

SAN DIEGO COUNTY
WATER AUTHORITY



SEVENTEENTH ANNUAL REPORT

1963

SAN DIEGO COUNTY WATER AUTHORITY

SEVENTEENTH
ANNUAL REPORT
of Authority Operations

For
Fiscal Year Ending June 30, 1963

Richard S. Holmgren
General Manager and Chief Engineer

SAN DIEGO, CALIFORNIA
1963

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SAN DIEGO COUNTY WATER AUTHORITY

Member Agencies, Date of Entry and
Representatives on Board of Directors on June 30, 1963

Cities

Del Mar	Nov. 23, 1962 .	O. B. Sholders
Escondido	Oct. 9, 1950 .	Lloyd M. Mitchell
National City	June 9, 1944 .	Charles G. Kerch
Oceanside	June 9, 1944 .	Robert A. Weese
San Diego	June 9, 1944 .	Paul Beermann
		Baylor Brooks
		Fred A. Heilbron
		George R. Henderson
		George Kerrigan
		H. Fred Landgraf
		Fred W. Simpson
		J. Stacey Sullivan
		Arthur C. Wells

Irrigation Districts

Helix	June 9, 1944 .	Harry Griffen
		Wm. G. Sloan
San Dieguito	Dec. 13, 1948 .	Charles W. Hales
Santa Fe	Dec. 13, 1948 .	R. E. Badger
South Bay	Nov. 3, 1952 .	Lloyd L. Lee
		Walter L. Steele

(Includes City of Chula Vista, an independent member agency, from June 9, 1944, to Nov. 3, 1952)

Municipal Water Districts

Bueno Colorado	June 11, 1954 .	Hans H. Doe
Carlsbad	June 16, 1954 .	Mac Carnohan
Olivenhain	July 25, 1960 .	Howard G. Golem
Otay	Oct. 26, 1956 .	Lawrence C. Kuebler
Poway	April 21, 1954 .	David R. Shepardson
Rainbow	April 10, 1954 .	Walter R. Beck
Ramona	August 27, 1957	John E. Langan
Rincon del Diablo	June 14, 1954 .	Charles A. Cryster
Rio San Diego	June 7, 1956 .	Charles C. Price

(Includes Lakeside I.D., an independent member agency from June 9, 1944 to June 7, 1956)

Valley Center	May 9, 1955 .	C. P. Kane
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Public Utility District

Fallbrook	June 9, 1944 .	Franz R. Sachse
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**OFFICERS OF BOARD OF DIRECTORS
1962-63**



Chairman
Fred A. Heilbron
San Diego
7-44 to 6-63



Secretary
Hans H. Doe
Bueno Colorado
Municipal Water District
6-54 to 6-63



Vice Chairman
R. E. Badger
Santa Fe
Irrigation District
9-57 to 6-63



Treasurer
Harry Griffen
Helix
Irrigation District
7-56 to 6-63

EXECUTIVE OFFICERS



Richard S. Holmgren
General Manager and
Chief Engineer



W. H. Jennings
General Counsel

BOARD OF DIRECTORS

1962-63

For Officers, see Page 5



Walter R. Beck
Rainbow Municipal
Water District
9-62 to 6-63



Paul Beermann
San Diego
2-53 to 6-63



Baylor Brooks
San Diego
5-54 to 10-60
4-62 to 6-63



Mac Carnohan
Carlsbad Municipal
Water District
12-59 to 6-63



Charles A. Crytser
Rincon del Diablo
Municipal Water District
6-54 to 6-63



Guy C. Earl, Jr.
Rainbow Municipal
Water District
12-58 to 9-62



Howard G. Golem
Olivenhain Municipal
Water District
1-62 to 6-63



Charles W. Hales
San Dieguito
Irrigation District
6-58 to 6-63



G. R. Henderson
San Diego
10-55 to 6-63



C. P. Kane
Valley Center
Municipal Water District
2-59 to 3-61
8-61 to 6-63



Charles G. Kerch
National City
5-57 to 6-63



George Kerrigan
San Diego
9-53 to 6-63



Lawrence C. Kuebler
Otay Municipal
Water District
2-61 to 6-63

BOARD OF DIRECTORS

1962-63

(Continued)



H. Fred Landgraf
San Diego
10-55 to 6-63



John E. Langan
Ramona Municipal
Water District
4-61 to 6-63



Lloyd L. Lee
South Bay
Irrigation District
4-61 to 6-63



Lloyd M. Mitchell
Escondido
12-56 to 6-63



Charles C. Price
Rio San Diego
Municipal
Water District
7-58 to 6-63



Franz R. Sachse
Fallbrook Public
Utility District
10-56 to 6-63



David R. Shepardson
Poway Municipal
Water District
4-54 to 6-63



O. B. Sholders
Del Mar
4-63 to 6-63



Fred W. Simpson
San Diego
7-44 to 6-63



Wm. G. Sloan
Helix
Irrigation District
11-59 to 6-63



Walter L. Steele
South Bay
Irrigation District
9-62 to 6-63



Stacey J. Sullivan
San Diego
7-62 to 6-63



Robert A. Weese
Oceanside
3-53 to 6-63



Arthur C. Wells
San Diego
2-53 to 6-63

COMMITTEES OF THE BOARD

June 30, 1963

ENGINEERING AND OPERATIONS

Paul Beermann, Chairman
 Robert A. Weese, Vice Chairman
 R. E. Badger
 Baylor Brooks
 Mac Carnohan
 Hans H. Doe
 Howard G. Golem
 Charles W. Hales
 George R. Henderson
 Lawrence C. Kuebler
 O. B. Sholders
 Lloyd L. Lee
 Wm. G. Sloan

FINANCE AND INSURANCE

Arthur C. Wells, Chairman
 Harry Griffen, Vice Chairman
 Walter R. Beck
 Charles A. Crytser
 George Kerrigan
 H. Fred Landgraf
 John E. Langan
 Lloyd M. Mitchell
 Charles C. Price
 O. B. Sholders
 Walter L. Steele
 J. Stacey Sullivan

LEGAL AND CLAIMS

Franz R. Sachse, Chairman
 David R. Shepardson,
 Vice Chairman
 Walter R. Beck
 Mac Carnohan
 Charles G. Kerch
 George Kerrigan
 H. Fred Landgraf
 Walter L. Steele
 Arthur C. Wells

ORGANIZATION, PERSONNEL
 AND PUBLIC RELATIONS

Fred W. Simpson, Chairman
 David R. Shepardson, Vice Chairman
 Howard G. Golem
 Charles W. Hales
 Charles G. Kerch
 Lawrence C. Kuebler
 John E. Langan
 Charles C. Price
 Wm. G. Sloan
 Robert A. Weese

WATER PROBLEMS AND POLICY

Hans H. Doe, Chairman
 George R. Henderson, Vice Chairman
 R. E. Badger
 Paul Beermann
 Baylor Brooks
 Charles A. Crytser
 Harry Griffen
 Fred A. Heilbron
 Lloyd L. Lee
 Lloyd M. Mitchell
 Franz R. Sachse
 Fred W. Simpson
 J. Stacey Sullivan

EXECUTIVE OFFICERS AND OPERATING STAFF

General Manager and Chief Engineer Richard S. Holmgren
 General Counsel William H. Jennings
 Assistant Chief Engineer Allen H. Jones
 Chief Accounting Officer Charles L. Royer
 Treasurer Harry Griffen
 Executive Secretary and Deputy Treasurer Maxine M. McKinley
 Superintendent, Maintenance and Operation Joseph E. Lester

AUTHORITY HIGHLIGHTS
 IN BRIEF

	1962-63	1961-62	Percent Change
GROWTH OF AREA			
Number of Agencies	20	19	+ 5.3
Total Area - Acres	695,654	672,018	+ 3.5
Population	1,090,200	1,085,000	+ 0.5
Assessed Valuation	\$1,629,736,170	\$1,567,210,470	+ 3.9
OPERATIONS			
Water Delivered by Authority - ac.ft.	220,472	184,858	+ 19.3
Water Production of Agencies - ac.ft.	219,281	192,554	+ 13.9
Local Water Used - ac.ft.	21,543	20,602	+ 4.6
Authority Water Used - ac.ft.	197,738	171,952	+ 15.0
Miles of Pipe Line	161	161	0
Miles of Patrol Roads Maintained	50	50	0
Number of Service Connections	46	39	+ 17.9
Number of Employees	29	23	+ 26.1
FINANCIAL			
Revenues:			
Water Revenue	\$4,377,250	\$3,351,839	+ 30.6
Other Revenue	712,399	724,978	- 1.7
Taxes	1,817,697	1,736,953	+ 4.6
Expenditures:			
Operation and Maintenance	\$ 264,821	\$ 200,810	+ 31.9
Purchase of Water	4,037,107	3,058,504	+ 32.0
New Construction	176,321	94,886	+ 85.8
Payments on Outstanding Debt	1,154,892	1,149,208	+ 0.5
Total Investment in Plant:			
Total Fixed Assets	\$95,795,298	\$93,262,248	+ 2.7
Long-term Debt	61,274,852	62,516,542	- 2.0



Board of Directors
San Diego County Water Authority
Building

Gentlemen:

Transmitted herewith is the Seventeenth Annual Report of the Authority, as required under Section 3.1 of the Administrative Code. This report covers the activities of the Authority for fiscal year July 1, 1962 to June 30, 1963.

Mr. Charles L. Royer, Chief Accounting Officer of the Authority, passed away shortly after the close of the fiscal year. Therefore, the financial statement was prepared by Mr. Henry G. Lozano, Acting Chief Accounting Officer.

I am pleased to report that the Authority's system continues to meet all demands for water and will probably do so for the next few years.

Since I am retiring as General Manager and Chief Engineer of the Authority October 1, 1963, this will be my final report to the Board. I look back on almost twenty years of enjoyable work with sincere appreciation for the leadership of the members of the Board.

Considerable credit must also be given to Authority personnel, without which the Authority's goal of achieving sufficient water to supply the County of San Diego would not have been possible.

Respectfully,

Richard S. Holmgren

General Manager and Chief Engineer

September 30, 1963

City of San Diego Looking East

SAN DIEGO COUNTY WATER AUTHORITY

COLORADO RIVER AQUEDUCT

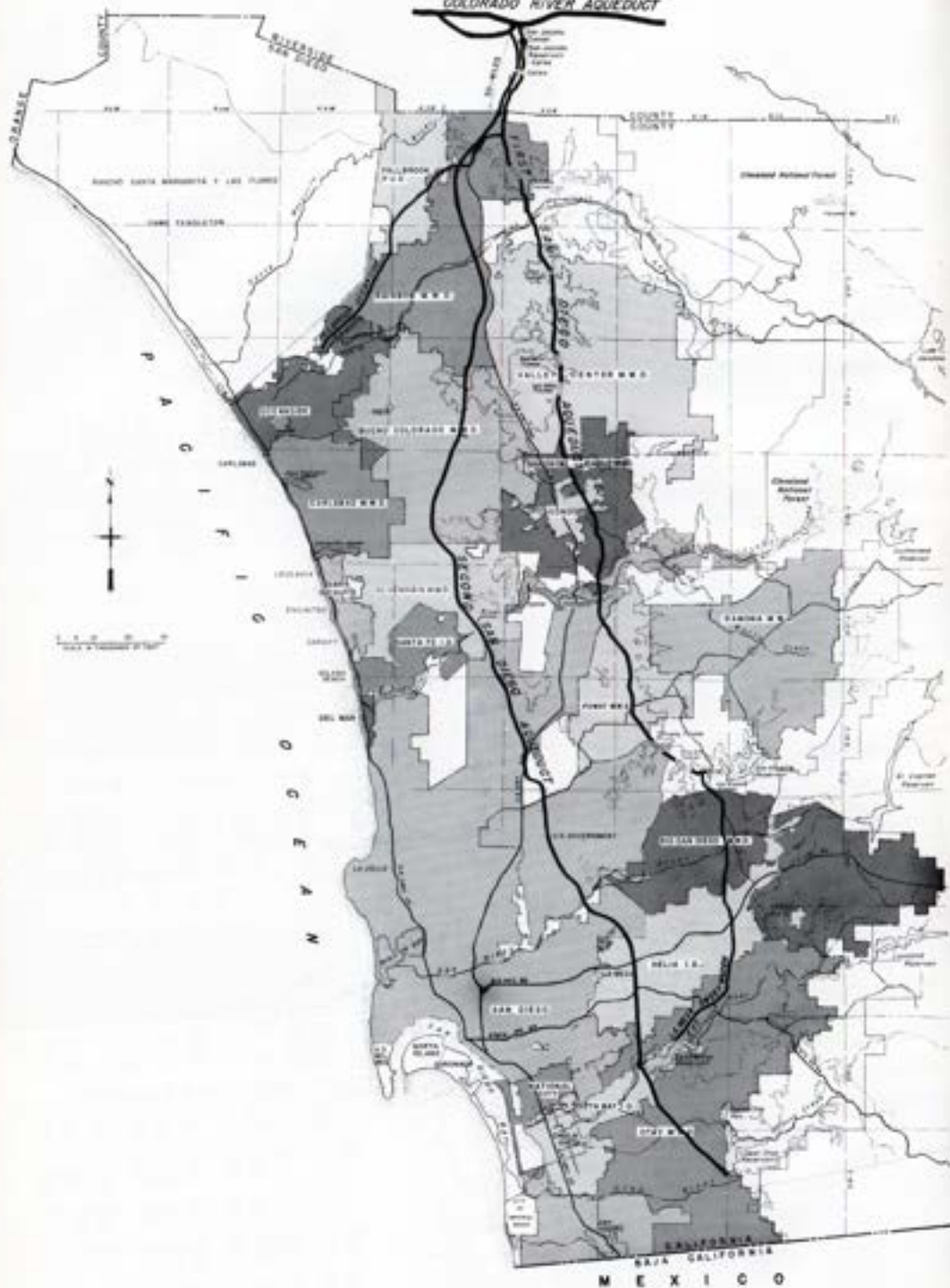


Figure A. Authority area within San Diego County

SAN DIEGO COUNTY WATER AUTHORITY

REPORT OF ACTIVITIES

FISCAL YEAR 1962-63

ADMINISTRATION

Board of Directors

A Board of Directors, consisting of thirty members, governs the activities of the Authority. Directors are appointed by the governing bodies of member agencies. Under the Authority Act each member agency is entitled to one Director upon its annexation to the Authority and an additional one for each \$90 million of assessed valuation. An amendment to the Act was introduced in the 1963 Legislature, which will raise the assessed valuation required for an additional Director from \$90 to \$100 million. At the present time the City of San Diego is represented by nine Directors, the Helix Irrigation District by two, and the South Bay Irrigation District gained an additional Director this year --giving it two Directors on the Authority Board. The remaining member agencies are represented by one Director.

Officers of the Board are elected biannually by a vote of the Board of Directors in July of even years. 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 office, is held by Director Harry Griffen.

The work of the Board is divided among five 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 deliberations are transmitted to the Board with recommendation for action. The standing committees are Engineering and Operations, Finance and Insurance, Legal and Claims, Organization and Personnel, and Water Problems and Policy. Directors are appointed to committees by the Chairman of the Board, with each Director in general serving on two committees. Membership of each of the standing committees is shown on page 8 of this report.

The Administrative Code provides for establishment of special temporary committees as the need may arise. One such committee, Special Authority Engineering Committee, was appointed to make a study and report to the Board on the various proposals for delivery of Feather River water to The Metropolitan Water District of Southern California, especially as such delivery might affect the Authority, since its entire supply of water is received from The Metropolitan Water District. The committee's report, entitled "REPORT REGARDING ALTERNATIVE COMBINATIONS OF STATE AND METROPOLITAN FACILITIES FOR THE DISTRIBUTION OF FEATHER RIVER PROJECT WATER TO THE CONSTITUENT AREAS OF THE METROPOLITAN WATER DISTRICT," was submitted to the Board in May of 1963. The chairman of this committee was Director Paul Beermann.

Only a few changes in Board membership occurred during the year. In September of 1962 Director Guy C. Earl, Jr., resigned from the Board as a representative of the Rainbow Municipal Water District, at which time Mr. Walter R. Beck was appointed as a representative of that District. Upon the annexation of the City of Del Mar, Mr. O. B. Sholders was appointed to represent that city. In July of 1962 Mr. J. Stacey Sullivan was appointed as a representative of the City of San Diego to succeed Director C. Hap Holliday, who resigned in April of 1962. With the growth of the South Bay District permitting a second Director, Mr. Walter L. Steele was appointed by the District in September of 1962 as its second Director on the Authority Board.

Administrative Staff

No change occurred in the administrative staff of the Authority during the year. As of June 30, 1963, the working force of the Authority consisted of twenty-eight persons, not including the General Counsel, who is a part-time employee. The work force was slightly expanded during the year to include additional field and office personnel, for the purpose of making preliminary engineering studies for construction of a proposed Twin Oaks-Escondido cross-connection.

Employee Relations

The Authority continues to provide a contract with California Physicians Service, under which employees receive medical and hospital benefits. The entire expense of this service is carried by the Authority. Coverage may be extended by an employee to members of his family, but such coverage is at the expense of the employee. The Authority also maintains a retirement contract with the State of California, under which employees are members of the State Retirement System, with the employees contributing the major cost of this benefit by monthly deductions from their salaries. The State Retirement System is combined with the Federal Social Security System, so that contributions include payments to the Federal Government as well. Retirement under the State Retirement System is mandatory at the age of seventy.

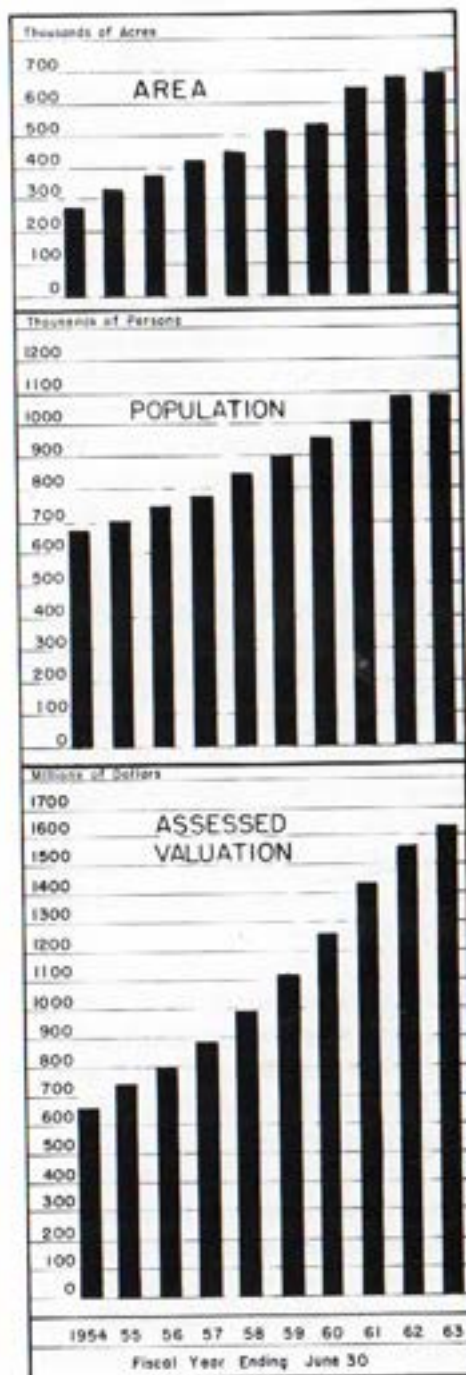
For the first five years, each employee, after one year of continuous employment, receives a twelve working-day vacation annually. After five years, each employee receives a fifteen working-day vacation annually. After six months, each employee accumulates one day of sick leave for each month of employment.

Public Relations

The Authority has no formal public relations department as such. However, excellent relations exist with the local news media, and the result is very good coverage of Authority activities.

Many requests for information concerning the availability of water in this area came to the Authority during the year, all of which were answered one way or another. In many instances members of the Board and Staff made personal appearances before service and civic groups to explain the operation of the Authority and its system.

Several field trips over the Metropolitan Water District's Colorado River Aqueduct and facilities were sponsored by Directors of the District and the Water Authority for water-works leaders and interested persons. On the trips originating in San Diego, facilities of the Authority's two San Diego Aqueducts were visited.



The Authority's representation on the Colorado River Board continues to be in the capable hands of Director Fred W. Simpson. Financial contributions are made to the Board and to the Six Agency Committee, which assists the Board in protecting the rights of California in Colorado River water. The Board was created by the State Legislature to protect the water rights of Southern California in the Colorado River.

GROWTH OF AUTHORITY

Area

The area of the Authority was increased by 23,636 acres during the fiscal year, bringing the total acreage within the Authority, as of June 30, 1963, to 695,654 acres, or 1,087 square miles.

The largest increase of 23,559 acres represents annexations to the City of San Diego, which has annexed areas to the North, extending its boundaries beyond the San Dieguito River East of the City of Escondido. Of this amount, 1,090 acres are overlapping, and do not add to the Authority area. The second largest annexation

GROWTH OF AUTHORITY

totaled 1,082 acres, resulting from the annexation of the City of Del Mar, the twentieth member agency of the Authority. Small changes occurred in all but eight of the Authority's member agencies. The area within the boundaries of the Authority now represents 26 percent of the area within the County of San Diego, and 77 percent of that portion lying substantially between the Cleveland National Forest and the Pacific Ocean, as shown on Figure A.

Overlapping areas continue to exist in the area of the Authority, although efforts are being made to encourage elimination of these areas.

An overlapping area is land lying within the boundaries of two member agencies, having been originally in one agency and subsequently annexed by the other, because of its ability to better serve the area with water. The major overlapping areas are primarily due to the expansion of cities into areas already lying within the boundaries of the Authority, as land within a member municipal water district or irrigation district.

At the present time there is a total of 13,766 acres of overlapping area within the boundaries of the Authority. The Authority Act contains provisions whereby an overlapping area may be excluded from an agency, or it may be excluded from an 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

Agriculture Development along Second Aqueduct



SAN DIEGO COUNTY WATER AUTHORITY

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 27.1 percent of the total area within the boundaries of the Authority.

The newly annexed City of Del Mar becomes the Authority's smallest member agency in area, with a total of 1,082 acres. As of June 30, 1963, there were five areas studying annexation to the Authority, one of which, the Yuima Municipal Water District, has taken active steps to annex to the Authority on the basis of a reduced area. As of this date, indications are that this district will become the twenty-first member agency of the Authority.

The following annexations to existing member agencies have been informally approved: They are the Rincon No. 3 Concurrent Annexation consisting of 7 parcels totaling 440 acres, lying easterly and southerly of the present district boundaries and extending to the City of San Diego's Hodges Reservoir property; the Rainbow No. 3 Concurrent Annexation, consisting of 10,960 acres, lying generally easterly of the present district boundaries, directly south of the Riverside County line; the Olivenhain No. 1 Concurrent Annexation, consisting of 2 parcels, totaling 2,940 acres, lying contiguous to present district boundaries. The Ramona No. 3 Concurrent Annexation, consisting of 2 parcels totaling 2,270 acres, lying northerly and easterly of the present district boundaries, was given formal approval in April, 1963.

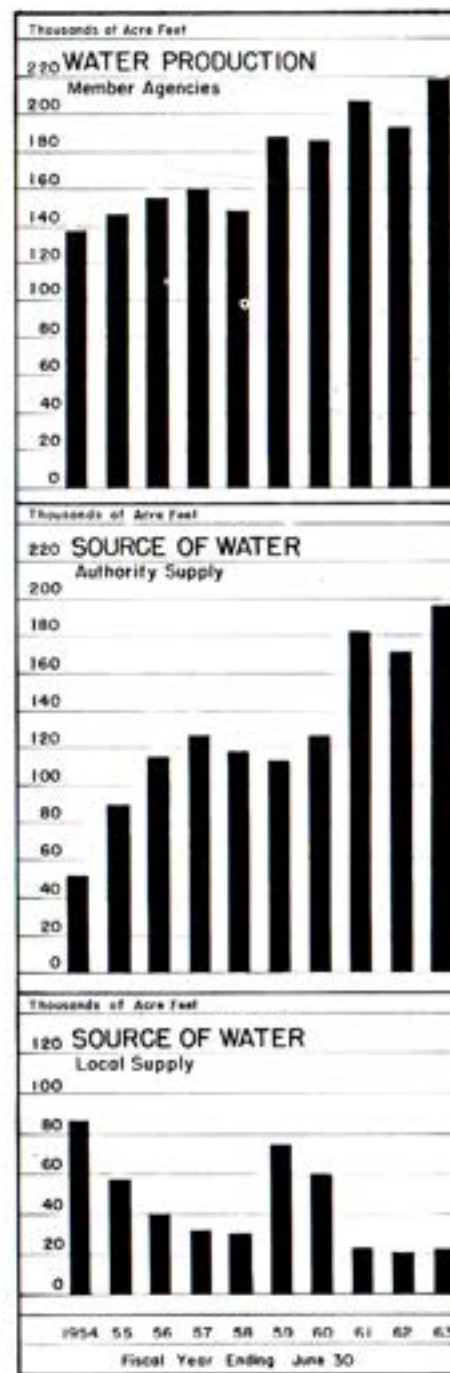
The Authority's 1962 Statement of Change of Boundaries, under state law required to be filed by the Secretary of the Board of Directors prior to February 1, 1963, was filed with the State Board of Equalization January 31, 1963; the County of San Diego January 29, 1963, and The Metropolitan Water District of Southern California January 29, 1963. As shown on the Statement, there were 46 changes made during the year, of which only 11 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 the County of San Diego, who levies the Authority tax rate which is established in August by the Authority Board of Directors.

GROWTH OF AUTHORITY

Population

The total population within the Authority area continues to grow, but at a much lower rate than in recent years. The population census figures for each decade, as indicated from 1910-60, together with the estimated population for the years of 1961, 1962, and 1963, are shown in Table 2. Data pertaining to individual member agencies are shown in Table 3.

The City of San Diego continues to have the largest population, totaling 628,200 persons, or 58 percent, of the total population residing within the boundaries of the Authority. The Olivenhain District, having the smallest population, also shows the greatest percent of increase since 1960, equal to an annual increase of 25 percent. During the year the City of La Mesa overcame the City of National City as the most densely populated within the Authority, with a population density of 6.81 persons per acre. The Cities of National City and El Cajon have densities closely approximating that of the City of La Mesa. The average population per acre of the Authority as a whole has decreased slightly, in spite of the increase in total population, due to annexation of large areas with



a very small population. The average density of population of the Authority is 1.57 persons per acre, or 1,003 persons per square mile.

Assessed Valuation

The basis for an Authority tax levy is the assessed valuation of taxable property lying within the boundaries of the Authority as determined by the Assessor of the County of San Diego. The lands lying within each member agency subject to Authority taxes, on which the Assessor bases his figures, are those enumerated in the Authority's Statement of Change of Boundaries, filed annually with the Assessor.

The Auditor of the County of San Diego certified to the Authority that the assessed valuation of taxable property to be used as a basis for the 1962-63 tax levy totaled \$1,628,736,170, an increase of about \$60,000,000, or 3.9 percent above the 1961-62 figures. The assessed valuation of taxable property, as shown on this Statement for each member agency of the Authority, is shown in Table 4. This table shows that the greatest percentage increase occurred in the Valley Center District, with an assessed valuation of \$8,040,350, an increase of 36.4 percent. The smallest increase, equaling 0.1 percent, occurred in the Carlsbad Municipal Water District area. The assessed valuation per acre for the Authority as a whole increased from \$2,232 to \$2,341 per acre. Prior to compilation of this report, the assessed valuation for 1963-64 was received and included in Table 4 for convenience. This table indicates that an increase of \$81,000,000 occurred in assessed valuation of taxable property within the boundaries of the Authority during the past year.

WATER SUPPLY AND CONSUMPTION

Water Supply and System

Colorado River water, delivered by The Metropolitan Water District of Southern California, to which the Authority is entitled as a constituent member agency, continues to be the only water supply of

the Authority. At the present time the preferential right of the Authority in the District's water supply is about 8 percent, resulting from monies paid the Authority in taxes and annexation charges, but not including purchases of water. The preferential right was not invoked during the year, as to date the Metropolitan Water District has been able to supply the current demands of its constituent member agencies.

Substantial water is stored by the District in Lake Mathews during off-peak periods for delivery to its member agencies during the peak summer months. Water delivered to the Authority is diverted from the Colorado River Aqueduct at San Jacinto and received at a point approximately six miles south of the north county line into either of the Authority's two San Diego Aqueducts.

The Authority's First San Diego Aqueduct, with a maximum capacity of 196 c.f.s., was operated at full capacity a substantial portion of the year. During periods when flow exceeded the current demand from this aqueduct, surplus water was placed in the City of San Diego's San Vicente Reservoir as storage to the accounts of Authority member agencies. The maximum flow in the Second San Diego Aqueduct occurred in September, with a flow of 240 c.f.s., or 96 percent of the 250 c.f.s. designed capacity of this aqueduct. In October, the maximum combined flow of 420 c.f.s. occurred, equal to 93 percent of the capacity of the aqueducts' system.

A total of 220,472 acre feet of water was delivered throughout the Authority's system during the year. This is 69 percent of the 320,000 acre feet which could be delivered, assuming continuous operation of both aqueducts at a maximum capacity throughout the year. The minimum deliveries to the Authority occurred on several occasions during the year, when flow in the Second Aqueduct was discontinued by the Metropolitan Water District to permit work in the canal section of the Second Aqueduct. On these occasions the entire Authority supply was received through the First Aqueduct and transferred to the Second Aqueduct through a cross-connection at Rainbow. At no time during the shut-down of the aqueduct was any difficulty experienced by member agencies due to reduced flow. The monthly quantities of water sold to Authority member agencies are shown in Table 5, which indicates a minimum sale of 8,110 acre feet in February and a maximum of 24,869 acre feet in October.

Water Deliveries and Rates

The quantity of water delivered monthly to each member agency of the Authority is shown in Table 5. The table shows that a total of 217,371 acre feet of water was sold to member agencies during the year; that 8,364 feet were placed in storage to agencies' accounts; and 5,342 acre feet were removed from storage to meet the peak demand during the summer months. As indicated in this table, there is ample capacity within the aqueducts to meet the requirements of member agencies, although a total of 24,869 acre feet delivered in October represents 90 percent of the maximum monthly flow which can be brought in through the Authority system.

The quantities of water delivered to individual member agencies for the eight-year period from 1955 to 1963 are shown in Table 6, together with the total quantity of water sold to each agency since the Authority began delivery of water in 1947. This table indicates that a substantial increase in water sales occurred during 1962-63, equal to 21 percent above the previous year, which resulted from a very dry winter. Practically all local water supplies of member agencies were depleted last year.

The Authority continues to deliver water by contract to two governmental agencies for the Metropolitan Water District. These agencies are the State Forestry Camp, located east of Rainbow, within the proposed Rainbow Concurrent No. 3 Annexation; and the Convair Missile Testing Facility, located in Sycamore Canyon on the Camp Elliott Reservation. The total quantity of water sold under these contracts totaled 78 acre feet, compared with 105 acre feet sold the previous year.

The rate for water delivered by the Authority to its member agencies was \$21 per acre foot from January 1, 1962 to December 31, 1962. Because of an increase in the charge for water by Metropolitan, this rate was increased to \$23 per acre foot, effective January 1, 1963. This rate will continue until December 31, 1963, at which time, due to a proposed increase in the Metropolitan rate, the Authority's charge per acre foot to its member agencies will increase to \$26 per acre foot.

All water delivered to the Authority by the Metropolitan Water District was paid for at the above domestic rates when delivered. Because of the District's changes in water rates in recent years, rebates for agricultural use have varied--depending on the time water was delivered into storage or currently to the member agency.

After certification by the Authority to the Metropolitan District as to the quantities of water used for agricultural purposes, the District made the following rebates to the Authority: Water stored prior to December 31, 1960, \$3.00 per acre foot; water stored and/or used from January 1, 1961 to December 31, 1961, \$4.25 per acre foot; water stored and/or used from January 1, 1962 to December 31, 1962, \$5.50 per acre foot; water stored and/or used from January 1, 1963 to December 31, 1963, \$6.75 per acre foot. Rebates made to the Authority by the District were in turn paid in full to all agencies which had previously certified that such water was used for agricultural purposes.

Water Production of Member Agencies

The term "water production" is used to designate the quantity of water which an agency must produce from all of its sources of supply to meet not only the current demands of its consumers but also the losses which occur between the source of supply and the consumer, including leakage, losses from breaks, evaporation from distribution reservoirs, or wastage resulting from normal operations. Sources of supply may include impounding reservoirs, wells or the Authority system.

Water production of member agencies showed a sharp increase in 1962-63 over the previous year, totaling 219,280 acre feet, an increase of 26,726 acre feet, or 14 percent over the 1961-62 fiscal year. The water production of each agency during the past decade is shown in Table 7. All agencies show a substantial increase in the use of water for this period. The most substantial increase occurred in those areas recently annexed to the Authority, with Olivenhain and Otay Districts each showing more than 260 percent increase over the previous year.

The combined water production of member agencies reached a maximum of 26,252 acre feet in August, an increase of 8.1 percent over the maximum for 1961-62 of 24,285 acre feet, in which year the maximum occurred in July. The minimum of 11,645 acre feet occurred in February, and was 58 percent greater than the 7,348 acre feet minimum of the previous February. The substantial increase resulted from very low rainfall for the season, although for February the rainfall was above normal.

Most member agencies have developed local supplies, although in many instances these supplies have been substantially depleted as a result of the continuing drought. The amounts obtained by each agency from these supplies and the supplemental amounts received from the Authority system to meet the need of consumers are shown in Table 8.

The greatest amount of local water produced by an agency, totaling 5,949 acre feet, was produced by the City of San Diego. Most of this water was used outside of the City, and therefore outside of the Authority area. This is only 13 percent of the 46,000 acre feet safe yield assumed at one time as being available to the City from this source. Six agencies, as shown in Table 8, had no local water and depended entirely on the Authority system. Of the total 219,280 acre feet produced by Authority member agencies, only 21,542 acre feet, or 9.8 percent, was obtained from local supplies. This is a substantial decrease from the approximate 90,000 acre feet safe yield, assumed at one time as being available from local supplies. The balance of 197,738 acre feet came from the Authority system.

The operating heads of Authority member agencies determine that portion of the area within their boundaries which can receive service from their water systems. These areas have been tabulated in Table 9 and total 288,860 acres, or 41 percent of the total 695,654 acres included within the boundaries of the Authority. The City of Del Mar, City of Escondido, City of National City and the Santa Fe Irrigation District have systems which service practically all of their areas.

The highest water production among the agencies, on the basis of area served, occurred in the area of the Fallbrook Public Utility District, with 1.42 acre feet of water produced per acre served. The

minimum was in the Olivenhain area, with only 0.11 of an acre foot per acre served. The average for the Authority was 0.76 of an acre foot for the total 288,860 acres served. The 0.76 of an acre foot was about 10 percent greater than the average of 0.69 of an acre foot in 1961-62.

The water production per capita indicates a somewhat greater increase from that of the previous year, equal to 18 percent from 0.17 of an acre foot per capita in 1961-62 to 0.20 of an acre foot per capita in 1962-63. Water production per capita for each agency is shown in Table 9, which shows the Rainbow District with a per capita use of 3.25 acre feet per capita, exceeding all other agencies. This high usage results from the area being primarily in orchards with only a minimum of domestic use. The smallest use, equal to 0.10 of an acre foot per capita, occurred in National City, where practically all water is used for domestic and municipal use.

Water used for agricultural purposes was 31.7 percent of the total 219,280 acre feet of water produced by the Authority agencies. A rebate from the Metropolitan Water District for



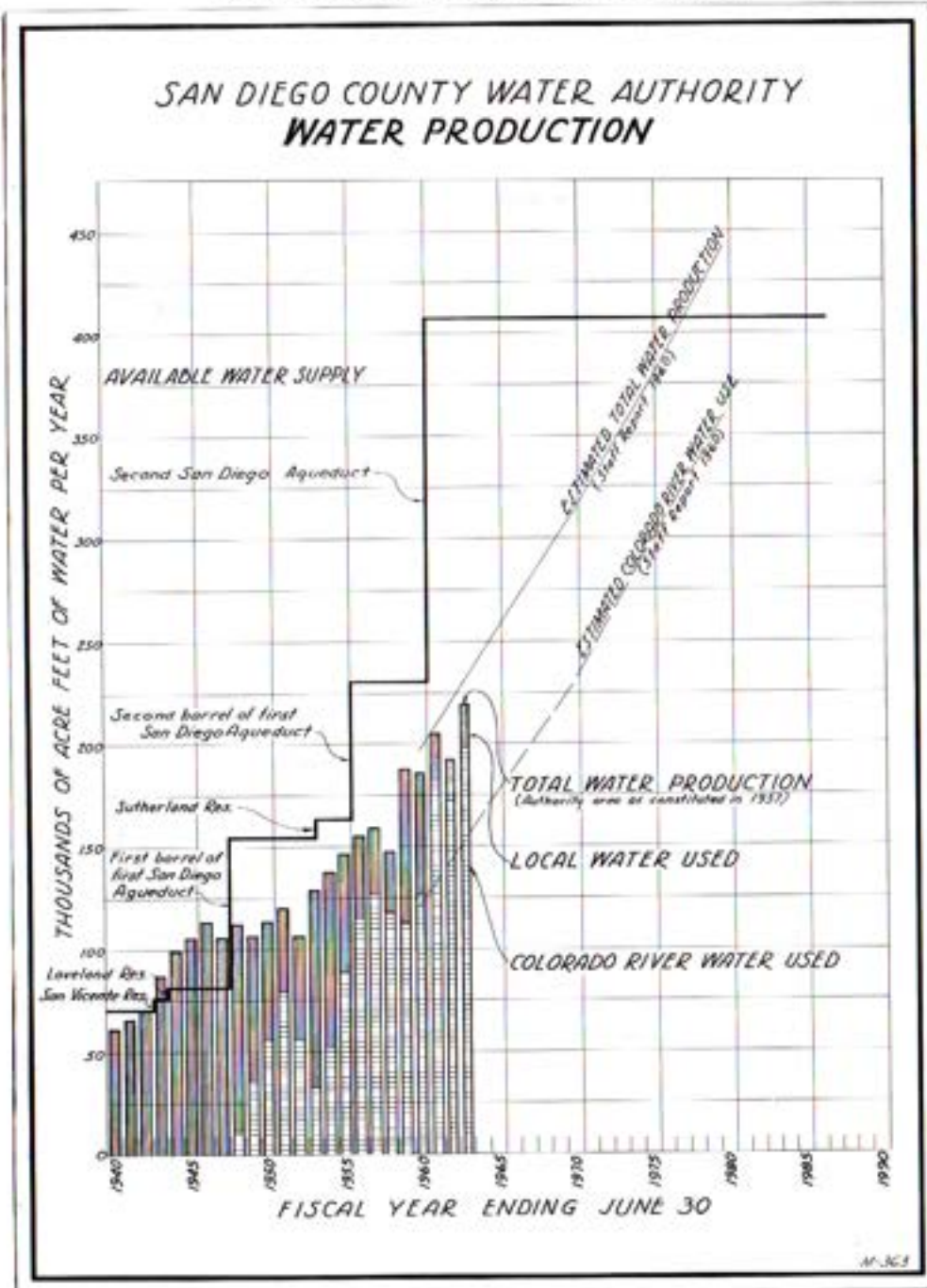


Figure B. Water Production of Authority Member Agencies

water used for agricultural purposes has made possible an accurate determination of usage. To obtain this rebate, each agency must certify monthly to the Authority, with substantiating data, the total quantity of water used for agricultural purposes during the month. Since the rebate is substantial, varying between \$3.00 and \$6.75, depending on whether such water was from current deliveries or from storage, a careful determination is made. Agricultural use of water by each agency is shown in Table 10. This table shows the use of water for agriculture varies from 94.9 percent of water produced in the Rainbow District to no agricultural use in the Cities of Del Mar, Escondido and Oceanside.

The combined production of water of Authority member agencies is graphically illustrated on Figure B, together with the estimated total available water supply. The columns which represent annual production have been shaded to differentiate between Colorado River water obtained from the Authority system and water obtained from local sources. The chart dramatically shows the diminishing reliance on water from local sources and the increasing dependence on the Authority for water.

A projection of probable future production of water, assuming its availability, is also shown on Figure B. Assuming availability of 90,000 acre feet of local water and the full capacity of the present Metropolitan District system, present developments should serve to 1977. However, assuming an average of only 20,000 acre feet from local supplies, the need for additional development would be advanced five years to about 1972.

Authority Facilities

The Authority system consists of the following facilities: Portions of the two San Diego Aqueducts lying southerly of Metropolitan's delivery point, six miles south of the north county line; the Fallbrook-Oceanside Branch Line, extending from the First Aqueduct at Rainbow to the Oceanside well field in the Mission Basin of the San Luis Rey River Valley; the La Mesa-Sweetwater Branch Line, extending from the First Aqueduct at Slaughterhouse Canyon through Lakeside to a terminal point at the Sweetwater Reservoir; and the Chlorination Station in Rainbow Pass, where flows in both aqueducts are chlorinated.

The Authority has no storage facilities of its own. It does, however, have the right to store up to 20,000 acre feet of water in San Vicente Reservoir. This privilege results from an agreement with the City of San Diego which expires October 31, 1964. Under this agreement, the City receives \$2.20 per acre foot for the maximum amount of water in storage each year, plus fifty cents per acre foot to cover pumping charges for any water transferred to the City from storage. This storage capacity is not firm, since any water discharged over the spillway would first include water stored to the Authority's account. During the low-demand months a total of 8,123 acre feet of water was placed in San Vicente Reservoir by the Authority to the accounts of its member agencies; 5,218 acre feet were withdrawn to meet peak demands in excess of the capacity of the aqueducts to deliver; and 920 acre feet were lost by evaporation. The net result of the year's storage activities was an increase of 1,985 acre feet to 16,552 acre feet in storage as of June 30, 1963. The changes in storage credited to each member agency are shown in Table 11. The Rainbow District had the largest amount credited to its account, totaling 4,090 acre feet, or about 25 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 Otay Reservoir, the terminus of the Second San Diego Aqueduct. This storage is for operational purposes only, and this water is transferred to the City of San Diego when requested by the City. Storage capacity for member agencies, such as is available in San Vicente Reservoir, is not provided at this reservoir. An annual charge is made by the City of San Diego of \$1.00 per acre foot for the maximum amount in storage in any 12-month period, or part thereof, with a minimum annual charge of \$1,000 for use of the reservoir, plus any pumping charges, varying from \$2.25 to \$1.50--depending on the elevation of the water.

The first delivery of water to the City of San Diego was placed in Otay Reservoir in the summer of 1961 through a temporary service connection located in Otay Park. Except during the summer months, the City has taken very little water from this connection. Therefore, very close observation has been exercised by Authority operating personnel to prevent spillage from the aqueduct into Otay Reservoir.

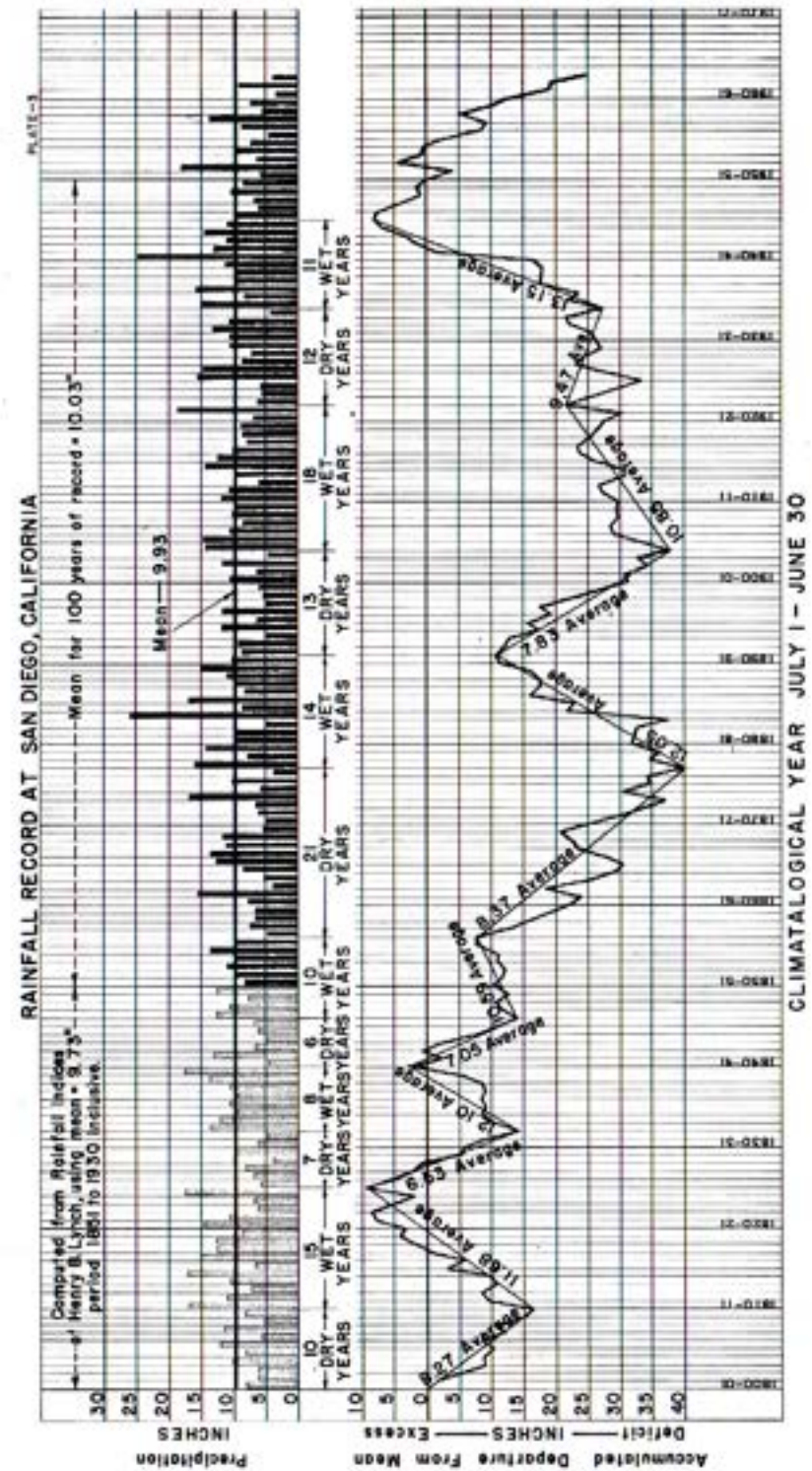


Figure C. Rainfall Record at San Diego, California

Chlorination

It is the policy of the Authority, and has been since the first delivery of water, to deliver raw water only to its member agencies, the task of making the water potable and acceptable to the State Health Department being the responsibility of the agency receiving the water. It is a ruling of the Department that Colorado River water, when used for domestic purposes, must be filtered in addition to chlorination by the distributing agency as soon as filtration is economically feasible for the agency.

There are large agricultural areas within the boundaries of several member agencies, which preclude construction of expensive filtration plants at this time. The State of California has agreed that in such areas installation of filtration facilities may be delayed, but only if water is treated by dual chlorination with a time interval of at least one-half hour between the two points of application. As most of the agencies now have several connections, dual chlorination is quite expensive. Also when deliveries are made directly into the distribution system dual chlorination is impossible.

When untreated water is carried in the aqueducts, deposits of bacterial slime form on the interior of the pipes, thus preventing full utilization of the maximum pipe capacity. After considerable experimentation in cooperation with the Metropolitan Water District, it was found that the most effective and economical procedure for eliminating bacterial growth is intermittent slugging with heavy doses of chlorine, from 1.5 to 2.0 p.p.m., depending on the temperature of the water, injected into the flow twice weekly for four-hour periods. This has more or less been the practice of the Authority since 1948 when chlorination was first adopted.

During construction of the First Barrel of the Second San Diego Aqueduct a modern chlorination station was constructed in Rainbow Pass, from which the three barrels of the First and Second Aqueducts are chlorinated. Foreseeing construction of the Second Barrel of the Second Aqueduct, the Authority also provided for chlorination of this Barrel during construction of the station.

Only 242 acre feet of water spilled into the reservoir during the 1962-63 fiscal year. The Otay Municipal Water District has been very cooperative in preventing spillage by taking varying flows at its service connection in Otay Park, thus helping to balance deliveries between the two delivery points in this vicinity.

Water Quality

Chemical constituents of solids in the aqueduct flows are shown in Tables 12 and 16. The breakdown is based on analyses of water delivered to the aqueducts at San Jacinto, made in the chemical laboratory of the Metropolitan Water District at La Verne, California. The results of aqueduct flow at San Jacinto, the diversion point of water for San Diego, have been furnished by the District and are shown in these two tables. Variation in total hardness ranged from a low of 336 p.p.m. of CaCO_3 in July, 1962 and June, 1963, to a high of 353 p.p.m. in February of 1963. Records of monthly changes in water temperatures are also maintained and shown in these tables. A high temperature reading of 80 degrees was reached in August of 1962, and a low of 53 degrees was reached in February of 1963.

*Chlorination Station
at Rainbow Pass*

As indicated in the 1961-62 Annual Report, the Authority Board authorized the formation of a committee to make a study of continuous chlorination of the operating systems of several member agencies, its primary concern being to determine the results of continuous chlorination and whether the Authority should assume the responsibility of continuous chlorination of the two aqueducts. As authorized by the Board, continuous chlorination was maintained by the Authority during the summer and fall of 1962 and discontinued at the end of the year. A review of the results obtained from the tests was carefully analyzed by the staff and committee members. No clear-cut decision was reached, and for that reason it was agreed that the test runs should be continued throughout the summer of 1963, for which funds were included in the 1963-64 budget. It is hoped that the additional information obtained will permit final recommendation to the Board in the fall of 1963.

Allocation of Water Among Member Agencies

The Authority Act (Sec. 5-11) establishes a method by which the water supply of the Authority can be divided among its member agencies should the combined demands for water exceed the ability of the Authority to deliver. This method sets up a basic preferential right, under which a member agency can purchase at all times a proportionate part of the available water supply of the Authority. In addition, the agency also has the right to purchase its proportionate part of water to which another agency is entitled but does not use at the time.

The quantity of water to which an agency is entitled under its preferential right to purchase is that portion of the total Authority water supply which bears the same relation to the whole as the monies paid to the Authority by the agency and its tax payers bear to the total amount so received from all agencies, not including payments for water.

It should be noted that allocation of water by preferential right is in effect only when the Authority cannot meet the total demand for water from the current flow of the aqueducts. Whenever the ability to serve exceeds the demand for water, it is distributed entirely on the basis of need. In determining allocation of water to an agency during a shortage of current flow in the aqueducts' system, its outstanding annexation charge is included with the money already paid.

The percentage allocation, as of June 30, 1963, determined on this basis, and the corresponding flow, based on the estimated capacity of the present system for importing water, are shown in Table 13.

Future Supplies

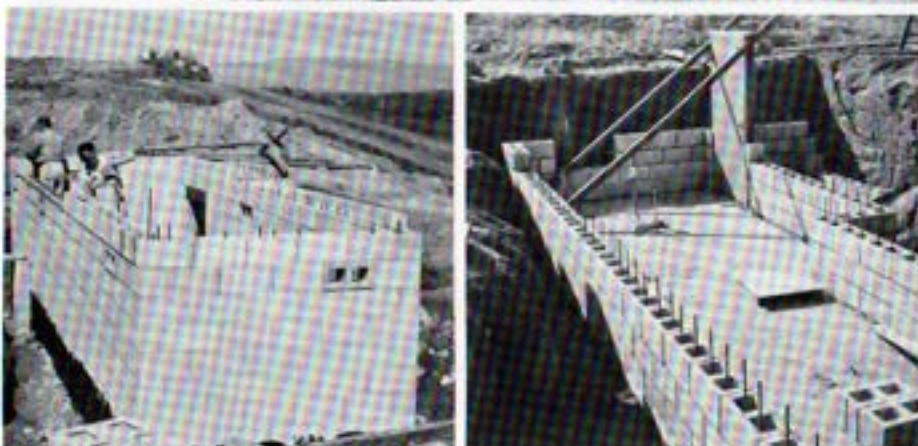
The present water supply of the Authority is obtained entirely from The Metropolitan Water District of Southern California. The District maintains that whenever additional water is needed to supply its member agencies, it will be available. The present District supply is obtained from the Colorado River through its Colorado River Aqueduct, which has a capacity sufficient to carry the District's full right of 1,212,000 acre feet per year.

On November 4, 1960, the District entered into a contract with the State of California for 1,500,000 acre feet of Northern California water from the State's aqueduct system, promising delivery into Southern California by 1972. Studies made by Metropolitan engineers indicate that the present supply should be sufficient to meet the need until water from the North is received, and that with the additional supply the demands of its member agencies can be met until about 1990.

Figure B shows the increase in water requirements in the area of the Authority since 1940; also the available water supply, based on the assumption that there are 90,000 acre feet of safe yield from local supplies. In view of the present record-breaking drought, there appears to be some doubt that this much local water supply exists. An accurate determination cannot be made until the drought is ended. Therefore, no change has been made in the safe yield estimate. The chart shows that under the depicted assumptions, additional capacity must be constructed and in operation by 1976 to permit importation of the quantity of water needed by the Authority to meet the demands of its member agencies. This date could be advanced to as early as 1972 if the estimated safe yield of local



Constructing new access road to Slaughterhouse Canyon Station



supplies is reduced to 20,000 acre feet. The date indicated is also predicated on the availability of sufficient storage capacity within the Authority area to permit the aqueducts, if necessary, to operate continuously at full capacity.

OPERATION AND MAINTENANCE

Maintenance Headquarters

In addition to its San Diego headquarters, the Authority maintains an operation and maintenance center at 660 West Fifth Avenue, Escondido, California. The superintendent, Mr. Joseph E. Lester, of the Authority's Aqueducts' system resides at this location, by which he is constantly informed as to the operation of the system, and should an emergency occur he is available for instant action. There are eleven employees at this location, their responsibilities being in general patrol of the aqueducts, perform needed maintenance work on the system, maintain and operate the chlorination station, and make such changes in deliveries from the aqueducts as are requested by member agencies.

Patrol and Inspection of Aqueducts

The Authority maintains a sizeable fleet of patrol and maintenance cars, as well as construction equipment needed in the maintenance of the work, including two graders, a bulldozer, a skip loader and a compressor. This equipment is kept in good operating condition at the Escondido shop, to which one full-time mechanic is assigned. When repair of this equipment becomes excessive, it is the policy of the Authority to replace the equipment.

A radio communications system was installed during the year, with base stations at Escondido and San Diego. A repeater station was installed on Palomar Mountain, and mobile units were installed in many of the vehicles. The system has proved to be a tremendous asset in saving time and permitting better service to member agencies, particularly from the Second Aqueduct where lack of substantial terminal storage requires close balance between water received from the Metropolitan Water District and deliveries made to member agencies. Uncontrolled fluctuations in Metropolitan deliveries to the

SAN DIEGO COUNTY WATER AUTHORITY

Authority required many unplanned changes to balance the flow of the aqueducts. The availability of radio communication between the dispatcher and patrolmen enabled the patrolmen to accomplish balancing of the flow in the Second Aqueduct with a minimum of wastage of water into Otay Reservoir.

CROSS-CONNECTION PROJECT

As stated in the 1961-62 Annual Report, the sum of \$115,000 was appropriated for field survey and engineering design work in the 1962-63 fiscal year toward construction of a cross-connection between the Second Aqueduct in the vicinity of Twin Oaks and the First Aqueduct north of Escondido.

To date all possible locations for the pipeline have been surveyed, and the most economical and feasible location from an operational view has been determined. Final surveys are in progress, necessary for preparation of construction drawings and acquisition of rights of way. Generally, excellent cooperation has been experienced with the owners of the property over which the pipeline will traverse. A start has been made on design of the diversion structure at Twin Oaks, the control and metering structure at Escondido, and the pipeline connecting these structures. Capacity of the project has been established at 120 c.f.s.

A field office has been established at Escondido headquarters under the direction of Mr. Lee D. Purdin, Project Construction Engineer, and a design section has been established at the San Diego headquarters building under the direction of Mr. Robert H. Wilken, Senior Design Engineer.

SERVICE CONNECTIONS

As of July 1, 1962, there was a total of 32 service connections throughout the Authority system, ranging in capacity from 2 to 180 c.f.s., through which water is delivered to member agencies. Delivery is regulated by control valves installed in the structure from which the agency receives its water. The various valves are operated by Authority personnel.

There were seven new service connections in construction during the fiscal year, three of which were completed and the remainder are expected to be completed shortly after the end of the fiscal year. They are briefly described as follows:

San Diego, Bernardo Temporary Service Connection

This service connection is located on the First San Diego Aqueduct, about one mile south of Santa Ysabel Creek. It was installed to temporarily serve the Rancho Bernardo subdivision project, until such time as the City of San Diego completes its pipeline to this area. The connection consists of an 8" Sparling Meter with a capacity of 3 c.f.s. and an 8" gate valve to regulate the flow.

Oceanside No. 2 Service Connection

The location of this service connection is on the Second Aqueduct about three-fourths of a mile south of Gopher Canyon. Water will be delivered into the new transmission pipeline, now being constructed by the City of Oceanside. The City will then be provided with a direct connection to the Second Aqueduct.

The installation has a capacity of 27 c.f.s., consisting of a 20" x 11.4" Venturi tube, activating a Builder's Type M totalizer-indicator-recorder meter instrument. Flows are controlled by a 20" butterfly motor-operated valve with automatic controls to maintain a constant delivery. Also at this location provisions were made for the installation of a future 24" meter with a capacity of 40 c.f.s.



Otay No. 2 Enlargement



Otay No. 4 Service Connection

The location of this installation is on the Second San Diego Aqueduct about 0.3 of a mile south of Telegraph Canyon Road. This connection was installed in the same meter structure as the Otay No. 2 Service Connection, increasing the capacity at this location from 6 to 34 c.f.s. The existing 6 c.f.s. Venturi tube and piping were reused in this installation as a by-pass meter in conjunction with the larger meter.



Interior and Exterior View of Typical Meter Structure

was installed so that flow could be diverted into either of the two meters by a selector switch. The connection is expected to be completed shortly after the end of the fiscal year.

Rainbow No. 5 Service Connection

This service connection is located on the Second Aqueduct about two miles north of the San Luis Rey River to supply water to the Shaw Reservoir, which is being constructed by the Rainbow District. Delivery of water to the District is measured by a Builder's Type M meter, activated by an 18" x 10.1" Venturi tube, with the flow being controlled by an 18" motor-operated butterfly valve. This connection is expected to be completed in the very near future.

SERVICE CONNECTIONS

Rainbow No. 6 Service Connection

The location of this installation is on the Second San Diego Aqueduct about 1.6 miles south of the San Luis Rey River, and will serve the area of the District between the San Luis Rey River and Moosa Canyon.

The installation consists of a Builder's Type M meter, having a capacity of 22 c.f.s., activated by an 18" x 10.1" Venturi tube. The flow into the connection is controlled by an 18" motor-operated butterfly valve, operated by automatic equipment which will maintain deliveries to the District at a constant flow. This connection is also expected to be completed shortly after the end of the fiscal year.

Valley Center No. 4 Service Connection

The location of this service connection is on the Second Aqueduct about one mile north of Moosa Canyon. The District will now have a service connection on both aqueducts.

Valley Center No. 4 Service Building



The installation consists of a Builder's Type M meter, with a capacity of 14 c.f.s., activated by a 14" x 7.9" Venturi tube, with the flow being controlled by a 14" motor-operated butterfly valve. Automatic equipment has been installed at this location to permit delivery of flow at a constant rate.

San Diego, Venner Temporary Service Connection

This service connection is located on the Second Aqueduct about one and one-quarter miles south of the San Dieguito River to serve a large agricultural area. The installation consists of two 10" Sparling Meters, each with a capacity of 5 c.f.s., with the flow being controlled by a 12" plug valve. The water is delivered directly into a reservoir constructed at the site of this project. It will then flow into the distribution pipelines for irrigational purposes.

Three additional service connections are under study at this time, but construction had not been authorized at the end of the fiscal year.

Typical installation of Valves and Piping at Service Connection



LEGAL ACTIVITIES

For the year, the activities of the Authority's General Counsel dealt mainly with supervision of contracts, preparation of ordinances and resolutions, and counsel to the Board of Directors, its several committees and the staff.

In preparation of the acquisition of easements, necessary for construction of the aqueducts' cross-connection, a Lands and Rights of Way Committee was appointed, and the Authority's land acquisition procedures and ordinances were reviewed. In the past, the Authority has been successful in acquiring its lands and easements without resort to seriously contested condemnation suits. This result primarily springs from thoroughness in establishing land acquisition procedures, particularly in using fair appraisal methods and courteous negotiation techniques. The good will enjoyed by the Authority throughout its corporate area is both a cause and effect of the lack of friction involved in land acquisitions.

The 1963 legislative session was not a serious cause of concern to the Authority. A bill introduced on behalf of the Authority by Assemblyman James Mills, which amended the County Water Authority Act to increase the amount of assessed valuation required to permit a member agency an additional director, was passed, signed and chaptered without incident.

The Authority sponsored a concurrent resolution, authored and introduced by Assemblyman Hale Ashcraft, directing the Department of Water Resources to construct the East Branch of the California Aqueduct concurrently with its construction of the West Branch, in the absence of agreement among the contractors to the contrary. Its adoption was vigorously opposed, and Mr. Ashcraft's success in accomplishing its passage was greatly to his credit.

A bill was passed and approved by the Governor, to which the Authority has serious objections. The act sets up a county commission with veto powers over the formation of any municipal corporation or public district, and over the annexation of any territory to existing organizations. While there may be some need for legislation of this type, it is felt that the decision whether or not to admit either additional members to the Authority or the addition of territory to existing members is one which should be made by the Authority, as provided for in its Act, rather than by a commission with little knowledge of the problems involved.

During the year the Authority was sued for a substantial sum, claimed to have been suffered in a collision between an Authority vehicle and a motorcycle. The amount involved was well within the Authority's public liability insurance, and the claim and litigation are being handled by the insurance carrier without expense to the Authority. No other litigation directly involving the Authority is pending or threatened.

During the year a judgment was handed down by the California Supreme Court, validating the contract between Metropolitan and the State Department of Water Resources, thus clearing the way for construction of the State facilities for delivery of 1.5 million acre feet of Northern California water to Metropolitan annually.

No such success was enjoyed in the wind-up of the Arizona-California suit in the U.S. Supreme Court. At the end of the year a decision had been announced, the result of which would limit California annually to 4.4 million acre feet of main-stream water, plus one-half of a non-existent surplus, awarding to Arizona annually 2.8 million acre feet from the main stream and all the water of the Arizona tributaries. This result was similar to that recommended by the Special Master, except the court did not follow his provision for proration of water in the event of shortage, but held that any formula should await the existence of such a shortage and should be determined by the Secretary of Interior or Congress. California petitions for a rehearing were denied just before the time of this writing.

The result of the Colorado River litigation was a blow to California, as the State can ill afford any reduction of its diversions from the Colorado River. The severity of the blow depends upon many speculative factors, such as the rate of development in Arizona and the upper basin states, the water yield of the river, the possibility of securing supplemental supplies through conservation measures or other sources, etc. There is no question but that the litigation left this State with a paper loss of some of the amount claimed. The seriousness of the actual water loss involved is yet to be determined.

MEMBERSHIP IN THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

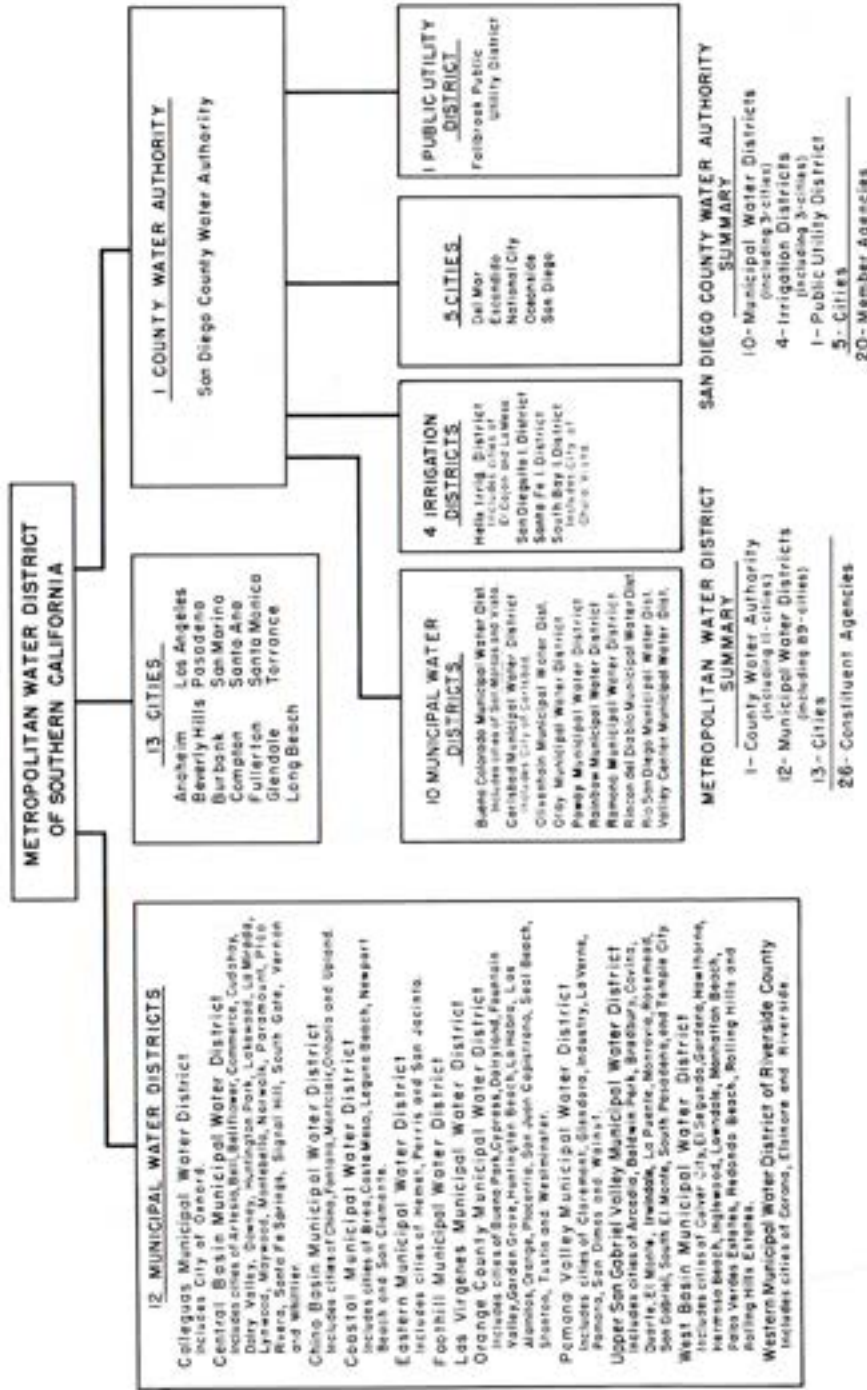
Since the Authority receives its entire supply of water from the Metropolitan Water District, a brief outline of the District's activities is of interest to the Authority.

The Metropolitan Water District was organized in 1928 under a newly-enacted Metropolitan Water District Act. The Act originally permitted annexation of cities; whereas the Authority Act permits annexation of both cities and districts. However, the Metropolitan Act was later amended to include districts. In general, the Metropolitan and Authority Acts are similar.

The District is also governed by a Board of Directors. Each Director represents a constituent member agency. A member agency is entitled to one Director on the Metropolitan Board of Directors, plus one additional Director for each \$500 million of assessed valuation. Some agencies have a large number of Directors serving on the District Board, while other agencies have but one. As shown on Figure D, the District is comprised of 26 member agencies.

As of June 30, 1963, the Authority had four representatives serving on the District Board of Directors. Mr. Fred A. Heilbron, Chairman of the Authority Board of Directors, serves as Secretary of the Metropolitan Water District Board of Directors, having held this office since 1946 when the Authority became a member agency of the District. He is also a member of the Finance and Insurance Committee, the Executive Committee and the Water Problems Committee. Mr. Richard

COMPOSITION OF THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
JUNE 30, 1963



MEMBERSHIP IN THE METROPOLITAN WATER DISTRICT

S. Holmgren, General Manager and Chief Engineer of the County Water Authority, resigned from the District Board January 1, 1963, after having served on the Board for ten years. He was Chairman of the Engineering and Operations Committee and a member of the Organization, Personnel and Public Relations Committee. Mr. Hans H. Doe, Secretary of the Authority Board, is a member of the Finance and Insurance Committee and the Lands and Rights of Way Committee, having served in this capacity for the past four years. During 1963 two new Authority Directors were appointed to the District Board. Mr. Paul Beermann, Authority Director, was appointed in January 1963, but resigned from the Board in June of 1963 to accept employment in Arizona. He was a member of the Engineering Committee. Mr. Harry Griffen, Authority Treasurer, was also appointed to the District Board in January of 1963. Director Griffen is a member of the Finance and Insurance Committee and the Lands and Rights of Way Committee.

As of June 30, 1963, the Authority had a total of 163 votes out of a combined representative total of 1569, or 10.4 percent of the total. When Board action is taken, the votes of an agency are cast as a unit; that is, in accordance with the majority vote of the agency's representation.

Constituent Member Agencies and Area

As shown on Figure D, the District is comprised of 26 member agencies, consisting of 13 original cities, one county water authority, and 12 municipal water districts. Portions of Ventura, Los Angeles, Orange, Riverside, San Bernardino and San Diego Counties are served water by the Metropolitan Water District. Within these districts there is a total of 113 incorporated cities. One municipal water district was annexed during the year. A total of 150,932 acres was annexed to the District, of which 23,636 acres, or 15.7 percent, represent areas annexed to the Authority. As of June 30, 1963, the District area equaled 4,372 square miles (2,797,946 acres), of which 1,087 square miles (695,654 acres) or 24.9 percent, lie within the boundaries of the Water Authority. This represents a slight decrease in percent of area from the 25.4 percent lying within the boundaries of the Authority at the beginning of the fiscal year.

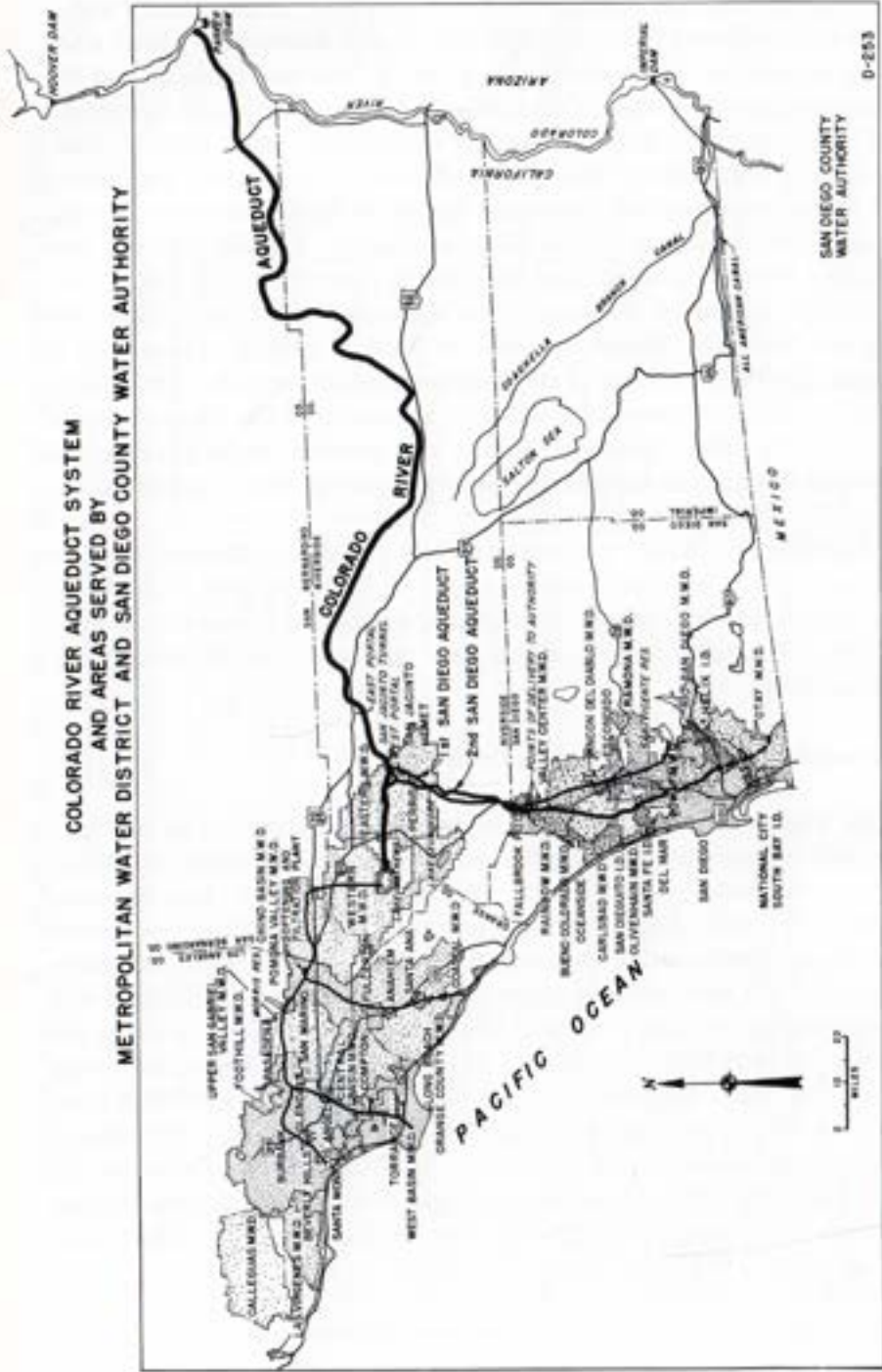


Figure E. Water Systems of Metropolitan Water District and San Diego County Water Authority



Platform for Screens at End of Second Aqueduct Canal

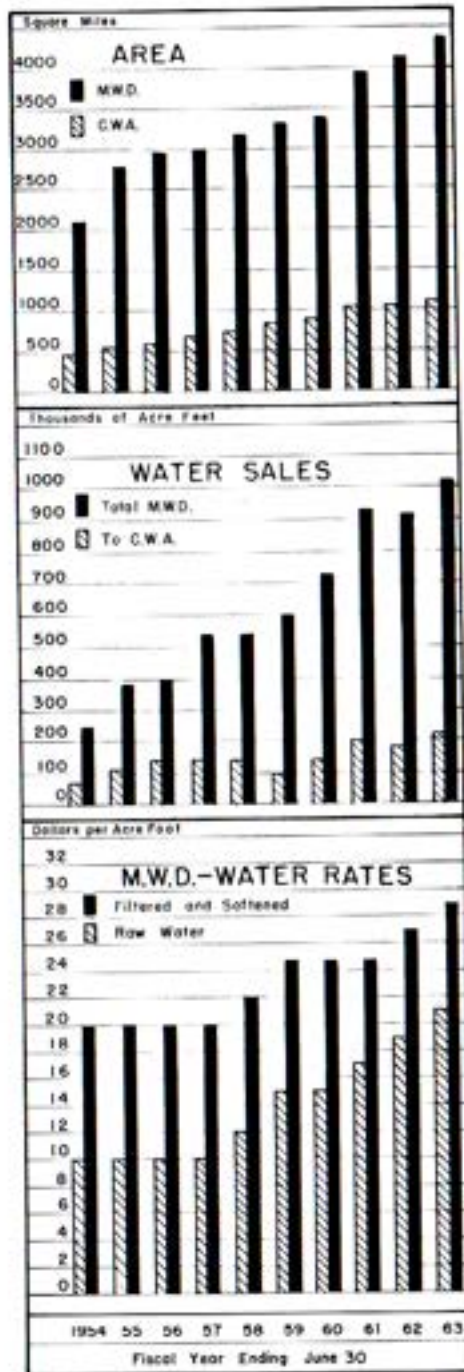
Assessed Valuation

The 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 1962-63, is \$15,699,681,030, an increase of \$896,478,443, or 6.1 percent over the assessed valuation of \$14,803,202,587 for the 1961-62 fiscal year. An amount of \$61,525,700, or 6.9 percent, of this increase occurred within the boundaries of the Authority.

Water Sales

A total of 1,020,651 acre feet of water was delivered by the District to its member agencies during fiscal year 1962-63. Of this amount, a total of 221,645 acre feet, or 21.7 percent, was delivered to the Authority. All water delivered to the Authority was untreated Colorado River water. The District operates a filtering and softening plant at La Verne, California, with a capacity of 400 million gallons per day. It is also constructing a new facility on the Lower Feeder of the Colorado River Aqueduct north of Yorba Linda in Orange County, having a capacity of 200 million gallons per day, with provision to double its size in the future. The Authority cannot be served from either of these plants.

For a breakdown of District deliveries of water to its member agencies, see Table 15.



District Tax Rate

The District continued its policy of recent years and reduced its tax rate to 14¢/\$100 of assessed valuation for 1962-63, 1¢ below that of the previous year. In 1946, when the Authority annexed to the District, the tax rate was 50¢/\$100. During the past 17 years there has been a progressive reduction of 36¢ in taxes levied upon District member agencies.

The tax rate for each year of operation is shown in Table 17. The total District tax levy, including regular and special taxes in 1962-63, was approximately \$28,800,000, of which \$3,000,000, or 10.4 percent, was levied against taxable property within the boundaries of the Authority. Special taxes are levied for collection of annexation charges, agreed upon at the time an area annexes to the District, payable in substantially equal annual payments over a period of 30 years. As of June 30, 1963, member agencies of the Authority had assumed payments totaling \$20,025,759 for annexation charges, of which a total of \$8,735,004 was paid by June 30, 1963.

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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 6/30/63
	As of 6/30/62 acres	Changes During Year acres	As of 6/30/63 acres	
Bueno Colorado M. W. D.	50,192	(2) - 1,194	(3) 48,998	7.04
In City of San Marcos	-----	(5,650)	(5,650)	(0.81)
In City of Vista	-----	(+ 6,700)	(6,700)	(0.96)
Carlsbad M. W. D.	20,659	- 16	(4) 20,643	2.97
In City of Carlsbad	(5,248)	(+ 883)	(6,131)	(0.88)
Del Mar, City of	-----	+ 1,082	1,082	0.16
Escondido, City of	4,994	+ 471	5,465	0.79
Fallbrook Public Utility District	15,469	0	15,469	2.22
Helix Irrigation District	31,184	0	(5) 31,184	4.48
In City of El Cajon (1)	(6,302)	(+ 90)	(6,392)	(0.92)
In City of La Mesa	(4,812)	(+ 6)	(4,818)	(0.69)
National City, City of	5,045	+ 21	5,066	0.73
Oceanside, City of	19,509	+ 1,065	20,574	2.96
Olivenhain M. W. D.	24,260	(2) + 14	(11) 24,274	3.49
Otay M. W. D.	65,737	(2) - 1,079	(6) 64,658	9.29
Poway M. W. D.	22,980	0	22,980	3.30
Rainbow M. W. D.	40,093	0	(7) 40,093	5.76
Ramona M. W. D.	39,100	0	39,100	5.62
Rincon de Diablo M. W. D.	23,180	(2) - 260	(8) 22,920	3.30
Rio San Diego M. W. D.	54,105	0	54,105	7.78
San Diego, City of	165,065	+ 23,559	188,624	27.11
San Dieguito Irrigation District	4,930	- 1	4,929	0.71
Santa Fe Irrigation District	10,132	0	(9) 10,132	1.46
South Bay Irrigation District	15,874	- 26	(10) 15,848	2.28
In City of Chula Vista	(8,349)	(+ 702)	(9,051)	(1.30)
Valley Center M. W. D.	59,510	0	59,510	8.55
Total Authority Area	672,018	+ 23,636	695,654	100.00
San Diego County		2,725,100		

- (1) Revised to conform with data received from agency.
- (2) 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.
- (3) Does not include 2,698 acres overlapping in City of Oceanside, and 260 acres overlapping in City of Escondido.
- (4) Does not include 195 acres overlapping in City of Oceanside.
- (5) Does not include 3 acres overlapping in City of San Diego.
- (6) Does not include 6,747 acres overlapping in City of San Diego.
- (7) Does not include 160 acres overlapping in City of Oceanside.
- (8) Does not include 3,273 acres overlapping in City of Escondido and 1 acre overlapping in City of San Diego.
- (9) Does not include 3 acres overlapping in City of San Diego.
- (10) Does not include 217 acres overlapping in City of San Diego, and 294 acres overlapping in City of National City.
- (11) Does not include 5 acres overlapping in City of San Diego.

TABLES

Table 2

POPULATION GROWTH - COUNTY AND AUTHORITY AREA

Year (as of April 1)	1910 to 1963 (Includes Resident Military Personnel)				Percent of County Population in Authority
	COUNTY		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	2,807	88
1950	556,808		(2) 451,886	50,451	81
1960	1,003,520		(2) 956,400	59,100	95
		108,080			
1961 (4)	1,111,600		(5) 1,015,500	69,500	91
		56,100			
1962 (4)	1,167,700		(5) 1,085,000	5,200	93
		(3,600)			
1963 (4)	1,164,100		(5) 1,090,200		94

- (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 San Diego Chamber of Commerce.
- (5) Estimated by Authority member agencies.

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

Member Agencies	Population - U. S. Census				Density of Population	
	Area 6/30/63	1950	1960	Decade Increase 1950-60	1963 Estimated	Annual Increase 1960-1963
	Acres	(1)	(1)	Percent	(2)	Percent
Buena Colorado M. W. D.	45,998	---	31,500	---	35,930	5
In City of San Marcos	---	---	---	---	(3,000)	---
In City of Vista	(6,700)	---	---	---	(20,370)	---
Carlsbad M. W. D.	20,643	---	10,000	---	11,000	3
In City of Carlsbad	(6,131)	---	(9,400)	---	10,150	3
Del Mar, City of	1,052	---	---	---	3,750	---
Escondido, City of	5,463	6,408	18,500	180	23,100	8
Fairbrook Public Utility District	15,469	5,500	10,000	82	10,300	1
Helix Irrigation District	31,194	44,160	122,100	176	139,000	5
In City of El Cajon	(6,392)	(3,600)	(37,300)	566	(39,700)	2
In City of La Mesa	(4,818)	(10,946)	(29,900)	173	(32,800)	3
National City, City of	5,068	21,200	32,300	52	34,300	2
Oceanside, City of	20,574	12,880	24,700	92	31,000	9
Olivenhain M. W. D.	24,274	---	200	---	350	25
Osay M. W. D.	64,658	---	5,400	---	6,900	9
Poway M. W. D.	22,990	---	4,800	---	7,350	18
Rainbow M. W. D.	40,093	---	2,800	---	3,200	5
Ramona M. W. D.	39,100	---	5,600	---	5,800	1
Rincon del Diablo M. W. D.	22,920	---	14,000	---	15,000	2
Rio San Diego M. W. D.	54,105	---	25,300	---	32,500	9
San Diego, City of	185,624	334,357	557,200	67	625,200	4
San Dieguito Irrigation District	4,929	6,223	15,000	141	17,950	7
Santa Fe Irrigation District	10,132	3,000	7,700	157	9,600	4
South Bay Irrigation District	15,848	28,930	64,300	122	69,450	3
In City of Chula Vista	(9,051)	(15,930)	(42,400)	166	(45,600)	5
Valley Center M. W. D.	59,510	---	5,000	---	6,500	---
Total Authority	695,634	462,588	936,600	107	1,090,200	5
San Diego County	2,725,100	556,810	1,003,520	90	1,164,100	5

(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					
	Area 6/30/63	1961-62		1962-63		Assessed Valuation 1963-64
	Acres	Total	Per Acre	Total	Per Acre	Total
Buena Colorado M. W. D.	48,995	\$ 43,029,990	\$	45,841,550	936	\$ 52,889,540
Carlsbad M. W. D.	20,643	36,060,310	*	36,113,360	1,749	37,282,880
Del Mar, City of	1,082	(8,539,930)	*	(8,966,170)	8,287	8,896,690
Escondido, City of	5,465	29,257,550	*	31,012,470	5,675	32,982,180
Fairbrook Public Utility District	15,469	13,526,740	*	13,930,910	901	14,290,990
Helix Irrigation District	31,184	192,740,210	*	204,119,890	6,546	209,695,280
National City, City of	5,066	37,950,580	*	40,176,750	7,931	40,811,410
Oceanside, City of	20,574	38,148,040	*	41,026,180	1,994	43,600,740
Olivenhain M. W. D.	24,274	1,961,760	*	2,036,420	84	2,167,450
Osay M. W. D.	64,658	23,579,340	*	25,985,200	402	26,752,360
Poway M. W. D.	22,990	13,446,700	*	14,312,060	623	15,023,730
Rainbow M. W. D.	40,093	9,973,230	*	10,326,860	258	10,773,820
Ramona M. W. D.	39,100	6,443,230	*	6,565,130	176	6,614,830
Rincon del Diablo M. W. D.	22,920	20,276,650	*	20,867,990	910	21,957,870
Rio San Diego M. W. D.	54,105	35,627,070	*	37,288,400	689	39,870,300
San Diego, City of	185,624	918,822,920	*	941,336,990	4,991	976,639,550
San Dieguito Irrigation District	4,929	22,315,240	*	23,285,340	4,724	23,827,160
Santa Fe Irrigation District	10,132	19,580,180	*	19,466,740	1,921	20,667,560
South Bay Irrigation District	15,848	95,945,440	*	106,700,890	6,733	112,719,210
Valley Center M. W. D.	59,510	5,895,400	*	5,040,350	135	5,237,350
Total Authority	695,634	\$ 1,367,210,470	\$	\$ 1,625,736,170	2,341	\$ 1,709,700,900
San Diego County	(1) 1,250,000	\$ 1,663,495,210	\$	\$ 1,727,607,070	1,382	\$ 1,796,555,050

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

* Estimated, not on Authority tax roll.

SAN DIEGO COUNTY WATER AUTHORITY

Table 5

SALES OF COLORADO RIVER WATER - FISCAL YEAR 1962-63

(All Figures in Acre Feet)

TABLES

Table 5

(Continued)

Member Agencies	July	August	Sept.	Oct.	Nov.	Dec.	Total 6 Months
Bueno Colorado M. W. D.	1,450.2	1,531.9	1,350.0	789.1	693.7	409.3	6,204.2
Carlsbad M. W. D.	870.9	860.2	891.6	767.9	492.3	351.6	4,234.5
Del Mar, City of	---	---	---	---	---	0	0
Escondido, City of	307.8	288.1	262.4	212.1	207.5	177.3	1,455.2
Fallbrook P. U. D.	1,213.0	1,325.9	1,140.7	983.1	829.1	635.1	6,126.9
Helix I. D.	2,902.0	2,961.4	2,553.0	2,991.7	2,218.9	2,516.4	16,143.4
National City & South Bay I. D.	1,297.3	1,346.5	1,302.3	1,125.3	944.2	770.4	6,786.0
Oceanside, City of	374.4	375.2	362.1	372.5	359.7	304.2	2,148.1
Olivenhain M. W. D.	60.8	45.0	82.1	82.3	31.1	31.6	332.7
Otay M. W. D.	512.8	724.8	799.6	670.6	424.2	224.4	3,356.4
Poway M. W. D.	307.0	340.9	285.9	215.4	181.6	128.5	1,459.3
Rainbow M. W. D.	1,157.4	1,264.8	1,116.5	887.3	750.3	589.5	5,765.8
Ramona M. W. D.	71.7	79.7	71.7	47.7	46.2	59.1	376.1
Rincon del Diablo M. W. D.	597.2	1,066.4	492.2	152.5	642.3	612.4	3,563.0
Rio San Diego M. W. D.	486.9	465.8	376.8	310.9	276.5	202.8	2,099.7
San Diego, City of	10,036.2	10,331.8	10,712.5	14,438.9	13,022.6	13,025.9	71,567.9
San Dieguito I. D.	319.7	319.7	309.4	319.7	309.4	319.7	1,897.6
Santa Fe I. D.	282.8	282.8	273.7	282.8	273.7	282.8	1,678.6
Valley Center M. W. D.	413.0	446.1	359.5	239.1	218.9	157.1	1,833.7
Total Sales to Agencies	22,640.9	24,057.0	22,742.0	24,868.9	21,922.2	20,798.1	137,029.1
Total Sales to Others	6.4	8.6	8.0	6.9	5.4	6.0	41.3
Total Sales to Agencies and Others	22,647.3	24,065.6	22,750.0	24,875.8	21,927.6	20,804.1	137,070.4
Total to Authority Storage	+ 106.5	+ 42.3	+ 896.5	+1,006.0	+ 23.4	0	+ 1,984.7
Total from Authority Storage	- 773.9	- 806.7	- 549.6	-1,251.1	- 942.5	- 931.0	- 5,254.8
Total Deliveries from Authority System	21,979.9	23,301.2	23,006.9	24,630.7	21,008.5	19,873.1	133,800.3
Rate of Flow:							
c. f. s. to Agencies and Others	368.3	391.4	382.3	404.6	368.5	338.3	375.6
c. f. s. to Authority Storage	+ 1.7	+ 0.7	+ 13.5	+ 16.4	+ 0.4	+ 0	+ 5.4
c. f. s. from Authority Storage	- 12.6	- 13.1	- 9.2	- 20.4	- 15.8	- 15.1	- 14.4
c. f. s. Deliveries from Authority System	357.4	379.0	386.6	400.6	353.1	323.2	366.6

Jan.	Feb.	March	April	May	June	Total 6 Months	Yearly Total	Yearly Average c. f. s.
540.6	271.1	311.4	570.4	895.6	944.3	3,533.4	9,737.6	13.45
335.5	201.3	316.3	302.7	899.7	906.3	2,961.8	7,196.3	9.94
0	0	0	0	0	0	0	0	0
173.1	161.7	187.2	93.1	261.0	292.0	1,168.1	2,623.3	3.62
739.0	338.7	524.1	472.7	948.8	1,078.2	4,101.5	10,228.4	14.13
1,529.0	1,313.0	1,690.5	2,078.4	2,230.9	2,412.4	11,254.2	27,397.6	37.84
694.1	828.9	1,223.3	1,181.2	1,180.1	960.9	6,068.5	12,854.5	17.76
385.3	270.9	329.6	353.1	422.6	531.9	2,293.4	4,441.5	6.14
23.2	15.9	32.4	36.4	56.0	73.8	237.7	570.4	0.79
267.6	221.0	229.5	290.2	448.3	519.1	1,975.7	5,332.1	7.37
123.5	114.8	134.9	143.0	277.0	255.9	1,049.1	2,508.4	3.46
656.7	300.9	464.5	393.8	896.9	1,024.3	3,737.1	9,502.9	13.13
33.6	26.9	33.8	32.3	69.4	79.3	275.3	651.4	0.90
645.3	307.7	428.9	597.8	994.3	1,043.9	4,017.9	7,589.9	10.47
171.2	150.3	216.6	227.4	350.2	359.6	1,475.3	3,575.0	4.94
4,512.8	3,510.6	4,048.6	5,273.2	6,153.1	9,534.6	33,032.9	104,600.8	144.48
0	0	268.2	309.4	223.0	309.4	1,110.0	3,007.6	4.15
0	0	237.2	273.7	197.3	273.7	981.9	2,660.5	3.67
167.1	76.4	111.3	99.4	275.5	338.6	1,068.3	2,902.0	4.01
10,997.6	8,110.1	10,788.3	12,728.2	16,779.7	20,938.2	80,342.1	217,371.2	300.25
4.7	7.1	5.5	4.8	5.4	9.4	36.9	78.2	0.11
11,002.3	8,117.2	10,793.8	12,733.0	16,785.1	20,947.6	80,379.0	217,449.4	300.36
+ 644.8	+ 659.5	+3,504.8	+ 691.4	+ 23.8	+ 855.8	+6,380.1	+8,364.8	+11.55
- 87.3	0	0	0	0	0	- 87.3	-5,342.1	- 7.38
11,559.8	8,776.7	14,298.6	13,424.4	16,808.9	21,803.4	86,671.8	220,472.1	304.53
178.9	146.1	175.5	214.0	273.0	352.0	223.9	300.4	
+ 10.5	+ 11.9	+ 57.0	+ 11.6	+ 0.4	+ 14.4	+ 17.8	+ 11.5	
- 1.4	0	0	0	0	0	- 0.3	- 7.4	
188.0	158.0	232.5	225.6	273.4	366.4	241.4	304.5	

SAN DIEGO COUNTY WATER AUTHORITY

Table 6
WATER SALES - 1947 TO 1963
(All figures in acre feet)

Member Agencies	1947-55(1)	1953-56	1956-57	1957-58	1958-60	1960-61	1961-62	1962-63	Totals
Buena Colorado M. W. D.	3,827	5,434	7,315	2,665	2,677	3,735	10,143	9,334	9,738
Carlsbad M. W. D.	1,054	1,417	975	1,989	3,111	3,588	5,421	5,692	7,196
Del Mar, City of	2,708	1,381	1,844	1,553	2,003	2,142	2,757	2,436	2,623
Escondido, City of	25,326	6,567	7,228	5,446	9,032	8,106	10,352	8,876	10,228
Fallbrook Public Utility District	52,948	13,553	14,968	14,060	14,399	14,176	23,754	22,324	27,398
Helix Irrigation District	55,339	12,274	10,823	10,680	5,509	10,556	12,619	11,917	12,555
National City and South Bay I. D.	5,339	2,864	3,308	2,941	3,665	3,528	3,923	3,788	4,442
Oceanside, City of	---	---	---	---	---	---	12	220	570
Olivenhain M. W. D.	---	---	---	---	---	---	1,120	1,749	5,332
Otay M. W. D.	---	---	0	2	199	639	1,200	1,749	5,332
Poway M. W. D.	524	1,109	915	681	1,311	1,567	2,205	2,009	2,508
Rainbow M. W. D.	1,553	2,061	3,965	3,328	6,094	5,662	7,615	7,458	9,503
Ramona M. W. D.	---	---	---	29	169	322	469	517	2,157
Rincon del Diablo M. W. D.	2,905	4,683	5,601	2,603	3,045	2,244	7,966	6,137	7,581
Rio San Diego M. W. D.	(2)	485	512	894	1,235	2,138	2,935	2,899	3,575
San Diego, City of	345,079	80,988	83,351	69,570	41,364	93,592	88,323	87,481	104,601
San Diego Irrigation District	4,767	508	2,013	1,171	0	1,488	3,545	2,817	3,008
Santa Fe Irrigation District	4,266	416	1,150	998	0	1,346	3,255	2,537	2,660
Valley Center M. W. D.	0	1	791	769	776	1,358	2,124	2,170	3,902
Total Sales to Agencies	509,539	132,958	145,361	139,604	94,589	156,587	188,546	180,381	217,371
Total Sales to Others	66	20	69	95	275	271	115	106	78
Total to Authority Storage	26,789	10,898	6,655	10,452	17,671	4,568	10,568	7,972	8,365
Total from Authority Storage	20,045	5,601	7,710	7,898	11,057	19,585	972	3,601	5,342
Total Deliveries from Authority System	516,349	137,985	144,375	142,253	101,478	142,241	198,237	184,858	220,472
Rate of Flow:									
c. f. s. to Agencies and Others	92.6	183.2	200.3	193.0	131.0	216.1	260.6	249.3	300.4
c. f. s. to Authority Storage	4.9	14.6	9.2	14.4	24.4	6.9	14.6	11.0	11.5
c. f. s. from Authority Storage	3.6	7.7	10.6	10.9	15.2	27.0	1.3	5.0	7.4
c. f. s. Deliveries from Authority System	93.9	190.1	198.9	196.5	140.2	195.9	273.9	255.3	304.5

(1) The operation of the First Aqueduct was formally initiated on November 27, 1947. For sales in intervening years see previous reports.
 (2) Rio San Diego M. W. D., encompassing Lakeside I. D., was annexed to Authority June 7, 1956. Figures prior to that date are for Lakeside I. D. only.

TABLES

Table 7

WATER PRODUCTION WITHIN AUTHORITY AGENCIES - FISCAL YEARS 1953-54 TO 1962-63
(All Figures in Acre Feet)

Member Agencies	1953-54	1954-55	1955-56	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62	1962-63
Buena Colorado M. W. D.	11,671	*12,707	13,043	13,058	11,098	15,000	13,116	14,066	11,937	13,763
Carlsbad M. W. D.	*2,961	2,445	2,972	2,591	2,607	3,923	4,980	7,091	6,711	7,285
Del Mar, City of	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	*684
Escondido, City of	† 1,395	1,712	1,741	1,516	1,750	2,213	2,694	3,136	3,211	3,628
Fallbrook Public Utility District	† 7,606	8,001	8,394	8,095	6,709	10,013	9,130	10,724	8,999	10,379
Helix Irrigation District	† 15,519	15,557	15,998	16,541	15,848	21,595	21,659	24,029	21,938	23,591
National City and South Bay I. D.	† 12,076	12,940	13,795	12,878	12,316	14,597	13,259	14,148	13,529	14,219
Oceanside, City of	† 3,954	4,099	4,633	4,369	4,204	5,107	5,081	5,374	5,030	5,795
Olivenhain M. W. D.	(a)	(a)	(a)	(a)	(a)	(a)	(a)	*12	145	570
Otay M. W. D.	(a)	(a)	(a)	(a)	*2	146	470	967	1,460	5,381
Poway M. W. D.	(a)	*554	1,120	917	755	1,310	1,567	2,205	2,009	2,508
Rainbow M. W. D.	*1,697	2,830	3,535	4,834	4,052	6,976	6,748	8,771	8,633	10,400
Ramona M. W. D.	212	215	192	152	*178	351	520	541	643	744
Rincon del Diablo M. W. D.	8,401	*10,023	9,804	9,451	7,861	11,753	10,359	11,502	9,832	11,647
Rio San Diego M. W. D.	(b)	355	1,501	1,457	1,438	2,311	2,886	3,526	3,329	3,928
San Diego, City of										
Inside City	† 63,256	66,000	65,715	71,250	70,052	80,060	80,796	84,345	81,156	89,825
Outside City (not in Authority)	2,373	2,610	3,001	2,856	2,609	3,598	4,178	4,840	5,007	4,278
San Dieguito Irrigation District	† 3,440	3,329	3,378	3,607	3,524	4,247	3,757	4,212	3,568	3,847
Santa Fe Irrigation District	† 3,255	3,361	3,663	3,509	2,907	3,663	3,487	3,927	3,349	3,706
Valley Center M. W. D.	(a)	(a)	*791	769	776	1,358	1,358	2,124	2,170	2,902
Total	135,113	146,636	155,505	156,472	148,579	187,839	186,115	205,540	192,554	219,289

* Use of Colorado River water began this year.

† Use of Colorado River water began prior to this year. See previous annual reports.

(a) Not available.

(b) Figures shown for Rio San Diego M. W. D. prior to 1955-56 are for Lakeside I. D. only.

Table 8
WATER PRODUCTION OF AUTHORITY AGENCIES - FISCAL YEAR 1962-63

Member Agencies	TOTAL WATER PRODUCTION				SOURCE OF WATER		
	as m.g.d.	c.f.s.	as ac.ft./yr.	Local Supply		Authority Supply	
				Amount ac.ft.	Percent	Amount ac.ft.	Percent
Buena Colorado M.W.D.	12.29	19.01	13,762.7	4,025.1	29.2	9,737.6	70.8
Carlsbad M.W.D.	6.50	10.06	7,254.4	408.8	6.8	6,755.6	93.2
Del Mar, City of	0.61	0.95	694.2	366.0	53.5	318.2	46.5
Escondido, City of	3.24	5.01	3,627.6	1,003.2	27.7	2,624.4	72.3
Fallbrook Public Utility District	9.27	14.34	10,379.4	151.0	1.5	10,228.4	98.5
Helix Irrigation District	21.06	32.59	23,591.0	385.0	1.6	23,206.0	98.4
National City and South Bay I.D.	12.69	19.64	14,219.0	2,191.0	15.4	12,028.0	84.6
Oceanside, City of	5.17	8.00	5,794.8	1,364.0	23.5	4,430.8	76.5
Olivenhain M.W.D.	0.51	0.79	570.4	0	0	570.4	100.0
Osceola M.W.D.	4.80	7.43	5,381.2	0	0	5,381.2	100.0
Poway M.W.D.	2.24	3.46	2,508.4	0	0	2,508.4	100.0
Rainbow M.W.D.	9.29	14.37	10,400.1	597.2	5.6	9,502.9	91.4
Ranoma M.W.D.	0.66	1.03	744.0	92.6	12.4	651.4	87.6
Rincon del Diablo M.W.D.	10.58	16.36	11,847.2	4,266.3	36.0	7,580.9	64.0
Rio San Diego M.W.D.	3.51	5.43	3,928.3	353.3	9.0	3,575.0	91.0
San Diego, City of:							
Inside City	80.19	124.07	89,825.1	1,671.2	1.9	88,153.9	98.1
Outside City (Not in Authority)	3.82	5.91	4,278.0	4,278.0	100.0	0	0
San Dieguito Irrigation District	3.43	5.31	3,846.7	0	0	3,846.7	100.0
Santa Fe Irrigation District	3.31	5.12	3,706.0	0	0	3,706.0	100.0
Valley Center M.W.D.	2.59	4.01	2,902.0	0	0	2,902.0	100.0
Total	195.76	302.59	219,280.5	21,542.7	9.8	197,737.8	90.2

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.

TABLES

Table 9
UNIT WATER PRODUCTION - PER ACRE AND PER CAPITA 1962-63

Member Agencies	Gross Area (2) acres	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.		
							Water Production	
							Per Area	Per Capita
Buena Colorado M.W.D.	48,998	13,762.7	16,390	0.84	35,950	0.38		
Carlsbad M.W.D.	20,643	7,254.4	15,000	0.49	11,000	0.66		
Del Mar, City of	1,082	684.2	1,050	0.63	3,750	0.18		
Escondido, City of	5,465	3,627.6	5,360	0.68	23,100	0.16		
Fallbrook Public Utility District	15,469	10,379.4	7,300	1.42	10,300	1.01		
Helix Irrigation District	31,164	23,591.0	29,270	0.83	139,000	0.17		
National City, City of	5,066	3,521.0	5,000	0.70	34,300	0.10		
Oceanside, City of	20,574	5,794.8	9,480	0.68	31,000	0.19		
Olivenhain M.W.D.	24,274	570.4	5,000	0.11	350	1.63		
Otay M.W.D.	64,658	5,381.2	21,520	0.25	6,900	0.78		
Poway M.W.D.	22,980	2,508.4	6,500	0.39	7,350	0.34		
Rainbow M.W.D.	40,093	10,400.1	24,970	0.42	3,200	3.23		
Ranoma M.W.D.	39,100	744.0	5,500	0.14	5,800	0.13		
Rincon del Diablo M.W.D.	22,920	11,847.2	11,000	1.08	15,000	0.79		
Rio San Diego M.W.D.	54,105	3,928.3	22,510	0.17	32,500	0.12		
San Diego, City of	188,624	(1) 89,825.1	70,920	1.27	628,200	0.14		
San Dieguito Irrigation District	4,929	3,846.7	4,150	0.93	17,950	0.21		
Santa Fe Irrigation District	10,132	3,706.0	10,130	0.37	8,600	0.43		
South Bay Irrigation District	15,848	10,698.0	9,060	1.18	69,450	0.15		
Valley Center M.W.D.	59,510	2,902.0	10,720	0.27	6,500	0.45		
Total and Average	695,654	215,002.3	288,800	0.76	1,090,200	0.20		

(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 1962-63

Member Agencies	WATER USED FOR AGRICULTURAL PURPOSES					Percent of Agricultural Water to Total Production	
	Total Water Production (ac. ft.)	From Local Supply (%)	From Authority (ac. ft.)	(%)	Total (ac. ft.)		
	(a)	(a)	(a)	(a)	(a)		
Bueno Colorado M. W. D.	13,762.7	2,913.6	29.9	6,831.1	70.1	9,744.7	70.8
Carlsbad M. W. D.	7,284.4	397.0	6.9	5,349.2	93.1	5,746.2	78.9
Del Mar, City of	684.2	(a)		(a)		(a)	(a)
Escondido, City of	3,627.6	(a)	1.5	9,190.2	96.5	9,327.3	89.9
Fallbrook Public Utility District	10,379.4	137.1	1.5	8,509.5	98.2	8,661.9	36.7
Helix Irrigation District	23,591.0	152.4	1.5	1,507.6	92.0	1,635.8	11.5
National City and South Bay I. D.	14,219.0	131.2	6.0	(a)		(a)	(a)
Oceanside, City of	5,794.8	0	0	462.8	100.0	462.8	81.1
Olivensbain M. W. D.	570.4	0	0	3,628.9	100.0	3,628.9	67.4
Oray M. W. D.	5,381.2	0	0	1,590.5	100.0	1,590.5	63.4
Poway M. W. D.	2,508.4	0	0	9,013.8	91.4	9,865.8	94.9
Rainbow M. W. D.	10,400.1	853.0	8.6	218.1	88.5	246.5	33.1
Ranoma M. W. D.	744.0	28.4	11.5	6,317.1	63.8	9,904.6	83.6
Rincon del Diablo M. W. D.	11,847.2	3,587.5	36.2	330.2	87.4	377.7	9.6
Rio San Diego M. W. D.	3,928.3	47.5	12.6	5,733.1	99.3	5,772.8	6.1
San Diego, City of	94,103.1	39.7	0.7	(b)		(b)	(b)
San Dieguito Irrigation District	3,846.7	(b)		(b)		(b)	(b)
Santa Fe Irrigation District	3,706.0	(b)		(b)		(b)	(b)
Valley Center M. W. D.	2,902.0	0	0	2,603.9	100.0	2,603.9	89.7
Total	219,280.5	8,287.4	11.9	61,286.0	88.1	69,573.4	31.7

(a) No report was received from agency; assumed no agricultural use.

(b) Included in City of San Diego.

TABLES

Table 11
AUTHORITY STORAGE IN SAN VICENTE RESERVOIR
(Fiscal Year 1962-63)

Member Agencies	Total Storage 7/1/62 (acre feet)	Placed into Storage during Fiscal Year (acre feet)	Withdrawn during Fiscal Year		Total Quantity in Storage 6/30/63 (acre feet)
			By Delivery (acre feet)	By Evaporation (acre feet)	
			(a)	(a)	
Bueno Colorado M. W. D.	405.1	0	0	26.2	378.9
Carlsbad M. W. D.	0	0	0	0	0
Del Mar, City of	-	0	0	0	0
Escondido, City of	227.7	0	0	14.8	212.9
Fallbrook Public Utility District	0	500.0	0	7.8	492.2
Helix Irrigation District	972.9	0	940.2	32.7	0
National City and South Bay I. D.	0	0	0	0	0
Oceanside, City of	0	548.1	0	0	548.1
Olivensbain M. W. D.	0	0	0	0	0
Oray M. W. D.	572.3	1,000.0	5.3	59.3	1,597.7
Poway M. W. D.	3,371.3	0	949.3	176.1	2,245.9
Rainbow M. W. D.	2,961.0	1,624.9	465.6	230.5	4,059.8
Ranoma M. W. D.	29.9	0	0	2.0	27.9
Rincon del Diablo M. W. D.	974.2	2,200.0	561.6	102.2	2,510.4
Rio San Diego M. W. D.	3,378.3	0	2,099.7	136.1	1,142.5
San Diego, City of	0	0	0	0	0
San Dieguito Irrigation District	0	0	0	0	0
Santa Fe Irrigation District	0	0	0	0	0
Valley Center M. W. D.	1,673.7	1,750.0	196.7	131.8	3,095.2
Total	14,566.4	8,123.0	5,218.4	919.5	16,551.5

Table 12

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

Year Ending June 30, 1963

Samples taken at entrance to San Diego Aqueduct by M. W. D.
and analyzed at District Laboratory

Month	Total Hardness as P. P. M. CaCO ₃	Non-Carbonate Hardness as P. P. M. CaCO ₃	Alkalinity as P. P. M. CaCO ₃		Magnesium as P. P. M. of Mg.	Hydrogen Ion Concentration	Temperature when sampled F°
			Total	Phenolphthalein			
July	336	223	113	0	29.5	7.9	78
August	343	226	117	0	29.5	8.3	80
September	339	223	116	0	29.5	8.2	79
October	341	224	117	0	29.5	8.2	75
November	344	225	119	0	29.5	8.2	70
December	348	227	121	0	30.0	8.3	61
January	351	227	124	0	30.0	7.7	54
February	353	227	126	2	30.0	8.3	53
March	346	224	122	0	29.0	8.2	59
April	348	225	123	0	29.5	8.3	63
May	346	226	120	0	29.0	8.3	69
June	336	215	121	0	29.5	8.4	77
Average	344	224	120	0	29.5	8.2	68
Maximum	353	227	126	2	30.0	8.4	80
Minimum	336	215	113	0	29.0	7.7	53

Table 13

ALLOCATION OF RIGHT TO PURCHASE AUTHORITY WATER

As of June 30, 1963

Member Agencies	Total Amount Paid by Each Member Agency to 6/30/63	Amount Remaining to be Paid under Terms of Annexation	Total Contributions Paid and Contracted for		Allocation	
			Total	Contracted for	Percentage of Authority Supply	Equivalent Flow c. f. s.
Bueno Colorado M. W. D.	\$ 394,604.28	\$ 0.00	\$ 394,604.28		2.60	11.70
Carlsbad M. W. D.	284,057.08	0.00	284,057.08		1.87	8.42
Del Mar, City of	500.00	130,200.00	130,700.00		0.86	3.87
Esccondido, City of	222,724.16	0.00	222,724.16		1.47	6.61
Fallbrook Public Utility District	117,767.56	5,008.23	122,775.79		0.81	3.64
Helix Irrigation District	1,611,940.57	7,962.78	1,619,903.35		10.67	48.02
National City, City of	379,201.98	0.00	379,201.98		2.50	11.25
Oceanside, City of	351,796.02	0.00	351,796.02		2.32	10.44
Olivbain M. W. D.	7,179.99	10,869.27	17,849.26		0.12	0.54
Otay M. W. D.	113,125.87	13,217.87	126,343.77		0.83	3.74
Poway M. W. D.	66,995.61	2,664.58	69,660.19		0.46	2.07
Rainbow M. W. D.	63,700.49	2,365.24	66,065.73		0.45	2.02
Ranoma M. W. D.	75,821.69	4,833.69	80,355.38		0.53	2.38
Rincon del Diabolo M. W. D.	227,635.41	0.00	227,635.41		1.50	6.75
Rio San Diego M. W. D.	230,329.67	58,042.11	278,371.78		1.83	8.24
San Diego, City of	9,562,226.38	0.00	9,562,226.38		63.00	283.50
San Diego Irrigation District	179,864.63	5,824.01	185,688.64		1.22	5.49
Santa Fe Irrigation District	162,464.41	0.00	162,464.41		1.07	4.81
South Bay Irrigation District	630,379.33	0.00	630,379.33		5.47	24.62
Valley Center M. W. D.	59,960.91	3,051.17	63,012.08		0.42	1.89
Total Authority	\$ 14,934,279.04	\$ 243,338.98	\$ 15,177,818.02		100.00	450.00

SAN DIEGO COUNTY WATER AUTHORITY

Table 14
WATER SALES BY METROPOLITAN WATER DISTRICT
Fiscal Years 1941-42 to 1962-63

Year	To Member Municipalities						Total Acre feet
	Natural Water		Softened 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	286,039.1	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	610,399.7	66	315,064.1	34	925,463.8	6,330.9	931,794.7
1962-63	670,754.5	66	349,896.9	34	1,020,651.4	168.9	1,020,820.3

TABLES

WATER PRODUCTION - METROPOLITAN WATER DISTRICT CONSTITUTE AREAS
Figures Furnished by Metropolitan Water District

Constituent Areas	1961-62			1962-63			Source of Water Produced - 1962-63		
	Amount ac. ft.	Percent Increase or Decrease	M. W. D. Percent of Total	Amount ac. ft.	Percent of Total	M. W. D. Percent of Total	Other		
							Amount ac. ft.	Percent of Total	
Ashheim	21,148	24,439	15.0	9,693	29.3	14,831	60.7		
Beverly Hills	11,459	14,748	28.7	5,241	35.5	9,507	64.5		
Burbank	24,370	25,915	1.8	5,937	23.8	19,039	76.2		
Calleguas M. W. D.	55,000	32,468	-5.6	0	0	52,463	100.0		
Central Basin M. W. D.	209,909	299,026	-0.4	(a) 32,023	15.3	177,003	54.9		
Chino Basin M. W. D.	166,970	115,562	-30.8	6,865	5.9	108,697	94.1		
Coastal M. W. D.	17,743	18,832	6.1	16,517	87.7	2,315	12.3		
Compton	7,845	8,039	2.7	2,301	28.6	5,738	71.4		
Eastern M. W. D.	127,186	122,925	-3.4	32,611	26.9	(b) 89,914	73.1		
Foothill M. W. D.	14,837	14,451	-2.7	8,332	57.8	6,099	42.2		
Fullerton	15,624	17,283	10.6	7,174	41.5	10,109	58.5		
Glendale	22,271	21,597	-1.9	1,894	8.7	19,663	91.3		
Las Virgenes M. W. D.	265	227	-14.3	0	0	227	100.0		
Long Beach	51,041	52,246	2.4	23,618	45.2	28,628	54.8		
Los Angeles	504,245	573,992	13.8	73,328	12.8	500,574	87.2		
Orange County M. W. D.	190,470	266,795	9.6	(c) 45,608	21.9	163,100	78.1		
Pasadena	32,447	33,095	2.0	18,494	57.1	14,204	42.9		
Pomona Valley M. W. D.	30,600	52,556	3.9	9,430	18.0	43,126	82.0		
San Diego C. W. A.	304,966	243,158	-18.6	(d) 221,645	91.1	21,543	8.9		
San Marino	5,494	5,053	-6.5	0	0	5,053	100.0		
Santa Ana	17,163	19,091	11.2	9,106	47.7	9,985	52.3		
Santa Monica	13,976	14,417	3.2	10,632	73.7	3,785	26.3		
Torrance	17,458	15,215	-4.3	15,982	85.5	2,633	14.5		
Upper San Gabriel Valley M. W. D.	---	141,906	---	0	0	141,066	100.0		
West Basin M. W. D.	127,057	132,632	4.4	(e) 82,641	62.3	50,011	37.7		
Western M. W. D. of Riverside County	166,253	175,954	5.8	13,954	7.9	162,000	92.1		
Totals	2,076,556	2,315,003	11.5	633,401	28.2	1,661,607	71.5		

(a) Does not include 17,569 acre feet of untreated water received for spreading in Zone 1 by the Los Angeles County Flood Control District for beneficial use within the following municipalities in the following proportions: 13,862 acre feet to Central Basin MWD, 709 acre feet to Compton, 2,916 acre feet to Long Beach, and 88 acre feet to Los Angeles as reported by letter from Los Angeles County Flood Control District dated August 5, 1963. Neither does it include 106,570 acre feet delivered to Central Basin MWD for replenishment purposes within the Central and West Basin Water Replenishment District.

(b) Includes 4,639 acre feet tunnel seepage into San Jacinto Tunnel.

(c) Does not include 234,789 acre feet of untreated water for replenishment purposes within Orange County.

(d) Includes 23,907 acre feet of water delivered but placed in storage.

(e) Does not include 4,345 acre feet of treated water injected underground at the West Coast Barrier Project.

Table 16

ANALYSIS OF COLORADO RIVER AQUEDUCT WATER
TAKEN AT WEST PORTAL OF SAN JACINTO TUNNEL
For Year Ending June 30, 1963

Constituent	Symbol	ANALYSES		
		Average	Maximum	Minimum
Silica	SiO ₂	9.9	10.8	8.8
Iron	Fe	--	--	--
Calcium	Ca	80.0	92.0	86.0
Magnesium	Mg	29.5	30.0	29.0
Sodium	Na	101.0	104.0	95.0
Potassium	K	5.0	5.0	5.0
Carbonate	CO ₃	0	2.0	0
Bicarbonate	HCO ₃	146.0	151.0	138.0
Sulfate	SO ₄	307.0	317.0	293.0
Chloride	Cl	93.0	98.0	88.0
Nitrate	NO ₃	2.1	3.2	1.1
Fluoride	F	0.4	0.4	0.4
Total Dissolved Solids		710.0	736.0	683.0
Hardness as CaCO ₃				
Total		344.0	353.0	336.0
Carbonate		120.0	126.0	113.0
Noncarbonate		224.0	227.0	215.0
Alkalinity - Phenolphthalein		0	2	0
Alkalinity - Total		120.0	126.0	113.0
Free Carbon Dioxide	CO ₂	2.0	5.0	1.0
Hydrogen Ion Concentration	pH	8.2	8.4	7.7
Electrical Conductivity	EC ₁₀₀ ²⁵	1105.0	1135.0	1035.0

NOTE: For analyses of monthly samples see Table 12.

TABLES

Table 17

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	-	1,789,160,685	.37	.20
1937-38	-	1,827,765,725	.40	.37
1938-39	-	1,896,966,255	.40	.40
1939-40	-	1,910,152,190	.42	.40
1940-41	399,588	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 (2)	.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 (3)	-	17,261,412,395	.14	.14

(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 1963-64 were available before completion of report and are included for convenience of reader.

September 4, 1963

Mr. Richard S. Holmgren
General Manager and Chief Engineer
San Diego County Water Authority
2750 Fourth Avenue
San Diego 3, California

Dear Sir:

Presented herewith is the annual financial report of the San Diego County Water Authority. The financial statements contained herein summarize the Authority's financial position and results of its fiscal operations for the year ended June 30, 1963.

As described in previous reports, operating requirements have been met primarily from the sale of water to our member agencies. Requirements for contractual payments to the United States Government, and for service and retirement of bonded debt have been provided primarily from tax levies. Receipts from the Metropolitan Water District as its portion of contractual payments, together with revenues from investments have materially reduced these requirements.

During 1962-63, operating revenues amounted to \$4,380,315.88, and operating costs totalled \$4,230,557.00, leaving a net income of \$149,758.88 before depreciation and debt service expense.

The Authority's financial position continues sound and strong. Our accounting system conforms to the basic principles of municipal budgetary fund accounting. All accounts have been regularly audited by the firm of Peat, Marwick, Mitchell & Co., Certified Public Accountants, whose report is included herein.

Respectfully,



Henry Lano
Acting Chief Accounting Officer

PEAT, MARWICK, MITCHELL & CO.

CERTIFIED PUBLIC ACCOUNTANTS
(INCORPORATING EVERTS AND ESENOFF)
1800 FIFTH AVENUE
SAN DIEGO 1, CALIFORNIA

AUDITOR'S REPORT

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, 1963 and the related statements of income and changes in surplus and reserves 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.

The financial statements included in this report were prepared from accounting records kept on a modified accrual basis. In general, revenues are recorded when earned and expenditures are recorded upon incurrence of liability, except accrued interest on outstanding indebtedness, which is payable from appropriations of the following year.

In our opinion, the accompanying balance sheet and statements of income and changes in surplus and reserves present fairly the financial position of the San Diego County Water Authority at June 30, 1963 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.

Peat, Marwick, Mitchell & Co.

San Diego, California
August 27, 1963

SAN DIEGO COUNTY WATER AUTHORITY

Exhibit A
BALANCE SHEET
June 30, 1963

ASSETS

CURRENT ASSETS - GENERAL FUND:			
Cash with treasurer	\$	297,678.08	
Petty cash		200.00	
Accounts receivable		485,167.92	
Inventory of water in storage		319,351.40	
Investments		<u>200,100.46</u>	\$ 1,302,497.86
SPECIAL FUND ASSETS:			
Reserve fund:			
Cash with treasurer	\$	530,043.50	
Due from waterworks bonds, 1957, interest and redemption fund		46,300.00	
Investments		<u>9,420.94</u>	585,764.44
Waterworks bonds, 1947, interest and sinking fund:			
Cash with treasurer		69,079.91	
Cash with bond paying agent		10,200.00	
Investments		<u>326,132.73</u>	405,412.64
U.S. Government contract fund:			
Cash with treasurer		13,937.79	
Due from Metropolitan Water District (note 1)		<u>10,253,479.74</u>	10,267,417.53
Waterworks bonds, 1957, improvement fund (note 2):			
Cash with treasurer		233,026.70	
Investments		<u>214,000.00</u>	447,026.70
Waterworks bonds, 1957, interest and redemption fund:			
Cash with treasurer		81,578.02	
Cash with bond paying agent		<u>9,600.25</u>	91,178.27
Capital improvement fund:			
Cash with treasurer		212,758.98	
Investments		310,789.55	
Annexation charges receivable - not due		<u>243,538.98</u>	<u>767,087.51</u>
			12,563,887.09
FIXED ASSETS:			
Participation rights in Metropolitan Water District (note 3)			46,815,636.91
Plant		52,067,234.50	
Less allowance for depreciation		<u>3,245,929.29</u>	48,821,305.21
Work in progress			<u>158,356.20</u>
			95,795,298.32
			<u>\$ 109,661,683.27</u>

See accompanying notes to financial statements.

FINANCIAL REPORT

Exhibit A (Continued)
BALANCE SHEET
June 30, 1963

LIABILITIES, RESERVES AND SURPLUS

CURRENT LIABILITIES - GENERAL FUND:			
Accounts payable	\$	430,582.92	
Unapplied credits for irrigation water		32,174.40	
Advances by agencies for construction		26,206.81	
Deposits by agencies for annexation		<u>2,000.00</u>	\$ 490,964.13
CURRENT LIABILITIES - SPECIAL FUNDS:			
Accounts payable - capital improvement fund		1,225.60	
Liability of waterworks bonds, 1957, interest and redemption fund to reserve fund		<u>46,300.00</u>	47,525.60
LONG-TERM DEBT:			
General obligation bonds payable - not due		30,575,000.00	
Estimated balance on U.S. Government contract - First Aqueduct cost (note 4)		19,409,198.04	
Balance of annexation charges Metropolitan Water District (note 3)		<u>11,200,654.32</u>	61,274,852.36
SURPLUS AND RESERVES:			
Net equity in fixed assets		34,520,445.96	
Reserve for encumbrances:			
General fund	\$	5,693.27	
Capital improvement fund		<u>118.56</u>	5,811.83
Reserves for debt redemption:			
Retirement of general obligation bonds		450,290.91	
Retirement of U.S. Government contract		<u>10,267,417.53</u>	10,717,708.44
Appropriated surplus:			
Petty cash fund balance		200.00	
Reserve fund balance		585,764.44	
Waterworks bonds, 1957, improvement fund - reserve for authorized expenditures		447,026.70	
Capital improvement fund balance		<u>589,658.67</u>	
		1,622,649.81	
Incomplete projects (continuing appropriations):			
General fund	\$	10,847.80	
Capital improvement fund		<u>176,084.68</u>	186,932.48
			1,809,582.29
Unappropriated surplus:			
Invested in water in storage		319,351.40	
Available for appropriation		<u>475,441.26</u>	794,792.66
			47,848,341.18
			<u>\$ 109,661,683.27</u>

SAN DIEGO COUNTY WATER AUTHORITY

Exhibit B

STATEMENT OF CHANGES IN SURPLUS AND RESERVES
Year Ended June 30, 1963

	Total	General Fund	Reserve Fund
Balances, July 1, 1962	\$44,473,819.88	\$702,005.19	\$634,721.37
Net income without provision for depreciation - utility provisions	164,615.19	164,615.19	
Revenues, other than general fund	2,512,174.03		9,743.07
Additional annexation charges	130,950.00		
Refunds of prior years' expenditures	5,113.20	189.74	
Increase in special deposit for bond interest	3,642.75		
Interfund transfers	95,500.00		
Agencies' contributions to Metropolitan Water District	2,999,924.24		
Payments on U.S. Government contracts	877,993.98		
Redemptions of waterworks bonds	270,000.00		
Additions to plant and equipment, net	162,549.35		
Total additions	7,222,462.74	164,804.93	9,743.07
Total beginning balances plus additions	51,696,282.62	866,810.12	644,464.44
Expenditures, other than general fund	2,707,737.91		
Tax collection expense	4,732.68		
Decrease in amount due from Metropolitan Water District	459,811.21		
Annexation charges collected (included in revenues above)	24,446.03		
Expenditures from general fund for plant and equipment	18,476.39	18,476.39	
Decrease in special deposit for bond interest	1,510.00		
Interfund transfers	95,500.00	36,800.00	58,700.00
Depreciation expense	535,727.22		
Total deductions	3,847,941.44	55,276.39	58,700.00
Balances, June 30, 1963	\$47,848,341.18	\$811,533.73	\$585,764.44
Analysis of surplus and reserves:			
Net equity in fixed assets	34,520,445.96		
Reserve for encumbrances	5,811.83	5,693.27	
Reserves for debt redemption	10,717,708.44		
Appropriated surplus:			
Incomplete projects (continuing appropriations)	186,932.48	10,847.89	
Other	1,622,649.81	290.00	585,764.44
Unappropriated surplus	794,792.66	794,792.66	
	\$47,848,341.18	\$811,533.73	\$585,764.44

See accompanying notes to financial statements.

FINANCIAL REPORT

Exhibit B (Continued)

STATEMENT OF CHANGES IN SURPLUS AND RESERVES
Year Ended June 30, 1963

Waterworks Bonds, 1947 Interest and Sinking Fund	U.S. Government Contract Fund	Waterworks Bonds, 1957 Improvement Fund	Waterworks Bonds, 1957 Interest and Redemption Fund	Capital Improvement Fund	Net Equity in Fixed Assets
\$479,491.41	\$10,740,283.04	\$442,103.24	\$ 59,411.76	\$670,098.26	\$30,745,705.61
99,149.75	1,147,301.28		1,208,717.01	47,262.92	
		4,923.46		130,950.00	
			3,642.75		
	36,800.00		58,700.00		
					2,999,924.24
					877,993.98
					270,000.00
					162,549.35
99,149.75	1,184,101.28	4,923.46	1,271,050.76	178,212.92	4,310,467.57
578,641.16	11,924,384.32	447,026.70	1,330,471.52	848,311.18	35,056,173.18
171,500.00	1,195,801.21		1,282,500.00	57,936.70	
218.52	1,354.37		3,093.25	66.54	
	459,811.21				
				24,446.03	
1,510.00					
					535,727.22
173,228.52	1,656,966.79	---	1,285,593.25	82,449.27	535,727.22
\$405,412.64	\$10,267,417.53	\$447,026.70	\$ 44,878.27	\$765,861.91	\$34,520,445.96
405,412.64	10,267,417.53		44,878.27	118.56	34,520,445.96
				176,084.68	
		447,026.70		589,658.67	
\$405,412.64	\$10,267,417.53	\$447,026.70	\$ 44,878.27	\$765,861.91	\$34,520,445.96

SAN DIEGO COUNTY WATER AUTHORITY

Exhibit C

STATEMENT OF INCOME - UTILITY OPERATIONS

For Fiscal Year Ended June 30, 1963

WATER SALES:			
Gross revenues from water sales		\$4,725,769.70	
Less credits to agencies for agricultural water use		<u>348,519.32</u>	
Net revenue from water sales			\$4,377,250.38
COST OF WATER SOLD:			
Inventory of water in storage, July 1, 1962		247,979.80	
Water purchased	\$4,385,626.50		
Less credits for agricultural water	<u>348,519.32</u>	4,037,107.18	
Storage and pumping charges		<u>1,461.32</u>	
		4,286,548.30	
Less inventory of water in storage June 30, 1963		<u>319,351.40</u>	
Cost of water sold			3,967,196.90
Gross margin			410,053.48
OTHER OPERATING INCOME:			
Water transportation charges		1,159.50	
Rentals of Authority properties		<u>1,906.00</u>	
Gross operating income			413,118.98
			<u>263,369.10</u>
OPERATING EXPENSES (Schedule 1)			
Net income before depreciation and debt service expense			149,758.88
DEPRECIATION AND DEBT SERVICE EXPENSE:			
Depreciation		535,727.22	
Debt service expense (interest)	1,501,807.23		
Less receipts from Metropolitan Water District	<u>173,416.28</u>	<u>1,328,390.95</u>	<u>1,864,118.17</u>
			<u>\$(1,714,359.29)</u>
NON-OPERATING INCOME:			
Earnings on investments		14,929.69	
Miscellaneous income net of refunds		(73.38)	
Debt service expense provided by:			
Bond interest funds	1,184,000.00		
U.S. Government contract fund	<u>144,390.95</u>	<u>1,328,390.95</u>	<u>1,343,247.26</u>
Net income (deficit) for year			(371,112.03)
Provision for depreciation, an expense which did not require a current cash outlay		535,727.22	
Net income, without provision for depreciation, to surplus			<u>\$ 164,615.19</u>

See accompanying notes to financial statements.

FINANCIAL REPORT

NOTES TO FINANCIAL STATEMENTS

June 30, 1963

- The amount due from Metropolitan Water District of \$10,253,479.74 represents the estimated balance due the Authority for its portion of the cost of the first and second barrels of the First San Diego Aqueduct. The first barrel is subject to adjustment upon final settlement by the U. S. Government.
- There are \$5,000,000.00 of unissued bonds in the waterworks bonds, 1957, improvement fund at June 30, 1963. These bonds may be sold at any time for purposes authorized by the special election of July 9, 1957.
- The recorded value and equity in participation rights in the Metropolitan Water District is as follows:

Total participation rights recorded to June 30, 1963	\$ 46,815,636.91
Less unpaid balance of annexation charges due Metropolitan Water District	<u>11,290,654.32</u>
Equity in participation rights	<u>\$ 35,524,982.59</u>

- The amount payable on the U. S. Government contract relating to the first barrel of the First San Diego Aqueduct is subject to adjustment upon final settlement by the U. S. Government.
- The Authority has uncollected taxes receivable as follows:

Waterworks bonds, 1947, interest and sinking fund	\$ 2,787.10
U. S. Government contract fund	17,900.57
Waterworks bonds, 1957, interest and redemption fund	38,411.43
Capital improvement fund	<u>1,924.53</u>
Total uncollected taxes receivable (Table I)	<u>\$ 61,023.63</u>

The Authority has set up allowances for delinquency equal to the total of the uncollected taxes. Revenue from delinquent taxes is recorded when collected.

- Interest on the 1957 waterworks bonds for one year after completion of construction of the Second San Diego Aqueduct, totaling \$1,169,700.00, was treated as a construction cost and capitalized. This amount was paid in the 1961-62 fiscal year. This treatment, although not in conformity with generally accepted accounting principles, was required by a provision of the County Water Authority Act. Interest on the 1957 waterworks bonds paid on August 1, 1962 and February 1, 1963, totaling \$1,162,500.00 is included in debt service expense for the fiscal year ended June 30, 1963.

SAN DIEGO COUNTY WATER AUTHORITY

Schedule 1

STATEMENT OF OPERATING EXPENSES

Year Ended June 30, 1963

EMPLOYMENT EXPENSES:		
Salaries and wages	\$ 150,432.46	
Legal services	12,000.00	
Temporary help	150.92	
Overtime	2,043.55	
Employee retirement - S.E.R.S.	8,053.58	
Employee retirement - O.A.S.D.I.	3,690.31	
Employee insurance	2,191.80	
	<u>178,562.62</u>	
Less charges to other appropriations	<u>28,021.52</u>	\$ 150,541.10
OTHER EXPENSES:		
Gas, electricity and water	5,847.74	
Telephone and telegraph	2,875.38	
Postage	722.28	
Printing, binding and reproduction expense	1,837.15	
Expense of directors	3,164.43	
Expense of staff	481.35	
Annual audit	2,500.00	
Fees and commissions	3,238.75	
Insurance and official bonds	3,306.14	
Memberships and subscriptions	702.20	
Protection of Colorado River rights	1,060.00	
Maintenance of buildings and grounds	3,985.95	
Maintenance of office equipment	438.06	
Engineering supplies	300.92	
Stationery and office supplies	1,032.05	
Chlorine	27,885.42	
Gasoline and diesel fuel	2,480.48	
Oils and greases	241.17	
Tires and tubes	1,353.24	
Automotive repair parts	1,023.89	
Outside automotive repairs and upkeep	227.07	
Maintenance supplies and small tools	3,905.72	
Radio repair and upkeep	236.96	
Report on Colorado River water quality	44,152.20	
Contingencies	<u>1,776.20</u>	
	<u>114,774.75</u>	
Less charges to other appropriations	<u>1,955.75</u>	

112,819.00

\$ 263,360.10

FINANCIAL REPORT

Schedule 2

STATEMENT OF REVENUES - ESTIMATED AND ACTUAL

Fiscal Year Ended June 30, 1963

Source	Estimated Revenues	Actual Revenues	Actual Over or (Under) Estimate
Taxes, secured, current levy	\$ 1,578,600.00	\$ 1,604,571.27	\$ 25,971.27
Taxes, unsecured, current levy	170,500.00	171,300.69	800.69
Taxes, secured, prior years' levy	16,000.00	36,283.84	20,283.84
Taxes, unsecured, prior years' levy	2,000.00	1,574.61	(425.39)
Penalties on delinquent taxes	2,000.00	3,935.38	1,935.38
Receipts in lieu of taxes	---	969.70	969.70
Sale of water	4,616,500.00	4,377,250.38	(239,249.62)
Miscellaneous tax sales	---	30.99	30.99
Earnings on investments	60,000.00	78,412.84	18,412.84
Rentals	1,500.00	1,906.00	406.00
Contract payments from Metropolitan Water District	630,983.00	629,687.33	(1,295.67)
Use of Authority facilities	1,200.00	1,159.50	(40.50)
Miscellaneous revenues	---	<u>263.69</u>	<u>263.69</u>
Total	<u>\$ 7,079,283.00</u>	<u>\$ 6,907,346.22</u>	<u>(171,936.78)</u>
<u>Distribution by Funds:</u>			
General fund	4,630,200.00	4,395,172.19	(235,027.81)
Reserve fund	14,000.00	9,743.07	(4,256.93)
Waterworks bonds, 1947, interest and sinking fund	94,400.00	99,149.75	4,749.75
U. S. Government contract fund	1,134,483.00	1,147,301.28	12,818.28
Waterworks bonds, 1957, interest and redemption fund	1,170,400.00	1,208,717.01	38,317.01
Capital improvement fund	<u>35,800.00</u>	<u>47,262.92</u>	<u>11,462.92</u>
Total All Funds	<u>\$ 7,079,283.00</u>	<u>\$ 6,907,346.22</u>	<u>\$ (171,936.78)</u>

SAN DIEGO COUNTY WATER AUTHORITY

Schedule 3

STATEMENT OF APPROPRIATIONS AND EXPENDITURES

Fiscal Year Ended June 30, 1963

E & A No.	Purpose	Prior Years' Appropriation Carried Over	Appropriations 1962-63
214	Access roads, Second Aqueduct	\$ 4,521.39	\$
218	Service connection, San Diego, Sta. 3355+25	15,618.55	
234	Service connection, Oceanside, Sta. 2592+50	6,059.61	
235	Temporary service connection, San Diego, Sta. 3437+29	9,438.67	
237	Budget fiscal year 1962-63:		
	General fund		4,487,398.00
	U. S. Government contract fund		1,195,808.00
	Waterworks bonds, 1947, interest and sinking fund		171,500.00
	Waterworks bonds, 1957, interest and redemption fund		1,282,500.00
238	Engineering design and rights of way for crossconnection		115,000.00
240	Service connection, Valley Center, Sta. 2357+30		23,000.00
241	Service connection, Otay, Sta. 5037+00		19,500.00
242	Service connection, Rainbow, Sta. 2094+37		24,500.00
243	Service connection, Rainbow, Sta. 2300+00		31,000.00
244	Report on Colorado River water quality		55,000.00
245	Second Aqueduct crossing U.S. Highway 395		99,000.00
	Subtotal	35,638.22	7,504,206.00
	Less advances by agencies	15,498.28	98,000.00
	Total Authority	\$ 20,139.94	\$ 7,406,206.00
<u>Distribution by Funds</u>			
	General Fund	\$	\$ 4,542,398.00
	Waterworks bonds, 1947, interest and sinking fund		171,500.00
	U. S. Government contract fund		1,195,808.00
	Waterworks bonds, 1957, interest and redemption fund		1,282,500.00
	Capital improvement fund	20,139.94	214,000.00
		\$ 20,139.94	\$ 7,406,206.00

FINANCIAL REPORT

Schedule 3 (Continued)

STATEMENT OF APPROPRIATIONS AND EXPENDITURES

Fiscal Year Ended June 30, 1963

Expenditures 1962-63	Cancelled Appropriations	Unexpended Appropriations June 30, 1963	Encumbrances	Uncumbered Balance
\$ 924.63	\$	\$ 3,596.76	\$	\$ 3,596.76
270.24		15,348.31		15,348.31
4,330.08	1,729.53			
54.20	9,384.47			
4,262,697.60	219,007.13	5,693.27	5,693.27	
1,195,801.21	6.79			
171,500.00				
1,282,500.00				
55,133.98		59,866.02	118.56	59,747.46
16,298.67		6,701.13	268.20	6,432.93
14,194.92		5,305.08		5,305.08
18,572.10		5,927.90		5,927.90
22,727.30		8,272.70	321.52	7,951.18
44,152.20		10,847.60		10,847.60
1,697.85		97,392.15		97,392.15
7,090,765.18	230,127.92	218,951.12	6,401.56	212,549.57
76,177.47	11,114.00	26,206.81	589.72	25,617.09
\$ 7,014,587.71	\$ 219,013.92	\$ 192,744.31	\$ 5,811.83	\$ 186,932.48
\$ 4,306,849.80	\$ 219,007.13	\$ 16,541.07	\$ 5,693.27	\$ 10,847.80
171,500.00				
1,195,801.21	6.79			
1,282,500.00				
57,936.70		176,203.24	118.56	176,084.68
\$ 7,014,587.71	\$ 219,013.92	\$ 192,744.31	\$ 5,811.83	\$ 186,932.48

SAN DIEGO COUNTY WATER AUTHORITY

FINANCIAL REPORT

Schedule 5

STATEMENT OF INVESTMENTS

Fiscal Year Ended June 30, 1963

Description	Date Acquired	Interest Rate	Yield	Maturity Date	Par or Maturity Value	Book Value
U. S. Treasury bills . . .	3/1/63	2.92	2.92	8/15/63	\$ 509,000.00	\$ 502,022.74
U. S. Treasury notes . . .	8/1/61	3-3/4	5.05	8/15/64	378,000.00	368,420.94
U. S. Treasury notes . . .	9/15/62	3-3/4	3.75	8/15/67	190,000.00	190,000.00
					<u>\$1,077,000.00</u>	<u>\$1,060,443.68</u>

Distribution by Funds

General fund	\$ 200,240.00	\$ 200,100.46
Reserve fund	9,000.00	9,420.94
Waterworks bonds, 1947, interest and sinking fund	330,040.00	326,132.73
Waterworks bonds, 1957, improvement fund	214,000.00	214,000.00
Capital improvement fund	323,720.00	310,789.55
	<u>\$1,077,000.00</u>	<u>\$1,060,443.68</u>

Schedule 4
SUMMARY STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS
Fiscal Year Ended June 30, 1963

	Cash Balance		Cash		Inter-Fund Transfers		Cash Balance June 30, 1963
	July 1, 1962		Receipts	Disbursements	In	Out	
General fund	\$ 172,009.15	\$4,689,603.58	\$4,562,661.00	\$ 258,981.71	\$ 260,035.36	\$ 297,675.08	
Reserve fund	615,300.43	415,743.07	287,000.00	310,000.00	550,000.00	530,043.50	
Waterworks bonds, 1947, interest and sinking fund	142,781.41	416,595.40	590,632.73	168,335.53	75,000.00	69,079.91	
U. S. Government contract fund	26,992.09	1,145,946.60	1,275,801.21	351,800.31	235,000.00	13,937.79	
Waterworks bonds, 1957, improvement fund	228,103.24	230,000.00	185,000.00	4,923.46	45,000.00	233,026.70	
Waterworks bonds, 1957, interest and redemption fund	53,454.26	1,265,623.76	1,507,590.00	698,000.00	428,000.00	81,575.02	
Capital improvement fund	164,675.38	531,597.61	287,968.06	22,975.76	219,981.71	212,755.98	
Total all funds	<u>\$1,403,315.96</u>	<u>\$8,731,510.02</u>	<u>\$8,696,723.00</u>	<u>\$1,815,017.07</u>	<u>\$1,815,017.07</u>	<u>\$1,438,102.98</u>	

TREASURY CASH ON DEPOSIT - June 30, 1963

Demand deposits:		
San Diego Trust & Savings Bank	\$ 26,172.54	\$ 26,172.54
First National Bank of San Diego	476,065.50	\$ 502,238.04
Time deposits:		
First National Bank of San Diego	635,000.00	
United States National Bank	250,000.00	
San Diego Trust & Savings Bank	230,000.00	1,115,000.00
Deposits in transit	8,840.32	1,626,078.36
Less:		
Outstanding warrants	167,975.39	
Treasury cash, June 30, 1963, as above		\$1,438,102.98

SAN DIEGO COUNTY WATER AUTHORITY

Schedule 6
STATEMENT OF BONDS PAYABLE
June 30, 1963

Description	Rate of Interest	Date of	
		Issue	Maturity
Waterworks bonds, 1947	2%-2-1/2%	1947	1971
Waterworks bonds, 1957	1%-6%	1957	1993

STATEMENT OF BONDED DEBT MATURITIES

Fiscal Year	Waterworks Bonds, 1947		
	Principal	Interest	Total
1963-64	\$ 150,000.00	\$ 18,500.00	\$ 168,500.00
1964-65	150,000.00	15,500.00	165,500.00
1965-66	150,000.00	12,500.00	162,500.00
1966-67	150,000.00	9,500.00	159,500.00
1967-68	100,000.00	7,000.00	107,000.00
1968-69	100,000.00	5,000.00	105,000.00
1969-70	100,000.00	3,000.00	103,000.00
1970-71	100,000.00	1,000.00	101,000.00
1971-72			
1972-73			
1973-74			
1974-75			
1975-76			
1976-77			
1977-78			
1978-79			
1979-80			
1980-81			
1981-82			
1982-83			
1983-84			
1984-85			
1985-86			
1986-87			
1987-88			
1988-89			
1989-90			
1990-91			
1991-92			
1992-93			
	<u>\$1,000,000.00</u>	<u>\$ 72,000.00</u>	<u>\$ 1,072,000.00</u>

Waterworks bonds, 1947, dates of maturity: January 1 - Bonds and interest coupons
July 1 - Interest coupons only

FINANCIAL REPORT

Schedule 6 (Continued)
STATEMENT OF BONDS PAYABLE
June 30, 1963

Bonds			Sinking Fund		
Authorized	Issued	Outstanding	Required	Actual	Excess
\$ 2,000,000.00	\$ 2,000,000.00	\$ 1,000,000.00	\$ 391,475.00	\$ 395,212.64	\$ 3,737.64
35,000,000.00	30,000,000.00	29,575,000.00			
<u>\$37,000,000.00</u>	<u>\$32,000,000.00</u>	<u>\$30,575,000.00</u>			

STATEMENT OF BONDED DEBT MATURITIES

Waterworks Bonds, 1957			Total		
Principal	Interest	Total	Principal	Interest	Total
\$ 140,000.00	\$ 1,155,300.00	\$ 1,295,300.00	\$ 290,000.00	\$ 1,173,800.00	\$ 1,463,800.00
160,000.00	1,146,900.00	1,306,900.00	310,000.00	1,162,400.00	1,472,400.00
180,000.00	1,137,300.00	1,317,300.00	330,000.00	1,149,800.00	1,479,800.00
210,000.00	1,126,500.00	1,336,500.00	360,000.00	1,136,000.00	1,496,000.00
240,000.00	1,113,900.00	1,353,900.00	340,000.00	1,120,900.00	1,460,900.00
310,000.00	1,099,500.00	1,409,500.00	410,000.00	1,104,500.00	1,514,500.00
370,000.00	1,080,900.00	1,450,900.00	470,000.00	1,083,900.00	1,553,900.00
440,000.00	1,058,700.00	1,498,700.00	540,000.00	1,059,700.00	1,599,700.00
570,000.00	1,035,300.00	1,605,300.00	570,000.00	1,035,300.00	1,605,300.00
640,000.00	1,009,425.00	1,649,425.00	640,000.00	1,009,425.00	1,649,425.00
700,000.00	980,425.00	1,680,425.00	700,000.00	980,425.00	1,680,425.00
750,000.00	952,545.00	1,702,545.00	750,000.00	952,545.00	1,702,545.00
830,000.00	922,645.00	1,752,645.00	830,000.00	922,645.00	1,752,645.00
920,000.00	888,820.00	1,808,820.00	920,000.00	888,820.00	1,808,820.00
990,000.00	851,245.00	1,841,245.00	990,000.00	851,245.00	1,841,245.00
1,035,000.00	810,655.00	1,845,655.00	1,035,000.00	810,655.00	1,845,655.00
1,100,000.00	767,930.00	1,867,930.00	1,100,000.00	767,930.00	1,867,930.00
1,160,000.00	727,435.00	1,887,435.00	1,160,000.00	727,435.00	1,887,435.00
1,230,000.00	685,010.00	1,915,010.00	1,230,000.00	685,010.00	1,915,010.00
1,290,000.00	639,515.00	1,929,515.00	1,290,000.00	639,515.00	1,929,515.00
1,350,000.00	591,770.00	1,941,770.00	1,350,000.00	591,770.00	1,941,770.00
1,420,000.00	541,775.00	1,961,775.00	1,420,000.00	541,775.00	1,961,775.00
1,470,000.00	488,610.00	1,958,610.00	1,470,000.00	488,610.00	1,958,610.00
1,530,000.00	433,570.00	1,963,570.00	1,530,000.00	433,570.00	1,963,570.00
1,595,000.00	376,112.00	1,971,112.00	1,595,000.00	376,112.00	1,971,112.00
1,660,000.00	316,190.00	1,976,190.00	1,660,000.00	316,190.00	1,976,190.00
1,730,000.00	253,620.00	1,983,620.00	1,730,000.00	253,620.00	1,983,620.00
1,800,000.00	188,407.00	1,988,407.00	1,800,000.00	188,407.00	1,988,407.00
1,850,000.00	120,552.00	1,970,552.00	1,850,000.00	120,552.00	1,970,552.00
1,905,000.00	50,737.00	1,955,737.00	1,905,000.00	50,737.00	1,955,737.00
<u>\$29,575,000.00</u>	<u>\$22,551,293.00</u>	<u>\$52,126,293.00</u>	<u>\$30,575,000.00</u>	<u>\$22,623,293.00</u>	<u>\$53,198,293.00</u>

Waterworks bonds, 1957, dates of maturity: January 1 - Bonds and interest coupons
July 1 - Interest coupons only

Table F-1
STATEMENT OF TAX ASSESSMENTS AND COLLECTIONS
Fiscal Years 1945-46 to 1962-63

	Tax Assessments to Date	Adjustments to Tax Assessments	Tax Collections	Interest and Penalties	Tax on Options	Receipts in Lieu of Taxes	Miscellaneous Tax Sales	(Less) Refunds	Net Total Collections	Uncollected June 30, 1963
Fallbrook Public Utility District	\$ 114,662.20	(13.01)	113,947.39	367.93	.32	3,420.09	7.42	15.70	117,767.56	661.89
Helix Irrigation District	1,615,980.62	(1,536.51)	1,604,351.01	3,735.05	89.03	3,620.55	586.55	422.60	1,611,940.57	10,163.10
City of National City	374,756.17	(184.24)	373,551.17	814.63	8.39	6,256.64	63.64	494.49	379,201.98	2,020.76
City of Oceanside	349,913.34	332.70	349,946.46	633.26	5.11	2,362.32	89.91	461.04	351,796.02	1,279.58
City of San Diego	9,455,219.81	6,364.72	9,436,642.96	13,107.00	42.29	151,941.65	2,005.72	40,813.24	9,562,226.35	24,941.57
Ramona M. W. D.	74,924.07	189.59	73,822.22	203.90	---	1,800.00	-.94	5.37	75,821.69	1,291.94
Santa Fe Irrigation District	157,233.76	1,360.34	157,925.64	967.38	831.19	2,392.80	1,050.99	733.09	162,464.41	668.26
San Diego Irrigation District	179,906.61	(151.51)	178,369.56	452.63	3.88	1,123.14	117.39	232.19	179,864.63	1,367.54
City of Escondido	323,205.33	263.04	223,359.79	354.42	---	8.05	26.84	26.84	223,724.16	1,108.78
South Bay Irrigation District	834,137.66	(2,565.68)	826,177.97	1,369.96	.39	13,281.66	59.69	12,459.34	839,379.33	3,434.01
Rainbow M. W. D.	45,575.94	144.79	45,021.96	103.96	---	29,379.97	---	5.40	65,760.49	702.77
Poway M. W. D.	69,218.81	(180.09)	66,818.21	183.91	---	---	---	13.51	66,998.61	2,220.51
Buena Colorado M. W. D.	383,971.80	1,764.17	382,978.78	963.72	1.73	19,753.28	50.09	142.32	394,604.28	2,781.19
Rincon del Diablo M. W. D.	175,832.40	1,046.66	175,763.01	417.58	---	51,471.91	---	17.09	227,635.41	1,136.05
Carlsbad M. W. D.	351,872.37	(279.73)	250,919.58	228.00	---	33,176.44	9.10	276.04	284,037.08	873.06
Vailley Center M. W. D.	60,281.32	98.63	59,762.44	189.05	---	---	14.45	5.93	59,969.91	617.51
Rio San Diego M. W. D.	224,927.69	(355.95)	219,381.69	928.40	.05	276.00	41.11	191.55	220,329.67	4,159.45
Okay M. W. D.	114,920.71	(169.14)	112,954.38	269.26	---	---	25.85	114.62	113,125.87	1,790.19
Olivenhain M. W. D.	7,228.17	(12.90)	7,177.54	2.48	---	359.00	---	---	7,429.99	37.73
City of Del Mar	---	---	---	---	---	500.00	---	---	500.00	---
Total Member Agencies	14,712,790.89	5,972.65	14,657,741.67	25,268.04	972.63	302,778.50	4,194.19	56,421.99	14,654,529.04	61,021.99
Withdrawals areas	4,169.05	31.70	4,199.01	11.48	-.15	156.64	2.49	5.35	4,334.42	1.74
Total	\$14,716,959.93	6,004.35	14,661,940.68	35,279.52	972.78	302,965.14	4,196.68	56,427.34	14,933,923.46	61,023.63

FINANCIAL REPORT

Table F-2
ASSESSED VALUATIONS AND TAX RATES
Fiscal Years 1945-46 to 1962-63

Fiscal Year	Secured		Public Utilities	Unsecured Personal	Total	Tax Rate Per \$100	
	Real	Personal				Secured	Unsecured
1945-1946	\$ 212,082,975		28,253,700	29,960,130	270,296,805	0.04	
1946-1947	208,715,150 (1)		29,433,450	30,665,910	268,814,510	0.04	0.04
1947-1948	233,579,990		32,740,680	40,977,850	307,298,520 (2)	0.14	0.04
1948-1949	254,227,570		37,482,020	47,177,300	338,886,890	0.14	0.14
1949-1950	290,351,875		42,429,140	45,743,200	378,524,215	0.10	0.14
1950-1951	306,104,930		43,595,730	44,717,740	394,418,400	0.10	0.10
1951-1952	344,620,030		48,452,940	50,904,035	443,977,005	0.10	0.10
1952-1953	382,948,860		53,208,220	63,996,330	500,153,410	0.12	0.10
1953-1954	490,709,350		63,092,050	69,147,150	622,948,550	0.10	0.12
1954-1955	546,272,880		69,243,550	79,629,790	695,146,220	0.10	0.10
1955-1956	627,062,960		87,485,390	79,936,450	794,484,800	0.09	0.10
1956-1957	680,824,400		101,224,260	97,950,800	879,999,460	0.09	0.09
1957-1958	761,088,330		111,151,890	128,785,440	1,001,025,660	0.09	0.09
1958-1959	865,283,080		128,479,290	128,124,720	1,121,887,090	0.10	0.09
1959-1960	979,491,050		145,317,290	134,846,730	1,259,655,070	0.11	0.10
1960-1961	1,116,723,830		165,666,720	159,954,740	1,442,345,290	0.11	0.11
1961-1962	1,220,810,650		191,276,650	155,149,890	1,567,237,190	0.11	0.11
1962-1963	1,272,506,330		201,245,370	154,989,440	1,628,741,140	0.11	0.11

(1) City of Coronado secured assessed valuations not included in this or subsequent tax levies by the Authority, having withdrawn from the Authority prior to 1946-1947.
(2) City of Coronado not included in this or subsequent total valuation.

Table F-3

TAX LEVIES AND TAX COLLECTIONS

Fiscal Years 1945-46 to 1962-63

Fiscal Year	Tax Levy (1)	Collection of Current Year's Taxes During Fiscal Year		Percentage of Levy Collected During Fiscal Year	Adjustments to Prior Years' Levies		Collection of Prior Years' Taxes During Fiscal Year		Total Tax Collections	Ratio of Total Tax Collections to Adjusted Delinquent Taxes		Ratio of Accumulated Delinquent Taxes to Adjusted Tax Levy (2)
		Fiscal Year	\$		Years' Levies	Fiscal Year	Years' Taxes	Levy (2)		Levy (2)		
1945-46	\$ 96,131.33	\$ 94,656.51	98.47	---	---	---	---	---	\$ 94,656.51	95.47	\$ 1,474.82	1.53
1946-47	107,805.89	105,759.78	98.09	---	---	1,090.25	1,090.25	1,090.25	106,844.03	99.11	2,439.68	2.26
1947-48	359,591.57	351,963.14	97.94	---	---	1,552.72	1,552.72	1,552.72	353,445.86	98.42	5,895.39	2.20
1948-49	474,520.75	459,604.39	96.84	---	---	5,916.41	5,916.41	5,916.41	465,420.80	98.08	17,685.37	3.73
1949-50	401,112.07	392,732.15	97.91	329.58	329.58	13,342.55	13,342.55	13,342.55	406,074.70	101.15	13,032.32	3.25
1950-51	397,970.61	390,274.43	98.07	373.44	373.44	8,217.82	8,217.82	8,217.82	398,492.25	100.03	12,904.12	3.24
1951-52	450,405.19	441,242.12	97.97	975.87	975.87	7,699.55	7,699.55	7,699.55	448,941.67	99.46	15,346.51	3.40
1952-53	594,603.45	585,417.35	98.46	(1,140.34)	(1,140.34)	12,567.83	12,567.83	12,567.83	597,995.28	100.76	10,824.37	1.82
1953-54	652,333.08	640,239.42	98.15	4,213.42	4,213.42	9,942.33	9,942.33	9,942.33	650,181.75	99.03	17,191.12	2.62
1954-55	709,675.89	695,200.64	97.96	1,295.13	1,295.13	12,635.30	12,635.30	12,635.30	707,838.94	99.56	20,326.20	2.86
1955-56	803,375.23	788,734.26	97.41	(2,099.56)	(2,099.56)	12,140.64	12,140.64	12,140.64	800,874.90	99.95	20,726.97	2.59
1956-57	874,774.45	861,461.66	98.48	576.90	576.90	13,056.01	13,056.01	13,056.01	874,517.67	99.90	21,560.65	2.46
1957-58	965,008.57	946,445.55	98.08	958.17	958.17	12,890.09	12,890.09	12,890.09	959,335.64	99.31	28,189.75	2.92
1958-59	1,178,885.91	1,157,265.98	98.17	---	---	13,347.45	13,347.45	13,347.45	1,170,613.43	99.30	36,462.23	3.09
1959-60	1,438,270.69	1,408,377.57	98.05	(5,274.26)	(5,274.26)	16,647.80	16,647.80	16,647.80	1,424,925.37	99.55	42,533.29	2.97
1960-61	1,624,733.20	1,586,169.51	97.63	(8,720.61)	(8,720.61)	21,501.88	21,501.88	21,501.88	1,607,671.39	99.48	50,874.49	3.15
1961-62	1,763,785.54	1,719,375.76	97.44	(2,276.45)	(2,276.45)	31,477.80	31,477.80	31,477.80	1,750,853.56	99.35	62,330.02	3.54
1962-63	1,816,449.25	1,775,932.25	97.77	(3,658.71)	(3,658.71)	38,134.65	38,134.65	38,134.65	1,814,066.93	100.07	61,023.63	3.37

(1) Including adjustments to current year's levy.

(2) Including adjustments to current and prior years' levies.

Table F-4

LEGAL DEBT MARGIN

June 30, 1963

Assessed valuation 1962-63 (1)
 Debt limit: (15% of assessed valuation) (2)
 Amount of debt applicable to debt limit:
 General obligation bonds:
 1947 waterworks bonds
 1957 waterworks bonds, Series A
 1957 waterworks bonds, Series B
 1957 waterworks bonds, Series C
 1957 waterworks bonds, Series D
 Total bonded debt

Contractual obligations:

To U. S. Government on First San Diego

Aqueduct:

On first barrel

On second barrel

To Metropolitan Water District on annexation charges

Total contractual obligations

Total gross indebtedness

Less portion of fund balances available for debt redemption:
 Waterworks bonds, 1947, interest and sinking fund
 U. S. Government contract fund
 Waterworks bonds, 1957, interest and redemption fund

Net indebtedness

Margin above current debt payable

Deduct general obligation bonds authorized but unissued

Legal debt margin

\$ 1,000,000
 7,365,000
 7,350,000
 7,910,000
6,910,000
 \$ 30,575,000

\$ 7,375,000
12,034,198
 19,409,198
11,290,654
 30,699,852
61,274,952

395,213
 13,938
35,279
 444,429

\$ 60,830,423
 183,480,002
5,000,000
 \$ 179,480,002

\$ 1,628,741,140

\$ 244,310,425

\$ 1,000,000
 7,365,000
 7,350,000
 7,910,000
6,910,000
 \$ 30,575,000

(1) Assessed valuation (Table II)

Deduct excluded areas not subject to new debt

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

SAN DIEGO COUNTY WATER AUTHORITY

Table F-5

METROPOLITAN WATER DISTRICT ANNEXATION CHARGES,
ASSESSMENTS AND BALANCES ON AUTHORITY AREAS

Member Agencies	Date of Annexation	Period of Special Assessments	
		First Yr.	Last Yr.
Annexation Charges Completed to June 30, 1962			
Outstanding as of June 30, 1962:			
Chula Vista, City of			
Fallbrook Public Utility District			
Lakeside Irrigation District			
Helix Irrigation District	12-17-46	1947-48	1976-77
National City, City of			
Oceanside, City of			
San Diego, City of			
Bueno Colorado M.W.D.	6-11-54	1955-56	1984-85
Carlsbad M.W.D.	6-16-54	1955-56	1984-85
Del Mar, City of	11-23-62	1963-64	1992-93
Escondido, City of	10-9-50	1951-52	1980-81
Fallbrook Public Utility District			
No. 1 Annexation of 1950	8-1-50	1951-52	1980-81
No. 2 Annexation of 1958	11-24-58	1959-60	1988-89
Helix Irrigation District			
Crest P.U.D. Annexation	12-13-48	1949-50	1978-79
El Cajon Dry Island Annexation	12-20-54	1955-56	1984-85
Helix-Watson Ranch Annexation	2-20-59	1960-61	1989-90
Helix-Sunnyslope Hts. Annexation	9-17-59	1960-61	1989-90
Olivenhain M.W.D.	7-25-60	1961-62	1990-91
No. 2 Annexation of 1962	4-30-63	1962-63	1962-63
Olay M.W.D.	10-26-56	1957-58	1986-87
No. 3 Annexation of 1960	10-20-60	1961-62	1990-91
Poway M.W.D.	4-21-54	1955-56	1984-85
No. 1 Annexation of 1959	9-21-59	1960-61	1989-90
Rainbow M.W.D.	4-10-54	1955-56	1984-85
No. 1 Annexation of 1959	5-12-59	1960-61	1989-90
Hamona M.W.D.	8-27-57	1958-59	1987-88
No. 1 Annexation of 1959	5-29-59	1960-61	1989-90
No. 2 Annexation of 1961	9-22-61	1962-63	1991-92
Rincon del Diablo M.W.D.	6-14-54	1955-56	1984-85
Rio San Diego M.W.D. (not including Lakeside I.D.)	6-7-56	1957-58	1986-87
No. 2 Annexation of 1959	11-6-59	1960-61	1989-90
No. 3 Annexation of 1960	10-17-60	1961-62	1990-91
San Dieguito Irrigation District	12-13-48	1949-50	1978-79
No. 1 Annexation of 1959	9-15-59	1960-61	1989-90
Santa Fe Irrigation District	12-13-48	1949-50	1978-79
South Bay Irrigation District (not including City of Chula Vista)	11-3-52	1953-54	1982-83
Valley Center M.W.D.	5-9-55	1956-57	1985-86
No. 1 Annexation of 1960	12-12-60	1961-62	1990-91
Total			

FINANCIAL REPORT

Table F-5 (Continued)

METROPOLITAN WATER DISTRICT ANNEXATION CHARGES,
ASSESSMENTS AND BALANCES ON AUTHORITY AREAS

Amount of Annexation Charge	Special Assessments to 6/30/62	Fiscal Year 1962-63		Remaining Balance 6/30/63
		Special Assessments	Tax Rate $\epsilon / \$100$	
\$ 98,559	\$ 98,559.00	\$ ---	---	\$ ---
13,045,000	6,544,856.38	484,912.74	4	6,015,230.88
1,072,230	250,740.88	36,034.37	8	785,454.75
548,100	128,961.04	18,129.96	5	401,009.00
611,250	0	0	---	611,250.00
386,000	143,294.41	11,387.18	5	231,318.41
34,600	17,239.10	988.15	4	16,372.75
50,400	5,119.92	1,650.69	15	43,629.39
10,500	4,633.15	321.39	3	5,545.46
327,450	78,919.71	11,339.74	2	237,190.55
8,730	593.26	302.41	10	7,834.33
38,250	2,593.82	1,270.98	11	34,385.20
83,880	2,805.53	2,859.93	14	78,214.54
100	0	100.00	Cash	0
273,000	45,508.54	11,699.02	4	215,792.44
95,100	3,271.75	3,085.62	15	88,742.63
91,800	22,518.33	2,665.97	2	66,615.70
27,150	1,878.86	928.41	8	24,342.73
167,700	39,594.77	5,859.40	6	122,245.83
24,300	1,659.36	820.45	15	21,820.19
339,000	45,685.31	11,156.98	18	282,157.71
42,330	2,845.05	1,435.65	27	38,049.30
15,480	0	518.98	35	14,961.02
757,200	177,943.92	24,207.77	8	555,048.31
373,980	63,408.81	12,834.02	5	297,737.17
109,110	7,488.18	3,570.15	14	98,051.67
289,890	9,865.50	9,567.45	20	270,457.05
187,100	81,618.99	6,684.47	3	98,796.54
71,820	4,798.09	2,475.75	26	64,546.16
167,000	72,834.99	5,785.57	3	88,379.44
449,370	135,235.26	17,815.66	5	296,319.08
205,680	41,681.85	6,944.22	9	157,053.93
23,700	802.75	795.09	21	22,102.16
\$20,025,750	\$ 8,036,956.51	\$ 698,148.17		\$11,290,654.32

Table F-6
SAN DIEGO COUNTY WATER AUTHORITY
ANNEXATION CHARGES, ASSESSMENTS AND BALANCES

Area	Date of Annexation	Amount of Annexation Charge	Period of Special Assessments		Special Assessments to 6/30/62	Fiscal Year 1962-63		Remaining Balance of Annexation Charges 6/30/63
			First Year	Last Year		Special Assessments	Tax Rate	
						Assessments	\$/100	
Annexation Charges Completed to June 30, 1962		\$538,550.00			\$ 0	0	\$ 0	
Annexation Charges Outstanding as of June 30, 1962:								
Del Mar, City of	11-23-62	130,700.00	1963-64	1972-73	0	500.00	Cash	130,200.00
Fallbrook P. U. D.								
No. 2 Annexation of 1958	11-24-58	8,500.00	1959-60	1965-69	2,611.74	880.03	8¢	5,008.23
Helix I. D.								
Sunyslope Heights Annex	9-17-59	11,600.00	1960-61	1969-70	2,489.96	1,156.26	10¢	7,962.78
Olivenbain M. W. D.	7-25-60	13,600.00	1961-62	1970-71	1,496.29	1,434.44	7¢	10,669.27
No. 2 Annexation of 1962	4-30-63	250.00	1962-63	1962-63	0	250.00	Cash	0
Oray M. W. D.								
No. 3 Annexation of 1960	10-20-60	16,800.00	1961-62	1970-71	1,732.10	1,850.00	9¢	13,217.90
Poway M. W. D.								
No. 1 Annexation of 1959	9-21-59	4,000.00	1960-61	1969-70	871.22	464.20	4¢	2,664.58
Rainbow M. W. D.								
No. 1 Annexation of 1959	5-12-59	3,500.00	1960-61	1969-70	731.88	382.89	7¢	2,365.24
Ranoma M. W. D.	8-27-57	41,900.00	1958-59	1962-63	34,105.84	7,791.16	13¢	0
No. 1 Annexation of 1959	5-29-59	6,600.00	1960-61	1969-70	1,374.30	692.01	13¢	4,533.69
Rio San Diego M. W. D.								
No. 2 Annexation of 1959	11-6-59	18,300.00	1960-61	1969-70	3,752.51	2,036.55	8¢	12,510.94
No. 3 Annexation of 1960	10-17-60	57,100.00	1961-62	1970-71	5,829.62	5,739.21	12¢	45,531.17
San Dieguito I. D.								
No. 1 Annexation of 1959	9-15-59	8,400.00	1960-61	1969-70	1,723.28	552.71	9¢	5,824.01
Valley Center M. W. D.								
No. 1 Annexation of 1960	12-12-60	3,900.00	1961-62	1970-71	432.25	416.58	11¢	3,051.17
Total		\$863,730.00			\$505,744.99	\$24,446.03		\$243,538.98