa Fe, South Bay and Helix Irrigation Districts.

On February 28, 1969, a report was completed by a group of Water Authority member agencies designated, "The Filtration Study Group". The report concluded that the best way for agencies in the northern part of San Diego County to obtain filtered water is to request that Metropolitan provide this service in the First Pipeline of the Second San Diego Aqueduct. At year's end, the Filtration Study Group unanimously approved the recommendation contained in the report that they seek filtered water service through the Authority's system from Metropolitan. Shortly thereafter, the Filtration Study Group notified the Authority of their request that Metropolitan commence its investigation and engineering so that the filtration service will be available to serve San Diego at the time Northern California water becomes available. Prior to completion of this report, Metropolitan Water District announced approval of the construction of a filtration plant near Auld Valley, having an initial capacity of 50-75 MGD with provisions for expansion to 150 MGD.

Allocation of Water Among Member Agencies

The Authority Act (Sec. 5.11) provides the method by which the water supply must be divided among its member agencies if the total demand for water exceeds the amount available to the Authority to deliver.



The quantity of water to which an agency has a preferential right, in such an event, is that portion of the available Authority water supply which bears the same relation to the whole as the total accumulation of the amounts paid by the agency toward the capital cost of the Authority works, as defined by the Board of Directors from time to time, bears to the total of such payments received from all agencies.

Allocation by preferential right will be invoked only when the combined demand for water exceeds the capacity of the Authority to deliver and agreement cannot otherwise be reached. When water and capacity are available, agencies may purchase water without limit.

Before construction of the Second San Diego Aqueduct, demand exceeded system capacity on several occasions; however, voluntary agreement between member agencies and the Authority permitted operation without resort to the provisions of Section 5.11 of the Authority Act. The percentage allocations in effect as of June 30, 1970 and the corresponding flows available from the present aqueduct system are shown in Table 14.

Future Supplies

The Water Authority obtains its water from The Metropolitan Water District of Southern California. At the present time

all of the water comes from the Colorado River by way of the Colorado River Aqueduct. The Metropolitan Water District Board has adopted a statement of policy, frequently repeated, that when additional water or distribution facilities are needed to meet demands of its member agencies, additional water and facilities will be provided.

The first major step to obtain additional water was undertaken on November 4, 1960, when the District entered into a contract with the State of California for 1,500,000 acre feet of water annually (contract subsequently amended to provide 2,011,500 acre feet) from the State aqueduct system (Feather River Project). State Project water has been scheduled for delivery to Southern California by the year 1971, and current reports indicate that construction is on schedule.

As a result of the U. S. Supreme Court's decision in the Case of "Arizona vs. California", less water may be available to the District annually than the 1,212,000 acre feet that the Colorado River Aqueduct is capable of bringing into Southern California. For this reason, the Metropolitan Water District's contract with the State of California was amended to increase Metropolitan Water District's quantity of State Project water from 1,500,000 to 2,011,500 acre feet per year.

The State Water Project was about 75% completed by June 30, 1970. Substantially all of the remaining 25% was under contract by the time this report was completed. Oroville Dam is completed and filled and the Hyatt Powerplant is generating power. Pumping plants in the Delta, the aqueducts to the south and the joint Federal-State San Luis unit are in operation. The San Joaquin Aqueduct is delivering project water to Kings and Kern Counties some 220 miles south of the Delta. Work continues on the Buena Vista, Wheeler Ridge, Wind Gap and Edmonston Pumping Plants. The Tehachapi tunnels have been holed through and are being lined. West Branch facilities are under contract, as are some of the features of the main branch which will terminate at Perris Reservoir. At year's end, the Department indicated that it was maintaining a schedule which calls for delivery of water on the West Branch in 1971 and to Perris Reservoir in 1973. A critical proposition was approved by the voters of California on June 2, 1970, which permits State bonds to be sold at interest rates up to 7%. This milestone appears to be the last financial hurdle in the way of completion of the initial construction program.

Responsible forecasts indicate that water from the Colorado River and from the State Project will meet the growing requirements of the Metropolitan Water District's member agencies beyond the year 1990, perhaps until 2010 or 2020. During this period, the population of the District is expected to increase from the present 10 million to about 20 million.



For the period beyond 1990, when additional supplies may be required, many plans have been proposed which call for development of projects on the undeveloped rivers in Northern California, the Columbia River, and perhaps in Canada. These many proposals, together with waste water reclamation, weather modification, geothermal water recovery, and sea water desalting, are being investigated by the Water Authority, the Metropolitan Water District, the State of California, and the Federal Government.

Figure B shows the increase in water requirements within the Authority since 1940. Studies indicate that additional aqueduct capacity now under construction will be completed before the demand exceeds present capacity.

DESIGN AND CONSTRUCTION

Second Pipeline, Second San Diego Aqueduct.

On June 7, 1966, voters throughout the Metropolitan Water District approved Proposition W for \$850,000,000 and San Diego County voters additionally approved Proposition V for \$30,000,000. The Metropolitan bond issue provides funds for expansion of its system to provide for delivery of State Project water. Among the facilities to be constructed is an Inland Feeder System which will connect

Perris Reservoir with the San Diego Aqueducts.

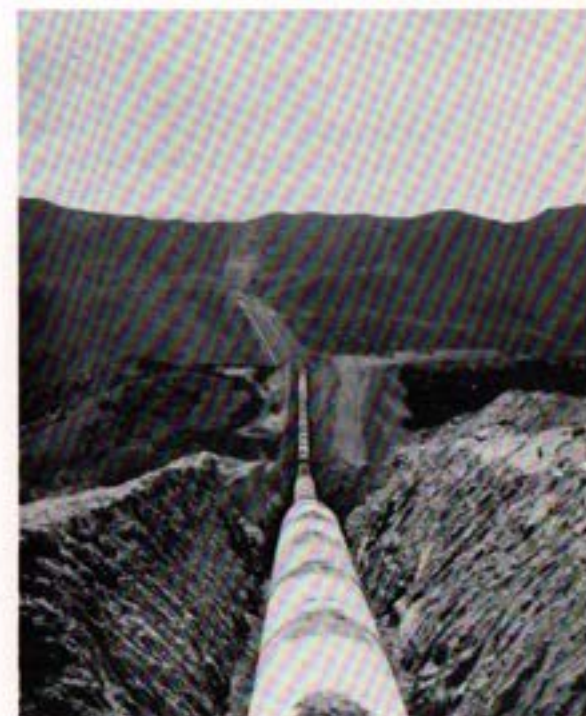
First to be constructed is the Second Pipeline of the Second San Diego Aqueduct, from the end of the San Diego Canal near Auld Valley site of Auld Valley Reservoir, scheduled for completion in early 1973, to the San Diego County Water Authority delivery point, approximately six miles south of the Riverside-San Diego County Line. This pipeline, approximately 100,000 feet in length, has been designed to provide the Water Authority with an additional 380 c.f.s. of capacity.

At year's end the first ten miles of 8'-3" diameter pipeline from Auld Valley to Temecula, under contract with Vido Artukovich and Son, Inc., was complete. The contract price was based on the low bid of \$5,893,520. The next ten miles of 7'-4" diameter pipe from Temecula to the delivery point, six miles inside San Diego County, is under contract with the Vinnell Corp. The contract price is \$8,339,234; at year's end it was 71% complete.

Construction of the Canal Outlet and screening structure at the end of the San Diego Canal at Auld Valley commenced during the summer of 1968. The contractor, J. Putnam Henck, has completed the contract for \$370,495.

Work was started on the Authority's first section of its portion of the Second Pipeline of the Second Aqueduct in July 1969 and by the end of the fiscal year was 64% complete. This first phase consists of 10.6 miles of 7'-6" diameter prestressed concrete pipe from the Metropolitan delivery point to the Diversion Structure of the Crossover Aqueduct. The work is being performed by Vido Artukovich & Son, Inc., for a total contract price of \$7,779,352.

The Engineering Department completed the plans and specifications for the second phase of the Aqueduct 11.23 miles from the Diversion Structure of the Crossover Aqueduct to the Escondido Creek Vent. The plans permitted alternate bids for prestressed concrete cylinder pipe



designated 1-A, or mortar lined and coated welded steel pipe, designated 1-B, 8'-0" diameter. The plans also permitted an alternate alignment across Lake San Marcos. An alignment parallel to the existing pipeline which required a lake crossing of 900 feet, designated 1-A Alt Rt, or a detour around part of the lake which resulted in a longer pipeline but only a 300-foot lake crossing, which could be made in a dry trench; this is designated 1-B Alt Rt. The bids were received as follows:

	<u>1-A</u>	<u>1-B</u>	<u>1-A Alt Rt</u>	<u>1-B Alt Rt</u>
Hood Corporation	No Bid	\$ 9,099,011	\$ 9,499,918	\$ 8,950,024
Vido Artukovich & Son, Inc.	\$ 9,533,924	\$ 9,553,379	9,457,797	\$ 9,277,389
Zurn Engineers	No Bid	No Bid	\$ 9,745,530	\$ 9,655,198
Anderson - Rados	No Bid	No Bid	No Bid	\$ 9,665,271
Vinnell Corporation	No Bid	\$10,685,507	No Bid	\$ 9,844,531
Granite Construction	No Bid	No Bid	\$11,177,304	\$10,296,374
Perini Corporation	No Bid	No Bid	\$11,559,318	\$11,804,789
Artukovich - Healy - Kordick - Shea	\$12,162,418	No Bid	\$11,777,963	\$11,575,763

The contract was awarded to Hood Corporation, the low bidder, for 8'-0" diameter mortar lined and coated welded steel pipe for Schedule 1-B - Alternate Route, on a bid of \$8,950,024. The contractor elected to mortar line the pipe in place.

OPERATION AND MAINTENANCE OF AQUEDUCTS

The Authority operates its aqueducts from the Fred A. Heilbron Operations Center at 610 West Fifth Avenue in Escondido. From that location, Superintendent Joseph E. Lester, directs all operational activities and all maintenance functions with a crew of fourteen employees. Operation of the aqueducts which serve all member agencies, some with very small reservoir capacity, requires that system operators be on call twenty-four hours every day. The Superintendent resides in a company-owned house at the Center. Telephone, two-way radio, and telemetering equipment provide the necessary continuous communication throughout the Authority service area.

Operation

The Authority aqueducts and related facilities require continuous routine patrol to cope with vandalism, watch for leaks, and inspect structures, gates, culverts, and access roads.

In addition to patrol vehicles, the field forces are provided with a variety of equipment, including road graders, bulldozers, compressors, welders, and a well-equipped shop. Skilled Authority personnel perform many varied tasks, including carpentry, painting, electrical, road building, construction, and mechanical repair work.

Operating personnel and maintenance crews are dispatched by two-way radio. Base stations are maintained in San Diego, Escondido, and Hemet with a repeater station located on Palomar Mountain. The Authority maintains 15 mobile units in operation, maintenance, and construction.

The San Diego Aqueducts were operated somewhat below capacity during the months of July, August and September 1969 as member agencies continued to use impounded local runoff. This change in demand was 16% below the corresponding months of 1968.

The voluntary joint system of operation developed by the Operating Heads of the member agencies continued to provide the flexibility of operation which permitted the Water Authority to process an average of over 300 flow changes per month with relatively few flow adjustments by Metropolitan.

During the year a 30-inch nozzle was installed for the Valley Center District to expand its No. 5 Service Connection to 60 cfs. The installation was placed in service during the late spring of 1970.

During the several days following August 22, uncontrolled brush fires burned out of control in the Valley Center and El Cajon areas. The Rainbow Pass Chlorination Facility was encircled by fire and very nearly suffered heavy damage at a time when nine tons of chlorine were on hand. The fire was controlled in time to avoid emergency measures to evacuate the chlorine.

Annually the Authority releases a small flow from the First Aqueduct below Oat Hills Tunnel in accordance with an agreement with the owners of adjacent property covering leakage of ground water into the tunnels. This water delivery was completed on October 24, 1969.

The Water Authority operating personnel have a continuing education program associated with the San Diego Evening Schools and the American Water Works Association. Some 45 water district employees, including four Water Authority personnel, were examined at the Fred A. Heilbron Operations Center in October as part of this certification program.

A wide variety of activities occurred during January 1970 as part of a special winter maintenance and inspection program. Metropolitan's planned shutdown of the Colorado River Aqueduct caused widely fluctuating water deliveries to the Authority from the 12th to the 20th of January 1970. Minimum flows were maintained to member agencies except along the Second Aqueduct, which was drained for inspection at selected locations. Entry was made to the pipe at the Diversion Structure and air valve structures at Stations 2440+65, 2655+75 and 2503+50. The pipe and structures were found to be in excellent condition. At Station 2623+84, repairs were made where cement mortar lining was damaged opposite a point where heavy blasting had occurred during the installation of Pipeline No. 4.

The Second Aqueduct was shut down a second time by Metropolitan on March 8th, in order to construct a section of the diversion canal near Auld Valley, to divert water into the second pipeline of the Second San Diego Aqueduct, and eventually into Auld Valley Reservoir. The Fallbrook No. 3 Crossover from the First to the Second Aqueduct and Metropolitan's Crossover were used during the shutdown. By March 18th, the Second Aqueduct was back in service.

During April 1970 Authority personnel demolished the old buildings formerly occupied by the Rincon del Diablo Municipal Water District along Fifth Avenue at the Fred A. Heilbron Operations Center. Considerable used building material was salvaged.

Several sections of access road were reconstructed along the Sweetwater Extension, near Poway Tunnel and in the Twin Oaks Valley on the Second Aqueduct.

During the annual inspection by the Engineering and Operations Committee of the Board of Directors in May considerable attention was given to property damage, encroachments and potential hazards due to open structures. A particularly bad situation was inspected near the Lakeside Control Station, where a deep sand pit is being excavated immediately adjacent to the Authority's easement for the La Mesa-Sweetwater Extension pipeline.

On May 20, a leak was discovered on the Fallbrook-Oceanside Lateral. After the first repair, a second and third leak occurred which could not be repaired because the pipe section was so badly deteriorated due to electrolysis. A new 40-foot section of pipe was installed to replace the original pipe. An electrolysis survey has been undertaken to ascertain the extent of the problem and to design suitable cathodic protection if necessary.

During the month of June a general meeting of the Operating Heads of the member agencies was held to discuss matters of general interest

including the future demand for filtered water. Representatives of Helix and Otay discussed their need for filtered water capacity from the Second Aqueduct. The City of San Diego also evidenced interest in receiving filtered water service provided arrangements can be made at the San Diego No. 4 Connection near the Alvarado Treatment Plant to take advantage of the service. As a result of this discussion the demand for filtered water is now considered to be substantially greater than forecast one year ago.

Routine Aqueduct operations, patrol and maintenance activities continued throughout the year with particular attention being given to road grading, clearing fire breaks around structures, pumping, cleaning and painting metal work in line structures and flushing and servicing air and vacuum and blow off valves.

LEGAL DEPARTMENT ACTIVITIES

The Authority remained free from serious litigation during the year. Continued activity in the acquisition of rights of way for the Second Aqueduct was carried on including that for the Lake San Marcos crossing which, at one time, presented problems of considerable concern to the Rights of Way Committee. Continuing development in the County areas along the route of the Authority aqueducts made the acquisition of needed rights of way increasingly more costly and less popular with the general public. Realizing the inconvenience caused the public by the installation of six and eight foot pipelines through private property, the employees of the Authority extended themselves in the effort to keep the impact of Aqueduct construction at a minimum.

As the County areas become more and more congested, another problem involving Authority rights of way becomes increasingly irritating. The Authority now has rights of way for four major aqueducts extending most of the distance from the northerly to the southerly County boundaries. In addition, there are the rights of way for the Crossover Aqueduct and the Oceanside and Sweetwater branch lines. The result is considerable acreage of rights of way surface which adjacent owners and others desire to use. The Authority permits planting and other surface use not inconsistent with the Authority's use of the property but frequently such use results in conflicts. The Authority services numerous applications for encroachment permits of various kinds and is frequently met with unauthorized encroachments that endanger the facilities installed in the easements.

Constant patrolling and other protective measures are necessary to minimize damage to costly Authority installations.

TREASURER'S REPORT

The Treasurer is appointed by the Board of Directors, serves at their pleasure without remuneration, and is responsible for the funds of the Authority.

Acting under policies adopted by the Board of Directors, the Treasurer invests funds, deemed to be idle by the Chief Accounting Officer, in interest bearing bank time deposits, in direct obligations of the Federal Government and in obligations of Federal agencies. The investments in Federal Agency securities are made only when there is no evidence of need for the funds prior to the maturity of the agency obligation.

All investments are subject to approval of the Board of Directors.

Established policies of the Authority recognize the very important role the banks have in providing the necessary market for municipal securities such as those offered by the Authority to finance the construction of facilities required to serve the public. Under this policy, the Treasurer endeavors to maintain a balance between the investment in securities and the deposit in bank certificates or time deposits.

The major portion of the temporarily idle funds during this fiscal year represent the unused portion of the sale of Authority bonds on October 15, 1968.

The management of Authority funds in this fiscal year proved to be a challenge and, indeed, very interesting. Investments are made on a day-to-day basis, in a market that is constantly changing and could, at times, be termed chaotic.

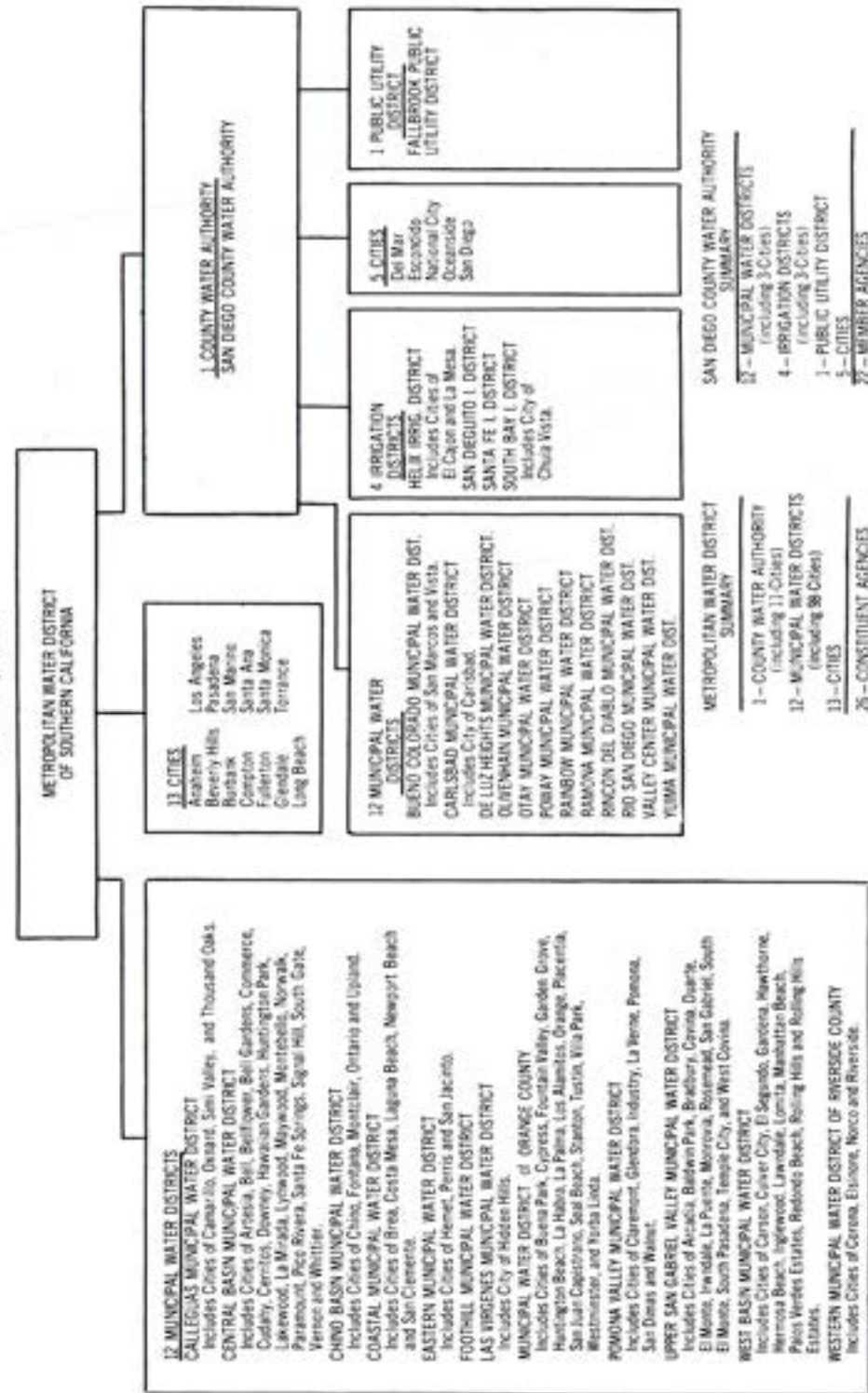
Total interest received from the Authority investments in both securities and bank deposits during this fiscal year amounted to \$2,386,365.00 which compares with \$1,555,620.00 for the previous fiscal year. This substantial increase reflects the very short supply of money which created the record high interest rates.

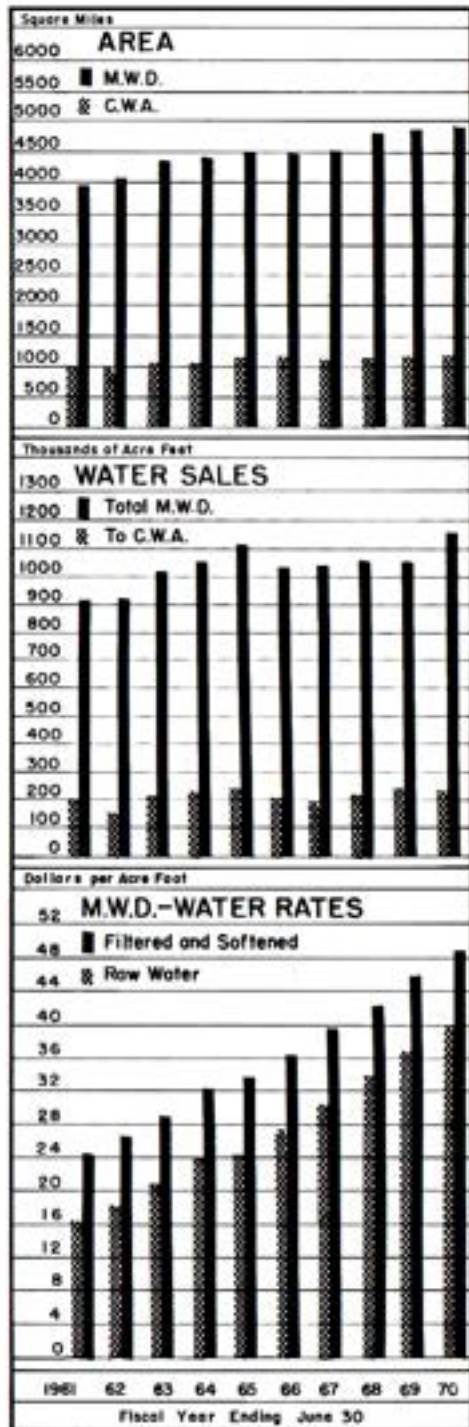
MEMBERSHIP IN THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

The Authority receives its entire supply of water from The Metropolitan Water District of Southern California and works very closely with that District. A brief outline of the District's organization and operations may be of interest to readers of this report.

COMPOSITION OF THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

JUNE 30, 1970





served water by the Metropolitan Water District. Within these districts there is a total of 122 incorporated cities. During the year, 13,013 acres were annexed to the District, of which 4,387 acres were also annexed to the Authority. As of June 30, 1970, District area equaled 4,800 square miles (3,072,058 acres), of which 1,177 square miles (753,200 acres) or 24.5 percent lie within the boundaries of the Water Authority.

Assessed Valuation

Total assessed valuation of taxable property lying within the boundaries of the District as determined by the assessors of the several counties for use in levying taxes for fiscal year 1969-70 is \$25,572,510,561 an increase of \$1,555,942,287 or 6.5 percent over the assessed valuation of \$24,016,568,274 for the 1968-69 fiscal year. An amount of \$230,314,731 or 14.8 percent of this increase occurred within the boundaries of the Authority.

Water Sales

A total of 1,165,753 acre feet of water was delivered by the District during fiscal year 1969-70. Of this amount, a total of 242,469 acre feet or 20.8 percent was delivered to the Authority. All water delivered to the Authority is untreated Colorado River water.

The District operates a filtration and softening plant at La Verne, California, with a capacity of 400 million gallons per day and the Robert B. Diemer Filtration Plant in Orange County, which has a capacity of 200 million gallons per day. Construction now underway will double the Diemer plant capacity. The Authority cannot be served from either of these plants.

Tax Rate

The District increased its tax rate from 16¢/\$100 to 17¢/\$100 of assessed valuation for 1969-70. In 1946 when the Authority annexed to the District the tax rate was 50¢/\$100.

The tax rate for each year of operation is shown in Table 19. The total District tax levy including regular and special taxes in 1969-70 was approximately \$52,268,203, of which \$5,083,759 or 9.7 percent was levied against taxable property within the boundaries of the Authority. When the annexation fee is not paid in full in cash at the time of annexation, the Metropolitan Water District, by agreement, levies a special tax each year for 30 years to yield the total agreed upon annexation fee in substantially equal installments. As of June 30, 1970, member agencies of the Authority had assumed back-tax liability totaling \$26,613,329 of which a total of \$13,392,308 had been paid by June 30, 1970.

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SAN DIEGO COUNTY WATER AUTHORITY

Table 1

AREA - AUTHORITY MEMBER AGENCIES

Member Agencies	Area Within Authority			Percent of Total Authority Area 6/30/70
	As of 6/30/69	Changes During Year	As of 6/30/70	
	acres	acres	acres	
Bueno Colorado M. W. D.	48,970 (1) -	50 (2)	48,920	6.50
In City of San Marcos	(8,101)	(0)	(8,101)	(1.96)
In City of Vista	(7,574)	(+ 41)	(7,615)	(1.91)
Carlsbad M. W. D.	20,236	0 (3)	20,236	2.68
In City of Carlsbad	(7,170)	(+ 100)	(7,270)	(0.97)
Del Mar, City of	1,082	0	1,082	0.14
De Luz Heights M. W. D.	10,280	+1,550	11,830	1.57
Escondido, City of	9,279*	+ 246	9,524	1.26
Fallbrook Public Utility District ..	15,470	+ 289	15,759	2.09
Helix Irrigation District	31,181*	+ 299 (4)	31,480	4.18
In City of El Cajon	(7,624)	(+ 30)	(7,654)	(1.02)
In City of La Mesa	(4,562)	(+ 6)	(4,568)	(0.60)
National City, City of	5,258	+ 122	5,380	0.71
Oceanside, City of	22,535*	+ 295	22,830	3.03
Oliveshale M. W. D.	27,522	+ 16 (5)	27,537	3.66
Otay M. W. D.	63,888	0 (6)	63,888	8.48
Poway M. W. D.	22,980	0	22,980	3.05
Rainbow M. W. D.	47,744	0	47,744	6.34
Ramona M. W. D.	43,837	0	43,837	5.82
Rincon del Diablo M. W. D.	20,280 (1) -	246 (7)	20,034	2.66
Rio San Diego M. W. D.	53,747	- 299 (8)	53,448	7.10
San Diego, City of	198,819	+2,249	201,068	26.70
San Dieguito Irrigation District ...	4,926	- 15	4,911	0.65
Santa Fe Irrigation District	10,184	0	10,184	1.36
South Bay Irrigation District	15,735 (1) -	130 (9)	15,605	2.07
In City of Chula Vista	(9,854)	(+ 79)	(9,933)	(1.32)
Valley Center M. W. D.	62,110	0	62,110	8.25
Yuma M. W. D.	12,751	+ 62	12,813	1.70
Total Authority Area	748,813*	+4,387	753,200	100.00
San Diego County			2,725,100	

* Revised to conform with data received from agency.

(1) Includes area annexed by an adjacent city member agency but still in district, being an overlapping area and considered here as being part of the city.

(2) Does not include 2662 acres overlapping in City of Oceanside and 284 acres overlapping in City of Escondido.

(3) Does not include 602 acres overlapping in City of Oceanside.

(4) Does not include 3 acres overlapping in City of San Diego.

(5) Does not include 5 acres overlapping in City of San Diego.

(6) Does not include 726 acres overlapping in City of San Diego.

(7) Does not include 6117 acres overlapping in City of Escondido and 39 acres overlapping in City of San Diego.

(8) Does not include 12 acres overlapping in City of San Diego.

(9) Does not include 297 acres overlapping in City of San Diego and 606 acres overlapping in City of National City.

TABLES

Table 2

POPULATION GROWTH - COUNTY AND AUTHORITY AREA

1910 to 1970

(Includes Resident Military Personnel)

Year (as of April 1)	COUNTY		AUTHORITY		Percent of County Population in Authority
	Total Population (1)	Average Annual Growth	Total Population	Average Annual Growth	
1910 . . .	61,665				
		5,058			
1920 . . .	112,248				
		9,741			
1930 . . .	209,659				
		7,969			
1940 . . .	289,348				
1946 . . . (3)	502,804	26,746	(3) 440,659		88
1950 . . .	556,808		(2) 451,886	2,807	81
		42,478		50,083	
1955 . . . (4)	769,200		(2) 702,300		91
		52,762		50,820	
1960 . . .	1,033,010		(2) 956,400		93
		32,198		38,720	
1965 . . . (4)	1,194,000		(5) 1,150,000		96
		23,360		21,000	
1970 . . .	1,310,800		(5) 1,255,000		96

(1) County population from U. S. Census Bureau Reports.

(2) Authority population based on U. S. Census Bureau Reports.

(3) Based on Special Census, U. S. Census Bureau, exclusive of emergency military personnel due to World War II.

(4) Estimated by the San Diego Chamber of Commerce.

(5) Estimated by Authority member agencies.

SAN DIEGO COUNTY WATER AUTHORITY

Table 3
POPULATION - AUTHORITY MEMBER AGENCIES AND COUNTY
(Includes Resident Military Personnel)

Member Agencies	Population - U. S. Census						Annual Increase 1960-1970 Percent	Density of Population 1970 Per Acre	Per Sq. Mile
	Area 6/30/70	1960	1960	1970 Estimate	Annual Increase 1960-1970				
	Acres	(1)	(1)	(2)	Percent	Per Acre			
Buena Colorado M. W. D.	48,920	-----	31,500	36,000	-----	2	0.80	310	
In City of San Marcos	(8,101)	-----	-----	(3,900)	-----	-----	0.48	388	
In City of Vista	(7,615)	-----	-----	(24,600)	-----	-----	3.23	2,087	
Carlisle M. W. D.	20,236	-----	10,000	15,500	-----	6	0.77	430	
In City of Carlisle	(7,275)	-----	(9,400)	(14,500)	-----	6	2.04	1,396	
Del Mar, City of	1,082	-----	-----	3,900	-----	-----	3.60	2,397	
De Luz Heights M. W. D.	11,830	-----	-----	150	-----	-----	0.01	8	
Escondido, City of	9,524	6,600	18,500	36,000	150	9	3.75	2,419	
Fallbrook Public Utility District	15,759	5,500	10,000	12,000	52	2	0.76	487	
Helix Irrigation District	31,480	44,100	122,100	163,000	176	3	5.18	3,314	
In City of El Cajon	(7,654)	(5,600)	(37,300)	(56,900)	566	4	6.65	4,256	
In City of La Mesa	(4,968)	(10,946)	(39,800)	(38,800)	173	3	7.81	4,988	
National City, City of	5,360	21,200	32,300	38,000	52	2	7.25	4,639	
Oceanside, City of	22,830	12,880	24,700	46,700	82	6	1.75	1,141	
Olivewood M. W. D.	27,537	-----	200	2,000	-----	90	0.07	46	
Otay M. W. D.	63,888	-----	5,400	19,400	-----	26	0.30	194	
Poway M. W. D.	22,980	-----	4,800	14,000	-----	19	0.61	390	
Rainbow M. W. D.	47,744	-----	2,800	4,200	-----	5	0.09	56	
Ramona M. W. D.	43,837	-----	5,600	6,500	-----	2	0.16	99	
Rincon del Diablo M. W. D.	20,034	-----	14,000	18,500	-----	4	0.94	694	
Rio San Diego M. W. D.	53,448	-----	25,500	46,000	-----	8	0.86	551	
San Diego, City of	201,068	334,387	557,200	675,600	67	2	3.36	2,151	
San Diego, City of	4,911	6,223	15,000	21,800	141	5	4.44	2,841	
San Diego Irrigation District	10,164	3,000	7,700	8,600	157	1	0.84	540	
Santa Fe Irrigation District	15,605	28,930	64,300	80,000	122	2	5.13	3,281	
South Bay Irrigation District	(9,935)	(15,930)	(42,400)	(64,000)	146	5	6.49	4,156	
Valley Center M. W. D.	62,110	-----	3,600	7,000	-----	9	0.11	72	
Yuma M. W. D.	12,813	-----	-----	1,250	-----	-----	0.10	62	
Total Authority	793,200	652,880	935,200	1,255,000	80	3	1.67	1,068	
San Diego County	2,725,100	556,810	1,033,010	1,310,800	60	3	0.48	308	

(1) Population in agencies other than cities was furnished by agencies. (2) Estimated by agencies.

TABLES

Table 4
ASSESSED VALUATIONS - AUTHORITY MEMBER AGENCIES AND COUNTY

Member Agencies	Assessed Valuation - Secured and Unsecured 1970-71					
	Area 6/30/70	1968-69		1969-70		Per Acre
	Acres	Total	Percent Increase	Total	Total	
Buena Colorado M. W. D.	48,920	\$ 83,663,720	\$ 87,381,434	4.4	\$ 104,432,084	2,135
Carlisle M. W. D.	20,236	56,255,830	60,388,382	7.6	67,625,878	3,352
Del Mar, City of	1,082	12,749,380	13,071,581	2.5	13,660,772	12,533
De Luz Heights M. W. D.	11,830	1,057,440	1,478,279	39.8	1,645,592	139
Escondido, City of	9,524	63,387,520	66,976,655	5.7	71,973,043	7,557
Fallbrook Public Utility District	15,759	19,869,780	28,766,862	44.8	29,207,954	1,857
Helix Irrigation District	31,480	255,910,850	276,977,584	8.2	305,469,953	9,704
National City, City of	5,360	45,782,760	48,888,637	6.8	56,837,889	10,563
Oceanside, City of	22,830	69,298,210	74,864,540	8.0	83,229,059	3,646
Olivewood M. W. D.	27,537	15,252,950	16,056,325	5.3	18,706,149	679
Otay M. W. D.	63,888	36,823,440	40,245,857	9.3	50,649,760	793
Poway M. W. D.	22,980	20,177,650	25,110,590	24.4	30,440,775	1,325
Rainbow M. W. D.	47,744	22,934,220	30,131,010	31.4	35,375,264	741
Ramona M. W. D.	43,837	11,443,490	12,697,700	11.0	16,165,253	414
Rincon del Diablo M. W. D.	20,034	33,510,550	33,662,712	0.5	35,418,390	1,768
Rio San Diego M. W. D.	53,448	50,956,630	63,820,812	25.2	74,389,454	1,392
San Diego, City of	201,068	1,220,424,800	1,357,289,950	11.2	1,547,739,726	7,698
San Diego Irrigation District	4,911	33,265,030	35,151,403	5.7	36,535,632	7,440
Santa Fe Irrigation District	10,164	32,148,480	34,075,226	6.0	38,332,916	3,766
South Bay Irrigation District	15,605	168,240,360	173,950,656	3.4	188,943,751	12,108
Valley Center M. W. D.	62,110	23,330,360	25,147,653	7.8	25,991,148	418
Yuma M. W. D.	12,813	5,580,950	6,045,241	8.3	6,512,018	508
Total Authority	793,200	\$ 2,282,094,360	\$ 2,512,409,091	10.1	\$ 2,841,462,960	3,773
San Diego County	(1) 1,250,000	\$ 2,445,189,720	\$ 2,683,630,790	9.8	\$ 3,027,906,124	2,422

(1) Excluding 1,475,100 acres of tax-exempt lands in San Diego County.

SAN DIEGO COUNTY WATER AUTHORITY

Table 5
SALES OF COLORADO RIVER WATER - FISCAL YEAR 1969-70

(All Figures in Acre Feet)

Member Agencies	July	August	Sept.	Oct.	Nov.	Dec.	Total 6 Months
Buena Colorado M. W. D.	240.7	260.5	454.0	267.6	204.8	161.1	1,768.7
Carlsbad M. W. D.	851.6	862.4	853.6	746.4	437.2	439.7	4,280.9
Del Mar, City of	87.7	107.8	103.1	88.3	58.4	65.3	511.2
De Luz Heights M. W. D.	0	0	0	0	0	0	0
Escondido, City of	497.6	540.0	461.1	498.4	343.7	313.8	2,564.6
Fallbrook P. U. D.	1,223.3	1,481.1	1,201.7	1,105.1	649.6	682.6	6,353.4
Helix I. D.	1,680.6	1,518.4	1,293.6	2,694.3	1,757.5	1,732.9	10,587.3
National City & South Bay I. D. .	1,525.5	1,519.1	1,452.1	922.1	892.6	913.9	7,225.3
Oceanside, City of	1,020.2	1,122.8	932.3	888.4	676.3	644.2	5,294.2
Olivehain M. W. D.	240.6	289.9	187.4	151.9	104.9	94.7	1,049.4
Otay M. W. D.	1,037.2	1,242.7	1,202.0	999.6	639.8	477.7	5,599.0
Poway M. W. D.	509.6	587.2	503.8	439.0	289.3	209.6	2,538.5
Rainbow M. W. D.	2,018.7	2,341.7	1,953.0	1,760.2	960.0	1,039.4	10,022.0
Ranoma M. W. D.	198.1	228.0	187.6	130.5	83.5	101.6	809.9
Rincon del Diablo M. W. D.	351.1	547.2	354.1	233.6	139.7	113.7	1,741.4
Rio San Diego M. W. D.	823.2	842.0	706.1	556.4	338.0	296.3	3,562.0
San Diego, City of	10,387.3	10,357.8	12,460.3	7,876.5	5,127.8	2,491.5	49,701.2
San Diegoño I. D.	0	0	0	14.2	0	0	14.2
Santa Fe I. D.	0	0	0	14.2	0	0	14.2
Valley Center M. W. D.	1,811.6	2,129.5	1,740.8	1,502.0	771.3	741.4	8,696.6
Yuma M. W. D.	272.0	356.7	347.2	229.0	98.5	63.5	1,366.9
Total Sales to Agencies	24,786.6	26,495.4	26,393.8	21,029.7	13,521.9	11,595.5	123,820.9
To Others*	0	0	0	2.1	4.9	4.0	11.0
Total Sales to Agencies and Others	24,786.6	26,495.4	26,393.8	21,029.8	13,526.8	11,599.5	123,831.9
Total to Authority Storage	0	+0.2	+0.8	+6.8	0	0	+7.8
Total from Authority Storage	-1,246.8	-646.4	-354.1	-198.6	0	0	-2,445.9
Total to Metropolitan Storage	0	0	0	+5,464.4	+4,980.6	+ 645.7	+11,010.7
Total from Metropolitan Storage	-2,000.0	-2,000.0	-2,695.0	0	0	0	-6,695.0
Total Flow in Authority System	21,539.8	23,849.2	23,945.5	26,302.4	18,427.4	12,240.5	125,700.5
Rate of Flow (c. f. s.)							
To Agencies and Others	403.1	439.9	443.6	342.0	227.3	188.6	339.3
To Authority Storage	0	0	0	+0.1	0	0	0
From Authority Storage	-20.3	-19.5	-6.0	-3.2	0	0	-6.7
To Metropolitan Storage	0	0	0	+88.9	+82.4	+10.5	+39.2
From Metropolitan Storage	-32.5	-32.5	-45.3	0	0	0	-18.3
Flow in Authority System	350.3	387.9	392.3	427.8	309.7	199.1	344.5

*To authority's contractor for construction.

TABLES

Table 5
(Continued)

Jan.	Feb.	March	April	May	June	Total 6 Months	Yearly Total	Yearly Average c. f. s.
175.1	178.5	171.2	305.1	333.4	305.4	1,468.7	3,235.4	4.5
334.6	414.9	355.6	897.9	870.4	731.1	3,604.5	7,885.4	10.9
25.9	52.6	59.0	61.3	78.1	80.2	357.1	868.3	1.2
0	0	0	0	0	0	0	0	0
283.9	315.4	348.4	436.6	525.1	512.5	2,423.9	4,988.5	6.9
408.6	539.0	454.6	967.5	1,220.0	1,200.3	4,790.0	11,143.4	15.4
1,360.8	1,644.5	1,901.7	2,776.0	3,107.0	3,681.9	14,471.9	25,059.2	34.6
747.2	868.8	1,391.9	1,490.3	1,718.3	2,082.6	8,299.1	15,524.4	21.5
579.1	575.0	648.9	870.6	1,043.0	1,074.7	4,791.3	10,085.5	13.9
56.0	83.0	58.8	217.2	262.1	196.2	873.3	1,922.7	2.7
259.5	387.0	379.4	581.0	728.4	1,002.8	3,438.1	9,037.1	12.5
160.4	211.4	215.3	322.7	435.3	491.5	1,836.6	4,375.1	6.0
573.9	891.0	701.6	1,539.5	2,092.7	1,927.9	7,636.6	17,659.6	24.4
71.9	88.7	77.8	131.0	172.3	200.7	747.4	1,677.3	2.3
73.7	312.6	429.8	874.7	651.2	561.5	2,903.5	4,644.9	6.4
352.4	396.8	383.0	564.6	718.9	769.0	3,174.7	6,736.7	9.3
3,204.7	5,196.9	5,134.6	12,525.2	14,814.7	13,865.5	54,651.6	104,352.8	144.1
0	0	0	0	0	0	0	14.2	0
0	0	0	0	0	0	0	14.2	0
397.3	512.6	368.9	1,212.7	1,569.9	1,613.6	5,675.0	14,371.6	19.9
13.5	29.3	20.2	82.3	231.2	274.4	650.9	2,017.8	2.8
9,180.5	12,698.0	13,100.7	25,856.2	30,482.0	30,574.8	121,792.2	245,613.1	339.3
5.9	3.8	10.1	20.3	5.8	8.2	54.1	65.1	0.1
9,186.4	12,601.8	13,110.8	25,876.5	30,487.8	30,583.0	121,846.3	245,678.2	339.4
0	-1.2	+0.1	0	-250.2	+250.0	+501.5	+599.3	+0.7
0	0	0	0	0	-8.5	-8.5	-2,454.4	-3.4
+3,236.1	+6,390.5	+2,816.0	+766.2	0	0	-13,298.8	-24,219.5	-33.4
0	0	0	-3,000.0	-4,500.0	-4,500.0	-12,000.0	-18,695.0	-25.8
12,422.5	18,993.5	15,926.9	23,642.7	26,238.0	26,324.5	123,548.1	249,257.6	344.3
149.4	226.9	213.2	434.9	495.8	513.9	339.4	339.4	
0	0	0	0	+4.1	+4.2	-1.4	-0.7	
0	0	0	0	0	-0.1	0	-3.4	
-62.6	+115.1	+45.8	-12.8	0	0	+36.8	+33.4	
0	0	0	-50.4	-73.2	-75.6	-33.4	-25.8	
202.0	342.0	259.0	397.3	426.7	442.4	344.2	344.3	

SAN DIEGO COUNTY WATER AUTHORITY

TABLES

Table 6
WATER SALES - 1947 to 1970
(All figures in acre feet)

Member Agencies	1947-52	1952-53	1953-54	1954-55	1955-56	1956-57	1957-58	1958-59	1959-70	Totals
Bueno Colorado M. W. D.	44,939	9,758	9,368	10,056	11,377	9,639	8,325	8,147	3,235	114,838
Carlsbad M. W. D.	23,847	7,196	6,392	6,217	6,103	6,222	6,990	6,999	7,885	77,848
Del Mar, City of	-----	0	0	0	175	652	767	722	885	3,147
De Lux Heights M. W. D.	-----	-----	-----	-----	-----	-----	0	0	0	0
Escondido, City of	16,824	2,623	2,853	3,112	3,167	3,270	4,124	4,455	4,989	45,417
Falbrook Public Utility District ..	83,953	10,228	10,517	10,580	10,764	9,848	11,021	10,010	11,143	189,054
Helix Irrigation District	170,182	27,368	24,008	28,335	25,963	18,444	25,200	22,589	25,059	367,477
National City & South Bay I. D.	129,814	12,855	12,078	12,097	9,907	8,545	12,013	10,998	15,034	224,330
Oceanside, City of	29,358	4,442	6,297	7,276	7,360	7,543	8,596	8,731	10,086	89,813
Olivehain M. W. D.	232	870	701	914	910	903	1,111	1,189	1,023	8,253
Otay M. W. D.	3,709	5,332	5,008	6,045	6,079	8,265	9,176	9,471	9,037	81,865
Poway M. W. D.	16,321	2,668	2,754	3,196	3,317	3,423	3,927	3,882	4,375	37,753
Rainbow M. W. D.	37,756	9,093	11,187	11,939	13,091	12,724	14,535	13,036	17,059	142,831
Ranoma M. W. D.	1,506	631	719	753	885	860	1,172	1,189	1,677	9,523
Rincon del Diablo M. W. D.	35,206	7,851	9,445	9,314	7,956	4,849	4,810	7,817	4,645	91,723
Rio San Diego M. W. D.	11,929	3,675	3,479	4,095	4,692	5,753	5,912	6,737	6,737	50,756
San Diego, City of	909,647	104,601	116,100	105,814	86,575	87,550	99,811	112,138	104,353	1,726,598
San Diego Irrigation Districts ..	16,422	3,808	2,836	2,734	2,310	2,481	1,699	2,878	14	34,382
Santa Fe Irrigation District	13,971	2,669	2,509	2,509	2,310	2,481	1,499	2,878	14	31,021
Valley Center M. W. D.	7,969	2,902	3,462	3,331	7,233	7,676	10,372	11,423	14,372	70,750
Yulma M. W. D.	-----	-----	0	220	1,793	2,165	1,895	2,140	2,038	10,231
Total Sales to Agencies	1,647,565	217,371	229,811	236,957	212,889	202,532	232,370	246,701	245,619	3,368,009
Total Sales to Others	1,017	78	63	54	73	32	18	5	65	1,406
Total to Authority Storage	-65,653	-6,865	-3,540	-9,794	-7,814	-4,372	-2,462	+20,982	-5,099	-153,601
Total from Authority Storage	-76,469	-5,342	-1,467	-26	-9,738	-3,742	-8,919	-12,371	-2,454	-126,518
Total to Metropolitan Storage	-----	-----	-----	-----	+25,326	+17,179	+29,375	+10,038	+24,220	-97,934
Total from Metropolitan Storage ..	-----	-----	-----	-----	-17,561	-14,099	-15,879	-13,349	-18,095	-82,575
Total Flow in Authority System	1,667,796	220,472	231,947	246,679	215,813	209,273	222,227	251,952	249,238	3,415,456
Rate of Flow (c.f.a.)	146.5	300.4	316.6	319.0	294.1	279.8	321.4	340.8	329.4	205.7
To Agencies and Others	+9.0	+11.5	+4.9	+13.5	+10.8	+6.0	+3.4	+28.9	+6.7	-9.4
From Authority Storage	-7.2	-7.4	-2.0	-0.1	-13.4	-5.2	-12.3	-17.1	-3.4	-7.4
To Metropolitan Storage	-----	-----	-----	-----	+35.0	+23.9	+27.9	+13.9	+35.4	+6.9
From Metropolitan Storage	-----	-----	-----	-----	-24.3	-19.4	-26.0	-18.4	-25.6	-6.0
Flow in Authority System	149.3	304.5	319.5	332.4	302.2	284.9	314.4	348.1	344.3	205.6

(1) The operation of the first Aqueduct was formally initiated on November 24, 1947. For sales in intervening years see previous reports.

Table 7
WATER PRODUCTION WITHIN AUTHORITY AGENCIES - FISCAL YEARS 1960-61 to 1969-70
(All Figures in Acre Feet)

Member Agencies	From Local and Authority Supplies									
	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70
Bueno Colorado M. W. D.	14,066	11,937	13,763	12,743	13,022	13,616	12,551	14,480	13,341	15,513
Carlsbad M. W. D.	7,091	6,711	7,265	6,412	6,295	6,347	6,359	6,944	7,002	7,960
Del Mar, City of	(a)	597	684*	691	629	640	632	767	732	868
De Lux Heights M. W. D.	(a)	0	0	0	0	0	0	0	0	0
Escondido, City of	3,136	3,211	3,625	3,953	4,275	4,556	4,592	5,540	5,531	6,459
Falbrook Public Utility District ..	10,724	8,999	10,379	10,712	10,716	11,016	9,972	11,020	10,072	11,598
Helix Irrigation District	24,029	21,846	23,981	22,943	25,069	26,036	23,672	28,778	28,504	31,802
National City and South Bay I. D.	14,148	13,529	14,219	14,021	14,143	14,614	14,391	15,785	15,904	17,718
Oceanside, City of	3,374	3,030	5,783	6,664	7,454	7,447	7,607	8,688	8,408	10,134
Olivehain M. W. D.	12*	145	570	629	717	910	803	1,131	1,159	1,923
Otay M. W. D.	967	1,465	5,381	5,908	6,043	6,679	8,268	9,236	9,471	9,937
Poway M. W. D.	2,205	2,009	2,596	2,754	3,196	3,317	3,423	3,957	3,882	4,375
Rainbow M. W. D.	8,771	8,533	10,400	11,431	12,629	14,149	13,123	15,219	14,358	18,347
Ranoma M. W. D.	841	643	744	825	859	1,019	1,039	1,277	1,390	1,759
Rincon del Diablo M. W. D.	11,402	9,832	11,847	12,108	11,945	12,613	11,707	12,813	12,703	14,642
Rio San Diego M. W. D.	3,526	3,329	3,925	3,926	4,580	4,988	4,688	5,810	6,018	6,656
San Diego, City of	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Isalco City	84,345	81,156	89,625	92,451	95,032	102,174	103,894	112,941	115,421	122,600
Oceanside City (not in Authority) ..	4,840	5,097	4,278	4,459	4,522	5,328	5,432	5,790	5,356	6,147
San Diego Irrigation District	4,212	3,568	3,541	3,743	4,057	3,920	4,022	4,329	3,641	4,267
Santa Fe Irrigation District	3,927	3,349	3,706	3,735	3,968	3,822	3,822	5,344	5,634	5,908
Valley Center M. W. D.	2,124	2,170	2,902	3,432	5,331	7,233	7,676	10,372	11,423	14,409
Yulma M. W. D.	(a)	(a)	(a)	5,625	9,282*	8,142	6,070	7,929	7,672	9,927
Total	505,540	192,554	219,269	231,549	243,593	258,770	286,644	288,170	284,132	322,369

*Use of Colorado River water began this year. All other agencies' use began prior to 1960-61. See previous reports.
(a) Not available.

Table 8
WATER PRODUCTION OF AUTHORITY AGENCIES - FISCAL YEAR 1969-70

Member Agencies	TOTAL WATER PRODUCTION				SOURCE OF WATER			
	m.g.d.	c. f. s.	ac. ft./yr.	as	Local Supply		Authority Supply	
					Amount ac. ft.	Percent	Amount ac. ft.	Percent
Bueno Colorado M. W. D.	13.85	21.43	15,513.1		12,502.0	79.3	2,211.1	20.7
Carlsbad M. W. D.	7.11	11.00	7,969.2		0	0	7,969.2	100.0
Del Mar, City of	0.77	1.20	868.3		0	0	868.3	100.0
De Luz Heights M. W. D.	0	0	0		0	0	0	0
Escondido, City of	5.77	8.52	6,459.4		1,470.9	22.8	4,988.5	77.2
Fallbrook Public Utility District	10.35	16.02	11,597.8		432.7	3.9	11,165.1	96.1
Helix Irrigation District	28.39	43.93	31,801.8		7,493.1	23.6	24,308.7	76.4
National City and South Bay I. D.	15.82	24.47	17,718.0		2,120.0	17.6	14,598.0	82.4
Oceanside, City of	9.05	14.00	16,134.1		10.5	0.1	16,123.3	99.9
Olivenhain M. W. D.	1.72	2.66	1,922.7		0	0	1,922.7	100.0
Clay M. W. D.	8.07	12.45	9,037.1		0	0	9,037.1	100.0
Poway M. W. D.	3.90	6.04	4,375.1		0	0	4,375.1	100.0
Rainbow M. W. D.	16.38	25.34	18,346.8		731.2	4.0	17,615.6	96.0
Ranoma M. W. D.	1.69	2.47	1,788.8		111.5	6.2	1,677.3	93.8
Rincon del Diablo M. W. D.	13.07	20.22	14,642.9		9,597.1	68.3	4,644.8	31.7
Rio San Diego M. W. D.	6.21	9.51	6,956.3		219.6	3.2	6,736.7	96.8
San Diego, City of:								
inside City	169.48	169.39	122,629.7		22,056.4	18.8	96,623.3	81.2
Outside City (Not in Authority) ..	5.49	8.49	6,146.9		6,146.9	100.0	0	0
San Diego Irrigation District	3.92	6.07	4,356.6		4,352.4	99.7	14.2	0.3
Santa Fe Irrigation District	5.32	8.23	5,955.4		5,944.2	99.8	14.2	0.2
Valley Center M. W. D.	12.86	19.89	14,409.0		0	0	14,409.0	100.0
Yulma M. W. D.	8.98	13.71	9,898.6		7,968.8	79.7	2,017.8	20.3
Total	287.99	445.55	322,588.7		82,297.6	25.8	239,291.1	74.2

Note: This table is a compilation of data furnished by member agencies.
Figures include losses in transmission and distribution systems but not in conservation reservoirs.

Table 9
UNIT WATER PRODUCTION - PER ACRE AND PER CAPITA 1969-70

Member Agencies	Gross Area (1)	Total Production of Water ac. ft.	Estimated Area Served by Water System acres	Water Production Per Area Served ac. ft./acre/yr.	Estimated Population	Water Production Per Capita ac. ft./cap./yr.
Bueno Colorado M. W. D.	48,920	15,513.1	34,500	0.45	39,900	0.46
Carlsbad M. W. D.	20,236	7,969.2	16,000	0.53	10,500	0.31
Del Mar, City of	1,082	868.3	1,060	0.80	3,900	0.22
De Luz Heights M. W. D.	11,830	0	0	0	156	0
Escondido, City of	6,524	6,459.4	9,550	0.76	36,000	0.18
Fallbrook Public Utility District	15,759	11,597.8	7,850	1.48	12,000	0.97
Helix Irrigation District	31,480	31,801.8	29,800	1.10	163,000	0.26
National City, City of	5,380	4,395.0	3,950	1.13	39,000	0.11
Oceanside, City of	22,830	10,134.1	12,700	0.80	49,700	0.25
Olivenhain M. W. D.	27,537	1,922.7	1,000	1.92	2,000	0.96
Clay M. W. D.	63,888	9,037.1	28,000	0.32	19,400	0.47
Poway M. W. D.	22,980	4,375.1	7,000	0.63	14,000	0.31
Rainbow M. W. D.	47,744	16,346.8	9,200	1.99	4,200	4.37
Ranoma M. W. D.	43,837	1,788.8	6,930	0.26	6,800	0.26
Rincon del Diablo M. W. D.	20,034	14,642.9	11,350	1.29	18,900	0.77
Rio San Diego M. W. D.	53,468	6,956.3	12,800	0.54	46,000	0.15
San Diego, City of:						
inside City	291,048	(1) 122,629.7	100,000	1.23	676,800	0.28
San Diego Irrigation District	4,911	4,396.6	4,330	1.02	21,800	0.28
Santa Fe Irrigation District	10,184	5,955.4	7,700	0.77	8,600	0.69
South Bay Irrigation District	15,603	15,323.0	9,830	1.36	89,000	0.17
Valley Center M. W. D.	62,116	14,409.0	10,000	1.44	7,000	2.08
Yulma M. W. D.	12,812	9,898.6	4,050	2.45	1,250	7.94
Total and Average	753,206	316,441.8	324,560	0.96	1,255,000	0.25

(1) Does not include production by City of San Diego for areas outside City (not in Authority).
(2) Does not include overlapping area as shown in Table 1.

Table 10
AGRICULTURAL USE OF WATER - FISCAL YEAR 1969-70

Member Agencies	Total Water Production ac. ft.	Water Used for Agricultural Purposes				Percent of Agricultural Water to Total Production	
		From Local Supply		From Authority			Total ac. ft.
		ac. ft.	Percent	ac. ft.	Percent		
Bueno Colorado M. W. D.	15,513.1	5,704.0	84.9	1,024.6	15.1	6,778.6	43.7
Carlsbad M. W. D.	7,969.2	0	0	3,722.2	100.0	3,722.2	46.8
Del Mar, City of	868.3	(a)	0	(a)	0	0	(a)
De Luz Heights M. W. D.	0	0	0	0	0	0	0
Escondido, City of	6,459.4	0	0	0	0	0	0
Fallbrook Public Utility District	11,597.8	380.9	4.0	9,029.6	96.0	9,410.7	81.1
Helix Irrigation District	31,801.8	430.2	20.9	1,632.5	79.1	2,062.7	6.3
National City & South Bay I.D.	17,718.0	91.8	15.2	513.7	85.8	605.5	3.4
Oceanside, City of	10,134.1	0	0	474.3	100.0	474.3	4.7
Olivenhain M. W. D.	1,922.7	0	0	1,350.9	100.0	1,350.9	71.5
Osay M. W. D.	9,037.1	0	0	5,047.3	100.0	5,047.3	55.9
Posey M. W. D.	4,375.1	0	0	1,894.5	100.0	1,894.5	43.3
Rainbow M. W. D.	18,348.8	679.2	4.0	16,377.2	96.0	17,056.4	93.0
Ramona M. W. D.	1,788.8	55.0	6.0	857.6	94.0	912.6	51.0
Rincon del Diablo M. W. D.	14,642.0	6,500.1	69.8	2,810.1	30.2	9,310.2	63.6
Rio San Diego M. W. D.	6,956.3	0	0	316.3	100.0	316.3	4.5
San Diego, City of	128,776.6	243.3	21.1	908.4	78.9	1,151.7	0.9
San Diego Irrigation District	4,886.6	(a)	0	(a)	0	0	(a)
Santa Fe Irrigation District	5,938.4	(a)	0	(a)	0	0	(a)
Valley Center M. W. D.	14,469.0	0	0	12,939.6	100.0	12,939.6	89.9
Yulma M. W. D.	9,936.6	7,908.8	80.7	1,888.8	19.3	9,797.6	98.7
Total	322,588.7	22,043.3	26.6	60,838.1	73.4	82,881.4	25.7

(a) Included in City of San Diego.

Table 11
AUTHORITY STORAGE IN SAN VICENTE RESERVOIR
(Fiscal Year 1969-70)

Member Agencies	Total Quantity in Storage 7/1/69 ac. ft.	Placed into Storage During Fiscal Year ac. ft.	Withdrawn During Fiscal Year		Total Quantity in Storage 6/30/70 ac. ft.
			By Delivery ac. ft.	By Evaporation ac. ft.	
			Fiscal Year		
Bueno Colorado M. W. D.	1,675.3	0	0	0	1,675.3
Carlsbad M. W. D.	989.6	0	0	0	927.0
Del Mar, City of	0	0	0	0	0
De Luz Heights M. W. D.	0	0	0	0	0
Escondido, City of	318.2	0	37.5	18.1	262.6
Fallbrook Public Utility District	1,965.1	0	0	124.3	1,840.8
Helix Irrigation District	4,170.3	0	0	263.9	3,906.4
National City & South Bay I.D.	0	0	0	0	0
Oceanside, City of	710.7	0	125.7	37.8	547.2
Olivenhain M. W. D.	346.9	0	99.2	17.2	230.5
Osay M. W. D.	1,488.2	0	0	94.7	1,403.5
Posey M. W. D.	954.2	0	290.7	46.1	647.4
Rainbow M. W. D.	2,947.1	0	0	186.3	2,760.8
Ramona M. W. D.	245.4	0	0	15.5	229.9
Rincon del Diablo M. W. D.	1,478.5	500.0	1,451.0	27.3	498.2
Rio San Diego M. W. D.	937.8	0	239.0	49.6	708.2
San Diego, City of	0	0	0	0	0
San Diego Irrigation District	0	0	0	0	0
Santa Fe Irrigation District	0	0	0	0	0
Valley Center M. W. D.	3,976.1	0	211.8	239.7	3,524.6
Yulma M. W. D.	591.4	0	0	37.5	553.9
Total	22,982.8	500.0	2,445.9	1,326.6	19,610.3

Table 12
CHEMICAL CHARACTER OF NATURAL COLORADO RIVER WATER
AT WEST PORTAL OF SAN JACINTO TUNNEL

Year Ending June 30, 1970

Samples Taken at Entrance to San Diego Aqueduct by M.W.D.
and Analyzed by District Laboratory

Month	Total Hardness as P.P.M. CaCO ₃	Non Car- bonate Hardness as P.P.M. CaCO ₃	Alkalinity as P. P. M. CaCO ₃		Magnesium as P. P. M. of Mg.	Hydrogen Ion Concen- tration	Temperature When Sampled °F
	Total	Phenolphthalein	Total	Phenolphthalein			
July	353	326	126	1	32.5	8.4	78
August	347	224	123	2	31.5	8.5	83
September	350	227	123	0	33.5	8.2	83
October	339	221	118	2	32.0	8.4	82
November	346	226	120	1	32.5	8.4	85
December	348	225	120	1	32.5	8.4	84
January	355	231	124	1	33.5	8.3	84
February	356	231	125	0	32.0	8.3	83
March	356	230	126	1	32.5	8.4	89
April	362	236	126	2	33.5	8.4	64
May	360	234	126	1	33.0	8.3	72
June	362	233	129	1	33.5	8.3	74
Average	353	229	124	1	32.5	8.4	69
Maximum	362	236	129	2	33.5	8.5	83
Minimum	339	221	118	0	31.5	8.2	63

Table 13
ANALYSIS OF COLORADO RIVER AQUEDUCT WATER
TAKEN AT WEST PORTAL OF SAN JACINTO TUNNEL
For year Ending June 30, 1970

Constituent	Symbol	ANALYSIS		
		Average	Maximum	Minimum
Silica	SiO ₂	8.2 ppm	9.2 ppm	6.7 ppm
Iron	Fe	-	-	-
Calcium	Ca	88 ppm	90 ppm	83 ppm
Magnesium	Mg	32.5 ppm	33.5 ppm	31.5 ppm
Sodium	Na	111 ppm	116 ppm	106 ppm
Potassium	K	5 ppm	5 ppm	4 ppm
Carbonate	CO ₃	1 ppm	2 ppm	0 ppm
Bicarbonate	HCO ₃	148 ppm	155 ppm	139 ppm
Sulfate	SO ₄	323 ppm	333 ppm	311 ppm
Chloride	Cl	99 ppm	102 ppm	96 ppm
Nitrate	NO ₃	1.2 ppm	1.6 ppm	0.7 ppm
Fluoride	F	0.4 ppm	0.5 ppm	0.3 ppm
Total Dissolved Solids		744 ppm	761 ppm	721 ppm
Hardness as CaCO ₃				
Total		353 ppm	362 ppm	339 ppm
Carbonate		124 ppm	129 ppm	118 ppm
Noncarbonate		229 ppm	236 ppm	221 ppm
Alkalinity - Phenolphthalein		1 ppm	2 ppm	0 ppm
Alkalinity - Total		124 ppm	129 ppm	118 ppm
Free Carbon Dioxide	CO ₂	1 ppm	1.5 ppm	0 ppm
Hydrogen Ion Concentration	pH	8.4	8.5	8.2
Electrical Conductivity	ECx10 ⁶ at 25°C	1180 ppm	1240 ppm	1100 ppm
Temperature		69	83	63

Table 14
ALLOCATION OF RIGHT TO PURCHASE AUTHORITY WATER
As of June 30, 1970

Member Agency	Amount Paid by Taxes to 6/30/70	Amount Paid for Service Connections to 6/30/70	Total Amount Paid by Each Member Agency to 6/30/70	Amount Remaining to be Paid Under Terms of Annexation	Total Contributions Paid and Contracted for	Percentage of Auth. Supply	Allocation Equivalent Flow c.f.a.
Bueno Colorado M.W.D.	\$ 889,525	56,655	946,180	0	946,180	3.11	13.99
Carlsbad M.W.D.	619,496	7,931	627,427	0	627,427	2.06	9.28
Del Mar, City of	174,402	--	174,402	36,451	210,853	0.69	3.11
De Luz Heights M.W.D.	4,598	--	4,598	9,120	13,718	0.05	0.22
Escondido, City of	568,381	9,234	577,615	0	568,385	1.87	8.41
Fairbrook P.U.D.	250,878	67,773	318,651	0	318,651	1.05	4.71
Hells Irrigation District	3,285,720	27,469	3,313,189	0	3,313,189	10.90	49.05
National City, City of	692,450	--	692,450	0	692,450	2.23	10.25
Oceanside, City of	774,834	26,350	801,184	0	801,184	2.63	11.84
Olivenhain M.W.D.	86,488	17,660	104,148	10,690	114,838	0.38	1.71
Otay M.W.D.	356,009	81,617	437,626	1,052	438,706	1.44	6.48
Poway M.W.D.	194,526	37,308	231,834	0	221,834	0.73	3.28
Rainbow M.W.D.	189,558	104,770	304,328	6,640	311,168	1.02	4.59
Rincon del Diabolo M.W.D.	427,751	14,827	442,578	4,426	442,578	1.45	6.54
Rio San Diego M.W.D.	604,021	45,344	649,365	4,847	654,112	2.15	9.67
San Diego, City of	17,552,611	57,858	17,610,469	0	17,610,469	57.86	260.46
San Dieguito I.D.	389,532	3,758	393,290	0	393,290	1.30	6.85
Santa Fe I.D.	350,998	8,129	359,127	0	359,127	1.18	5.31
South Bay I.D.	1,824,390	595	1,824,985	0	1,824,985	6.00	27.00
Valley Center M.W.D.	178,223	127,569	305,792	3,402	309,194	1.02	4.59
Yulma M.W.D.	51,269	9,720	60,989	22,087	83,076	0.27	1.23
Total Authority	\$29,625,929	690,566	\$30,325,495	\$98,949	\$30,424,444	100.00	456.00

* Figures do not total due to omission of cents.

Table 15
SAN DIEGO COUNTY WATER AUTHORITY
Statement of Tax Assessments and Collections
Fiscal Years 1965-66 to 1969-70

Member Agencies	Tax Assessments % Date	Adj. to Tax Assessments	Tax Collections	Interest & Penalties	Tax on Options	Receipts in Taxes	Misc. Tax Sales	Less Refunds	Net Total Collections	Uncollected 6/30/70
Fairbrook P.U.D.	\$ 248,816	(254)	246,547	731	--	3,420	42	62	250,678	2,814
Hells I.D.	3,285,498	(2,766)	3,274,324	9,214	89	4,930	693	733	3,286,720	8,307
City of National City	686,023	(740)	684,518	1,623	8	6,826	83	813	692,450	764
City of Oceanside	773,716	(74)	770,965	1,717	5	2,601	93	280	774,834	2,646
City of San Diego	17,496,985	597	17,413,706	28,903	42	182,333	2,424	44,799	17,552,611	(6,143)
Ranoma M.W.D.	152,182	273	151,198	716	--	4,908	55	13	156,960	1,258
Santa Fe I.D.	346,731	1,312	346,001	1,438	821	2,202	1,093	748	350,908	2,062
San Dieguito I.D.	384,985	(330)	387,475	1,120	3	1,128	127	301	389,532	3,289
City of Escondido	560,805	227	557,753	1,302	--	59	28	133	558,981	3,062
South Bay I.D.	1,823,980	(3,844)	1,818,902	2,981	--	15,266	342	13,023	1,834,300	3,062
Rainbow M.W.D.	186,422	(290)	177,930	578	--	21,079	--	31	199,558	2,199
Poway M.W.D.	206,044	(190)	205,343	1,193	--	15	6	34	194,526	6,502
Bueno Colorado M.W.D.	879,180	1,520	876,137	2,734	1	10,402	121	282	889,526	4,474
Rincon del Diabolo M.W.D.	371,797	614	376,015	977	--	56,803	1	43	427,751	2,398
Carlsbad M.W.D.	591,947	(1,434)	585,518	1,070	--	83,275	30	373	619,496	5,001
Valley Center M.W.D.	169,319	34	176,764	908	--	511	26	15	178,223	(7,430)
Rio San Diego M.W.D.	606,194	(902)	600,713	3,072	--	378	121	274	604,021	4,568
Otay M.W.D.	387,208	(250)	384,844	1,295	--	--	46	178	386,009	3,111
Olivenhain M.W.D.	87,831	(494)	84,794	494	--	1,250	--	59	86,488	2,668
City of Del Mar	173,713	1,279	173,310	694	--	530	1	44	174,402	1,681
Yulma M.W.D.	50,383	83	40,756	60	--	1,000	--	47	51,269	712
De Luz M.W.D.	3,756	--	3,595	4	--	1,000	--	--	4,598	155
Total Member Agencies	\$29,347,309	(5,644)	29,295,452	62,762	972	321,902	5,141	62,401	29,625,929	43,062
Withdrawn Areas	4,169	29	4,199	11	--	186	2	5	4,401	--
Grand Total*	\$29,351,528	(5,614)	29,302,651	62,773	972	321,116	5,143	62,406	29,629,331	43,062

* Figures do not total due to omission of cents.

Table 16
ASSESSSED VALUATIONS AND TAX RATES
Fiscal Years 1945-46 to 1969-70

Fiscal Year	Secured Property	Public Utilities	Unsecured Property	Total	Tax Rate per \$100 Secured	Tax Rate per \$100 Unsecured
1945-46	\$ 212,062,975	28,253,700	29,960,130	270,296,805	0.04	-
1946-47	208,715,150*	29,433,460	30,665,910	268,814,510	0.04	0.04
1947-48	233,579,990	32,740,680	40,977,850	307,298,520**	0.14	0.04
1948-49	254,227,570	37,482,020	47,177,300	338,886,890	0.14	0.14
1949-50	290,351,875	42,429,140	45,743,200	378,524,215	0.10	0.10
1950-51	306,104,930	43,595,730	44,717,740	394,418,400	0.10	0.10
1951-52	344,620,030	48,452,940	50,904,035	443,977,005	0.10	0.10
1952-53	382,945,860	53,208,220	63,996,330	500,153,410	0.12	0.10
1953-54	400,709,350	63,092,050	69,147,150	622,948,550	0.10	0.12
1954-55	546,272,860	69,243,550	79,629,780	695,146,220	0.10	0.10
1955-56	627,062,960	87,485,390	79,936,450	794,484,600	0.09	0.10
1956-57	680,824,400	101,224,260	97,950,800	879,999,460	0.09	0.09
1957-58	761,089,330	111,151,890	128,785,440	1,001,025,660	0.09	0.09
1958-59	865,283,080	128,479,290	128,124,720	1,121,887,090	0.10	0.09
1959-60	979,491,050	145,317,290	134,846,730	1,259,655,070	0.11	0.10
1960-61	1,116,722,830	165,666,720	159,954,740	1,442,345,290	0.11	0.11
1961-62	1,220,610,650	191,276,650	155,149,890	1,567,037,190	0.11	0.11
1962-63	1,272,506,330	201,245,370	154,989,440	1,628,741,140	0.11	0.11
1963-64	1,340,197,170	209,793,780	159,714,930	1,709,705,880	0.11	0.11
1964-65	1,423,375,590	213,352,470	151,686,520	1,786,414,580	0.11	0.11
1965-66	1,511,967,750	212,605,040	155,417,220	1,879,990,010	0.11	0.11
1966-67	1,567,290,460	212,223,550	147,740,730	1,927,254,740	0.11	0.11
1967-68	1,735,209,870	209,136,160	178,641,120	2,122,987,150	0.10	0.11
1968-69	1,876,936,060	208,018,700	197,139,600	2,282,094,360	0.09	0.10
1969-70	2,063,618,552	210,839,100	237,951,409	2,512,409,061	0.09	0.09

*City of Coronado secured assessed valuations not included in this or subsequent tax levies by the Authority, having withdrawn from the Authority prior to 1948-47.

**City of Coronado not included in this or subsequent total valuation.

Table 17
TAX LEVIES AND TAX COLLECTIONS BY FISCAL YEAR
Fiscal Years 1945-46 to 1968-70

Fiscal Year	Tax Levy*	Collection of Current Year's Taxes		Adjustments to Prior Year's Levies	Collection of Prior Years' Taxes		Total Tax Collections	Accumulated Delinquent Taxes		Ratio of Accumulated Delinquent Taxes to Adjusted Tax Levy**
		During Fiscal Year	Percentage of Levy Collected		During Fiscal Year	During Fiscal Year		Delinquent Taxes	Delinquent Taxes	
1945-46	\$ 96,131	94,656	98.47%	-	-	-	94,656	1,474	1,53%	
1946-47	107,608	105,752	98.39	-	1,090	1,090	106,844	2,439	2.26	
1947-48	359,591	361,663	97.94	-	1,882	1,882	363,445	8,555	2.39	
1948-49	474,520	459,594	96.94	-	5,016	5,016	464,610	17,081	3.25	
1949-50	491,112	392,732	97.91	323	13,342	13,342	406,074	13,052	3.25	
1950-51	397,070	290,274	96.97	273	5,217	5,217	395,492	12,594	3.24	
1951-52	450,405	441,242	97.97	978	7,699	7,699	448,941	15,346	3.40	
1952-53	584,602	583,417	98.46	(1,140)	12,547	12,547	597,963	10,824	1.82	
1953-54	632,335	640,239	98.13	4,313	9,942	9,942	650,181	17,191	2.62	
1954-55	709,679	695,290	97.96	1,295	12,638	12,638	707,928	20,206	2.86	
1955-56	803,372	788,734	97.41	(2,099)	12,140	12,140	800,874	30,726	2.59	
1956-57	874,774	861,461	98.49	576	13,056	13,056	874,517	21,090	2.46	
1957-58	945,096	946,445	98.58	808	12,890	12,890	959,335	28,159	2.92	
1958-59	1,178,685	1,167,265	98.17	-	13,347	13,347	1,170,613	36,462	3.09	
1959-60	1,436,279	1,404,277	98.93	(9,274)	16,647	16,647	1,424,925	42,535	2.97	
1960-61	1,694,732	1,568,169	97.63	(8,720)	21,591	21,591	1,607,671	50,874	3.15	
1961-62	1,763,785	1,715,575	97.64	(2,478)	31,477	31,477	1,756,053	62,330	3.54	
1962-63	1,816,449	1,775,932	97.77	(3,488)	38,134	38,134	1,814,066	61,023	3.37	
1963-64	1,910,019	1,862,973	97.54	(208)	36,823	36,823	1,899,799	70,975	3.72	
1964-65	2,000,081	1,948,853	97.44	(6,398)	42,096	42,096	1,991,959	73,093	3.66	
1965-66	2,191,022	2,033,032	96.76	2,803	44,734	44,734	2,077,816	88,714	4.69	
1966-67	2,154,094	2,090,637	97.01	(7,164)	54,353	54,353	2,144,970	101,073	4.73	
1967-68	2,175,876	2,129,996	97.92	(203)	64,473	64,473	2,194,470	82,078	3.77	
1968-69	2,110,912	2,103,651	99.65	-	55,252	55,252	2,158,904	94,136	4.62	
1969-70	2,295,574	2,204,155	96.09	-	24,918	24,918	2,229,166	103,963	4.52	
Totals (a)	\$ 21,716,452	26,402,609		(26,292)	514,779	514,779	28,337,449			

*Including adjustments of current year's levy.

**Including adjustments to current and prior years' levies.

(a) Figures do not total due to omission of cents.

SAN DIEGO COUNTY WATER AUTHORITY

Table 18
SAN DIEGO COUNTY WATER AUTHORITY
ANNEXATION CHARGES, ASSESSMENTS AND BALANCES

Area	Date of Annexation	Amount of Annexation Charge	Period of Special Assessments First Year Last Year	Special Assessments to 6/30/69	Fiscal Year 1969-70 Special Tax Year Assessments \$ / \$100	Remaining Balance of Annexation Charge 6/30/70
Annexation Charges Completed		\$599, 130		599, 130		
Annexation Charges Outstanding						
Del Mar, City of	11-23-62	131,200	1963-64 1972-73	80,392	14,356	50,808
De Luz Heights M. W. D.	6-29-67	7,400	1968-69 1971-72	3,243	728	4,152
No. 1 Annex of 1969	10-20-69	4,200	1970-71 1979-80	0	560	3,790
Belix I. D.						
Sunnyvale Heights Annex	9-17-59	11,600	1960-61 1969-70	16,408	994	0
Olivehain M. W. D.	5-25-69	13,600	1961-62 1970-71	12,190	1,234	1,414
No. 1 Annex of 1965	2-11-65	14,800	1966-67 1973-74	4,330	1,478	8,190
No. 4 Annex of 1967	11-15-67	3,500	1968-69 1977-78	407	308	2,344
Okay M. W. D.						
No. 3 Annex of 1960	10-20-60	16,560	1961-62 1970-71	14,062	1,633	1,052
Poway M. W. D.						
No. 1 Annex of 1958	8-21-59	4,060	1960-61 1969-70	3,876	123	0
Rainbow M. W. D.						
No. 1 Annex of 1958	5-12-59	2,580	1960-61 1969-70	2,304	105	0
No. 3 Annex of 1967	12-11-67	9,100	1968-69 1977-78	1,268	993	6,849
Baronca M. W. D.						
No. 1 Annex of 1958	5-28-59	6,600	1960-61 1969-70	6,143	436	0
No. 4 Annex of 1967	11-30-67	6,100	1968-69 1977-78	1,064	609	4,428
Rio San Diego M. W. D.						
No. 2 Annex of 1959	11- 6-59	18,300	1960-61 1969-70	16,782	1,516	0
No. 3 Annex of 1960	10-17-60	87,100	1961-62 1970-71	46,032	5,208	4,847
San Diego I. D.						
No. 1 Annex of 1969	9- 25-69	8,400	1969-70 1969-70	7,823	576	0
Valley Center M. W. D.						
No. 1 Annex of 1969	12-12-60	3,900	1961-62 1970-71	3,172	400	328
No. 2 Annex of 1967	12- 4-67	1,600	1968-69 1977-78	291	146	1,112
No. 3 Annex of 1967	12- 4-67	2,700	1968-69 1977-78	600	277	1,863
Yulma M. W. D.						
No. 1 Annex of 1967	12-16-67	40,310	1969-69 1973-74	21,277	3,668	15,404
No. 1 Annex of 1967	11-27-67	6,000	1968-68 1977-78	1,943	573	4,383
No. 2 Annex of 1969	11- 3-69	2,500	1970-71 1979-80	0	500	2,300
Total		\$971,360		\$35,092*	\$7,338*	\$5,948*

* Figures do not total due to omission of cents.

TABLES

Table 19
ASSESSED VALUATIONS AND TAX RATES OF THE
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Fiscal Year	Area (acres)	Assessed Valuation Total (1)	Tax Rate	
			Per \$100 Secured	Per \$100 Unsecured
1929-30	-	\$ 2,439,836,920	0.04	0.00
1930-31	-	2,431,684,250	.03	.04
1931-32	-	2,382,184,445	.03	.03
1932-33	-	1,936,051,180	.04	.03
1933-34	-	1,654,403,890	.04	.04
1934-35	-	1,587,147,565	.10	.04
1935-36	-	1,783,531,020	.20	.10
1936-37	-	1,769,160,685	.37	.20
1937-38	-	1,827,763,725	.40	.37
1938-39	-	1,896,966,255	.40	.40
1939-40	-	1,910,152,190	.42	.40
1940-41	389,588	1,841,248,450	.49	.42
1941-42	399,875	1,900,599,934	.48	.49
1942-43	400,614	2,001,924,735	.48	.48
1943-44	401,190	2,005,496,430	.48	.48
1944-45	401,536	2,109,192,795	.48	.48
1945-46	402,779	2,159,731,425	.50	.48
1946-47	501,425	2,413,186,570	.48	.50
1947-48	546,573	3,443,212,822	.35	.48
1948-49	578,368	3,883,081,225	.34	.35
1949-50	585,184	4,181,812,855	.34	.34
1950-51	721,850	4,281,519,725	.31	.34
1951-52	995,130	4,674,664,040	.30	.31
1952-53	1,120,448	5,372,498,515	.28	.30
1953-54	1,368,038	6,015,691,980	.25	.28
1954-55	1,793,651	6,548,392,114	.23	.25
1955-56	1,876,256	8,514,868,335	.21	.23
1956-57	1,932,205	9,674,000,560	.19	.21
1957-58	2,046,189	11,235,906,510	.18	.19
1958-59	2,128,333	12,070,838,070	.18	.18
1959-60	2,171,290	12,714,205,470	.17	.18
1960-61	2,544,960	13,737,971,925	.16	.17
1961-62	2,647,014	14,803,202,587	.15	.16
1962-63	2,797,946	15,699,681,030	.14	.15
1963-64	2,825,306	17,261,412,395	.14	.14
1964-65	2,882,144	17,757,246,740	.14	.14
1965-66	2,890,266	19,143,157,788	.14	.14
1966-67	2,901,421	20,979,150,165	.14	.14
1967-68	3,061,885	22,732,157,500	.14	.14
1968-69	3,067,896	24,016,568,274	.16	.14
1969-70	3,072,058	25,572,510,561	.17	.16
1970-71 (2)	-	27,606,064,302	.17	.17

- (1) Includes secured, unsecured, and public utility valuations.
- (2) First year in which Authority assessed valuation was included in District's assessed valuation.
- (3) Data for 1970-71 were available before completion of report and are included for convenience of reader.

SAN DIEGO COUNTY WATER AUTHORITY

Table 20

METROPOLITAN WATER DISTRICT ANNEXATION CHARGES AND BALANCES ON AUTHORITY AREAS

Member Agencies	Date of Annexation	Amount of Annexation Charge	Remaining Balance 4/30/70
Annexation Charges Completed	---	\$ 146,600	\$ ---
Annexation Charges Outstanding			
Chula Vista, City of			
Fallbrook Public Utility District			
Lakeside Irrigation District			
Helix Irrigation District	12-17-46	13,045,000	2,994,834
National City, City of			
Oceanside, City of			
San Diego, City of			
Bueno Colorado M.W.D.	6-11-54	1,072,230	529,483
Carlsbad M.W.D.	6-16-54	548,100	209,150
Del Mar, City of	11-23-62	611,250	468,236
De Luz M.W.D.	6-28-67	3,000,000	2,186,928*
No. 1 Annexation of 1969	10-20-69	212,000	212,000
Eucalypt, City of	10- 9-50	386,000	149,627
Fallbrook Public Utility District			
No. 1 Annexation of 1959	8- 1-50	31,600	5,877
No. 2 Annexation of 1958	11-24-58	50,400	31,659
Fallbrook Community Air Park	12-23-69	59,800	59,800
Helix Irrigation District			
Crest P.U.D. Annexation	12-12-46	10,500	3,991
El Cajon Dry Island Annexation	12-20-54	227,450	159,049
Helix-Watson Ranch Annexation	3-20-59	6,730	5,728
Helix-Sunny Slope Hts. Annexation	9-17-59	28,250	25,422
Olivewood M.W.D.	7-25-60	83,840	57,812
No. 1 Annexation of 1965	2-11-65	512,520	444,009
No. 4 Annexation of 1967	11-15-67	74,000	77,566
Otay M.W.D.	10-26-56	273,000	149,304
No. 3 Annexation of 1969	10-20-69	96,100	96,100
Poway M.W.D.	5-21-54	51,800	45,715
No. 1 Annexation of 1959	9-21-59	27,150	14,613
Rainbow M.W.D.	4-10-54	167,700	83,719
No. 1 Annexation of 1959	5-12-59	24,300	24,155
No. 3 Annexation of 1967	12-11-67	1,728,000	1,868,244*
Rancho M.W.D.	8-27-57	339,000	202,827
No. 1 Annexation of 1959	5-29-59	42,330	28,100
No. 2 Annexation of 1961	9-22-61	15,480	11,305
No. 3 Annexation of 1963	9-20-63	10,560	8,435
No. 4 Annexation of 1967	11-20-67	490,600	514,486*
Rincon del Diablo M.W.D.	6-14-54	757,200	376,605
Rio San Diego M.W.D.			
(not including Lakeside I.D.)	6- 7-56	373,980	310,749
No. 2 Annexation of 1959	11- 6-59	109,110	72,545
No. 3 Annexation of 1969	10-17-69	280,490	202,470
San Diego Irrigation District	12-13-48	187,100	93,096
No. 1 Annexation of 1959	9-15-59	71,820	47,856
Santa Fe Irrigation District	12-13-48	167,000	66,941
South Bay Irrigation District			
(not including City of Chula Vista)	11- 3-52	440,370	196,200
Valley Center M.W.D.	5- 9-55	206,640	107,586
No. 1 Annexation of 1969	12-12-69	23,700	24,513
No. 2 Annexation of 1967	12- 4-67	22,000	23,193
No. 3 Annexation of 1967	12- 4-67	502,000	538,629*
Yuma M.W.D.	12-16-63	740,430	599,540
No. 1 Annexation of 1967	11-27-67	72,200	72,200*
No. 2 Annexation of 1969	11-28-69	14,400	14,400
Total		\$36,613,329	\$13,221,621

*Greater than original annexation charge due to special assessment at maximum tax rate of 15¢/\$100, is less than interest on annexation charge.

TABLES

Table 21

WATER SALES BY METROPOLITAN WATER DISTRICT

Fiscal Years 1941-42 to 1969-70

Year	To Member Municipalities						Total
	Natural Water		Treated Water		Total to Agencies	To Others	
	Acre feet	Per cent	Acre feet	Per cent	Acre feet	Acre feet	
1941-42	0	0	9,372.6	100	9,372.6	70.7	9,443.3
1942-43	0	0	14,457.8	100	14,457.8	2,626.4	17,084.2
1943-44	0	0	15,874.9	100	15,874.9	3,301.8	19,176.7
1944-45	0	0	30,591.3	100	30,591.3	1,715.7	32,307.0
1945-46	0	0	46,685.8	100	46,685.8	1,264.2	47,950.0
1946-47	0	0	59,861.8	100	59,861.8	524.0	60,385.8
1947-48	41,093.5	36	71,995.4	64	113,088.9	116.8	113,255.7
1948-49	71,642.6	49	73,237.1	51	144,879.7	128.4	145,008.1
1949-50	69,308.0	49	72,936.0	51	142,244.0	23,371.6	165,615.6
1950-51	75,000.9	54	63,493.1	46	138,494.0	26,978.6	165,472.6
1951-52	66,674.3	44	84,616.1	56	151,290.4	42,464.2	193,754.6
1952-53	30,845.3	24	99,589.6	76	130,434.9	31,682.4	162,117.3
1953-54	120,773.0	51	115,550.6	49	236,323.6	7,820.7	244,144.3
1954-55	192,544.7	59	134,923.3	41	327,468.0	58,184.5	385,652.5
1955-56	190,337.2	53	169,506.4	47	359,843.6	45,562.9	405,406.5
1956-57	286,059.1	60	191,110.7	40	477,169.8	66,074.1	543,243.9
1957-58	266,024.1	57	197,900.0	43	463,924.1	75,612.8	539,536.9
1958-59	244,354.2	46	282,248.1	54	526,602.3	74,107.1	600,709.4
1959-60	425,019.0	58	304,874.8	42	729,893.8	3,523.2	733,417.0
1960-61	594,521.1	64	335,207.2	36	929,728.3	4,099.4	933,827.7
1961-62	698,811.0	66	312,975.9	34	921,786.9	3,676.9	925,463.8
1962-63	668,881.8	66	348,092.6	34	1,016,974.4	3,677.0	1,020,651.4
1963-64	671,853.4	63	388,553.9	37	1,060,407.3	3,776.7	1,064,184.0
1964-65	645,577.3	58	471,042.0	42	1,116,619.3	5,036.3	1,121,655.6
1965-66	550,630.8	52	503,424.9	48	1,054,055.7	4,821.8	1,058,877.5
1966-67	523,141.2	50	531,659.7	50	1,054,800.9	4,513.0	1,059,313.9
1967-68	514,248.1	48	557,730.9	52	1,071,979.0	4,934.9	1,076,913.9
1968-69	455,174.3	43	599,237.7	57	1,054,412.0	2,232.4	1,056,644.4
1969-70	482,256.9	41	682,846.4	59	1,165,103.3	650.0	1,165,753.3

SAN DIEGO COUNTY WATER AUTHORITY

Table 22
 WATER PRODUCTION - METROPOLITAN WATER DISTRICT CONSTITUENT AREAS
 Figures Furnished by Metropolitan Water District

Constituent Areas	Total Water Production			Source of Water Produced - 1969-70				
	1969-69	1969-70	Percent Increase or Decrease	M. W. D.		Other		
	Amount ac. ft.	Amount ac. ft.		Amount ac. ft.	Percent of Total	Amount ac. ft.	Percent of Total	
Anaheim	36,797	34,829	-5.1	(b)	3,294	27	26,535	73
Beverly Hills	52,663	34,825	35.5		7,766	53	6,859	47
Burbank	25,225	26,820	6.3		13,905	52	12,915	48
Calleguas M. W. D.	74,239	74,810	0.8	(c)	27,940	37	46,870	63
Central Basin M. W. D.	213,513	228,350	6.9	*	63,938	29	164,412	71
Chino Basin M. W. D.	133,345	182,263	5.8		7,263	4	155,000	96
Coastal M. W. D.	26,528	22,418	6.2		22,260	96	1,158	4
Coyotes	8,384	9,270	10.6		3,259	36	6,011	65
Eastern M. W. D.	97,588	111,691	14.4		21,198	28	89,493	72
Foothill M. W. D.	14,930	16,307	16.6		8,124	59	8,233	50
Fullerton	23,436	26,636	11.4		12,627	59	12,408	50
Glendale	22,624	24,685	9.0		16,589	63	14,365	57
Las Virgenes M. W. D.	5,262	6,654	26.5		6,584	99	70	1
Long Beach	66,712	66,269	1.0		28,135	54	26,264	44
Los Angeles	545,953	592,665	8.5		*146,779	25	445,827	75
Orange County M. W. D.	204,723	252,768	23.5	(d)	*101,768	40	151,000	60
Pasadena	32,521	36,226	9.2		15,262	43	20,261	57
Pomona Valley M. W. D.	69,592	79,987	14.9		16,186	19	64,882	81
San Diego C. W. A.	284,182	218,628	12.5	(e)	*242,989	76	77,151	34
San Marino	4,679	4,653	-0.6		0	0	4,653	100
Santa Ana	24,669	27,154	10.1		10,922	40	16,232	60
Santa Monica	16,941	17,070	0.8		10,576	62	6,594	38
Terrace	22,110	23,983	8.4		18,817	83	4,346	17
Upper San Gabriel Valley								
M. W. D.	168,064	183,247	9.1		327	0	182,920	100
West Basin M. W. D.	161,667	175,625	8.6		*127,662	78	47,963	27
Western M. W. D.	196,383	215,740	9.9		* 28,740	12	187,000	87
Totals	2,514,260	2,764,376	9.9		951,427	36	1,772,951	64

NOTES: (a) Includes 4,292 acre-feet of seepage into San Jacinto Tunnel.
 (b) Does not include 8,565 acre-feet delivered by M. W. D. of Orange County.
 (c) Includes 3,794 acre-feet delivered from storage.
 (d) Does not include 1,589 acre-feet delivered by Coastal M. W. D.
 (e) Includes 16,436 acre-feet delivered from storage.
 * Does not include water delivered for replenishment purposes.



SAN DIEGO COUNTY WATER AUTHORITY

2750 FOURTH AVENUE
SAN DIEGO, CALIFORNIA 92103

Telephone 597-5118 — Area Code 714

November 4, 1970

BOARD OF DIRECTORS
FRANK A. HALLIDAY, CHAIRMAN
R. E. BISHOP, VICE CHAIRMAN
WALTER H. DICK, SECRETARY

LINDEN R. BURSSELL,
GENERAL MANAGER
AND CHIEF ENGINEER
WILLIAM H. JENNINGS,
GENERAL COUNSEL

Mr. L. R. Bursell
General Manager and Chief Engineer
San Diego County Water Authority
2750 Fourth Avenue
San Diego, California 92103

Dear Mr. Bursell:

The San Diego County Water Authority's financial position, the results of operations and supporting data are summarized in the accompanying financial report for the year ended June 30, 1970.

Construction of Phase I on the fourth pipeline is in progress. The contractor, Vido Artukovich and Sons Construction Company, has completed 64% of the \$7,779,352 contract for installation of 55,884 feet of 90-inch prestressed concrete cylinder pipe.

The contract for Phase II has been awarded to the low bidder, Hood Corporation, for the installation of 59,000 feet of 96-inch steel cement mortared lined and coated pipe. Installation of pipe commenced in August 1970. This \$5,950,024 contract is scheduled for completion late in the year 1972.

The final segment, Phase III, will be about 64,300 feet of 96-inch pipe and currently is in the design stage. The bid opening is scheduled for summer of 1971. The completion date of the fourth pipeline is scheduled for two years thereafter.

The San Diego County Water Authority staff handles the design, preparation of specifications rights of way acquisitions and all contract administration. The cost of this portion of the work is combined with contract costs and the totals are shown in Schedule 3.

The financial position of the Water Authority continues sound and strong. Construction of the fourth pipeline is financed from the sale of \$30,000,000 Waterworks Bonds sold for that purpose on October 15, 1968, at the net effective interest rate of 4.8565%. Bonded debt is shown in Schedule 5. The operating fund surcharge of \$1.25 per acre foot of water sold continues to be adequate and will be in effect during fiscal year 1970-71.

Very truly yours,

Henry G. Casano
Henry G. Casano
Chief Accounting Officer

PEAT, MARWICK, MITCHELL & Co.

CERTIFIED PUBLIC ACCOUNTANTS

800 FIFTH AVENUE

SAN DIEGO, CALIFORNIA 92101

The Board of Directors
San Diego County Water Authority:

We have examined the balance sheet of the San Diego County Water Authority as of June 30, 1970, and the related statements of income and changes in reserves, equity, and fund balances for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying balance sheet and statements of income and changes in reserves, equity and fund balances present fairly the financial position of the San Diego County Water Authority at June 30, 1970, and the results of its operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year. The current year's supplementary data included in Schedules 1 to 7 have been subjected to the same auditing procedures and, in our opinion, are stated fairly in all material respects when considered in conjunction with the basic financial statements taken as a whole.

Peat, Marwick, Mitchell & Co.

October 15, 1970

MEMBER AGENCIES

CITIES	IRRIGATION DISTRICTS	PUBLIC UTILITY DISTRICTS	MUNICIPAL WATER DISTRICTS
DEL MAR ENCINITAS NATIONAL CITY OCEANSIDE SAN DIEGO	DELTA SAN DIEGO SANTA FE SOUTH BAY	FULLERTON	BUENOS AIRES CHALABAN GLYNNDALE STANT TOWAY
			BAHAMA BAYVIEW DEL MAR DEL MAR BEACH VALLEY CENTER YUMA

SAN DIEGO COUNTY WATER AUTHORITY

Exhibit A
Balance Sheet

June 30, 1970
with comparative figures for 1969

Liabilities, Reserves, Equity and Fund Balances	1970	1969
General fund:		
Current liabilities:		
Accounts payable	\$ 2,252,917	1,230,351
Unapplied credits for irrigation water	114,811	81,144
Advances by agencies for construction	7,397	51,584
Deposits by agencies for annexation	1,000	2,000
Total current liabilities - general fund	<u>2,376,125</u>	<u>1,365,079</u>
Special funds:		
Current liabilities:		
Current installments of long-term debt (note 3)	2,647,519	2,665,488
Matured bond principal and interest payable	24,890	20,577
Accounts payable	914,467	3,223
Total current liabilities - special funds	<u>3,586,876</u>	<u>2,689,288</u>
Total current liabilities	<u>5,963,001</u>	<u>4,054,367</u>
Long-term debt, excluding current installments (note 3):		
General obligation bonds payable - not due	61,060,000	62,105,000
Balance on U.S. Government contracts	12,224,059	13,103,088
Balance of annexation charges - Metropolitan Water District	<u>12,497,530</u>	<u>12,632,586</u>
Total long-term debt	<u>85,781,589</u>	<u>87,840,674</u>
Reserves, equity and fund balances:		
Reserves:		
Equity in property, plant, equipment and participation rights (note 4)	42,767,784	29,567,982
Fund balances:		
Appropriated:		
Unappropriated:		
Invested in water in storage	721,048	827,473
Invested in materials and supplies	2,274	2,283
Invested in prepaid expenses	3,753	4,390
Available for appropriations	<u>2,323,637</u>	<u>1,727,309</u>
Total unappropriated fund balance	<u>3,050,712</u>	<u>2,561,346</u>
Total reserves, equity and fund balances	<u>81,519,533</u>	<u>71,901,408</u>
	<u>\$ 173,264,123</u>	<u>165,796,449</u>

FINANCIAL REPORT

Exhibit A

Balance Sheet

June 30, 1970
with comparative figures for 1969

Assets	1970	1969
General fund (note 2):		
Current assets:		
Cash with treasurer	\$ 1,781,117	918,848
Imprest cash	300	300
Investments, at cost (market value 1970 - \$1,704,642)	1,688,975	1,499,523
Interest receivable	59,191	37,213
Accounts receivable	1,175,101	735,408
Current installments of other receivables	110,024	135,202
Inventory of water in storage, at cost (first-in, first-out)	721,048	827,473
Inventory of materials and supplies	2,274	2,283
Prepaid expenses	3,753	4,391
Total current assets - general fund	<u>5,261,783</u>	<u>4,160,641</u>
Other receivables, long-term:		
Notes	391,419	501,444
Annexation charges	98,342	129,089
	490,368	630,533
Less current installments (above)	<u>110,024</u>	<u>135,201</u>
Net other receivables, long-term	<u>380,344</u>	<u>495,332</u>
Total general fund	<u>5,642,127</u>	<u>4,655,973</u>
Special funds (note 2):		
Debt service reserve funds:		
Cash with treasurer	401,807	148,672
Interest receivable	6,693	11,038
Investments, at cost (market value 1970, \$495,608)	491,500	740,292
Waterworks bonds, debt service funds:		
Cash with treasurer	301,202	91,793
Cash with fiscal agent	24,890	20,576
Investments, at cost (market value 1970, \$524,019)	517,948	384,044
Interest receivable	140,572	313,220
U.S. Government contract funds:		
Cash with treasurer	42	746
Investments, at cost (market value 1970, \$18,940)	17,800	24,446
Interest receivable	128	1,345
Due from Metropolitan Water District (note 3)	6,979,412	7,436,214
Waterworks bonds, improvement funds:		
Cash with treasurer	14,347,504	18,081,585
Investments, at cost (market value 1970, \$13,040,501)	<u>12,915,606</u>	<u>13,812,361</u>
Total special funds	<u>36,145,104</u>	<u>41,066,332</u>
Property, plant, equipment and participation rights at cost:		
Property, plant and equipment	56,100,408	55,998,108
Less accumulated depreciation	<u>7,198,664</u>	<u>6,600,518</u>
Net property, plant and equipment	48,901,744	49,397,590
Construction work in progress	7,619,175	673,858
Participation rights in Metropolitan Water District	<u>24,675,973</u>	<u>20,002,696</u>
Net property, plant, equipment and participation rights	<u>131,196,892</u>	<u>120,074,144</u>
	<u>\$ 173,264,123</u>	<u>165,796,449</u>

See accompanying notes to financial statements.

SAN DIEGO COUNTY WATER AUTHORITY

FINANCIAL REPORT

Exhibit B
Statement of Changes in Reserves, Equity and Fund Balances
Year ended June 30, 1970

	Total
Balances at July 1, 1969	\$ 73,901,408
Additions (deductions):	
Net income	1,285,591
Reduction in reserve for notes receivable	(110,024)
Taxes and direct payments by member agencies to Metropolitan Water District	4,921,302
Expenditures for property, plant and equipment:	
From Authority funds	-
From advances by member agencies	43,540
Increase in annexation charges	7,000
Waterworks bonds redeemed	-
Balance due on U.S. Government contracts:	
Payments	-
Interest capitalized during construction	1,470,716
Cash transfers	-
Net additions (deductions)	7,618,125
Balances at June 30, 1970	\$ 81,519,533
Analysis of reserves, equity and fund balances at June 30, 1970:	
Reserves for:	
Notes receivable	391,420
Annexation charges receivable	98,949
Encumbrances	11,742,001
Debt redemption	7,957,105
Total reserves	20,189,475
Equity in property, plant, equipment and participation rights	42,767,784
Fund balances:	
Incomplete projects (continuing appropriations)	1,815,440
Other appropriated	13,696,122
Total appropriated	15,511,562
Unappropriated	3,050,712
Total fund balances	18,562,274
	\$ 81,519,533

Exhibit B
Statement of Changes in Reserves, Equity and Fund Balances
Year ended June 30, 1970

	General	Debt service reserve	Waterworks bonds debt service	U.S. Government contract	Waterworks bonds improvement	Equity in property, plant, equipment and participation rights
Balances at July 1, 1969	3,290,894	900,000	789,058	7,462,752	31,890,722	29,567,982
Additions (deductions):						
Net income	341,857	48,255	1,120,664	413,660	-	(638,845)
Reduction in reserve for notes receivable	(110,024)	-	-	-	-	-
Taxes and direct payments by member agencies to Metropolitan Water District	-	-	-	-	-	4,921,302
Expenditures for property, plant and equipment:						
From Authority funds	(31,980)	-	-	-	(5,542,080)	5,574,060
From advances by member agencies	-	-	-	-	-	43,540
Increase in annexation charges	7,000	-	-	-	-	-
Waterworks bonds redeemed	-	-	(950,000)	-	-	950,000
Balance due on U.S. Government contracts:						
Payments	-	-	-	(879,029)	-	879,029
Interest capitalized during construction	1,470,716	-	-	-	-	1,470,716
Cash transfers	-	-	-	-	-	-
Net additions (deductions)	48,255	(48,255)	-	-	-	-
	255,108	-	170,664	(465,369)	(5,542,080)	13,199,802
Balances at June 30, 1970	3,546,002	900,000	959,722	6,997,383	26,348,642	42,767,784
Analysis of reserves, equity and fund balances at June 30, 1970:						
Reserves for:						
Notes receivable	391,420	-	-	-	-	-
Annexation charges receivable	98,949	-	-	-	-	-
Encumbrances	11,742,001	-	-	-	-	-
Debt redemption	-	-	959,722	6,997,383	11,742,001	-
Total reserves	20,189,475	-	959,722	6,997,383	11,742,001	-
Equity in property, plant, equipment and participation rights	42,767,784	-	-	-	-	42,767,784
Fund balances:						
Incomplete projects (continuing appropriations)	1,815,440	4,621	-	-	1,810,819	-
Other appropriated	13,696,122	300	900,000	-	12,795,822	-
Total appropriated	15,511,562	4,921	900,000	-	14,606,641	-
Unappropriated	3,050,712	-	-	-	-	-
Total fund balances	18,562,274	3,055,633	900,000	-	14,606,641	-
	3,546,002	900,000	959,722	6,997,383	26,348,642	42,767,784

See accompanying notes to financial statements.

SAN DIEGO COUNTY WATER AUTHORITY

FINANCIAL REPORT

Exhibit C
Statement of Income - All Funds
Year ended June 30, 1970
with comparative figures for 1969

	1970	1969
Operating income:		
Water sales less irrigation credits \$1,125,439 (\$1,167,981 for 1969)	\$ 2,034,964	8,191,503
Cost of sales:		
Water in storage at beginning of year	827,473	431,842
Water purchased less irrigation credits \$1,125,439 (\$1,167,981 in 1969)	8,276,303	8,289,238
Water in storage at end of year	9,403,774	8,712,760
	<u>721,048</u>	<u>827,473</u>
Cost of sales	8,682,726	7,885,287
Gross margin from water sales	352,238	306,216
Overhead reimbursement for engineering services	2,675	26,063
Gross operating income	354,913	332,279
Operating expense	<u>364,430</u>	<u>308,007</u>
Net operating income (loss) before depreciation	(9,517)	24,272
Depreciation expense on straight-line method	<u>622,165</u>	<u>626,364</u>
Net operating income (loss)	(631,682)	(602,092)
Nonoperating income:		
Property taxes including in-lieu taxes, penalties, etc. and excluding \$37,139 (\$37,044 for 1969) collected on annexation charges receivable	2,195,155	2,129,510
Interest income	2,522,750	1,697,380
Net awards during year on lawsuits against pipe manufacturers for price fixing including interest of \$47,974	157,998	455,434
Miscellaneous	<u>5,336</u>	<u>2,790</u>
Total nonoperating revenue	4,881,239	4,285,114
	<u>4,249,557</u>	<u>3,683,022</u>
Nonoperating expense:		
Interest expense	2,954,863	2,149,910
Miscellaneous	<u>9,103</u>	<u>12,261</u>
Total nonoperating expense	2,963,966	2,162,171
Net income	\$ 1,285,591	1,522,851
Fund analysis:		
General	341,857	617,566
Debt service reserve	48,255	45,844
Waterworks bonds debt service	1,120,664	1,069,496
U.S. Government contract	413,660	427,805
Waterworks bonds improvements	-	5,400
Equity in property, plant, equipment and participation rights	<u>(638,845)</u>	<u>(643,260)</u>
	\$ 1,285,591	1,522,851

See accompanying notes to financial statements.

Notes to Financial Statements

June 30, 1970

(1) Principles of Accounting

The financial statements of the Authority are prepared from accounting records kept on a modified accrual basis. In general, income is recorded when earned and expenses are recorded upon incurrence of liability, except accrued interest on outstanding indebtedness, which is payable from appropriations of the following year. If accrued interest were recorded the net income for the year would have been reduced by approximately \$15,000 and total of the reserves, equity and fund balances at June 30, 1970 would have been reduced by approximately \$880,000.

(2) Taxes Receivable

Uncollected taxes receivable are fully reserved and are not included in the accompanying financial statements. The outstanding balance at June 30, 1970 includes \$60,901, due for homeowners and business inventory tax relief. The fund analysis of taxes receivable is as follows:

	1970	1969
General fund	\$ 5,550	3,283
Waterworks bonds, debt service funds	73,580	21,728
U.S. Government contract fund	<u>24,833</u>	<u>9,125</u>
Total taxes receivable	\$ 103,963	34,136

(3) Long-Term Debt

(a) General obligation bonds payable - not due:

Description	Rate of Interest	Maturity dates	Outstanding balance	
			Current portion	Long-term portion
Waterworks bonds, 1947	2%	January 1, 1971	\$ 100,000	-
Waterworks bonds, 1957	1 $\frac{1}{2}$ -6%	February 1, 1971-1994	560,000	31,815,000
Waterworks bonds, 1966	4 $\frac{1}{2}$ -5 $\frac{1}{2}$ %	October 1, 1970-2003	<u>385,000</u>	<u>29,245,000</u>
			\$ 1,045,000	61,060,000

All bonds mature in annual installments as detailed in Schedule 5. Interest is payable semiannually.

SAN DIEGO COUNTY WATER AUTHORITY

FINANCIAL REPORT

Notes to Financial Statements, Continued

(b) The balances due the U.S. Government as of June 30, 1970 were as follows:

	Interest rate	Principal balance	Current portion
Authority's share:			
First pipeline	None	\$ 1,861,049	250,000
Second pipeline	2.999%	<u>4,262,627</u>	<u>172,227</u>
		<u>6,123,676</u>	<u>422,227</u>
Metropolitan Water District's share:			
First pipeline	None	1,861,049	250,000
Second pipeline	2.999%	<u>5,118,363</u>	<u>206,802</u>
		<u>6,979,412</u>	<u>456,802</u>
Total		<u>\$ 13,103,088</u>	<u>879,029</u>

(c) Balance of annexation charges due to Metropolitan Water District at June 30, 1970 was \$13,221,020 of which the current portion was \$723,490.

The total current portion of long-term debt set forth above at June 30, 1970 was \$2,647,519. (Bonds \$1,045,000 - U.S. Govt. \$879,029 - Annex charges \$723,490)

(4) Equity in Property, Plant, Equipment and Participation Rights

The equity in property, plant, equipment and participation rights is summarized in the following table:

	1970	1969
Property, plant and equipment:		
Financed by:		
General obligation bonds	\$ 34,253,136	34,228,068
U.S. Government contract	14,873,408	14,873,407
Current revenues	6,174,907	6,366,949
Agencies contributions	<u>798,957</u>	<u>729,684</u>
	56,100,408	55,998,108
Less accumulated depreciation	<u>7,198,664</u>	<u>6,600,518</u>
	48,901,744	49,397,590
Construction work in progress	7,619,175	673,858
Participation rights in Metropolitan Water District	<u>74,675,973</u>	<u>70,002,696</u>
	<u>131,196,892</u>	<u>120,074,144</u>
Less:		
Current installments of long-term debt	2,647,519	2,665,488
Long-term debt excluding current installments	<u>85,781,589</u>	<u>87,840,474</u>
	<u>88,429,108</u>	<u>90,506,162</u>
Equity in property, plant, equipment and participation rights	<u>\$ 42,767,784</u>	<u>29,567,982</u>

Schedule 1
Operating Expense

Year ended June 30, 1970
with comparative figures for 1969

	1970	1969
Water treatment:		
Labor	\$ 1,995	1,502
Chlorine	31,235	38,038
Power usage - chlorination	4,415	3,696
Chlorine equipment maintenance	847	2,834
Other	<u>1,224</u>	<u>886</u>
Total water treatment	<u>39,716</u>	<u>46,956</u>
Transmission and distribution:		
Supervision labor and expense:		
Salaries chargeable to other accounts	3,199	2,874
System operations	25,274	23,278
Overtime compensation	2,618	2,269
Operations office expense	5,432	5,894
Radio repair and maintenance	758	1,609
Office utilization	3,575	3,480
Telephone	1,394	1,394
Telemetering	5,483	5,092
Control station utilities	798	656
Other	<u>1,726</u>	<u>602</u>
Total supervision labor and expense	<u>50,257</u>	<u>47,148</u>
Maintenance of structures and plant:		
Salaries chargeable to other accounts	6,365	5,553
Maintenance supervision	7,495	6,138
Overtime compensation	1,866	1,733
Patrolling aqueducts	5,054	4,714
Pipeline - first aqueduct	1,056	3,173
Pipeline - second aqueduct	989	1,535
Pipeline - crossover	207	649
Fallbrook-Oceanside line	2,589	1,552
Line structures	3,782	2,145
Control buildings	3,948	3,090
Buildings and grounds - Escondido	6,162	5,514
Access roads	11,226	14,264
Valve greasing and repairs	6,477	4,010
Meter and controls	2,626	2,950
Telemetering	1,315	906
Uniforms	908	926
Meter reading	1,070	828
Other	<u>5,252</u>	<u>11,086</u>
Total maintenance of structures and plant	<u>68,394</u>	<u>70,766</u>
Total transmission and distribution	<u>118,651</u>	<u>117,914</u>
Operating expense, carried forward	<u>158,367</u>	<u>164,870</u>

SAN DIEGO COUNTY WATER AUTHORITY

FINANCIAL REPORT

Schedule 1, Cont.
Operating Expense, Continued

	1970	1969
Operating expense, brought forward	\$ 158,367	164,870
Administrative and general:		
Salaries:		
Salaries chargeable to other accounts	6,130	7,273
Engineering department	53,173	44,827
Accounting department	22,324	21,783
Stenographic department	17,364	14,069
Total salaries	98,891	87,952
Other expense and supplies:		
Legal services	12,000	12,000
Public relations	6,044	6,001
Expense of directors	6,801	5,268
Expense of staff	3,916	3,105
Audit fee	3,500	3,376
Utilities	1,508	1,499
Telephone	2,578	2,057
Postage	1,453	1,465
Annual report	2,327	2,304
Printing, binding and reproduction	2,661	2,044
Trust fees	5,264	3,628
Memberships and subscriptions	3,061	1,766
Protection of Colorado River rights	1,896	3,120
Maintenance of office equipment	848	866
Maintenance of San Diego office	2,427	2,252
Office supplies	2,288	1,543
Insurance	9,672	7,690
Employees retirement and benefits	52,465	42,153
Rights-of-way identification	1,947	2,218
Miscellaneous	5,462	1,303
Total other expenses and supplies	128,118	105,658
Total administration and general	227,009	193,610
Other operating expense:		
Auto and truck maintenance	18,219	16,339
Construction equipment maintenance	2,987	4,215
Small tools and equipment	958	1,781
Repairs to small equipment	706	569
Supplies and operation of shop	748	913
Miscellaneous	52	202
Total other operating expense	23,677	24,019
Grand total	409,053	382,499
Less portion charged to property and equipment and other accounts	(44,623)	(74,432)
Total operating expense	\$ 364,430	308,067

Schedule 2
Revenues
Year ended June 30, 1970

	Estimated	Actual	Actual over or (under) estimate
Water sales	\$ 8,973,000	9,031,964	61,964
Overhead reimbursement for engineering services:			
Metropolitan Water District	-	765	765
County of San Diego - mapping	-	255	255
Filtration study group	-	9	9
Vista Irrigation District	-	1,647	1,647
		2,676	2,676
Property taxes including in-lieu taxes, penalties, etc.:			
Taxes, secured, current levy	934,216	925,598	(8,618)
Taxes, unsecured, current levy	58,022	62,365	4,343
Taxes, secured, prior years' levy	37,750	23,739	(14,011)
Taxes, unsecured, prior years' levy	1,971	97	(1,874)
Penalties and interest on delinquent taxes	4,650	2,997	(1,653)
Receipts in lieu of taxes - City of San Diego	1,160,436	1,160,436	-
Receipts in lieu of taxes - other	-	1,664	1,664
State - homeowners and business inventory tax relief	116,299	55,397	(60,902)
	2,313,344	2,232,293	(81,051)
Other budgeted revenue:			
Earnings on investments	1,478,000	2,386,365	908,365
Proceeds from sale of pipeline	10,000	10,000	-
Rentals	430	430	-
Contract payments from Metropolitan Water District including interest of \$136,385	993,188	993,188	-
Proceeds from price fixing suit, including interest of \$47,974	85,000	157,998	72,998
Miscellaneous	-	3,605	3,605
Total revenues	\$ 13,452,962	14,421,519	968,557
Reconciliation of net revenues with net income:			
Total revenues			14,421,519
Total expenditures (Schedule 3)			12,298,452
Net revenues (loss)			(4,876,933)
Additions:			
Bond redemptions		950,000	
Payments on U.S. Government contracts - Authority share		422,227	
Expenditures for property, plant and equipment		5,574,060	6,946,287
			2,069,354
Deductions:			
Depreciation		622,165	
Collections on annexation charges receivable		37,139	
Decrease in inventory of water in storage		106,425	
Other net		18,034	783,763
Net income			\$ 1,285,991

SAN DIEGO COUNTY WATER AUTHORITY

Schedule 3
Appropriations and Expenditures
Year ended June 30, 1970

	Prior year's appropriations carried over	Appropriations
Budget for year ended June 30, 1970:		
General fund	\$ -	9,109,600
Waterworks bonds, debt service funds	-	3,654,895
U. S. Government contract fund	-	1,128,999
Work orders:		
<u>No.</u>	<u>Purpose</u>	
258	Engineering services for Metropolitan Water district less reimbursement	93,500 -
259	Phase 1 second pipeline, second San Diego aqueduct	8,536,490 -
268	Installation of eight telemetry and supervisory control units	1,516 -
270	Rio San Diego MWD service connection No. 5 at station 100+80	712 -
271	Phase 2 second pipeline, second San Diego aqueduct	368,774 9,919,500
273	Phase 3 second pipeline, second San Diego aqueduct	185,136 85,000
276	Addition to Valley Center No. 5, at station 1367+57	16,704 -
277	Addition to Valley Center No. 3, at station 2139+06	6,782 -
278	Construction of San Diego No. 7, at station 5207+90	21,997 -
279	Addition to Rincon del Diablo No. 2, at station 746+70	2,011 -
280	Revision to Otay No. 1, at station 248+50	2,336 -
280-4	Revision to Otay No. 1, at station 248+50 (authority financed)	2,814 -
281	Addition to South Bay No. 1, at station 4800+99	1,441 -
283	Pipe relocation for Highway 94	- 6,200
284	Construction of Rio San Diego No. 3, at station 223+95	- 650
24124	Tuina telemetering	- 1,380
		9,239,813 23,906,224
less advances by member agencies	51,583	2,030
Total	\$ 9,188,230	23,904,194

FINANCIAL REPORT

Schedule 3
Appropriations and Expenditures
Year ended June 30, 1970

Year ended June 30, 1970	Balances at June 30, 1970				
	Expenditures	Cancelled appropriations	Unexpended appropriations	Encumbrances	Unencumbered balance
	8,968,086	141,514	-	-	-
	3,654,895	-	-	-	-
	1,128,999	-	-	-	-
	5,106	93,500	-	-	-
	(5,106)				
	5,183,109	-	3,353,381	2,791,978	561,403
	-	1,516	-	-	-
	327	385	-	-	-
	317,624	-	9,970,650	8,950,024	1,020,626
	41,347	-	228,789	-	228,789
	16,292	412	-	-	-
	6,351	431	-	-	-
	14,692	-	6,905	-	6,905
	1,647	364	-	-	-
	2,336	-	-	-	-
	1,451	-	1,362	-	1,362
	436	1,005	-	-	-
	2,942	-	3,258	-	3,258
	571	79	-	-	-
	887	-	493	-	493
	19,341,992	239,206	13,564,838	11,742,002	1,822,836
	43,540	2,676	7,396	-	7,396
	19,298,452	236,530	13,557,442	11,742,002	1,815,440

Schedule 4
Property, Plant and Equipment
and Accumulated Depreciation

Year ended June 30, 1970

	Cost		
	Balance <u>July 1, 1969</u>	Additions, net of <u>retirements</u>	Balance <u>June 30, 1970</u>
First San Diego aqueduct	\$ 15,409,383	48,793	15,518,176
Second San Diego aqueduct	37,545,174	2,786	37,547,960
La Mesa Sweetwater extension	1,465,909	19,886	1,485,795
Fallbrook Oceanside line	702,776	(21,070)	681,706
San Diego headquarters	179,102	-	179,102
Escondido headquarters	393,945	(2,648)	391,297
Furniture and fixtures	24,491	101	24,592
Office equipment	26,353	(2,945)	23,408
Engineering equipment	7,362	(68)	7,294
Automotive equipment	119,944	3,044	122,988
Telemetering equipment	15,624	52,892	68,516
Miscellaneous equipment	<u>48,065</u>	<u>1,529</u>	<u>49,594</u>
Totals	\$ <u>55,998,108</u>	<u>102,300</u>	<u>56,100,408</u>

Schedule 4
Property, Plant and Equipment
and Accumulated Depreciation

Year ended June 30, 1970

	Accumulated depreciation			Cost less	
	Balance <u>July 1, 1969</u>	Additions, net of <u>retirements</u>	Balance <u>June 30, 1970</u>	<u>accumulated depreciation</u> <u>1970</u>	<u>1969</u>
	2,689,045	154,347	2,843,392	12,674,784	12,780,338
	3,251,363	406,446	3,657,809	33,890,151	34,293,811
	302,999	14,884	317,883	1,167,912	1,162,910
	146,638	2,381	149,019	532,687	556,138
	29,537	2,932	32,469	146,633	149,565
	25,324	9,792	35,116	356,181	368,621
	14,655	2,386	17,041	7,551	9,836
	17,414	(1,880)	15,534	7,874	8,939
	5,583	529	6,112	1,182	1,779
	87,451	2,960	90,411	32,577	32,493
	393	668	1,062	67,454	15,231
	<u>30,116</u>	<u>2,700</u>	<u>32,816</u>	<u>16,758</u>	<u>17,929</u>
Totals	<u>6,600,518</u>	<u>998,145</u>	<u>7,198,664</u>	<u>48,901,744</u>	<u>49,397,990</u>

SAN DIEGO COUNTY WATER AUTHORITY

FINANCIAL REPORT

Schedule 5
Bonded Debt Maturities

June 30, 1970

Year ended June 30,	Waterworks bonds, 1967			Waterworks bonds, 1957		
	Principal	Interest	Total	Principal	Interest	Total
1971	\$ 100,000	1,000	101,000	560,000	1,204,580	1,764,580
1972	-	-	-	690,000	1,176,380	1,866,380
1973	-	-	-	770,000	1,145,705	1,915,705
1974	-	-	-	830,000	1,111,505	1,941,505
1975	-	-	-	890,000	1,078,425	1,968,425
1976	-	-	-	970,000	1,043,625	2,013,625
1977	-	-	-	1,070,000	1,005,600	2,075,600
1978	-	-	-	1,140,000	963,525	2,103,525
1979	-	-	-	1,195,000	918,435	2,113,435
1980	-	-	-	1,260,000	870,910	2,130,910
1981	-	-	-	1,330,000	825,615	2,155,615
1982	-	-	-	1,400,000	778,090	2,178,090
1983	-	-	-	1,470,000	727,070	2,197,070
1984	-	-	-	1,540,000	673,475	2,213,475
1985	-	-	-	1,620,000	617,305	2,237,305
1986	-	-	-	1,680,000	557,640	2,237,640
1987	-	-	-	1,740,000	495,775	2,235,775
1988	-	-	-	1,815,000	431,492	2,246,492
1989	-	-	-	1,880,000	364,420	2,244,420
1990	-	-	-	1,960,000	294,700	2,254,700
1991	-	-	-	2,040,000	222,012	2,262,012
1992	-	-	-	2,100,000	146,357	2,246,357
1993	-	-	-	2,165,000	68,417	2,233,417
1994	-	-	-	260,000	8,840	268,840
1995	-	-	-	-	-	-
1996	-	-	-	-	-	-
1997	-	-	-	-	-	-
1998	-	-	-	-	-	-
1999	-	-	-	-	-	-
2000	-	-	-	-	-	-
2001	-	-	-	-	-	-
2002	-	-	-	-	-	-
2003	-	-	-	-	-	-
2004	-	-	-	-	-	-
	<u>\$ 100,000</u>	<u>1,000</u>	<u>101,000</u>	<u>32,375,000</u>	<u>16,729,898</u>	<u>49,104,898</u>

Schedule 5
Bonded Debt Maturities

June 30, 1970

Waterworks bonds, 1966			Total		
Principal	Interest	Total	Principal	Interest	Total
385,000	1,449,952	1,834,952	1,045,000	2,655,532	3,700,532
400,000	1,428,365	1,828,365	1,090,000	2,604,745	3,694,745
420,000	1,405,815	1,825,815	1,190,000	2,551,520	3,741,520
440,000	1,382,165	1,822,165	1,270,000	2,493,670	3,763,670
460,000	1,357,415	1,817,415	1,350,000	2,435,840	3,785,840
480,000	1,331,565	1,811,565	1,450,000	2,375,190	3,825,190
500,000	1,304,615	1,804,615	1,570,000	2,310,215	3,880,215
525,000	1,276,427	1,801,427	1,665,000	2,239,952	3,904,952
545,000	1,247,002	1,792,002	1,740,000	2,165,437	3,905,437
570,000	1,216,340	1,786,340	1,830,000	2,087,250	3,917,250
595,000	1,184,302	1,779,302	1,925,000	2,009,917	3,934,917
625,000	1,153,877	1,778,877	2,025,000	1,931,967	3,956,967
650,000	1,125,190	1,775,190	2,120,000	1,852,260	3,972,260
680,000	1,094,415	1,774,415	2,220,000	1,767,890	3,987,890
710,000	1,061,402	1,771,402	2,330,000	1,678,707	4,008,707
745,000	1,026,846	1,771,846	2,425,000	1,584,486	4,009,486
775,000	990,746	1,765,746	2,515,000	1,486,521	4,001,521
815,000	952,983	1,767,983	2,630,000	1,384,475	4,014,475
850,000	913,448	1,763,448	2,730,000	1,277,868	4,007,868
890,000	872,115	1,762,115	2,850,000	1,166,815	4,016,815
925,000	829,008	1,754,008	2,965,000	1,051,020	4,016,020
970,000	783,760	1,753,760	3,070,000	930,117	4,000,117
1,015,000	736,120	1,751,120	3,180,000	804,537	3,984,537
1,060,000	685,790	1,745,790	1,320,000	694,630	2,014,630
1,105,000	632,747	1,737,747	1,105,000	632,747	1,737,747
1,155,000	577,377	1,732,377	1,155,000	577,377	1,732,377
1,210,000	519,435	1,729,435	1,210,000	519,435	1,729,435
1,265,000	458,797	1,723,797	1,265,000	458,797	1,723,797
1,320,000	395,465	1,715,465	1,320,000	395,465	1,715,465
1,380,000	329,315	1,709,315	1,380,000	329,315	1,709,315
1,440,000	260,225	1,700,225	1,440,000	260,225	1,700,225
1,505,000	188,072	1,693,072	1,505,000	188,072	1,693,072
1,575,000	112,612	1,687,612	1,575,000	112,612	1,687,612
1,645,000	37,012	1,682,012	1,645,000	37,012	1,682,012
<u>29,630,000</u>	<u>30,320,720</u>	<u>59,950,720</u>	<u>62,105,000</u>	<u>47,051,618</u>	<u>109,156,618</u>

SAN DIEGO COUNTY WATER AUTHORITY

Schedule 6
Legal Debt Margin
June 30, 1970

Assessed valuation for year ended June 30, 1970		\$ 2,512,409,091
Debt limit (15% of assessed valuation)*		<u>376,861,364</u>
Amount of debt applicable to debt limit:		
General obligation bonds payable:		
Waterworks bonds, 1947	\$ 100,000	
Waterworks bonds, 1957:		
Series:		
A	\$ 6,990,000	
B	7,015,000	
C	7,440,000	
D	6,520,000	
E	<u>4,410,000</u>	32,375,000
Waterworks bonds, 1966	29,630,000	
Total bonded debt		62,105,000
Contractual obligations:		
To U.S. Government on first San Diego aqueduct:		
On first pipeline	3,722,098	
On second pipeline	<u>2,380,382</u>	13,103,087
To Metropolitan Water District on annexation charges	13,221,020	
Total contractual obligations		<u>26,324,107</u>
Total gross indebtedness		88,429,107
Less portion of fund balances available for debt redemption:		
Waterworks bonds, debt service funds	959,721	
U.S. Government contract fund	<u>17,970</u>	977,691
Net indebtedness		<u>87,451,416</u>
Legal debt margin		\$ <u>289,409,948</u>

*Sec. 5(7), County Water Authority Act.

FINANCIAL REPORT

Schedule 7
Insurance Coverage
June 30, 1970

	Amount or limit	Company
Excess liability, property damage, and products liability	\$ 2,900,000	Harbor Insurance Co.
Select liability, personal injury, property damage, bodily injury, including automobile. Deductible of \$1,000 on property damage liability, except automobiles	100,000	
Medical payments, each payment	2,000	Great American Insurance Co.
Buildings and equipment - Escondido and San Diego	457,755	Great American Insurance Co.
Office block policy - unscheduled office equipment	53,120	Great American Insurance Co.
Chlorination station - optional peril policy	119,000	Great American Insurance Co.
Dwelling - Escondido	15,000	Great American Insurance Co.
Contractor's equipment	54,557	Industrial Indemnity Insurance Company
Automobile - comprehensive, collision \$100 deductible	Actual cash value	Great American Insurance Co.
Official bonds:		
L. R. Bursell, General Manager and Chief Engineer	25,000	Great American Insurance Co.
H. C. Griffen, Treasurer	25,000	Great American Insurance Co.
Public employees' blanket bond	50,000	Great American Insurance Co.
Travel accident - employees and directors:		
Death benefits, etc.	50,000	
Medical	5,000	
Aggregate	600,000	Travelers Insurance Company
Workmen's compensation	Statutory	State Compensation Insurance Fund