

WESTERN - SAN BERNARDINO WATERMASTER

FOR

WESTERN MUNICIPAL WATER DISTRICT, et al.

vs.

EAST SAN BERNARDINO COUNTY WATER DISTRICT, et al.

CASE NO. 78426 - COUNTY OF RIVERSIDE

**ANNUAL REPORT**

**OF THE**

**WESTERN-SAN BERNARDINO WATERMASTER**

FOR

CALENDAR YEAR 1991

NOVEMBER 1, 1992

**WESTERN - SAN BERNARDINO WATERMASTER**

FOR

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vs.

EAST SAN BERNARDINO COUNTY WATER DISTRICT, ET AL.

CASE NO. 78426 - COUNTY OF RIVERSIDE

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November 1, 1992

**TO:** Clerk of Superior Court of Riverside County and All Parties

**RE:** Watermaster Report for Calendar Year 1991

Gentlemen:

We have the honor of submitting the Annual Report of the Western-San Bernardino Watermaster for Calendar Year 1991.

The provisions of Paragraph III and Paragraphs V through XII of the Judgment in Case No. 78426, entered April 17, 1969, became effective from and after January 1, 1971. The Judgment requires that the Watermaster report to the Court and to each Party in writing not more than seven months after the end of each year, or within such other time as the Court may fix, on each determination made by said Watermaster pursuant to the Judgment and such other items as the Parties may mutually request or the Watermaster may deem to be appropriate. On August 28, 1992, the Court approved a three month extension of time for filing the annual report for Calendar Year 1991.

Accordingly, this report is submitted herewith under date of November 1, 1992, and presents the findings of the Watermaster for Calendar Year 1991 and summarizes the five-year period 1986 through 1990.

On February 24, 1992, the Court approved an amendment to the Judgment which changes the manner in which obligations related to New Export are calculated and provides that credit for prior year under-extractions by Plaintiffs be cumulative from 1971. The amendment further provides that the obligations of the Parties be recalculated from 1971 using the amended provisions of the Judgment. The annual report for calendar year 1992 will include these changes.


Provisions of the Judgment require that Western and San Bernardino Valley provide groundwater replenishment if certain base rights are exceeded. The determination of replenishment obligations for the five-year period 1986 through 1990 indicates that Western is not required to provide additional imported water for replenishment.

We, and each of us, hereby certify that this is a true and correct Report of the Watermaster work performed by us and under our supervision during 1991, pursuant to the requirements of the Judgment.

Respectfully submitted,

WESTERN-SAN BERNARDINO WATERMASTER

By   
Donald L. Harriger

  
Robert L. Reiter

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FOR**

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**NOVEMBER 1, 1992**

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**CHAPTER I**  
**INTRODUCTION**

## CHAPTER I

### INTRODUCTION

Provisions of the physical solution set forth in the Judgment in Case No. 78426, Western Municipal Water District of Riverside County, et al., vs. East San Bernardino County Water District, et al., entered April 17, 1969, in the Superior Court of the State of California in and for the County of Riverside, established the entitlements and obligations of the two major water districts overlying the San Bernardino, Riverside, and Colton ground water basins, namely San Bernardino Valley Municipal Water District (SBVMWD) and Western Municipal Water District of Riverside County (WMWD).

The Court appointed a Watermaster, composed of two persons, to administer and enforce the provisions of the Judgment and to report annually to the Court and the parties. Donald L. Harriger and Robert L. Reiter were appointed pursuant to nominations by the WMWD and SBVMWD, respectively.

The provisions of the Judgment became effective January 1, 1971; however, progress reports were filed with the Court for calendar years 1969, 1970, and 1971 reporting on the progress of verifications and initial determinations required by the Judgment. The recordation filings obtained from the State Water Resources Control Board and required for determination of annual extractions from the various basins are not available to the Watermaster until seven or eight months after the end of calendar year for which the filings are made. This report for calendar year 1991 includes a description and summary of the work completed during 1991 and also includes the annual accounting of extractions from the San Bernardino, Colton and Riverside Basin areas and the distribution of such extractions to the various service areas for calendar year 1990. The scope of this report for 1991 and a history of the litigation leading to the physical solution settling the case are set forth in some detail in succeeding paragraphs.

### **Scope of Report**

Paragraph XIII(e) of the Judgment requires the Watermaster to report to the Court and each Party not more than seven months after the end of each year.

The Annual Reports of the Western-San Bernardino Watermaster for calendar years 1969 thru 1971 reported on the verifications and initial determinations required by the Judgment including the safe yield of the San Bernardino Basin Area and the determination of the Adjusted Rights of the Plaintiffs. Beginning with the 1972 Report, the Watermaster began the annual accounting in accordance with the Judgment provisions. This report presents the activities of the Watermaster for calendar year 1991 together with the annual accounting of extractions and deliveries for calendar year 1990.

### **History of Litigation**

Before the turn of the century, the various water service organizations diverting surface water from the Santa Ana River and pumping from the underground water basins supplied by the underflow of the Santa Ana River and its tributaries have from time to time engaged in litigation over water rights within the San Bernardino, Riverside, and Orange County areas.

On October 18, 1963, the Orange County Water District (OCWD) filed suit against the City of Chino and others, seeking an adjudication of water rights against more than 2,500 water users in the Santa Ana River Watershed tributary to Prado Dam. Included among the defendants were the Chino Basin Municipal Water District (CBMWD), Western Municipal Water District of Riverside County (WMWD), and San Bernardino Valley Municipal Water District (SBVMWD). Thirteen cross complaints were filed in 1968, which extended the adjudication to more than 1,500 water users in the area downstream from Prado Dam, which included OCWD. Thus, some 4,000 parties were involved in the suit, including the three upper districts and OCWD.

With a case of this magnitude, it became obvious that every effort should be made to arrive at an equitable settlement and a physical solution in order to obviate the enormous expense and unwieldy litigation which would be involved if the case were brought to trial.

Attorneys and engineers representing the four major districts and a large number of the defendants worked diligently in order to effect a settlement and some type of physical solution which would prove acceptable to all parties.

As a result, in May of 1968, an outline of a proposal for settlement of the case was prepared and a committee, composed of attorneys and engineers for the parties, commenced preparation of the settlement documents.

In June, 1968, the Court held a hearing on the motions which it had received requesting a preliminary injunction and an order of reference. The plaintiff OCWD, however, was concerned with the necessity of bringing the case to trial within the statutory period, and therefore, on July 15, 1968, submitted a motion to set the complaint in the case for trial. On October 15, 1968, the trial was commenced and adjourned after a half day of testimony on behalf of the Plaintiff.

Shortly thereafter, the parties filed settlement documents with the Court, including a stipulation for Judgment, and on April 17, 1969, the Court, entered the stipulated Judgment, thus terminating the many years of controversy over water rights along the Santa Ana River involving the issues and parties included in the case of Orange County Water District vs. City of Chino, et al.

During the settlement negotiations, it became apparent that the San Bernardino Valley entities would participate only in a part of the Orange County settlement, in the belief that they had no responsibility for the waters of the Santa Ana River downstream from the point of rising water at Riverside Narrows. Therefore, the settlement of the OCWD action established an obligation of SBVMWD for the delivery of 15,250 acre-

feet of Base Flow annually at the Riverside Narrows, subject, however, to adjustment for quality.

As a result of the Orange County settlement, it became apparent that a second settlement would be necessary between the Riverside and San Bernardino entities who diverted water from the Santa Ana River surface and ground water sources supplied by the Santa Ana River and tributaries above the Riverside Narrows.

For some time, increasing withdrawals from ground water resources above Bunker Hill Dike (San Jacinto Fault), which supplied in large part the water requirements of San Bernardino and Redlands as well as the Riverside exporters, had been the cause of concern to the exporters in Riverside County. As a result, on March 1, 1963, a suit was filed by WMWD and others, seeking a general adjudication of water rights within the San Bernardino Basin Area. This suit preceded the filing of the Orange County suit, and it was decided that this suit could well be used as a vehicle for a physical settlement between Riverside and San Bernardino interests.

Following extensive negotiations between Riverside and San Bernardino interests, a physical settlement was completed and documents delineating the settlement were entered in the Superior Court of the State of California in and for the County of Riverside on April 17, 1969, being Judgment No. 78426.

#### **Summary of Judgment No. 78426**

The physical solution as agreed upon and as set forth in the Judgment states that all instructions and orders of the Court are to be administered and enforced by a Watermaster consisting of a committee of two persons, one of whom shall be nominated by SBVMWD and the other by WMWD and appointed by the Court.

The Judgment directed the Watermaster to make certain initial determinations and to verify the amounts of water diverted and pumped from streams and ground water basins embraced by the Judgment where such amounts had been assumed for

purposes of the Judgment. Upon completion of the verifications and initial determinations compliance with the Judgment requires an annual accounting of the ground and surface water production within the various basins in order that the Watermaster may properly report to the Court the comparisons of the year-by-year operations with the verified entitlements and an accounting as to the replenishment obligations or credits indicated by such comparison. The items verified or determined initially and to be reported on annually are as follows:

	Watermaster Determination Required by Judgment	Verified for Five Calendar Years Ending with 1963	To Be Determined Annually from and after 1971
1.	Total actual average annual extractions from the San Bernardino Basin Area by entities other than plaintiffs for use within San Bernardino County.	X	X
2.	The natural safe yield of the San Bernardino Basin Area based upon the cultural conditions equivalent to those existing during the five-calendar year period ending with 1963.	1	1
3.	The annual "adjusted right" of each Exporter (Plaintiff) to extract water from the San Bernardino Basin Area based upon the percentage of the natural safe yield determined by the methods used in Table B-2 of the Judgment.	X	
4.	The annual production by plaintiffs for comparison with adjusted right determined in item 3 next preceding.		X
5.	Annual discharge from the City of San Bernardino Water Quality Control Plant to the river as to quantity and quality.	2	X
6.	Average annual extractions from the Colton Basin Area for use outside San Bernardino Valley.	X	X
7.	Average annual extractions from the Riverside Basin Area within San Bernardino County for use outside San Bernardino Valley.	X	X

	Watermaster Determination Required by Judgment	Verified for Five Calendar Years Ending with 1963	To Be Determined Annually from and after 1971
8.	The average static water levels within the Colton Basin and Riverside Basin within San Bernardino County as determined by the three wells listed in Judgment.	3	X
9.	The average annual extractions from that portion of the Riverside Basin Area in Riverside County which are tributary to the Riverside Narrows for use in Riverside County.	X	X
10.	Annual amounts of water extracted for use within Western from the San Bernardino Basin and the area downstream therefrom to the Riverside Narrows which have been exported for use outside the area tributary to the Riverside Narrows.	X	X
11.	Annual amount of water extracted for use within San Bernardino County from the San Bernardino Basin Area and Colton Basin Area for use on lands which are not tributary to the Riverside Narrows.	4	X
12.	Reduction in return flow now contributing to base flows at Riverside Narrows which results from conversion of agriculture using water within Western to domestic or other uses connected to sewage or waste disposal system, the effluent from which is not tributary to the rising water at Riverside Narrows.	5	X

<sup>1</sup> Determined initially by supplemental order of the Court to be 232,100 acre-feet per annum. Such amount is subject to the continuing jurisdiction of the Court.

<sup>2</sup> Assumed for purposes of Judgment to be 16,000 acre-feet annually, verification not required.

<sup>3</sup> Established at 822.04 feet above sea level, based on fall season of 1963.

<sup>4</sup> Revised by Watermaster during preparation of the Annual Report for calendar year 1974.

<sup>5</sup> Average for 5 years ending with 1963 established by Judgment to be 3,916 acres; verification not required.

The foregoing initial determinations and verifications required by the Judgment have been completed and were reported in the *Annual Report of the Western-San Bernardino Watermaster for Calendar Years 1971 and 1972.*

**CHAPTER II**  
**WATERMASTER ACTIVITIES**



## **CHAPTER II**

### **WATERMASTER ACTIVITIES**

The Watermaster activities have included principally the collection, tabulation, and analysis of data, the maintenance of records, and the preparation of the annual report which presents the determinations and findings of the Watermaster as required by the Judgment.

#### **Ground Water Extractions**

The most important data required for implementing the provisions of the Judgment are the annual tabulations of the ground water extractions and surface water diversions made within the San Bernardino, Colton, and Riverside Basin Areas. These extractions and diversions were initially determined and verified for the 1959-63 Base Period and were assembled and summarized in the Watermaster Report on Verification of Extractions, Volume I consisting of three parts, Volumes 2, 3, and 4 for the San Bernardino Basin Area, Colton Basin Area, Riverside Basin Area in San Bernardino County, and Riverside Basin Area in Riverside County, respectively. A program has been established for obtaining and tabulating annual notices of groundwater extractions and surface diversions filed with the State Water Resources Control Board. These data are verified by the Watermaster and provide the basis for the annual accounting of extractions as required by the Judgment. Such extractions have been determined for calendar year 1990 and are summarized herein. Listings of the verified extractions by each individual owner for calendar year 1990 are assembled in Report of Watermaster, Volumes 1-1990, IA-1990, 2-1990, 3-1990, and 4-1990.

### **Distribution of Extractions**

In addition to the annual accounting of the extractions from each Basin, the Judgment also requires a determination as to the distribution of such extractions to the various service areas.

The distribution of verified extractions from the Colton and Riverside Basin Areas and the distribution of the Plaintiffs' extractions from the San Bernardino Basin Area were determined initially for the 1959-63 Base Period, and were reported in Report of Watermaster, Volume 5, entitled *Distribution of Extractions*. Such distribution has been determined for calendar year 1990 and is summarized herein. Detailed work sheets are assembled in Report of Watermaster, Volume 5-1990.

The Watermaster is also required to determine the amount of water extracted from each of the various Basin Areas and delivered to areas not tributary to Riverside Narrows. Such amounts fall into two classifications, described as follows:

- 1) Extractions from the San Bernardino Basin Area, Colton Basin Area, and Riverside Basin Area for use within Western on lands not tributary to the Riverside Narrows.
- 2) Extractions from the San Bernardino Basin Area and Colton Basin Area within the San Bernardino Valley Municipal Water District for use on lands not within Western nor tributary to the Riverside Narrows.

The amount of water extracted and delivered under Classification No. 1 was determined initially for the 1959-63 Base Period and was reported in the Report of Watermaster, Volume 6, dated June, 1972. The amount determined for calendar year 1990 is summarized herein. Detailed work sheets are assembled in the Report of Watermaster, in Volume 6-1990.

The amount of water extracted and delivered under Classification No. 2 was determined for the 1959-63 Base Period and the additional years 1970 and 1971 and was published in the Report of Watermaster, Volume 7, dated February, 1973. The amount determined for calendar year 1990 is summarized herein. Detailed work sheets are assembled in the Report of Watermaster, Volume 7-1990.

#### **Groundwater Level Measurements**

Groundwater surface elevation data required for three key wells located in the Colton Basin Area and the Riverside Basin Area within San Bernardino County are currently furnished by the City of Riverside and Western Municipal Water District.

These data are shown in both tabular and graphical form for calendar years 1963 thru 1990 in Volume 8 of previous Watermaster reports. The determination for calendar year 1991 is shown in the Report of Watermaster Volume 8-1990.

#### **Stream Flow and Water Quality Measurements**

The program of stream flow measurements conducted by the United States Geological Survey (USGS) in cooperation with the Watermaster has continued to provide basin inflow and stream diversion data.

The Western-San Bernardino Watermaster participates with the Santa Ana River Watermaster in part of the expense of the cooperative program with the USGS on surface water gages and water quality monitors at various locations. These expenses are presented in reports filed by the Santa Ana River Watermaster. The costs incurred for stream flow data collected and analyzed by the USGS on behalf of the Western-San Bernardino Watermaster are set forth in Table No. 1.

### **Field Inspections**

During the verification of the 1990 extractions from the San Bernardino, Colton and Riverside Basin Areas, many of the pumping facilities installed for extractions of groundwater and diversion of surface water were visited by the Watermasters or their representatives. Contact was made with many of the smaller extractors to review their methods of computing production for annual reports filed with the State Water Resources Control Board.

During the initial verification program in the San Bernardino Basin Area, it was found that many groundwater producers and several diverters of surface water did not file their extractions and diversions with the State Water Resources Control Board. This condition was found to exist in many locations during the current year, which again necessitated inspection trips and contacts with various owners by the Watermasters or their representatives.

**TABLE NO. 1**  
**COSTS TO THE PARTIES FOR USGS**  
**SURFACE WATER MEASUREMENTS USED BY**  
**WESTERN-SAN BERNARDINO WATERMASTER**

October 1, 1990 to September 30, 1991

<u>Santa Ana River near Mentone</u>	\$ 4,400
<u>Mill Creek Power Canal #1 near Yucaipa</u>	5,280
<u>Plunge Creek near East Highland</u>	9,680
<u>Devil Canyon Creek near San Bernardino</u>	4,400
<u>East Twin Creek near Arrowhead Springs</u>	4,900
<u>City Creek near Highland</u>	5,670
<u>San Timoteo Creek near Loma Linda</u>	4,400
<u>Lone Pine Creek near Keenbrook</u>	4,400
<u>Lytle Creek at Fontana Union Head Gates</u>	
Lytle Creek near Fontana Streamflow	6,160
Weir No. 2--infiltration Line	2,640
Weir No. 3--Head Gate Diversion	2,640
Weir No. 4--Breed Line Diversion	2,640
20-ft. Weir--Return to Creek	5,280
<u>Southern California Edison Lower Power House on Lytle Creek</u>	
20-ft. Weir--Discharge Lower Power House	5,280
Parshall Flume--Return to Creek from Afterbay	5,280
Fontana Diversion (20-ft. Weir, West)	<u>5,280</u>
<b>SUBTOTAL FOR PARTIES AND WATERMASTER</b>	<b>\$78,330</b>
United States Geological Survey	<u>\$51,930</u>
<b>TOTAL</b>	<b>\$130,260</b>

**CHAPTER III**  
**EXTRACTIONS FROM**  
**THE SAN BERNARDINO BASIN AREA**

## CHAPTER III

### EXTRACTIONS FROM THE SAN BERNARDINO BASIN AREA

The extractions from the San Bernardino Basin Area have been classified as first, those extractions and diversions for use by other than Plaintiffs and second, those extractions and diversions for use by Plaintiffs.

The total verified extractions by other than Plaintiffs for calendar years 1971 through 1990, together with five-year totals, are shown on Table No. 2. The individual work sheets for the 1990 verifications are included in Report of Watermaster, Volume 1-1990.

The total verified extractions from the San Bernardino Basin Area by Plaintiffs for calendar years 1971 through 1990 are shown on Table No. 3. The individual work sheets for the 1990 verifications and distribution of extractions by Plaintiffs are included in Report of Watermaster, Volume IA-1990 and Volume 5-1990.

For reference, the Adjusted Rights of other than Plaintiffs and Plaintiffs are also shown on Tables 2 and 3.

Paragraph VII of the Judgment entitled *Water Discharged Across Bunker Hill Dike* recites as follows:

*San Bernardino Valley shall keep in force an agreement with the City of San Bernardino that the present annual quantity of municipal sewage effluent discharged across Bunker Hill Dike, assumed for all purposes herein to be 16,000 acre-feet annually, shall be committed to the discharge of the downstream obligations imposed on San Bernardino Valley under this Judgment or under the Orange County Judgment, and that such effluent shall comply with the requirements of the Santa Ana River Basin Regional Water Quality Control Board in effect December 31, 1968.*

The Judgment does not charge the Watermaster with verification of the 16,000 acre-foot amount, and the enforcement of the quality requirements is considered to be

the responsibility of the California Regional Water Quality Control Board-Santa Ana Region.

Prior to December, 1972, sewage effluent was discharged across the Bunker Hill Dike via Warm Creek (Plant No. 1) and the Santa Ana River (Plant No. 2). With the completion of the new Water Quality Control Plant at the "EII Street site (Plant No. 2) the total effluent discharge of the City of San Bernardino Water Quality Control Plant accrues to the Santa Ana River immediately upstream from the "E" Street Bridge. In January, 1973, the Watermaster in cooperation with the USGS began operation of a gaging station on the plant outfall to obtain a continuous record of the quantity and mineral quality of the sewage effluent discharged to the Santa Ana River. This station has been discontinued and Watermaster now relies on the City of San Bernardino for these data.



The discharge to the Santa Ana River upstream from the Bunker Hill Dike has been determined by the Watermaster as shown on the following table:

Calendar Year	Plant No. 1 (Acre-Feet)	Plant No. 2 (Acre-Feet)	Total (Acre-Feet)
1971	5,705	8,925 <sup>1</sup>	14,630
1972	6,784	9,963	16,747
1973	0	17,640	17,640
1974	0	17,070	17,070
1975	0	16,820	16,820
1976	0	17,530	17,530
1977	0	17,720	17,720
1978	0	18,690	18,690
1979	0	19,350	19,350
1980	0	10,670	10,670
1981	0	21,120	21,120
1982	0	24,493	24,493
1983	0	23,170	23,170
1984	0	21,759	21,759
1985	0	23,814	23,814
1986	0	25,442	25,442
1987	0	27,154	27,154
1988	0	27,290	27,290
1989	0	28,300	28,300
1990	0	27,770	27,770

**VERIFIED EXTRACTIONS FROM THE SAN BERNARDINO  
BASIN AREA BY OTHER THAN PLAINTIFFS  
(All Values in Acre-Feet)**

Calendar Year	Verified Extractions				Total	Adjusted Right	
	By Owners Who Have Filed With SWRCB		By Owners Who Have Not Filed With SWRCB				
1971	154,836	2	8,350	2	163,186	2	171,342 <sup>1</sup>
1972	159,628	2	7,599	2	167,227	2	167,238
1973	152,604	3	7,177	3	159,781	3	167,238
1974	153,099	4	5,586	4	158,685	4	167,238
1975	147,199		4,482		151,681		167,238
1976	140,329	5	3,988	5	144,317	5	167,238
1977	139,844		4,967		144,811		167,238
1978	132,439		4,601		137,040		167,238
1979	150,196		4,611		154,807		167,238
1980	153,918	6	5,504		159,422	6	167,238
1981	167,564		5,075		172,639		167,238
1982	148,250	7	4,790		153,040	7	167,238
1983	142,088	8	4,346		146,434	8	167,238
1984	175,605	8	5,203		180,808	8	167,238
1985	172,976	8	4,943	8	177,919	8	167,238
1986	179,842	9	4,892		184,734	9	167,238
1987	168,171		4,330		172,501		167,238
1988	176,770	10	4,655		181,425	10	167,238
1989	169,425		4,904		174,329		167,238
1990	162,712		4,560		167,272		167,238

*1 Adjust Right not effective until January 1, 1972; therefore,  
1971 Base Right is as verified for five-year Base Period 1959-63.*

*2 Amount corrected during verification of 1973 extractions.*

*3 Amount corrected during verification of 1974 extractions.*

*4 Amount corrected during verification of 1975 extractions.*

*5 Amount corrected during verification of 1977 extractions.*

*6 Amount corrected during verification of 1981 extractions.*

*7 Amount corrected during verification of 1983 extractions.*

*8 Amount corrected during verification of 1986 extractions.*

*9 Amount corrected during verification of 1988 extractions.*

*10 Amount corrected during verification of 1989 extractions.*

*Note: See Report of Watermaster, Volume 1.*

**VERIFIED EXTRACTIONS FROM THE SAN BERNARDINO  
BASIN AREA BY OTHER THAN PLAINTIFFS  
(All Values in Acre-Feet)**

Five-Year Period	Verified Extractions		Total	Adjusted Right
	By Owners Who Have Filed With SWRCB	By Owners Who Have Not Filed With SWRCB		
1971-75	767,366	33,194	800,560	840,294
1972-76	752,859	28,832	781,691	836,190
1973-77	733,075	26,200	759,275	836,190
1974-78	712,910	23,624	736,534	836,190
1975-79	710,007	22,849	732,856	836,190
1976-80	716,726	23,671	740,397	836,190
1977-81	743,961	24,758	768,719	836,190
1978-82	752,367	24,581	776,948	836,190
1979-83	762,016	24,326	786,342	836,190
1980-84	767,425	24,918	812,343	836,190
1981-85	806,483	24,357	830,840 *	836,190
1982-86	818,761	24,174	842,935	836,190
1983-87	838,682	23,714	862,396	836,190
1984-88	873,364	24,023	897,387	836,190
1985-89	867,184	23,724	890,908	836,190
1986-90	856,920	23,341	880,261	836,190

\* number corrected

TABLE NO. 3  
 VERIFIED EXTRACTATIONS FROM THE SAN BERNARDINO BASIN AREA  
 FOR USE BY PLAINTIFFS CLASSIFIED ACCORDING TO SERVICE AREA  
 (All Values in Acre-Feet)

	Plaintiffs						Total
	City of Riverside (including those rights acquired as successor to the Riverside Water Company and the Gage Canal Company)	Riverside Highland Water Company	Agua Mansa Water Company and Meeks & Daley Water Co.	Regents of the University of California			
<b>Total Extractions</b>	<b>52,199</b>	<b>4,294</b>	<b>7,833</b>	<b>536</b>		<b>64,862</b>	
<b>In San Bernardino Basin Area</b>							
Adjusted Right	1						
1971 Extractions	53,882	4,012	2,902	219		61,015	
1972 Extractions	45,694	4,532	3,527	239		53,992	
1973 Extractions	43,022	3,512	2,979	239		49,752	
1974 Extractions	43,367	4,088	4,504	267		52,226	
1975 Extractions	47,962	4,709	3,950	179		56,800	
<b>Delivery to San Bernardino Basin Area</b>							
Adjusted Right	1						
1971 Extractions	1,427	0	0	0		1,427	
1972 Extractions	98	0	0	0		98	
1973 Extractions	85	0	0	0		85	
1974 Extractions	156	0	0	0		156	
1975 Extractions	0	0	0	0		0	
Adjusted Right	0						
1971 Extractions	0	0	0	0		0	
1972 Extractions	0	0	0	0		0	
1973 Extractions	0	0	0	0		0	
1974 Extractions	0	0	0	0		0	
1975 Extractions	0	0	0	0		0	
<b>Delivery to Cotton Basin Area and Riverside Basin Area in San Bernardino County</b>							
Adjusted Right	1						
1971 Extractions	1,230	2,449	318	0		3,997	
1972 Extractions	669	2,388	383	0		3,440	
1973 Extractions	547	2,239	377	0		3,163	
1974 Extractions	512	1,751	250	0		2,513	
1975 Extractions	550	1,985	246	0		2,781	
Adjusted Right	498	2,002	168	0		2,668	
<b>Delivery to Area Outside San Bernardino Valley</b>							
Adjusted Right	1						
1971 Extractions	49,542	1,845	7,515	536		59,438	
1972 Extractions	53,115	1,624	2,519	219		57,477	
1973 Extractions	45,062	2,293	3,150	239		50,744	
1974 Extractions	42,354	1,761	2,729	239		47,083	
1975 Extractions	42,817	2,103	4,258	267		49,445	
Adjusted Right	47,464	2,707	3,782	179		54,132	

1 Adjusted Right became effective on January 1, 1972; Base Right for Calendar Year 1971 is as shown in Table B-1 of the Judgment.  
 2 1971 amount corrected during verification of 1972 extractions.

Note: See Report of Watermaster, Volume 1A and Volume 5.

TABLE NO. 3  
 VERIFIED EXTRACTIIONS FROM THE SAN BERNARDINO BASIN AREA  
 FOR USE BY PLAINTIFFS CLASSIFIED ACCORDING TO SERVICE AREA  
 (All Values in Acre-Feet)

	Plaintiffs							Total
	City of Riverside (including those rights acquired as successor to the Riverside Water Company and the Gage Canal Company)	Riverside Highland Water Company	Aqua Mansa Water Company and Meeks & Daley Water Co.	Regents of the University of California				
<b>Total Extractions</b>	<b>1</b>	<b>4,294</b>	<b>7,833</b>	<b>536</b>			<b>64,862</b>	
Adjusted Right								
1976 Extractions	52,199	4,519	5,393	245			61,531	
1977 Extractions	50,999	3,583	4,220	87			58,889	
1978 Extractions	45,384	1,350	2,254	183			49,171	
1979 Extractions	52,377	3,369	3,930	83			59,759	
1980 Extractions	50,756	3,677	2,333	7			56,773	
<b>Delivery to</b>								
<b>San Bernardino</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>			<b>1,427</b>	
Adjusted Right	1,427	0	0	0			1,427	
1976 Extractions	0	0	0	0			0	
1977 Extractions	0	0	0	0			0	
1978 Extractions	646	0	0	0			646	
1979 Extractions	0	0	0	0			0	
1980 Extractions	383	0	0	0			383	
<b>Delivery to Colton</b>								
<b>Basin Area and</b>	<b>1</b>	<b>2,449</b>	<b>318</b>	<b>0</b>			<b>3,997</b>	
Adjusted Right	1,230	2,449	318	0			3,997	
1976 Extractions	523	2,050	182	0			2,755	
1977 Extractions	346	1,820	146	0			2,312	
1978 Extractions	301	1,051	161	0			1,513	
1979 Extractions	415	1,781	166	0			2,362	
1980 Extractions	0	2,060	323	0			2,383	
<b>Delivery to Area</b>								
<b>Outside</b>	<b>1</b>	<b>1,845</b>	<b>7,515</b>	<b>536</b>			<b>59,438</b>	
Adjusted Right	49,542	1,845	7,515	536			59,438	
1976 Extractions	50,851	2,469	5,211	245			58,776	
1977 Extractions	50,653	1,763	4,074	87			56,577	
1978 Extractions	44,437	299	2,093	183			47,012	
1979 Extractions	51,962	1,588	3,764	83			57,387	
1980 Extractions	50,373	1,617	2,010	7			54,007	

1 Adjusted Right became effective on January 1, 1972; Base Right for Calendar Year 1971 is as shown in Table B-1 of the Judgment.

2 Amount corrected during verification of 1980 extractions.

3 Amount corrected during preparation of report for Calendar Year 1982.

Note: See Report of Watermaster, Volume 1A and Volume 5.

TABLE NO. 3  
 VERIFIED EXTRACTATIONS FROM THE SAN BERNARDINO BASIN AREA  
 FOR USE BY PLAINTIFFS CLASSIFIED ACCORDING TO SERVICE AREA  
 (All Values in Acre-Feet)

	Adjusted Right	City of Riverside (including those rights acquired as successor to the Riverside Water Company and the Gage Canal Company)	Riverside Highland Water Company	Aqua Mansa Water Company and Meeks & Daley Water Co.	Regents of the University of California	Total	Plaintiffs					
<b>Total Extractions</b>	<b>Adjusted Right</b>	<b>52,199</b>	<b>4,294</b>	<b>7,833</b>	<b>536</b>	<b>64,862</b>						
in San Bernardino Basin Area	1981 Extractions	52,157	3,604	3,092	143	58,996						
	1982 Extractions	49,599	2,795	3,716	48	56,158						
	1983 Extractions	46,064	3,161	2,651	0	51,876						
	1984 Extractions	58,906	4,759	5,165	0	68,830						
	1985 Extractions	63,073	3,312	5,385	0	71,770						
<b>Delivery to San Bernardino Basin Area</b>	<b>Adjusted Right</b>	<b>1,427</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,427</b>						
	1981 Extractions	724	0	0	0	724						
	1982 Extractions	162	2	0	0	162						
	1983 Extractions	335	0	0	0	335						
	1984 Extractions	32	0	0	0	32						
	1985 Extractions	59	0	0	0	59						
<b>Delivery to Colton Basin Area and Riverside Basin Area in San Bernardino County</b>	<b>Adjusted Right</b>	<b>1,230</b>	<b>2,449</b>	<b>318</b>	<b>0</b>	<b>3,997</b>						
	1981 Extractions	0	2,151	358	0	2,509						
	1982 Extractions	0	1,775	169	0	1,944						
	1983 Extractions	0	2,318	245	0	2,563						
	1984 Extractions	0	2,671	233	0	2,904						
	1985 Extractions	0	1,978	210	0	2,188						
<b>Delivery to Area Outside San Bernardino Valley</b>	<b>Adjusted Right</b>	<b>49,542</b>	<b>1,845</b>	<b>7,515</b>	<b>536</b>	<b>59,438</b>						
	1981 Extractions	51,433	1,453	2,734	143	55,763						
	1982 Extractions	49,437	1,020	3,547	48	54,052						
	1983 Extractions	45,729	843	2,406	0	48,978						
	1984 Extractions	58,874	2,088	4,932	0	65,884						
	1985 Extractions	63,014	1,334	5,175	0	69,523						

1 Adjusted Right became effective on January 1, 1972; Base Right for Calendar Year 1971 is as shown in Table B-1 of the Judgment.  
 2 Amount corrected during verification of 1983 extractions.  
 Note: See Report of Watermaster, Volume 1A and Volume 5.

TABLE NO. 3  
 VERIFIED EXTRACTIIONS FROM THE SAN BERNARDINO BASIN AREA  
 FOR USE BY PLAINTIFFS CLASSIFIED ACCORDING TO SERVICE AREA  
 (All Values in Acre-Feet)

	Adjusted Right	Plaintiffs					Total
		City of Riverside (including those rights acquired as successor to the Riverside Water Company and the Gage Canal Company)	Riverside Highland Water Company	Aqua Mansa Water Company and Meeks & Daley Water Co.	Regents of the University of California		
<b>Total Extractions</b>	<b>1</b>	<b>52,199</b>	<b>4,294</b>	<b>7,833</b>	<b>536</b>	<b>64,862</b>	
in San Bernardino Basin Area							
1986 Extractions		59,979	4,744	5,570	48	70,341	
1987 Extractions		57,841	3,919	4,914	195	66,869	
1988 Extractions		64,512	4,775	4,966	179	74,432	
1989 Extractions		50,784	4,681	5,392	62	60,919	
1990 Extractions		47,637	4,092	3,851	95	55,675	
<b>Delivery to San Bernardino Basin Area</b>	<b>1</b>	<b>1,427</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,427</b>	
1986 Extractions		437	0	0	0	437	
1987 Extractions		334	0	0	0	334	
1988 Extractions		815	0	0	0	815	
1989 Extractions		28	0	0	0	28	
1990 Extractions		19	0	0	0	19	
<b>Delivery to Colton Basin Area and Riverside Basin Area in San Bernardino County</b>	<b>1</b>	<b>1,230</b>	<b>2,449</b>	<b>318</b>	<b>0</b>	<b>3,997</b>	
1986 Extractions		0	2,130	234	0	2,364	
1987 Extractions		0	2,229	193	0	2,422	
1988 Extractions		0	2,229	233	0	2,462	
1989 Extractions		0	1,968	240	0	2,208	
1990 Extractions		0	2,313	83	0	2,396	
<b>Delivery to Area Outside San Bernardino Valley</b>	<b>1</b>	<b>49,542</b>	<b>1,845</b>	<b>7,515</b>	<b>536</b>	<b>59,438</b>	
1986 Extractions		59,542	2,614	5,336	48	67,540	
1987 Extractions		57,507	1,690	4,721	195	64,113	
1988 Extractions		63,697	2,546	4,733	179	71,155	
1989 Extractions		50,756	2,713	5,152	62	58,683	
1990 Extractions		47,618	1,779	3,768	95	53,260	

1 Adjusted Right became effective on January 1, 1972; Base Right for Calendar Year 1971 is as shown in Table B-1 of the Judgment.  
 Note: See Report of Watermaster, Volume 1A, Table 3; and Volume 5, Table 36A.

**CHAPTER IV**

**NATURAL SAFE YIELD OF THE  
SAN BERNARDINO BASIN AREA AND ADJUSTED  
RIGHTS OF PLAINTIFF EXPORTERS**



## CHAPTER IV

### NATURAL SAFE YIELD OF THE SAN BERNARDINO BASIN AREA AND ADJUSTED RIGHTS OF PLAINTIFF EXPORTERS

The Watermaster has determined the natural safe yield of the water supply accruing to the San Bernardino Basin Area at 232,100 acre-feet per annum from which the Adjusted Rights of Plaintiff exporters were also determined. Such determination of safe yield and Adjusted Rights of Plaintiff exporters was set forth in detail in Report of Watermaster, Volume 9, *entitled Determination of Natural Safe Yield of the San Bernardino Basin Area and Adjusted Rights of Plaintiff Exporters*.

The Adjusted Rights of Plaintiffs' extractions from the San Bernardino Basin Area, classified according to service areas and based on the natural safe yield of 232,100 acre-feet per annum have been summarized on the following table for ease of reference. The Adjusted Right of other than Plaintiffs was also based on the natural safe yield of the San Bernardino Basin Area and was determined to be 167,238 acre-feet. Such adjusted rights were not effective until January 1, 1972; therefore, the 1971 base rights for both Plaintiffs and other than Plaintiffs are based on the actual average annual extractions from the San Bernardino Basin Area during the five-year base period 1959-1963.

The Judgment provides for continuing jurisdiction of the Court in the following matters:

- 1) The hydrologic condition of any one or all of the separate basins described in this Judgment in order to determine from time to time the safe yield of the San Bernardino Basin Area, and
- 2) The adjusted rights of the Plaintiffs as required to comply with the provisions hereof with respect to changes in the natural safe yield of the San Bernardino Basin Area. If such changes occur, the Court shall adjudge that the adjusted rights and replenishment obligations of each party shall be changed proportionately to the base rights.

In order to provide a basis for future determination of safe yield, the Watermaster maintains a continuing program of collecting and analyzing current hydrologic data pertinent to the annual water supply to, and utilization of water from, the San Bernardino Basin Area.

Such data will be summarized and reported from time to time in subsequent supplemental reports of the Watermaster.

**ADJUSTED RIGHTS FOR EXTRACTIONS BY PLAINTIFFS  
FROM THE SAN BERNARDINO BASIN AREA BASED ON NATURAL  
SAFE YIELD OF 232,100 ACRE-FEET PER ANNUM <sup>1</sup>  
CLASSIFIED ACCORDING TO SERVICE AREA  
(All Values in Acre-Feet)**

Plaintiffs	Total Extractions in San Bernardino Basin Area	Delivery to San Bernardino Basin Area	Delivery to Colton Basin and Riverside Basin Area in San Bernardino County	Delivery to Areas Outside San Bernardino Valley
City of Riverside (including those rights acquired as successor to the Riverside Water Company and the Gage Canal Company)	52,199 <sup>2</sup>	1,427	1,230	49,542 <sup>2</sup>
Riverside Highland Water Company	4,294	0	2,449	1,845
Agua Mansa Water Company and Meeks & Daley Water Company	7,833	0	318	7,515
Regents of the University of California	536 <sup>2</sup>	0	0	536 <sup>2</sup>
<b>TOTAL</b>	<b>64,862</b>	<b>1,427</b>	<b>3,997</b>	<b>59,438</b>

<sup>1</sup> Effective January 1, 1972.

<sup>2</sup> The Adjusted Rights allocated to the City of Riverside and the Regents of the University of California were established at 52,169 and 566 acre-feet per annum respectively. On that basis University of California was reduced to 536 acre-feet, and the City of Riverside adjusted right was increased to 52,199 acre-feet.

**CHAPTER V**

**EXTRACTIONS FROM COLTON BASIN AREA  
AND RIVERSIDE BASIN AREA IN SAN BERNARDINO COUNTY**

## CHAPTER V

### EXTRACTIONS FROM THE COLTON BASIN AREA AND RIVERSIDE BASIN AREA IN SAN BERNARDINO COUNTY

#### **For Use Outside San Bernardino Valley Municipal Water District**

The extractions from the Colton Basin Area and that portion of the Riverside Basin Area within San Bernardino County for use outside San Bernardino Valley during the 1990 calendar year have been verified by the Watermaster as 1,652 acre-feet and 15,871 acre-feet, respectively. The individual work sheets for these determinations are included in Report of Watermaster, Volume 2-1990, Volume 3-1990, and Volume 5-1990 entitled *Verified Extractions From Cotton Basin Area, Verified Extractions From Riverside Basin Area Within San Bernardino County and Distribution of Extractions From the San Bernardino Basin Area, Cotton Basin Area, and Riverside Basin Area for Use Outside the San Bernardino Valley Municipal Water District*, respectively.

#### **For Use Within San Bernardino Valley Municipal Water District**

Provided minimum water surface elevations within the Colton Basin and that portion of Riverside Basin Area within San Bernardino County are maintained by San Bernardino Valley Municipal Water District, extractions from the Colton Basin Area and that portion of the Riverside Basin Area within San Bernardino County for use within San Bernardino Valley are not limited and therefore verification of such amounts are not specifically required by the Judgment. However, proper allocation of the total extractions from these areas for use on areas outside San Bernardino Valley necessitates the verification of these extractions. The individual work sheets for the 1990 verification and distribution of extractions are also included in Report of Watermaster, Volumes 2-1990, 3-1990 and 5-1990.

The extractions from the Colton Basin Area and the Riverside Basin Area in San Bernardino County for calendar years 1971 through 1990 are summarized in Tables 4 and 5 following.

**TABLE NO. 4**  
**VERIFIED EXTRACTIONS FROM COLTON BASIN AREA**  
**BY SAN BERNARDINO AND RIVERSIDE COUNTY**  
**ENTITIES FOR USE WITHIN EACH COUNTY**  
**(All Values in Acre-Feet)**

Extractions for Calendar Years	Total from Basin	Extracted by San Bernardino County Entities		Extracted by Riverside County Entities			Base Right for Use in Riverside County	1
				Total	Used in San Bernardino County	Used in Riverside County		
Five-Year Base Period 1959-63 Avg.	11,731	3	8,235	3	3,496	115	3,381	3,381
1971	11,388	2	8,363	2	3,025	248	2,777	3,381
1972	10,414		7,532		2,882	271	2,611	3,381
1973	7,844		6,982		862	247	615	3,381
1974	8,906		7,169		1,737	273	1,464	3,381
1975	11,083		6,821		4,262	389	3,873	3,381
1976	11,558	4	8,605	4	2,953	270	2,683	3,381
1977	8,777		6,061		2,716	447	2,269	3,381
1978	7,663		6,430		1,233	338	895	3,381
1979	7,194		5,224		1,970	288	1,682	3,381
1980	5,681	5	5,610	5	71	0	71	3,381
1981	6,348		6,175		173	0	173	3,381
1982	6,499		5,450		1,049	68	981	3,381
1983	4,735	6	4,603	6	132	37	95	3,381
1984	8,987		7,441		1,546	206	1,340	3,381
1985	10,149		7,142		3,007	763	2,244	3,381
1986	10,035		7,651		2,384	784	1,600	3,381
1987	13,175		11,054		2,121	564	1,557	3,381
1988	13,552		11,453		2,099	392	1,707	3,381
1989	14,166	7	11,862	7	2,304	299	2,005	3,381
1990	17,753		15,733		2,020	368	1,652	3,381

1 Extractions for use in Riverside County are limited to the verified extractions for the five-year Base Period 1959-63

2 Amount corrected during verification of 1972 extractions.

3 Amount corrected during verification of 1972 and 1973 extractions.

4 Amount corrected during verification of 1977 extractions.

5 Amount corrected during verification of 1981 extractions.

6 Amount corrected during verification of 1984 extractions.

7 Amount corrected during verification of 1990 extractions.

Note: See Report of Watermaster, Volume 2, Tables 4 & 5; and Volume 5, Tables 38A & 39.

TABLE NO. 4  
 VERIFIED EXTRACTIONS FROM COLTON BASIN AREA  
 BY SAN BERNARDINO AND RIVERSIDE COUNTY  
 ENTITIES FOR USE WITHIN EACH COUNTY  
 (All Values in Acre-Feet)

Five-Year Period	Total from Basin	Extracted by San Bernardino County Entities	Extracted by Riverside County Entities			Base Right for Use in Riverside County	1
			Total	Used in San Bernardino County	Used in Riverside County		
<b>Base Period</b>							
1959-63	58,655	41,175	17,480	575	16,905	16,905	
1971-75	49,635	36,867	12,768	1,428	11,340	16,905	
1972-76	49,805	37,109	12,696	1,450	11,246	16,905	
1973-77	48,168	35,638	12,530	1,626	10,904	16,905	
1974-78	47,987	35,086	12,901	1,717	11,184	16,905	
1975-79	46,275	33,141	13,134	1,732	11,402	16,905	
1976-80	40,873	31,930	8,943	1,343	7,600	16,905	
1977-81	35,663	29,500	6,163	1,073	5,090	16,905	
1978-82	33,385	28,889	4,496	694	3,802	16,905	
1979-83	30,457	27,062	3,395	393	3,002	16,905	
1980-84	32,250	29,279	2,971	311	2,660	16,905	
1981-85	36,718	30,811	5,907	1,074	4,833	16,905	
1982-86	40,405	32,287	8,118	1,858	6,260	16,905	
1983-87	47,081	37,891	9,190	2,354 2	6,836	16,905	
1984-88	55,898	44,741	11,157	2,709	8,448	16,905	
1985-89	61,077	49,162	11,915	2,802	9,113	16,905	
1986-90	68,681	57,753	10,928	2,407	8,521	16,905	

1 Extractions for use in Riverside County are limited to the verified extractions for the five-year Base Period 1959-63.

2 Number corrected during verification of 1990 extractions.

TABLE NO. 5

**VERIFIED EXTRACTIONS FROM RIVERSIDE BASIN AREA  
BY SAN BERNARDINO AND RIVERSIDE COUNTY  
ENTITIES FOR USE WITHIN EACH COUNTY  
(All Values in Acre-feet)**

Extractions for Calendar Years	Total from Basin	Extracted by San Bernardino County Entities	Extracted by Riverside County Entities			Base Right for Use in Riverside County <sup>1</sup>
			Total	Used in San Bernardino County	Used in Riverside County	
Five-Year Base Period 1959-63 Avg.	33,729	9,609	24,120	3,035	21,085	21,085
1971	29,070	8,748	20,322	2,214	18,108	21,085
1972	28,148	7,963	20,185	1,597	18,588	21,085
1973	21,809	6,490	15,319	1,333	13,986	21,085
1974	21,881	6,899	14,982	1,399	13,583	21,085
1975	22,701	6,513	16,188	1,225	14,963	21,085
1976	24,705	6,898	17,807	1,666	16,141	21,085
1977	23,506	7,089	16,417	1,985	14,432	21,085
1978	17,216	6,261	10,955	1,900	9,055	21,085
1979	20,024	7,062	12,962	2,370	10,592	21,085
1980	18,533	5,932 <sup>2</sup>	12,601 <sup>2</sup>	3,410	9,191 <sup>2</sup>	21,085
1981	23,611	6,811	16,800	3,733	13,067	21,085
1982	17,349 <sup>3</sup>	5,409	11,940 <sup>3</sup>	3,483 <sup>3</sup>	8,457	21,085
1983	11,904 <sup>3</sup>	5,204 <sup>3</sup>	6,700 <sup>3</sup>	2,925 <sup>3</sup>	3,775	21,085
1984	17,161	5,648	11,513	1,953	9,560	21,085
1985	19,392 <sup>4</sup>	6,048 <sup>4</sup>	13,344	2,143	11,201	21,085
1986	17,337	7,401 <sup>5</sup>	9,936 <sup>5</sup>	1,245	8,691 <sup>5</sup>	21,085
1987	15,803 <sup>6</sup>	7,374 <sup>6</sup>	8,429	717	7,712	21,085
1988	16,933 <sup>7</sup>	7,235 <sup>7</sup>	9,698 <sup>7</sup>	773	8,925 <sup>7</sup>	21,085
1989	25,557	7,781	17,776	1,619	16,157	21,085
1990	26,371	7,872	18,499	2,628	15,871	21,085

**1 Extractions for use in Riverside County are limited to the verified extractions for five-year Base Period 1959-63**

**2 Amounts corrected during verification of 1981 extractions.**

**3 Amounts corrected during verification of 1984 extractions.**

**4 Amounts corrected during verification of 1986 extractions.**

**5 Amounts corrected during verification of 1987 extractions.**

**6 Amounts corrected during verification of 1988 extractions.**

**7 Amounts corrected during verification of 1989 extractions.**

**Note: See Report of Watermaster, Volume 3, Tables 4 & 5; and Volume 5, Table 54.**

TABLE NO. 5

VERIFIED EXTRACTIONS FROM RIVERSIDE BASIN AREA  
BY SAN BERNARDINO AND RIVERSIDE COUNTY  
ENTITIES FOR USE WITHIN EACH COUNTY  
(All Values in Acre-Feet)

Five-Year Period	Total from Basin	Extracted by San Bernardino County Entities	Extracted by Riverside County Entities			Base Right for Use in Riverside County <sup>1</sup>
			Total	Used in San Bernardino County	Used in Riverside County	
<b>Base Period</b>						
1959-63	168,645	48,045	120,600	15,175	105,425	105,425
1971-75	123,609	36,613	86,996	7,768	79,228	105,425
1972-76	119,244	34,763	84,481	7,220	77,261	105,425
1973-77	114,602	33,889	80,713	7,608	73,105	105,425
1974-78	110,009	33,660	76,349	8,175	68,174	105,425
1975-79	108,152	33,823	74,329	9,146	65,183	105,425
1976-80	103,984	33,242	70,742	11,331	59,411	105,425
1977-81	102,890	33,155	69,735	13,398	56,337	105,425
1978-82	96,733	31,475	65,258	14,896	50,362	105,425
1979-83	91,421	30,418	61,003	15,921	45,082	105,425
1980-84	88,558	29,004	59,554	15,504	44,050	105,425
1981-85	89,417	29,120	60,297	14,237	46,060	105,425
1982-86	83,143	29,710	53,433	11,749	41,684	105,425
1983-87	81,597	31,675	49,922	8,983	40,939	105,425
1984-88	86,626	33,706	52,920	6,831	46,089	105,425
1985-89	95,022	35,839	59,183	6,497	52,686	105,425
1986-90	102,001	37,663	64,338	6,982	57,356	105,425

<sup>1</sup> Extractions for use in Riverside County are limited to the verified extractions for the five-year Base Period 1959-63.



### Minimum Water Surface Elevations

Extractions from the Colton Basin Area and that portion of the Riverside Basin Area within San Bernardino County for use in San Bernardino Valley are not limited, provided that the average static water surface elevation as measured at wells numbered IS/4W-2IQ3, 1S/4W-29HI, and IS/4W-29QI is not less than 822.04 feet, as set forth in the Judgment. This elevation is determined each year by averaging the lowest static water level occurring in each of the three wells at or near the same time of the year.

Hydrographs of the 1991 static water surface elevations in the three key wells are shown on Figures 1, 2, and 3 which follow. Data pertinent to the key wells as well as the records of historic water surface measurements are included in Report of Watermaster, Volume 8-1990 entitled *Ground Water Surface Elevations in Wells Numbered IS14W-2IQ3, ISI4W-29HI, and IS14W-29QI Located Within the Colton Basin Area and Riverside Basin Area in San Bernardino County through December, 1991.*

The lowest static water surface elevation measured in each of the three wells during 1991 is as follows:

Well Number	Date of Measurement	Elevation of Water Surface
1S/4W-2IQ3	Oct 10	890.06
IS/4W-29HI	May 31	884.28
IS/4W-29QI	May 31	878.78
	Average	884.37

Thus, the lowest average fall water surface elevation for calendar year 1991 is 0.89 feet lower than the 1990 average of 885.26 and 62.33 feet higher than the 1963 average of 822.04.

# GROUNDWATER SURFACE ELEVATIONS JOHNSON NO.1 WELL 1991

STATE WELL NUMBER  
RECORDATION NUMBER  
BASIN  
OWNER

15/4W - 21Q3  
36-01480  
COLTON  
CITY OF RIVERSIDE

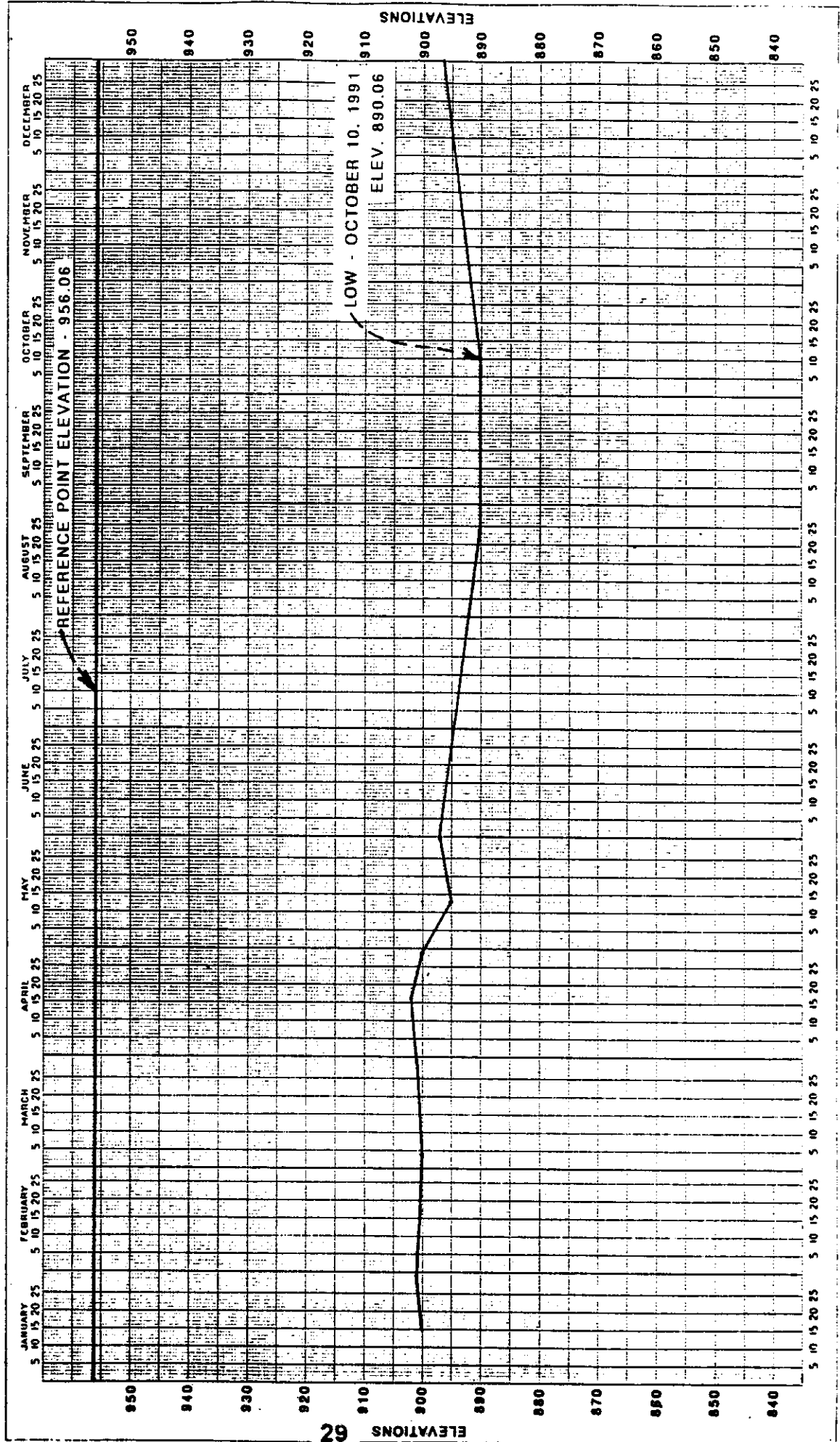


Figure 1

# GROUNDWATER SURFACE ELEVATIONS FLUME NO. 2 WELL 1991

STATE WELL NUMBER  
 RECORDATION NUMBER  
 BASIN  
 OWNER

1S/4W - 29H1  
 36-01484  
 RIVERSIDE  
 CITY OF RIVERSIDE

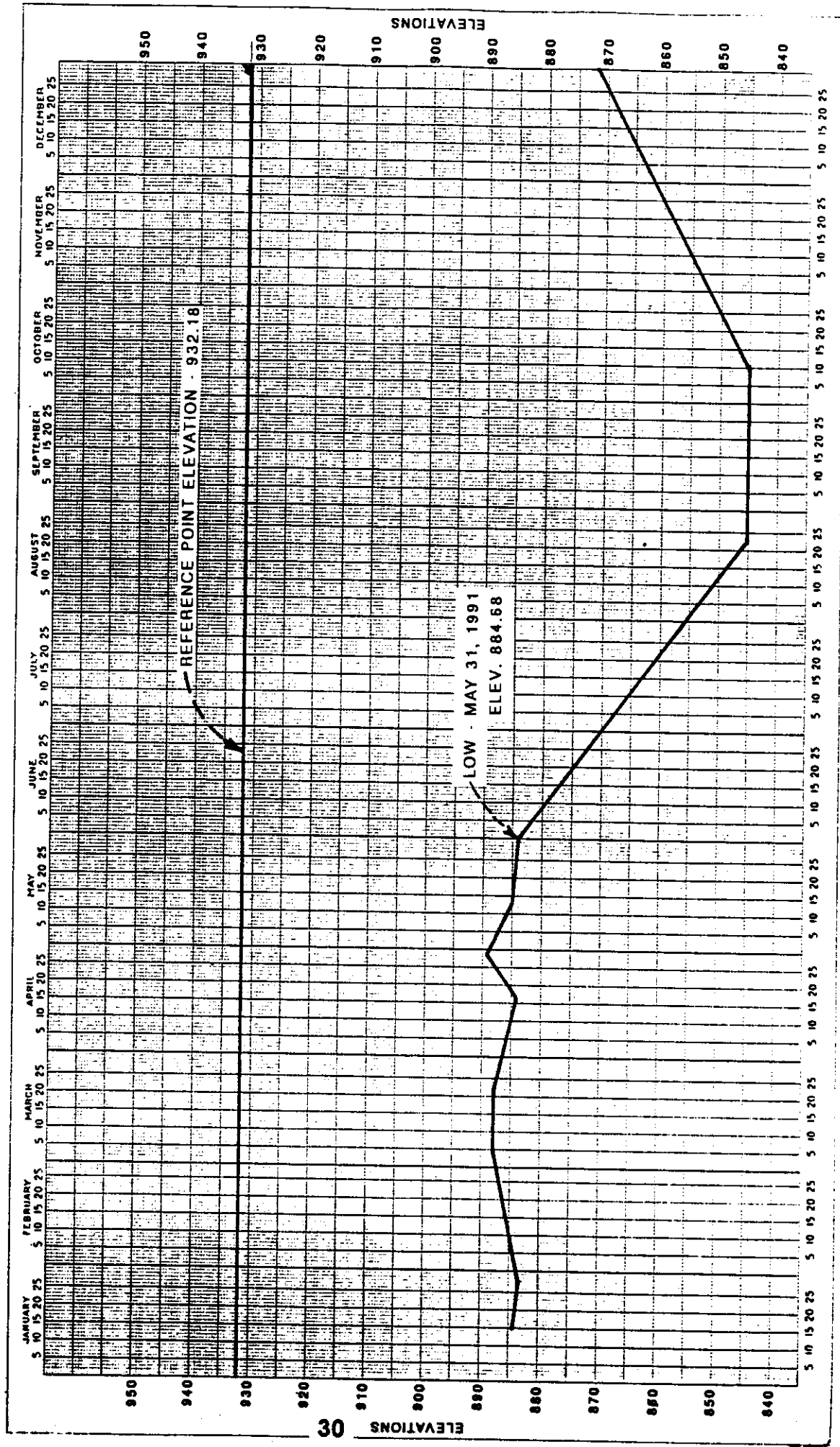
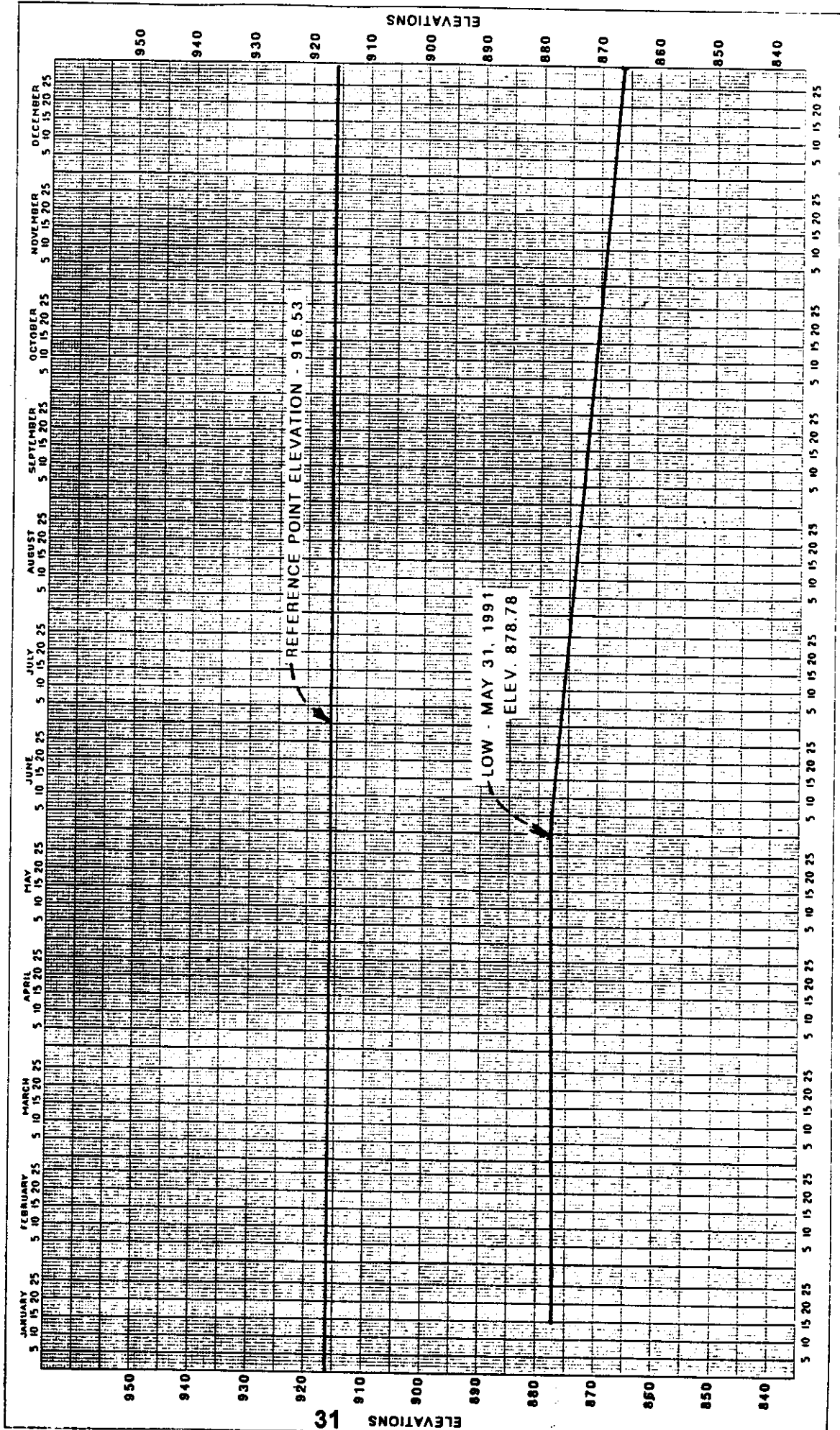


Figure 2

# GROUNDWATER SURFACE ELEVATION FLUME NO. 5 WELL 1991

STATE WELL NUMBER  
RECORDATION NUMBER  
BASIN  
OWNER  
CITY OF RIVERSIDE

1S/4W - 21Q/  
36-01487  
RIVERSIDE  
CITY OF RIVERSIDE



**CHAPTER VI**

**EXTRACTIONS FROM THE PORTION OF  
RIVERSIDE BASIN AREA IN RIVERSIDE COUNTY  
WHICH IS TRIBUTARY TO THE RIVERSIDE NARROWS**

## CHAPTER VI

### EXTRACTIONS FROM THE PORTION OF RIVERSIDE BASIN AREA IN RIVERSIDE COUNTY WHICH IS TRIBUTARY TO THE RIVERSIDE NARROWS

#### Extractions

The extractions from that portion of the Riverside Basin area in Riverside County which is tributary to the Riverside Narrows for use within Riverside County for calendar year 1990 have been verified by the Watermaster as 32,582 acre-feet. The individual work sheets are included in Report of Watermaster, Volume 4-1990 entitled *Verified Extractions from Riverside Basin Area Within Riverside County* and are summarized in Table No. 6 following.

TABLE NO. 6  
 VERIFIED EXTRACTIONS FROM RIVERSIDE BASIN AREA  
 IN RIVERSIDE COUNTY  
 FOR USE IN RIVERSIDE COUNTY  
 (All Values in Acre-Feet)

Calendar Year	Total Verified Extractions		Base Right for Use in Riverside County
Five-Year Base Period 1959-63 Avg.	29,633		29,633
1971	30,942	1	29,633
1972	37,804	2	29,633
1973	33,094		29,633
1974	38,304	2	29,633
1975	28,285		29,633
1976	31,565		29,633
1977	28,226		29,633
1978	24,878	3	29,633
1979	25,512		29,633
1980	30,206	4	29,633
1981	30,243	4	29,633
1982	20,365	5	29,633
1983	22,991	5	29,633
1984	32,466	6	29,633
1985	23,970	7	29,633
1986	24,549	8	29,633
1987	24,885	9	29,633
1988	25,220	10	29,633
1989	35,327	11	29,633
1990	32,582		29,633

*1 Amount corrected during verification of 1972 extractions.*

*2 These extractions exceeded the Base Right plus peaking allowance of 20% by 2,244 acre-feet in 1972 and 2744 acre-feet in 1974.*

*3 Amount corrected during verification of 1980 extractions.*

*4 Amount corrected during verification of 1983 extractions.*

*5 Amount corrected during verification of 1984 extractions.*

*6 Amount corrected during verification of 1985 extractions.*

*7 Amount corrected during verification of 1986 extractions.*

*8 Amount corrected during verification of 1987 extractions.*

*9 Amount corrected during verification of 1988 extractions.*

*10 Amount corrected during verification of 1989 extractions.*

*11 Amount corrected during verification of 1990 extractions.*

*Note: See Report of Watermaster, Volume 4, Table 4.*

TABLE NO. 6  
 VERIFIED EXTRACTIONS FROM RIVERSIDE BASIN AREA  
 IN RIVERSIDE COUNTY  
 FOR USE IN RIVERSIDE COUNTY  
 (All Values in Acre-Feet)

Calendar Year	Total Verified Extractions	Base Right for Use in Riverside County
Five-Year Base Period 1959-63 Avg.	148,165	148,165
1971-75	168,429	148,165
1972-76	169,052	148,165
1973-77	159,474	148,165
1974-78	151,258	148,165
1975-79	138,466	148,165
1976-80	140,387	148,165
1977-81	139,065	148,165
1978-82	131,204	148,165
1979-83	129,317	148,165
1980-84	136,271	148,165
1981-85	130,035	148,165
1982-86	124,341	148,165
1983-87	128,861	148,165
1984-88	131,090	148,165
1985-89	133,951	148,165
1986-90	142,563	148,165



### Return Flows

The Judgment provides for additional replenishment by Western if the urbanization of the Riverside Basin results in a diminution of the return flow accruing from the extractions described above and which would have otherwise accrued to the rising water at Riverside Narrows. The extent of such diminution is determined by the permanent reduction in the irrigated areas within the various water service organizations delivering water to the area as compared to the areas served at the time the Judgment was entered. To the extent that such reduction causes an increase in the urban uses requiring sewage disposal through the Riverside Treatment Plant (the effluent which bypasses the Riverside Narrows), Western may, from time to time, be required to provide replenishment. Such irrigated acreages in the Riverside Basin Area in Riverside County at the time the Judgment was entered, from which return flow was tributary to Riverside Narrows, are set forth in Table D-5 of Appendix "DII of the Judgment and are as follows:

IRRIGATED ACREAGE IN RIVERSIDE BASIN AREA  
IN RIVERSIDE COUNTY PRESENTLY TRIBUTARY TO  
RIVERSIDE NARROWS WHICH UPON CONVERSION  
TO URBAN USES REQUIRING SEWAGE DISPOSAL  
THROUGH THE RIVERSIDE TREATMENT PLANT WILL  
BE DISCHARGED TO THE RIVER BELOW  
RIVERSIDE NARROWS

Entity Serving Acreage	Acres
Gage Canal Company	1,752
Alta Mesa Water Company	65
East Riverside Water Company	926
Riverside Highland Water Company	1,173
<b>TOTAL</b>	<b>3,916</b>

The service areas of the companies listed in Table D-5 were investigated and prints of September 1990 air photos were obtained. The photos showing the 1990 irrigated acreage were compared to the 1968 maps used to determine the acreages shown on Table D-5. This comparison indicated those lands no longer being irrigated and the

present use of the converted land. Additional study of these converted lands indicated the date irrigation ceased and the date such lands were connected to a sewage disposal system discharging to the river below Riverside Narrows.

The number of dwelling units connected to the City of Riverside wastewater disposal system and a discharge unit factor of 0.22 acre-feet per year per dwelling unit was used to determine the wastewater discharged to the river from the converted lands. These data have been summarized for the years 1986 through 1990 and are shown on Table No. 7.

**TABLE NO. 7  
REDUCTION IN RETURN FLOW CONTRIBUTING TO BASE FLOW  
AT RIVERSIDE NARROWS  
RESULTING FROM CONVERSION OF AGRICULTURAL USES  
OF WATER TO DOMESTIC USES CONNECTED TO A SEWAGE SYSTEM  
DISCHARGING TO THE RIVER BELOW RIVERSIDE NARROWS  
(All Values in Acre-Feet)**

Calendar Year	Gage Canal	Alta Mesa	East Riverside	Riverside Highland	Total
1986	213	38	275	0	526
1987	226	38	281	0	545
1988	249	38	281	0	568
1989	249	38	282	0	569
1990	251	38	282	0	571
<b>TOTAL 1986-90</b>	<b>1,188</b>	<b>190</b>	<b>1,401</b>	<b>0</b>	<b>2,779</b>

Table No. 7 shows that in 1990 the reduction in return flow contributing to Base Flow at Riverside Narrows resulting from the conversion of land from agricultural use to urban uses in the Riverside Basin Area was 571 acre-feet. Western's obligation associated with the land use conversion and resulting replenishment requirements are shown on summary Tables 16 and 18.

**CHAPTER VII**

**EXTRACTIONS FROM THE SAN BERNARDINO BASIN AREA,  
COLTON BASIN AREA, AND RIVERSIDE BASIN AREA  
FOR USE WITHIN WESTERN ON LANDS THAT ARE NOT  
TRIBUTARY TO THE RIVERSIDE NARROWS**

## CHAPTER VII

### **EXTRACTIONS FROM THE SAN BERNARDINO BASIN AREA, COLTON BASIN AREA AND RIVERSIDE BASIN AREA FOR USE WITHIN WESTERN ON LANDS THAT ARE NOT TRIBUTARY TO THE RIVERSIDE NARROWS**

The extractions from the San Bernardino, Colton and Riverside Basin Areas which were delivered for use within Western on lands not tributary to the Riverside Narrows during calendar year 1990 were verified by the Watermaster to be 43,357 acre-feet. Said amount is summarized by entity on Table No. 8.

The detailed work sheets for this determination are contained in Report of Watermaster, Volume 6-1990, entitled *Verified Extractions from the San Bernardino Basin Area, Colton Basin Area, and Riverside Basin Area for Use Within Western on Lands Not Tributary to the Riverside Narrows.*

TABLE NO. 8

VERIFIED EXTRACTIONS FROM  
 THE SAN BERNARDINO BASIN AREA,  
 THE COLTON BASIN AREA, AND THE RIVERSIDE BASIN AREA  
 FOR USE WITHIN WESTERN ON LANDS THAT ARE NOT TRIBUTARY  
 TO THE RIVERSIDE NARROWS  
 (All Values in Acre-Feet)

Entities Within WMWD	Annual 1959-63 Average	Calendar Years				
		1986 Verified Delivery	1987 Verified Delivery	1988 Verified Delivery	1989 Verified Delivery	1990 Verified Delivery
City of Riverside, including Irrigation Division water extracted by the Gage Canal Company and former Riverside Water Company	23,836	25,111	24,444 1	24,666	39,038	38,894
Meeks & Daley Water Company, Agua Mansa Water Company, and Temescal Water Company, including water received from City of Riverside	13,229	5,417	5,500	5,412	5,307 2	3,057
Extractions delivered by West Riverside Canal received from Twin Buttes Water Company, La Sierra Water Company, Agua Mansa Water Company, Salazar Water Company, West Riverside 350 Inch Water Company, and Junupa Water Company	4,903	681 1	671 1	1,817 1	833	881
Junupa Community Services District	531	545	0	1	397	277
Rubidoux Community Services District	36	328	246	267	266	248
<b>TOTAL</b>	<b>42,535</b>	<b>32,082 1</b>	<b>30,861 1</b>	<b>32,163 1</b>	<b>45,841 2</b>	<b>43,357</b>

Note: See Report of Watermaster, Volume 6, Table A.

1 Amounts corrected during verification of 1989 extractions.

2 Amounts corrected during verification of 1990 extractions.

**CHAPTER VIII**

**VERIFICATION OF EXTRACTIONS FROM THE  
SAN BERNARDINO BASIN AREA AND COLTON BASIN AREA  
WITHIN THE SAN BERNARDINO VALLEY MUNICIPAL WATER  
DISTRICT FOR USE ON LANDS NOT WITHIN WESTERN  
NOR TRIBUTARY TO THE RIVERSIDE NARROWS**

## **CHAPTER VIII**

### **VERIFICATION OF EXTRACTIONS FROM THE SAN BERNARDINO BASIN AREA AND COLTON BASIN AREA WITHIN THE SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT FOR USE ON LANDS NOT WITHIN WESTERN NOR TRIBUTARY TO THE RIVERSIDE NARROWS**

#### **Deliveries to Chino Basin**

The extractions from the Colton and San Bernardino Basin Areas which were delivered for use on lands not within Western nor tributary to the Riverside Narrows (Chino Basin) during calendar year 1990, were verified by the Watermaster to be 19,756 acre-feet. Said amount is summarized by entity on Table No. 9.

#### **Deliveries to Areas Other Than Chino Basin**

Paragraph X of the Judgment also provides for replenishment by San Bernardino Valley to the extent exports are made from the San Bernardino Basin Area for use in the Yucaipa, San Timoteo, Oak Glen, and Beaumont Basins.

The results of the verification of the base period production from the San Bernardino Basin Area indicated that such exports were not made during the five calendar years ending with 1963. The verification of production for the 1990 calendar year indicated that during 1990 San Bernardino Valley Municipal Water District diverted 117 acre-feet of water from Mill Creek and delivered such water to the Yucaipa Basin as shown on Table No. 9. During 1990, no water was exported to the San Timoteo, Oak Glen or Beaumont Basins.

**TABLE NO. 9**  
**VERIFIED EXTRACTIONS FROM THE**  
**SAN BERNARDINO BASIN AREA AND COLTON BASIN AREA**  
**WITHIN THE SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT**  
**FOR USE ON LANDS NOT WITHIN WESTERN**  
**NOR TRIBUTARY TO RIVERSIDE NARROWS**  
**(All Values in Acre-Feet)**

Entities	Annual 1959-63 Average	Calendar Years				
		1986 Verified Delivery	1987 Verified Delivery	1988 Verified Delivery	1989 Verified Delivery	1990 Verified Delivery
Fontana Union Water Company	10,170 <sup>1</sup>	21,832	19,907	19,684	12,531	11,611
West San Bernardino County Water District	1,806	3,252	4,828 <sup>3</sup>	5,742	6,079	6,400
City of Rialto	551 <sup>1</sup>	1,014	1,370	1,204	1,146	1,745
Subtotal (Delivery to Chino Basin)	12,527	26,098	26,105 <sup>3</sup>	26,630	19,756	19,756
San Bernardino Valley Municipal Water District	0	486 <sup>2</sup>	1,527 <sup>2</sup>	1,800 <sup>2</sup>	1,048 <sup>2</sup>	117
Subtotal (Delivery to areas other than Chino Basin)	0	486	1,527	1,800	1,048	117
<b>TOTAL</b>	<b>12,527 <sup>1</sup></b>	<b>26,584</b>	<b>27,632 <sup>3</sup></b>	<b>28,430</b>	<b>20,804</b>	<b>19,873</b>

<sup>1</sup> Amount corrected during verification of 1973 deliveries.

<sup>2</sup> Water diverted from Mill Creek and delivered to the Yucaipa Regional Park or Wilson Spreading Basins by SBVWMD.

<sup>3</sup> Amount corrected during verification of 1988 deliveries.

Note: See Report of Watermaster, Volume 7, Table B.



**CHAPTER IX**

**ANNUAL ACCOUNTING OF EXTRACTIONS,  
DELIVERIES, AND REPLENISHMENT OBLIGATIONS**

## **CHAPTER IX**

### **ANNUAL ACCOUNTING OF EXTRACTIONS, DELIVERIES, AND REPLENISHMENT OBLIGATIONS**

The Judgment requires the annual determination of extractions from the San Bernardino, Colton, and Riverside Basin Areas by Plaintiffs as well as Non-Plaintiffs, and further requires that a determination be made as to that portion of such extractions delivered to each of the service areas tributary to the Riverside Narrows as well as the deliveries to those areas not tributary to the Riverside Narrows. A comparison of the annual extractions and deliveries with the verified five-year Base Period amounts provides the basis for the annual accounting of replenishment obligations, if any, which accrue by reason of production or deliveries in excess of such amounts.

#### **Plaintiffs' Extractions from San Bernardino Basin Area**

The Judgment specifically defines the Adjusted Right of the City of Riverside, Gage Canal Company, Riverside Highland Water Company, Agua Mansa Water Company, Meeks and Daley Water Company and the Regents of University of California to produce water from the San Bernardino Basin Area for use in three specific service areas. These rights, expressed in terms of the five-year total allowable production and the maximum allowable production in any one year, are shown on Tables 10 through 13. Tables 10 through 13 also show the actual extractions for use by the Plaintiffs in the specific service areas.

In accordance with paragraph VI(b)6 of the Judgment, San Bernardino Valley Municipal Water District and Western Municipal Water District have entered into agreements on December 22, 1981, February 25, 1985, and August 21, 1985 which provide for additional extraction and exportation of water from the San Bernardino Basin Area. The 1981 agreement and its amendments provide for the City of Riverside to extract and export up to 15,000 acre-feet per year of additional water from the San Bernardino Basin Area. The agreement also sets forth certain payment provisions for such additional extractions and requires certification to the Watermaster that such provisions have been met. The footnotes on Table 10 indicate the amounts of water extracted by the City of Riverside in calendar years 1981, 1983, 1984, 1985, 1986, 1987 and 1988.

The 1981 pumping agreement was not amended for calendar year 1990, therefore, no additional water was extracted for export.

**Non-Plaintiffs' Extractions from San Bernardino Basin Area**

The Judgment provides that the Non-Plaintiffs as a group can produce a specific amount of water from the San Bernardino Basin Area without incurring an obligation to replenish the basin with imported water. During the period 1986 through 1990, the Non-Plaintiffs' production did exceed the Adjusted Right. (See Table 17)

A comparison of Adjusted Rights to actual production by Plaintiffs and Non-Plaintiffs for the period 1986 through 1990 is as follows:

	Adjusted Right 1986-1990	(All Values in Acre-Feet) Actual Extractions	Difference
Plaintiffs	324,310	296,070	28,240
Non-Plaintiffs	836,190	880,261	(44,071)
TOTAL	1,160,500	1,176,331	15,831

**Exports to Areas Not Tributary to Riverride Narrows**

The Judgment limits the amount of water that can be extracted from the various basins for use on lands that are not tributary to the Riverside Narrows. Western and San Bernardino Valley are responsible for any obligation that may result from new exports to these nontributary lands located in Riverside County and San Bernardino County, respectively.

Tables 14 and 15 indicate the Base Right and actual export for use on lands in Riverside County and San Bernardino County not tributary to the Riverside Narrows. Table 14 shows that during the period 1986 through 1990 the export by entities within Western was 28,371 acre-feet less than the Base Right.

Table 15 shows that exports from San Bernardino Valley for use in San Bernardino County exceeded the Base Right for the period 1971 through 1990 by 183,382 acre-feet. The obligation of San Bernardino Valley resulting from this new export is shown on Table 17.

The 1981 and 1985 agreements regarding extraction of additional water provide that the provisions of the Judgment related to export to areas not tributary to the Riverside Narrows shall not apply to additional water. Therefore, the additional water pumped by the City of Riverside in 1985, 1986, 1987 and 1988 has been excluded from amounts of export shown on Table 14. The additional water extracted by Non-Plaintiffs in 1985, 1987, and 1988 has not been excluded from the amount of export shown on Table 15;

however, the 10,681 acre-feet, the 5,263 acre-feet and the 11,487 acre-feet of additional water extracted by Non-Plaintiffs in 1985, 1987, and 1988, respectively, have been excluded from the computation of new export on Table 17 (See Footnotes 13, 15, and 17).

#### **Summary of Western's Credits and Obligations**

Table 16 summarizes Western's credits and obligations in the Colton and Riverside Basin Areas. The actual extractions in these areas during the five-year period 1986 through 1990 were 62,055 acre-feet less than the total five-year Base Right. This under-extraction results in extraction credits for the five-year period 1986 through 1990 as shown on Table 16.

In addition to extraction credits, Western receives credit for return flows resulting from imported water used in areas that are tributary to the Riverside Narrows. Western's accumulated credit resulting from under-extraction and return of imported water is 64,008 acre-feet.

Since actual extractions have not exceeded the Base Right during the period 1986 through 1990, Western has not incurred an excess extraction obligation. As indicated on Table 14 and as discussed in the previous section, Western has not incurred an obligation due to new exports to areas not tributary to the Riverside Narrows. However, land conversion from agricultural uses to urban uses within Western during the period 1986 through 1990 has resulted in an obligation of 2,779 acre-feet. (See Table 7) Therefore, Western's total accumulated obligation during the period 1986 through 1990 is 2,779 acre-feet.

In summary, Table 16 shows that during the five-year period 1986 through 1990 Western's accumulated credits exceeded its accumulated obligation by 61,229 acre-feet.

#### **Summary of San Bernardino Valley's Credits and Obligations**

Table 17 summarizes San Bernardino Valley's credit and obligations in the San Bernardino, Colton and Riverside Basins. Paragraph Vi of the Judgment entitled *San Bernardino Basin Area Rights and Replenishment* states in part that:

*San Bernardino shall also receive credit against any future replenishment obligations for all replenishment which it provides in excess of that required herein, and for any amounts which may be extracted without replenishment obligation, which in fact are not extracted.*

The Judgment provides that SBVMWD can carry forward to the current five-year period credits accumulated prior thereto. Obligations incurred by SBVMWD have also been carried forward to the current five-year period. Accordingly the accumulated values shown on Tables 15 and 17 include amounts accumulated prior to 1986.

As indicated previously, the actual extractions from the San Bernardino Basin Area were greater than the Adjusted Right during the period 1986 through 1990. The actual extractions for 1990 were greater than the annual Adjusted Right; therefore, the extraction credit for 1990 was zero as shown on Table 17. San Bernardino Valley receives credit for imported water that is used for replenishment in the San Bernardino Basin Area as previously discussed. Accumulated credits for such replenishment and from the under-extraction through 1990 total 328,605 acre-feet.

Actual extractions exceeded the Adjusted Right in 1986, 1987, 1988, 1989, and 1990. Table 17 indicates an obligation related to the excess extraction in 1986 of 17,496 acre-feet and in 1989 of 7,091 acre-feet. The accumulated obligation resulting from excess extractions and new export during the period 1971 through 1990 is \* acre-feet as shown on Table 17.

In summary, Table 17 shows that at the end of the five-year period 1986 through 1990 San Bernardino Valley's accumulated credits exceeded its accumulated obligations by \* acre-feet.

Chapter V indicates that extractions in the Colton Basin Area and Riverside Basin Area within San Bernardino County for use in San Bernardino Valley are not limited provided that San Bernardino Valley maintains a specified minimum static water surface elevation in these Basins. During the five-year period 1986 through 1990 the actual water surface elevation remained higher than the specified minimum; therefore, no additional water is required for maintenance of these Basins.

\* See Table 17 footnote.

### **Replenishment Requirements**

Table 18 summarizes the accumulated credits and obligations of both Western and San Bernardino Valley. The credits exceeded the obligations for Western during the five-year period 1986 through 1990. The Table also indicates that if a net accumulated obligation is incurred by either party, the replenishment required by that party would be reduced by the return flow resulting from any excess extraction. Since the extraction credits exceeded the excess extraction obligations for both parties as shown on Tables 16 and 17, no credit has been allowed for excess extraction return.

In summary, Table 18 shows that Western is not required to provide additional replenishment for obligations incurred during the five-year period 1986 through 1990.

TABLE NO. 10  
 ANNUAL ACCOUNTING OF EXTRACTIIONS FROM THE SAN BERNARDINO BASIN AREA  
 AND DELIVERIES TO EACH SERVICE AREA BY THE CITY OF RIVERSIDE  
 (INCLUDING THOSE RIGHTS ACQUIRED AS SUCCESSOR TO THE  
 RIVERSIDE WATER COMPANY AND THE GAGE CANAL COMPANY)  
 (All Quantities in Acre-Feet)

Calendar Year	Verified Extractions from the San Bernardino Basin Area			Delivery to San Bernardino Basin Area			Delivery to Colton Basin and Riverside Basin Areas in San Bernardino County			Delivery to Areas Outside San Bernardino Valley		
	Adjusted Right	Maximum Allowable	Actual	Adjusted Right	Maximum Allowable	Actual	Adjusted Right	Maximum Allowable	Actual	Adjusted Right	Maximum Allowable	Actual
1971	53,448	69,482	53,882	1,462	1,901	98	1,260	1,638	669	50,726	65,944	53,115
1972	52,199	67,859	45,694	1,427	1,855	85	1,230	1,599	547	49,542	64,405	45,062
1973	52,199	67,859	43,022	1,427	1,855	156	1,230	1,599	512	49,542	64,405	42,354
1974	52,199	67,859	43,367	1,427	1,855	0	1,230	1,599	550	49,542	64,405	42,817
1975	52,199	67,859	47,962	1,427	1,855	0	1,230	1,599	498	49,542	64,405	47,464
1976	52,199	67,859	51,374	1,427	1,855	0	1,230	1,599	523	49,542	64,405	50,851
1977	52,199	67,859	50,999	1,427	1,855	0	1,230	1,599	346	49,542	64,405	50,653
1978	52,199	67,859	45,384	1,427	1,855	646	1,230	1,599	301	49,542	64,405	44,437
1979	52,199	67,859	52,377	1,427	1,855	0	1,230	1,599	415	49,542	64,405	51,962
1980	52,199	67,859	50,756	1,427	1,855	383	1,230	1,599	0	49,542	64,405	50,373
1981	52,199	67,859	52,157	1,427	1,855	724	1,230	1,599	0	49,542	64,405	51,433
1982	52,199	67,859	49,599	1,427	1,855	162	1,230	1,599	0	49,542	64,405	49,437
1983	52,199	67,859	46,064	1,427	1,855	335	1,230	1,599	0	49,542	64,405	45,729
1984	52,199	67,859	58,906	1,427	1,855	32	1,230	1,599	0	49,542	64,405	58,874
1985	52,199	67,859	63,073	1,427	1,855	59	1,230	1,599	0	49,542	64,405	63,014
1986	52,199	67,859	59,979	1,427	1,855	437	1,230	1,599	0	49,542	64,405	59,542
1987	52,199	67,859	57,841	1,427	1,855	334	1,230	1,599	0	49,542	64,405	57,507
1988	52,199	67,859	64,512	1,427	1,855	815	1,230	1,599	0	49,542	64,405	63,697
1989	52,199	67,859	50,784	1,427	1,855	28	1,230	1,599	0	49,542	64,405	50,756
1990	52,199	67,859	47,637	1,427	1,855	19	1,230	1,599	0	49,542	64,405	47,618

See Report of Watermaster, Volume 1A, Table No. 3.

1 Adjusted Right as determined and reported to the Court in the Annual Report of the Western-San Bernardino Watermaster for Calendar Year 1971 in Table No. 9, page 27.

2 Maximum Allowable for any one year, not to exceed 136% of Adjusted Right.

3 Actual verified extractions from Table No. 3 of Watermaster Report.

4 Adjusted Right was not effective until January 1, 1972; thus the Base Right for 1971 is as shown in Appendix B, Table B-1 of the Judgment.

5 See Footnote 2 of Table on page 20.

6 Includes 1,148 acre-feet of additional extraction which are allowable under provisions of the December 22, 1981 Western-San Bernardino agreement prepared in accordance with paragraph V(d)(6) of the Judgment.

7 Includes 76 acre-feet of additional extraction which are allowable under provisions of the December 22, 1981 Western-San Bernardino agreement.

8 Includes 9,332 acre-feet of additional extraction which are allowable under provisions of the December 22, 1981 Western-San Bernardino agreement.

9 Includes 13,472 acre-feet of additional extraction which are allowable under provisions of the February 25, 1985 and the August 21, 1985 Western-San Bernardino agreements prepared in accordance with paragraph V(d)(6) of the Judgment.

10 Includes 10,000 acre-feet of additional extraction which are allowable under provisions of the December 22, 1981 Western-San Bernardino agreement.

11 Includes 7,965 acre-feet of additional extraction which are allowable under provisions of May 20, 1987 amendment to the December 22, 1981 Western-San Bernardino agreement.

12 Includes 14,201 acre-feet of additional extraction which are allowable under provisions of January 20, 1988 amendment to the December 22, 1981 Western-San Bernardino agreement.

Note: Annual Accounting of Extractions as required in Paragraphs V and VI of the Judgment.

TABLE NO. 10  
ANNUAL ACCOUNTING OF EXTRACTIIONS FROM THE SAN BERNARDINO BASIN AREA  
AND DELIVERIES TO EACH SERVICE AREA BY THE CITY OF RIVERSIDE  
(INCLUDING THOSE RIGHTS ACQUIRED AS SUCCESSOR TO THE  
RIVERSIDE WATER COMPANY AND THE GAGE CANAL COMPANY)  
(All Quantities in Acre-Feet)

Calendar Years	Verified Extractions from the San Bernardino Basin Area			Delivery to San Bernardino Basin Area			Delivery to Colton Basin and Riverside Basin Areas in San Bernardino County			Delivery to Areas Outside San Bernardino Valley		
	Adjusted Right	Maximum Allowable	Actual	Adjusted Right	Maximum Allowable	Actual	Adjusted Right	Maximum Allowable	Actual	Adjusted Right	Maximum Allowable	Actual
1971-75	262,244	262,244	233,927	7,170	7,170	339	6,180	6,180	2,776	248,894	248,984	230,812
1972-76	260,995	260,995	231,419	7,135	7,135	241	6,150	6,150	2,630	247,710	247,710	228,548
1973-77	260,995	260,995	236,724	7,135	7,135	156	6,150	6,150	2,429	247,710	247,710	234,139
1974-78	260,995	260,995	239,086	7,135	7,135	646	6,150	6,150	2,218	247,710	247,710	236,222
1975-79	260,995	260,995	248,096	7,135	7,135	646	6,150	6,150	2,083	247,710	247,710	245,367
1976-80	260,995	260,995	250,890	7,135	7,135	1,029	6,150	6,150	1,585	247,710	247,710	248,276
1977-81	260,995	260,995	251,673	7,135	7,135	1,753	6,150	6,150	1,062	247,710	247,710	248,858
1978-82	260,995	260,995	249,125	7,135	7,135	1,915	6,150	6,150	716	247,710	247,710	246,494
1979-83	260,995	260,995	249,805	7,135	7,135	1,604	6,150	6,150	415	247,710	247,710	247,786
1980-84	260,995	260,995	256,258	7,135	7,135	1,636	6,150	6,150	0	247,710	247,710	254,622
1981-85	260,995	260,995	245,771	7,135	7,135	1,312	6,150	6,150	0	247,710	247,710	244,459
1982-86	260,995	260,995	244,741	7,135	7,135	1,025	6,150	6,150	0	247,710	247,710	243,716
1983-87	260,995	260,995	245,018	7,135	7,135	1,197	6,150	6,150	0	247,710	247,710	243,821
1984-88	260,995	260,995	249,341	7,135	7,135	1,677	6,150	6,150	0	247,710	247,710	247,664
1985-89	260,995	260,995	250,551	7,135	7,135	1,673	6,150	6,150	0	247,710	247,710	248,878
1986-90	260,995	260,995	248,587	7,135	7,135	1,633	6,150	6,150	0	247,710	247,710	248,954

Excess Extraction 1986-90 (12,408) \* (5,502) \* (6,150) \* (756) \*

1 Adjusted Right as determined and reported to the Court in the Annual Report of the Western-San Bernardino Watermaster for Calendar Year 1971 in Table No. 9, page 27.  
 2 Maximum allowable for the five-year period is the same as the five-year-period Adjusted Right.  
 3 Actual verified extractions from Table No. 3 of Watermaster Report.  
 4 Adjusted Right was not effective until January 1, 1972; thus the Adjusted Right for the period 1971-75 is more than the Adjusted Right for subsequent five-year periods.  
 5 Excludes the 1,148 acre-feet in 1981 of allowable additional extraction. See Footnote 6 on Page 44.  
 6 Excludes the 1,148 acre-feet in 1981 and the 76 acre-feet in 1983 of allowable additional extraction. See Footnotes 6 & 7 on Page 44.  
 7 Excludes the 1,148 acre-feet in 1981, the 76 acre-feet in 1983, the 9,332 acre-feet in 1984, and the 13,472 acre-feet in 1985 of allowable additional extraction. See Footnotes 6, 7, 8, and 9 on Page 44.  
 8 Excludes the 76 acre-feet in 1983, the 9,332 acre-feet in 1984, the 13,472 acre-feet in 1985, and the 10,000 acre-feet in 1986 of allowable additional extraction. See Footnotes 7, 8, 9, and 10 on Page 44.  
 9 Excludes the 76 acre-feet in 1983, the 9,332 acre-feet in 1984, the 13,472 acre-feet in 1985, the 10,000 acre-feet in 1986, and the 7,965 acre-feet in 1987 of allowable additional extraction. See Footnotes 7, 8, 9, and 10 on Page 44.  
 10 Excludes the 9,332 acre-feet in 1984, the 13,472 acre-feet in 1985, the 10,000 acre-feet in 1986, the 7,965 acre-feet in 1987, and the 14,201 acre-feet in 1988 of allowable additional extraction. See Footnotes 8, 9, and 10 on Page 44.  
 11 Excludes the 13,472 acre-feet in 1985, the 10,000 acre-feet in 1986, the 7,965 acre-feet in 1987, and the 14,201 acre-feet in 1988 of allowable additional extraction. See Footnotes 8, 9, and 10 on Page 44.  
 12 Excludes the 10,000 acre-feet in 1986, the 7,965 acre-feet in 1987, and the 14,201 acre-feet in 1988 of allowable additional extraction. See Footnotes 9, 10, 11, and 12 on Page 44.  
 13 Number corrected during verification of 1990 extractions.  
 \* Parentheses indicate that actual extractions are less than Adjusted Right.



TABLE NO. 11  
ANNUAL ACCOUNTING OF EXTRACTIIONS FROM THE SAN BERNARDINO BASIN AREA  
AND DELIVERIES TO EACH SERVICE AREA BY RIVERSIDE HIGHLAND WATER COMPANY

(All Quantities in Acre-Feet)

Calendar Year	Verified Extractions from the San Bernardino Basin Area			Delivery to San Bernardino Basin Area			Delivery to Colton Basin and Riverside Basin Areas in San Bernardino County			Delivery to Areas Outside San Bernardino Valley		
	Adjusted Right	Maximum Allowable	Actual	Adjusted Right	Maximum Allowable	Actual	Adjusted Right	Maximum Allowable	Actual	Adjusted Right	Maximum Allowable	Actual
1971	4,399	5,719	4,012	1	1	0	2,509	3,262	2,388	1,890	2,457	1,624
1972	4,294	5,582	4,532	0	0	0	2,449	3,184	2,239	1,845	2,398	2,293
1973	4,294	5,582	3,512	0	0	0	2,449	3,184	1,751	1,845	2,398	1,761
1974	4,294	5,582	4,088	0	0	0	2,449	3,184	1,985	1,845	2,398	2,103
1975	4,294	5,582	4,709	0	0	0	2,449	3,184	2,002	1,845	2,398	2,707
1976	4,294	5,582	4,519	0	0	0	2,449	3,184	2,050	1,845	2,398	2,469
1977	4,294	5,582	3,583	0	0	0	2,449	3,184	1,820	1,845	2,398	1,763
1978	4,294	5,582	1,350	0	0	0	2,449	3,184	1,051	1,845	2,398	299
1979	4,294	5,582	3,369	0	0	0	2,449	3,184	1,781	1,845	2,398	1,588
1980	4,294	5,582	3,677	0	0	0	2,449	3,184	2,060	1,845	2,398	1,617
1981	4,294	5,582	3,604	0	0	0	2,449	3,184	2,151	1,845	2,398	1,453
1982	4,294	5,582	2,795	0	0	0	2,449	3,184	1,775	1,845	2,398	1,020
1983	4,294	5,582	3,161	0	0	0	2,449	3,184	2,318	1,845	2,398	843
1984	4,294	5,582	4,759	0	0	0	2,449	3,184	2,671	1,845	2,398	2,088
1985	4,294	5,582	3,312	0	0	0	2,449	3,184	1,978	1,845	2,398	1,334
1986	4,294	5,582	4,744	0	0	0	2,449	3,184	2,130	1,845	2,398	2,614
1987	4,294	5,582	3,919	0	0	0	2,449	3,184	2,229	1,845	2,398	1,690
1988	4,294	5,582	4,775	0	0	0	2,449	3,184	2,229	1,845	2,398	2,546
1989	4,294	5,582	4,681	0	0	0	2,449	3,184	1,968	1,845	2,398	2,713
1990	4,294	5,582	4,092	0	0	0	2,449	3,184	2,313	1,845	2,398	1,779

See Report of Watermaster, Volume 1A, Table No. 3.

1 Adjusted Right as determined and reported to the Court in the Annual Report of the Western-San Bernardino Watermaster for Calendar Year 1971 in Table No. 9, page 27.

2 Maximum Allowable for any one year, not to exceed 130% of Adjusted Right.

3 Actual verified extractions from Table No. 3 of Watermaster Report.

4 Adjusted Right was not effective until January 1, 1972; thus the Base Right for 1971 is as shown in Appendix B, Table B-1 of the Judgment.

Note: Annual Accounting of Extractions as required in Paragraphs V and VI of the Judgment.

TABLE NO. 11  
ANNUAL ACCOUNTING OF EXTRACTIIONS FROM THE SAN BERNARDINO BASIN AREA  
AND DELIVERIES TO EACH SERVICE AREA BY RIVERSIDE HIGHLAND WATER COMPANY

(All Quantities in Acre-Feet)

Calendar Years	Verified Extractions from the San Bernardino Basin Area			Delivery to San Bernardino Basin Area			Delivery to Colton Basin and Riverside Basin Areas in San Bernardino County			Delivery to Areas Outside San Bernardino Valley		
	Adjusted Right	Maximum Allowable	Actual	Adjusted Right	Maximum Allowable	Actual	Adjusted Right	Maximum Allowable	Actual	Adjusted Right	Maximum Allowable	Actual
1971-75	21,575	21,575	20,853	1	1	0	12,305	12,305	10,365	9,270	9,270	10,488
1972-76	21,470	21,470	21,360	0	0	0	12,245	12,245	10,027	9,225	9,225	11,333
1973-77	21,470	21,470	20,411	0	0	0	12,245	12,245	9,608	9,225	9,225	10,803
1974-78	21,470	21,470	18,249	0	0	0	12,245	12,245	8,908	9,225	9,225	9,341
1975-79	21,470	21,470	17,530	0	0	0	12,245	12,245	8,704	9,225	9,225	8,826
1976-80	21,470	21,470	16,498	0	0	0	12,245	12,245	8,762	9,225	9,225	7,736
1977-81	21,470	21,470	15,583	0	0	0	12,245	12,245	8,863	9,225	9,225	6,720
1978-82	21,470	21,470	14,795	0	0	0	12,245	12,245	8,818	9,225	9,225	5,977
1979-83	21,470	21,470	16,606	0	0	0	12,245	12,245	10,085	9,225	9,225	6,521
1980-84	21,470	21,470	17,996	0	0	0	12,245	12,245	10,975	9,225	9,225	7,021
1981-85	21,470	21,470	17,631	0	0	0	12,245	12,245	10,893	9,225	9,225	6,738
1982-86	21,470	21,470	18,771	0	0	0	12,245	12,245	10,872	9,225	9,225	7,899
1983-87	21,470	21,470	19,895	0	0	0	12,245	12,245	11,326	9,225	9,225	8,569
1984-88	21,470	21,470	21,509	0	0	0	12,245	12,245	11,237	9,225	9,225	10,272
1985-89	21,470	21,470	21,431	0	0	0	12,245	12,245	10,534	9,225	9,225	10,897
1986-90	21,470	21,470	22,211	0	0	0	12,245	12,245	10,869	9,225	9,225	11,342
Excess Extraction												
1986-90		741 *		0 *				(1,376) *				2,117 *

1 Adjusted Right as determined and reported to the Court in the Annual Report of the Western-San Bernardino Watermaster for Calendar Year 1971 in Table No. 9, page 27.  
 2 Maximum allowable for the five-year period is the same as the five-year-period Adjusted Right.  
 3 Actual verified extractions from Table No. 3 of Watermaster Report.  
 4 Adjusted Right was not effective until January 1, 1972; thus the Adjusted Right for the period 1971-75 is more than the Adjusted Right for subsequent five-year periods.  
 \* Parentheses indicate that actual extractions are less than Adjusted Right.

TABLE NO. 12  
 ANNUAL ACCOUNTING OF EXTRACTIIONS FROM THE SAN BERNARDINO BASIN AREA  
 AND DELIVERIES TO EACH SERVICE AREA BY  
 AGUA MANSA WATER COMPANY AND MEEKS & DALEY WATER COMPANY

(All Quantities in Acre-Feet)

Calendar Year	Verified Extractions from the San Bernardino Basin Area			Delivery to San Bernardino Basin Area			Delivery to Cotton Basin and Riverside Basin Areas in San Bernardino County			Delivery to Areas Outside San Bernardino Valley		
	Adjusted Right	Maximum Allowable	Actual	Adjusted Right	Maximum Allowable	Actual	Adjusted Right	Maximum Allowable	Actual	Adjusted Right	Maximum Allowable	Actual
1971	8,026	10,434	2,902	0	0	0	325	423	383	7,700	10,010	2,519
1972	7,833	10,183	3,527	0	0	0	318	413	377	7,515	9,770	3,150
1973	7,833	10,183	2,979	0	0	0	318	413	250	7,515	9,770	2,729
1974	7,833	10,183	4,504	0	0	0	318	413	246	7,515	9,770	4,258
1975	7,833	10,183	3,950	0	0	0	318	413	188	7,515	9,770	3,782
1976	7,833	10,183	5,393	0	0	0	318	413	182	7,515	9,770	5,211
1977	7,833	10,183	4,220	0	0	0	318	413	146	7,515	9,770	4,074
1978	7,833	10,183	2,254	0	0	0	318	413	161	7,515	9,770	2,083
1979	7,833	10,183	3,930	0	0	0	318	413	166	7,515	9,770	3,764
1980	7,833	10,183	2,333	0	0	0	318	413	323	7,515	9,770	2,010
1981	7,833	10,183	3,092	0	0	0	318	413	358	7,515	9,770	2,734
1982	7,833	10,183	3,716	0	0	0	318	413	169	7,515	9,770	3,547
1983	7,833	10,183	2,651	0	0	0	318	413	245	7,515	9,770	2,406
1984	7,833	10,183	5,165	0	0	0	318	413	233	7,515	9,770	4,932
1985	7,833	10,183	5,385	0	0	0	318	413	210	7,515	9,770	5,175
1986	7,833	10,183	5,570	0	0	0	318	413	234	7,515	9,770	5,336
1987	7,833	10,183	4,914	0	0	0	318	413	193	7,515	9,770	4,721
1988	7,833	10,183	4,966	0	0	0	318	413	233	7,515	9,770	4,733
1989	7,833	10,183	5,392	0	0	0	318	413	240	7,515	9,770	5,152
1990	7,833	10,183	3,851	0	0	0	318	413	83	7,515	9,770	3,768

See Report of Watermaster, Volume 1A, Table No. 3.

1 Adjusted Right as determined and reported to the Court in the Annual Report of the Western-San Bernardino Watermaster for Calendar Year 1971 in Table No. 9, page 27.

2 Maximum Allowable for any one year, not to exceed 130% of Adjusted Right.

3 Actual verified extractions from Table No. 3 of Watermaster Report.

4 Adjusted Right was not effective until January 1, 1972; thus the Base Right for 1971 is as shown in Appendix B, Table B-1 of the Judgment.

Note: Annual Accounting of Extractions as required in Paragraphs V and VI of the Judgment.

TABLE NO. 12

ANNUAL ACCOUNTING OF EXTRACTIIONS FROM THE SAN BERNARDINO BASIN AREA  
AND DELIVERIES TO EACH SERVICE AREA BY  
AGUA MANSÁ WATER COMPANY AND MEEKS & DALEY WATER COMPANY  
(All Quantities in Acre-Feet)

Calendar Years	Verified Extractions from the San Bernardino Basin Area			Delivery to San Bernardino Basin Area			Delivery to Colton Basin and Riverside Basin Areas in San Bernardino County			Delivery to Areas Outside San Bernardino Valley		
	Adjusted Right	Maximum Allowable	Actual	Adjusted Right	Maximum Allowable	Actual	Adjusted Right	Maximum Allowable	Actual	Adjusted Right	Maximum Allowable	Actual
1971-75	39,358	39,358	17,862	0	0	0	1,597	1,597	1,424	37,760	37,760	16,438
1972-76	39,165	39,165	20,353	0	0	0	1,590	1,590	1,223	37,575	37,575	19,130
1973-77	39,165	39,165	21,046	0	0	0	1,590	1,590	992	37,575	37,575	20,054
1974-78	39,165	39,165	20,321	0	0	0	1,590	1,590	903	37,575	37,575	19,418
1975-79	39,165	39,165	19,747	0	0	0	1,590	1,590	823	37,575	37,575	18,924
1976-80	39,165	39,165	18,130	0	0	0	1,590	1,590	978	37,575	37,575	17,152
1977-81	39,165	39,165	15,829	0	0	0	1,590	1,590	1,154	37,575	37,575	14,675
1978-82	39,165	39,165	15,325	0	0	0	1,590	1,590	1,177	37,575	37,575	14,148
1979-83	39,165	39,165	15,722	0	0	0	1,590	1,590	1,261	37,575	37,575	14,461
1980-84	39,165	39,165	16,957	0	0	0	1,590	1,590	1,328	37,575	37,575	15,629
1981-85	39,165	39,165	20,009	0	0	0	1,590	1,590	1,215	37,575	37,575	18,794
1982-86	39,165	39,165	22,487	0	0	0	1,590	1,590	1,091	37,575	37,575	21,396
1983-87	39,165	39,165	23,685	0	0	0	1,590	1,590	1,115	37,575	37,575	22,570
1984-88	39,165	39,165	26,000	0	0	0	1,590	1,590	1,103	37,575	37,575	24,897
1985-89	39,165	39,165	26,227	0	0	0	1,590	1,590	1,110	37,575	37,575	25,117
1986-90	39,165	39,165	24,693	0	0	0	1,590	1,590	983	37,575	37,575	23,710
Excess Extraction												
1986-90		(14,472)			0			(607)			(13,865)	

1 Adjusted Right as determined and reported to the Court in the Annual Report of the Western-San Bernardino Watermaster for Calendar Year 1971 in Table No. 9, page 27.  
 2 Maximum allowable for the five-year period is the same as the five-year-period Adjusted Right.  
 3 Actual verified extractions from Table No. 3 of Watermaster Report.  
 4 Adjusted Right was not effective until January 1, 1972; thus the Adjusted Right for the period 1971-75 is more than the Adjusted Right for subsequent five-year periods.  
 \* Parentheses indicate that actual extractions are less than Adjusted Right.

TABLE NO. 13  
ANNUAL ACCOUNTING OF EXTRACTIIONS FROM THE SAN BERNARDINO BASIN AREA  
AND DELIVERIES TO EACH SERVICE AREA BY  
THE REGENTS OF UNIVERSITY OF CALIFORNIA

(All Quantities in Acre-Feet)

Calendar Year	Verified Extractions from the San Bernardino Basin Area			Delivery to San Bernardino Basin Area			Delivery to Cotton Basin and Riverside Basin Areas in San Bernardino County			Delivery to Areas Outside San Bernardino Valley				
	Adjusted Right	Allowable	Maximum	Adjusted Right	Allowable	Maximum	Adjusted Right	Allowable	Maximum	Adjusted Right	Allowable	Maximum		
													1	2
1971	581	4	755	0	4	0	0	4	0	0	0	581	4	755
1972	536	5	697	0	0	0	0	0	0	0	0	536	5	697
1973	536	5	697	0	0	0	0	0	0	0	0	536	5	697
1974	536	5	697	0	0	0	0	0	0	0	0	536	5	697
1975	536	5	697	0	0	0	0	0	0	0	0	536	5	697
1976	536	5	697	0	0	0	0	0	0	0	0	536	5	697
1977	536	5	697	0	0	0	0	0	0	0	0	536	5	697
1978	536	5	697	0	0	0	0	0	0	0	0	536	5	697
1979	536	5	697	0	0	0	0	0	0	0	0	536	5	697
1980	536	5	697	0	0	0	0	0	0	0	0	536	5	697
1981	536	5	697	0	0	0	0	0	0	0	0	536	5	697
1982	536	5	697	0	0	0	0	0	0	0	0	536	5	697
1983	536	5	697	0	0	0	0	0	0	0	0	536	5	697
1984	536	5	697	0	0	0	0	0	0	0	0	536	5	697
1985	536	5	697	0	0	0	0	0	0	0	0	536	5	697
1986	536	5	697	0	0	0	0	0	0	0	0	536	5	697
1987	536	5	697	0	0	0	0	0	0	0	0	536	5	697
1988	536	5	697	0	0	0	0	0	0	0	0	536	5	697
1989	536	5	697	0	0	0	0	0	0	0	0	536	5	697
1990	536	5	697	0	0	0	0	0	0	0	0	536	5	697

See Report of Watermaster, Volume 1A, Table No. 3.

1 Adjusted Right as determined and reported to the Court in the Annual Report of the Western-San Bernardino Watermaster for Calendar Year 1971 in Table No. 9, page 27.

2 Maximum Allowable for any one year, not to exceed 130% of Adjusted Right

3 Actual verified extractions from Table No. 3 of Watermaster Report.

4 Adjusted Right was not effective until January 1, 1972; thus the Base Right for 1971 is as shown in Appendix B, Table B-1 of the Judgment.

5 See Footnote 2 of Table on Page 20.

Note: Annual Accounting of Extractions as required in Paragraphs V and VI of the Judgment.

TABLE NO. 13  
ANNUAL ACCOUNTING OF EXTRACTIIONS FROM THE SAN BERNARDINO BASIN AREA  
AND DELIVERIES TO EACH SERVICE AREA BY  
THE REGENTS OF UNIVERSITY OF CALIFORNIA

(All Quantities in Acre-Feet)

Calendar Years	Verified Extractions from the San Bernardino Basin Area			Delivery to San Bernardino Basin Area			Delivery to Colton Basin and Riverside Basin Areas in San Bernardino County			Delivery to Areas Outside San Bernardino Valley		
	Adjusted Right	Maximum Allowable	Actual	Adjusted Right	Maximum Allowable	Actual	Adjusted Right	Maximum Allowable	Actual	Adjusted Right	Maximum Allowable	Actual
1971-75	2,725	2,725	1,143	0	0	0	0	0	0	2,725	2,725	1,143
1972-76	2,680	2,680	1,169	0	0	0	0	0	0	2,680	2,680	1,169
1973-77	2,680	2,680	1,017	0	0	0	0	0	0	2,680	2,680	1,017
1974-78	2,680	2,680	961	0	0	0	0	0	0	2,680	2,680	961
1975-79	2,680	2,680	777	0	0	0	0	0	0	2,680	2,680	777
1976-80	2,680	2,680	605	0	0	0	0	0	0	2,680	2,680	605
1977-81	2,680	2,680	503	0	0	0	0	0	0	2,680	2,680	503
1978-82	2,680	2,680	464	0	0	0	0	0	0	2,680	2,680	464
1979-83	2,680	2,680	281	0	0	0	0	0	0	2,680	2,680	281
1980-84	2,680	2,680	198	0	0	0	0	0	0	2,680	2,680	198
1981-85	2,680	2,680	191	0	0	0	0	0	0	2,680	2,680	191
1982-86	2,680	2,680	96	0	0	0	0	0	0	2,680	2,680	96
1983-87	2,680	2,680	243	0	0	0	0	0	0	2,680	2,680	243
1984-88	2,680	2,680	422	0	0	0	0	0	0	2,680	2,680	422
1985-89	2,680	2,680	484	0	0	0	0	0	0	2,680	2,680	484
1986-90	2,680	2,680	579	0	0	0	0	0	0	2,680	2,680	579
Excess Extraction												
1986-90												

(2,101) \*

0 \*

0 \*

(2,101) \*

- 1 Adjusted Right as determined and reported to the Court in the Annual Report of the Western-San Bernardino Watermaster for Calendar Year 1971 in Table No. 9, page 27.
  - 2 Maximum allowable for the five-year period is the same as the five-year-period Adjusted Right.
  - 3 Actual verified extractions from Table No. 3 of Watermaster Report.
  - 4 Adjusted Right was not effective until January 1, 1972; thus the Adjusted Right for the period 1971-75 is more than the Adjusted Right for subsequent five-year periods.
- \* Parentheses indicate that actual extractions are less than Adjusted Right.

TABLE NO. 14

ANNUAL ACCOUNTING FOR  
 WESTERN MUNICIPAL WATER DISTRICT  
 EXPORT OF EXTRACTATIONS FROM SAN BERNARDINO BASIN AREA,  
 COLTON BASIN AREA, AND RIVERSIDE BASIN AREA  
 FOR USE WITHIN WESTERN ON LANDS THAT ARE NOT TRIBUTARY  
 TO THE RIVERSIDE NARROWS  
 (All Values in Acre-Feet)

	Calendar Years				
	1986	1987	1988	1989	1990
<b>EXPORTS</b>					
Adjusted Right	42,535	42,535	42,535	42,535	42,535
Actual Export <sup>1</sup>	32,082	30,861	32,163	45,841	43,357
ACCUMULATED EXPORT	32,082	62,943	95,106	140,947	184,304
<b>OBLIGATIONS</b>					
New Export <sup>2</sup>	(10,453)	(11,674)	(10,372)	3,306	822
ACCUMULATED NEW EXPORT	(10,453)	(22,127)	(32,499)	(29,193)	(28,371)

<sup>1</sup> See Table 8 of Watermaster Report

<sup>2</sup> Actual Export minus Adjusted Right, Parentheses indicate that the Actual Export is less than the Adjusted Right.

TABLE NO. 15

ANNUAL ACCOUNTING FOR  
 SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT  
 EXPORT OF EXTRACTIONS FROM SAN BERNARDINO BASIN AREA,  
 COLTON BASIN AREA FOR USE ON LANDS  
 NOT WITHIN WESTERN NOR TRIBUTARY  
 TO THE RIVERSIDE NARROWS  
 (All Values in Acre-Feet)

EXPORTS	Calendar Years				
	1986	1987	1988	1989	1990
Adjusted Right	12,527	12,527	12,527	12,527	12,527
Actual Export <sup>1</sup>	26,584	27,632	28,430	20,804	19,873
ACCUMULATED EXPORT	337,183 <sup>3</sup>	364,815	393,245	414,049	433,922
<b>OBLIGATIONS</b>					
New Export <sup>2</sup>	14,057	15,105 <sup>4</sup>	15,903 <sup>5</sup>	8,277	7,346
ACCUMULATED NEW EXPORT	136,751 <sup>3</sup>	151,856	167,759	176,036	183,382

<sup>1</sup> See Table 9 of Watermaster Report

<sup>2</sup> Actual Export minus Adjusted Right.

<sup>3</sup> Accumulated values beginning in 1986 include amounts accumulated through 1984.

<sup>4</sup> Includes 5,263 acre-feet of additional water extracted under provisions of the May 20, 1987 amendment to the December 22, 1981 Western-San Bernardino agreement prepared in accordance with paragraph VI(b)6 of the Judgment.

<sup>5</sup> Includes 11,487 acre-feet of additional water extracted under provisions of the January 20, 1988 amendment to the December 22, 1981 Western-San Bernardino agreement prepared in accordance with paragraph VI(b)6 of the Judgment.



TABLE NO. 16

ANNUAL ACCOUNTING FOR  
WESTERN MUNICIPAL WATER DISTRICT  
EXTRACTIONS FROM COLTON BASIN AREA,  
AND RIVERSIDE BASIN AREA  
IN RIVERSIDE AND SAN BERNARDINO COUNTIES  
FOR USE OUTSIDE SAN BERNARDINO VALLEY  
(All Values in Acre-Feet)

		Calendar Years				
		1986	1987	1988	1989	1990
<b>EXTRACTIONS</b>						
Adjusted Right	1	54,099	54,099	54,099	54,099	54,099
Actual Extractions	1	34,840	34,154	35,852	53,489	50,105
<b>ACCUMULATED</b>						
EXTRACTIONS		34,840	68,994	104,846	158,335	208,440
<b>CREDITS</b>						
Extraction	2	19,259	19,945	18,247	610	3,994
Return from imported water		502	505	310	380	256
Total Credits		19,761	20,450	18,557	990	4,250
<b>ACCUMULATED</b>						
CREDITS		*	*	*	*	*
<b>OBLIGATIONS</b>						
Excess Extractions	3	0	0	0	0	0
New Export	4	0	0	0	0	0
Land Use Conversion	5	526	545	568	569	571
Total Obligations		526	545	568	569	571
<b>ACCUMULATED</b>						
OBLIGATIONS		526	1,071	1,639	2,208	2,779
<b>NET ACCUMULATED (CREDIT)</b>						
OR OBLIGATION		*	*	*	*	*

1 See Tables 4, 5, and 6.

2 Amounts which may be extracted without replenishment obligation, which in fact are not extracted, Equal to Base Right minus Actual Extraction

3 Actual Extraction minus Base Right.

4 See Table 14. Note that New Export is shown as zero when Accumulated Export is less than Base Right.

5 See Table 7.

\* On February 24, 1992, the Court approved an amendment to the Judgment which provides that credit for prior year under-extractions by Plaintiffs be cumulative from 1971. The amendment further provides that the obligations of the Parties be recalculated from 1971 using the amended provisions of the Judgment. The annual report for calendar year 1992 will include these changes.

TABLE NO. 17

ANNUAL ACCOUNTING FOR  
SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT  
EXTRACTIONS FROM SAN BERNARDINO BASIN AREA  
(All Values in Acre-Feet)

EXTRACTIONS	Calendar Years									
	1986	1987	1988	1989	1990					
Adjusted Right	1	167,238	167,238	167,238	167,238					
Actual Extractions	1	184,734	172,501	14	181,425	16	174,329		167,272	
ACCUMULATED EXTRACTIONS		2,556,531	5	2,729,032	2,910,457		3,084,786		3,252,058	
<b>CREDITS</b>										
Extraction	2	0	0	0	0		0		0	
Replenishment		0	7	9,776	8	5,461	9	4,454	10	6,994
Total Credits		0		9,776		5,461		4,454		6,994
ACCUMULATED CREDITS		301,920	5	311,696	317,157		321,611		328,605	
<b>OBLIGATIONS</b>										
Excess Extractions	3	17,496	0	15	0	17	7,091			34
New Export	4	14,057	9,842	15	*	17	*			*
Total Obligations		31,553	9,842		*		*			*
ACCUMULATED OBLIGATIONS		162,537	5	172,379	*		*			*
NET ACCUMULATED (CREDIT) OR OBLIGATION		(139,383)	5	(139,317)	*		*			*

1 See Table 2.

2 Amounts which may be extracted without replenishment obligation, which in fact are not extracted, Equal to Adjusted Right minus Actual Extraction

3 Actual Extraction minus Adjusted Right.

4 See Table 15.

5 Accumulated values beginning in 1986 include amounts accumulated through 1985.

6 This number not used.

7 Total import of State Project Water by SBVMWD was 6,421 acre-feet. However, 1,441 acre-feet of this amount were delivered directly, and 4,980 acre-feet were delivered into Colton Basin for replenishment.

8 Total import of State Project Water by SBVMWD was 18,750 acre-feet. However, 6,637 acre-feet of this amount were delivered directly, and 2,837 acre-feet were delivered into Colton Basin for replenishment.

9 Total import of State Project Water by SBVMWD was 21,386 acre-feet. However, 7,641 acre-feet of this amount were delivered directly, and 8,284 acre-feet were delivered into Colton Basin for replenishment.

10 Total import of State Project Water by SBVMWD was 26,782 acre-feet. However, 11,735 acre-feet of this amount were delivered directly, and 4,593 acre-feet were delivered into Colton Basin for replenishment.

11 Total import of State Project Water by SBVMWD was 18,831 acre-feet. However, 11,771 acre-feet of this amount were delivered directly, and 88 acre-feet were delivered into Colton Basin for replenishment.

12 Number not used.

13 Number not used.

14 Includes 5,263 acre-feet of additional water extracted under provisions of the May 26, 1987 amendment to the December 22, 1981 Western-San Bernardino agreements prepared in accordance with paragraph VI(b)6 of the Judgment.

15 Excludes 5,263 acre-feet of additional water extracted and exported under provisions of the May 26, 1987 amendment to the December 22, 1981 Western-San Bernardino agreements prepared in accordance with paragraph VI(b)6 of the Judgment.

16 Includes 11,487 acre-feet of additional water extracted under provisions of the January 26, 1988 amendment to the December 22, 1981 Western-San Bernardino agreements prepared in accordance with paragraph VI(b)6 of the Judgment.

17 Excludes 11,487 acre-feet of additional water extracted and exported under provisions of the May 26, 1987 amendment to the December 22, 1981 Western-San Bernardino agreements prepared in accordance with paragraph VI(b)6 of the Judgment.

\* On February 24, 1992, the Court approved an amendment to the Judgment which changes the manner in which obligations related to New Export are calculated. The amendment further provides that the obligations of the Parties be recalculated from 1971 using the amended provisions of the Judgment. The annual report for calendar year 1992 will include these changes.

TABLE NO. 18

SUMMARY OF REPLENISHMENT OBLIGATIONS  
WESTERN AND SAN BERNARDINO VALLEY  
FIVE-YEAR PERIOD 1988 THROUGH 1990

(All Values in Acre-Feet)

WESTERN MUNICIPAL WATER DISTRICT

		San Bernardino Basin Area	Colton and Riverside Basins
Accumulated Credits	1	(see Tables 10-13)	*
Accumulated Obligations	1	—	*
Net Accumulated (Credit) or Obligation		—	*
Excess Extraction Return Credit	2	—	—
REPLENISHMENT REQUIRED		—	—

SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT

		San Bernardino Basin Area	Colton and Riverside Basins
Accumulated Credits	3	328,805	28,503
Accumulated Obligations	3	*	0
Net Accumulated (Credit) or Obligation	3	*	(28,503)
Excess Extraction Return Credit	2	*	0
REPLENISHMENT REQUIRED		*	0

1 Reference Table 16 for Colton and Riverside Basins.

2 When a net accumulated obligation exists, excess extraction returns are computed as 30% of the excess extraction and are subtracted from the net accumulated obligation to determine the required replenishment.

3 Reference Table 17.

4 Includes amounts accumulated prior to 1988.

\* On February 24, 1992, the Court approved an amendment to the Judgment which changes the manner in which obligations related to New Export are calculated and provides that credit for prior year under-extractions by Plaintiffs be cumulative from 1. The amendment further provides that the obligations of the Parties be recalculated from 1971 using the amended provisions of the Judgment. The annual report for calendar year 1992 will include these changes.