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**REPORT OF WATERMASTER**

**Western Municipal Water District of Riverside County, et al  
Plaintiffs**

**vs.**

**East San Bernardino County Water District, et al  
Defendants**

**Superior Court of Riverside County  
Case No. 78426**

**VOLUME 7**

**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**

**BASE PERIOD  
1959 - 1963  
AND  
1970 - 1971**

**WATERMASTER  
Albert A. Webb  
James C. Hanson**

**FEBRUARY 1973**

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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

INTRODUCTION

The settlement of the case of the Orange County Water District, Plaintiff, vs. City of Chino, et al, Defendants, being Case No. 117628 in the Superior Court of the State of California in and for the County of Orange, made necessary a settlement of the case of Western Municipal Water District, which was settled by Stipulated Judgment in Case No. 78426, entered in the Superior Court of the State of California in and for the County of Riverside, on April 17, 1969.

Paragraph X of the Judgment, entitled, "Replenishment to Offset New Exports of Water Not Tributary to the Riverside Narrows" recites as follows:

"Certain average annual amounts of water extracted from the San Bernardino Basin Area and the area downstream therefrom to Riverside Narrows during the five year period ending in 1963 have been exported for use outside the area tributary to Riverside Narrows -----

San Bernardino Valley shall be obligated to provide replenishment for any increase over the exports from San Bernardino Valley for use in any area not within Western nor tributary to Riverside Narrows as set forth in Table C-2 of Appendix "C", such amounts being subject to correction by the Watermaster -----"

Pursuant to the foregoing instructions, the Watermaster has conducted an investigation of water produced within the Colton and San Bernardino Basin Areas and delivered to lands not within Western nor tributary to the Riverside Narrows. The results of investigation and the verification of the average annual amounts set forth in Table C-2 are shown in Table A which follows. Procedures and basic data used in preparation of Table A are contained in succeeding chapters of this report.

TABLE A

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 THE RIVERSIDE NARROWS

<u>Deliveries To</u>	<u>Source In This Volume</u>	<u>1959-63 Average Annual Amount</u>
<u>Areas Within Chino Basin</u>	Chapter I	
Fontana Union Water Company		10,903
West San Bernardino County Water District		1,806
City of Rialto		781
<u>Areas Other Than Chino Basin</u>	Chapter II	
Yucaipa		0
San Timoteo		0
Oak Glen		0
Beaumont		0
Total		<u>13,490</u>

CHAPTER I  
DELIVERIES TO CHINO BASIN

The unverified amounts set forth in Table C-2 of the Judgment pertain solely to those extractions from the San Bernardino and Colton Basin Areas within the San Bernardino Valley Municipal Water District for use on lands situated within the Chino Basin.

The entities delivering water to this area include Fontana Union Water Company, West San Bernardino County Water District and the City of Rialto. Maps 1, 2 and 3 attached hereto delineate the boundaries of the three agencies respectively and also show the lands within each agency which are not within Western nor tributary to the Riverside Narrows. For purposes of this determination such lands are considered as lying northerly of the groundwater divide separating the Riverside and Chino Basin and westerly of the Rialto Colton Fault.

Deliveries to these areas within each agency have been determined as follows:

FONTANA UNION WATER CO.

The lands served by the Fontana Union Water Company which include the San Gabriel Valley Water Company and which are not within Western nor tributary to the Riverside Narrows are shown on Map No. 1. The location of wells and surface diversion facilities which produce water delivered to said lands are also shown.

The total production from the Colton and San Bernardino Basin Area available for use on the non-tributary lands have been determined by the sum of the following.

1. Production from Fontana Union Water Company wells situated within the Colton and San Bernardino Basin Areas as reported in Recordation Filings to the State Water Resources Control Board and verified by Watermaster with the exception that two wells situated on the Lytle Creek stream channel at Miller Narrows deliver water into the Lytle Powerhouse penstock. This water has been commingled with surface diversion and was excluded from the total well production.



2. Deliveries to Fontana Union Water Company's "Breedline" measured at the Fontana Powerhouse forebay Weir No. 4 and adjusted for deliveries to Breedline from Fontana Union Well No. 27.
3. Deliveries to the Fontana Union Water Company measured at their 20 foot weir diverting from the Fontana Powerhouse afterbay.

The amounts for item 3 were determined by Fontana Union Water Company and were made available to the Watermaster for purposes of this report. Such data were considered sufficiently accurate for this purpose and verification by the Watermaster was not attempted. In addition to surface diversions from Lytle Creek such amounts also include an undetermined amount of water produced by the Miller Narrows Wells and may from time to time also include water obtained by temporary arrangements with other agencies diverting from the Fontana afterbay. For these reasons the amounts used by the Watermaster are for purposes of this report only and are not to be construed as a Watermaster verification of the Base Period diversions from Lytle Creek by Fontana Union Water Company.

In order to determine the net deliveries to the non-tributary area the total was adjusted for deliveries to tributary areas as follows:

1. Deliveries to the City of San Bernardino from Fontana Union Well No. 1.
2. Water delivered to the Owl Service Rock Company located within the San Bernardino Basin Area.
3. Water delivered for use on citrus groves situated within the Colton Basin Area.

The components of production and delivery by the Fontana Union Water Company for the five calendar years ending with 1963 and the years 1970 and 1971 together with the indicated deliveries to Chino Basin are summarized in Table No. 1.

#### WEST SAN BERNARDINO COUNTY WATER DISTRICT

The lands served by the West San Bernardino County Water District which are not within Western nor tributary to the Riverside Narrows are delineated on Map No. 2. Water delivered to said area was obtained from wells located within the Colton Basin and San Bernardino Basin Areas

and surface diversions from Lytle Creek. In addition these lands also received water extracted from three wells within the Chino Basin.

The total deliveries to the non-tributary area were based on the actual metered deliveries obtained from the records of the West San Bernardino County Water District and its predecessor agencies. Since a portion of this water was supplied by wells located within the non-tributary area the total deliveries were reduced by the amount supplied by said wells. Subsequent to the 1959-63 base period the District records also include the Domestic and Commercial deliveries as determined from the meter books covering the non-tributary area. These metered areas are also shown on Map No. 2.

The annual deliveries by the West San Bernardino County Water District and its predecessor agencies to non-tributary areas are summarized in Table No. 2.

#### CITY OF RIALTO

The lands served by the City of Rialto which are not within Western nor tributary to the Riverside Narrows are delineated on Map No. 3. Water delivered to the City was produced from wells within the Colton and San Bernardino Basin Areas and surface diversions from Lytle Creek. In addition the City also receives water extracted from wells within Chino Basin. The City of Rialto has denied the requests of the Watermaster for information concerning its water production and deliveries necessary for proper determination of the City's exports to Chino Basin. Therefore such amount has been determined by the estimated deliveries into the City of Rialto's system, prorated to the area within Chino Basin on an area basis and adjusted for return flow through the City's sewage treatment plant.

The total deliveries into the system were based on:

1. Recordation filings by City of Rialto for extractions from Colton and the San Bernardino Basin Area as verified by the Watermaster, plus;

2. Water purchased by the City of Rialto as reported in "Financial Transactions-Cities" State of California Controller and;
3. Water produced in the Chino Basin Area.

The sum of the above was then multiplied by 28%. Such amount was determined as the percentage of the total area of the City lying within the Chino Basin, assuming that the water use was directly proportional to the area. From this amount was subtracted the total verified production within Chino Basin as determined in item (3) above, assuming that such production was used entirely within the Chino Basin. The remaining amount was considered representative of the total production from the Colton and San Bernardino Basin Areas by the City of Rialto which was exported to the Chino Basin. Since the sewage effluent from the City of Rialto Sewage Treatment Plant accrues to the Santa Ana River above the Riverside Narrows the total exports were then adjusted to reflect this return flow. "Such adjustment was based on a percentage method" estimated on a straight line basis from 32% for the year 1959 to 40% in the year 1963 and remaining at 40% thereafter. This assumption is predicated on the date of construction of the Treatment Plant and the gradual conversion of the individual septic tanks and cesspools to the sewer system.

The estimated net annual deliveries by the City of Rialto to non-tributary areas for the five calendar years ending with 1963 and for the calendar years of 1970 & 1971 are summarized on Table No. 3.

CHAPTER II  
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 production from the San Bernardino Basin Area indicates that such exports were not made during the five calendar years ending with 1963.

To the extent that such exports are made subsequent to January 1, 1971, an accounting will be made by the Watermaster in accordance with the provisions of Paragraph X.

TABLE NO. 1

VERIFICATION OF EXTRACTIIONS 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  
FOR THE FIVE YEAR PERIOD ENDING WITH 1963  
AND YEARS 1970 & 1971

FONTANA UNION WATER COMPANY  
(Quantities in Acre Feet)

Year	PRODUCTION					DELIVERIES WITHIN "SAN BERNARDINO VALLEY" M.W.D.					Export to Chino Basin in San Bernardino Co. Not Tributary
	San Bernardino Basin Area			Colton Basin Area Wells	Total Prod.	Gravel Plant	City of San B'dno.	Citrus	City of Rialto	Total	
	Wells	Surface Water	Breed Line								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1959	9,169	7,964	501	468	18,102	323	1,393	700	0	2,416	15,686
1960	6,671	5,375	521	784	13,351	491	1,396	600	0	2,487	10,864
1961	5,968	3,850	413	1,233	11,464	417	1,765	600	0	2,782	8,682
1962	3,521	8,225	526	438	12,710	481	746	500	0	1,727	10,983
1963	2,779	5,692	522	880	9,873	446	726	400	0	1,572	8,301
Total					65,500					10,984	54,516
Avg.					13,100					2,197	10,903
1970	9,143	10,062	485	674	20,364	499	942	300	343	2,084	18,280
1971	8,510	6,436	659	871	16,476	588	0	300	472	1,360	15,116

NOTES

- |          |  |      |                                    |
|----------|--|------|------------------------------------|
| Col. (2) | Volume 1, Part 3, Table No. 1  | (7)  | Company Records                    |
| (3)      | Company records, includes portion of<br>Miller Narrows wells, over 20 foot weir* | (8)  | Prod. of Fontana Union No. 1 Well  |
| (4)      | Volume 1, Part 3, Table No. 2  | (9)  | Company Records                    |
| (5)      | Volume 2, Table No. 1 (Excludes FU #27)  | (10) | Company Records                    |
| (6)      | Col. (6) = Cols. (2)+(3)+(4)+(5)   | (11) | Col. (11) = Cols. (7)+(8)+(9)+(10) |
|          |  | (12) | Col. (6) minus Col. (11)           |

\*Tabular values qualified by Paragraph No. 3-Pg. 4

TABLE 2

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  
FOR THE FIVE YEAR PERIOD ENDING WITH 1963  
AND YEARS 1970 & 1971

WEST SAN BERNARDINO COUNTY WATER DISTRICT  
(Quantities in Acre Feet)

LINE NO.	WATER SOURCE	YEARS							
		1959	1960	1961	1962	1963	Avg.	1970	1971
1)	Prod. in Chino Basin by C.L.& W.Co., Well #36-01005	233	38	297	262	227	211	164	477
2)	" " " So.Calif.W.Co., Well #36-00379	133	140	158	137	100	134	222	206
3)	" " " " Well #36-00380	498	520	559	536	509	524	561	551
4)	Prod. in Chino Basin, Lines (1)+(2)+(3)	864	698	1,014	935	836	869	947	1,234
5)	Deliveries by C.L.& W.Co. Includes Above Wells	3,103	2,424	3,046	2,576	2,225	2,675	-	2,494
6)	Export from San Bernardino & Colton Basins not Tributary to Riv. Narrows, Line (5)-(4)	2,239	1,726	2,032	1,641	1,389	1,806	-	1,260

NOTES

Line No.

- 1) C.L. & W. Co. = Former Citizens Land & Water Co. until 1962, Merged to Form W.S.B.C.W.D.
- 2) So. Calif. Water Co. = Existing Southern California Water Co.
- 3) " " " " " "
- 4) Lines (1)+(2)+(3)
- 5) Company Records, Quantity Includes Production of Wells #36-01005, 36-00379 & 36-00380
- 6) Line (5) minus (4)

TABLE NO. 3

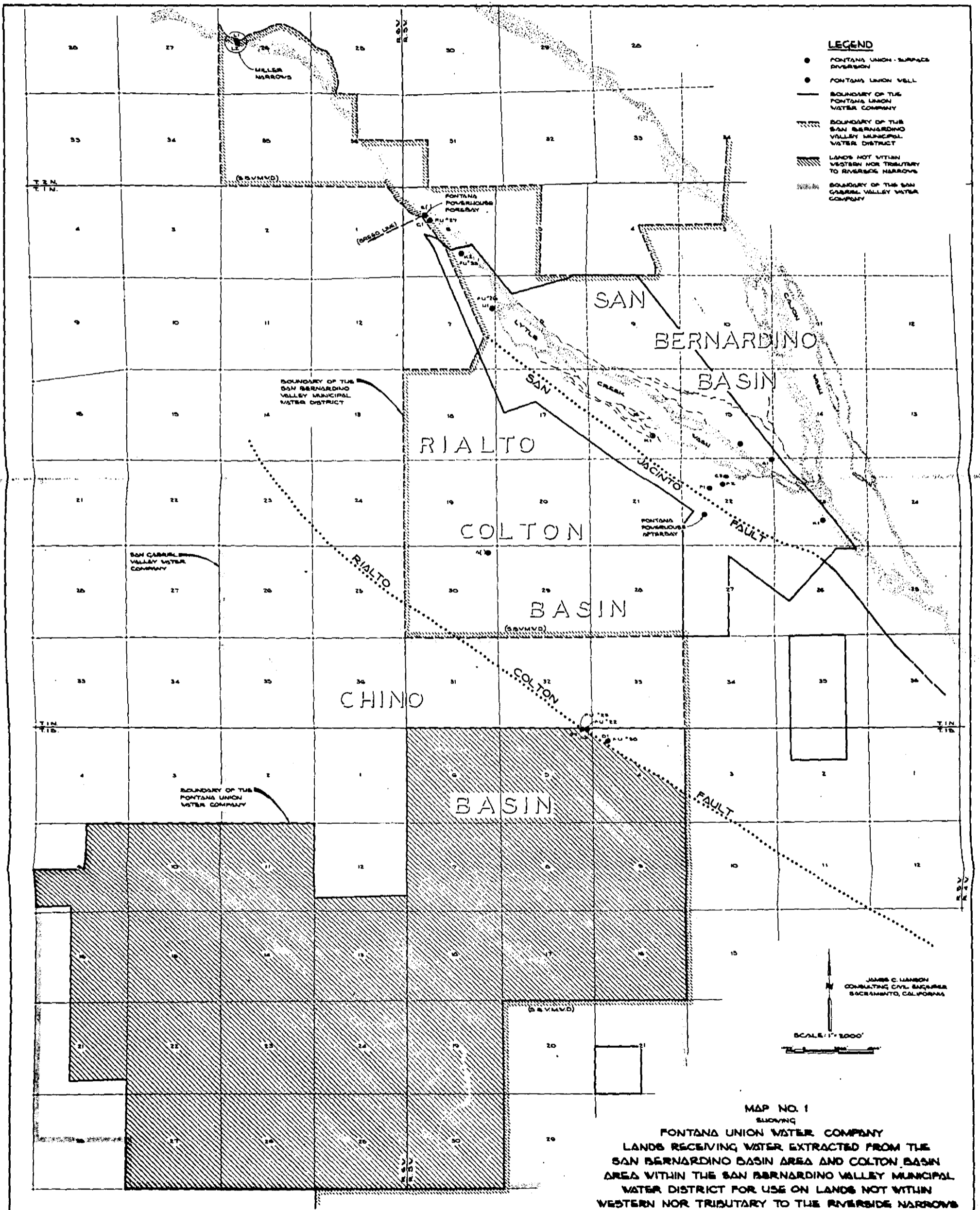
VERIFICATION OF EXTRACTIONS FROM THE  
SAN BERNARDINO BASIN AREA AND COLTON BASIN AREA  
WITHIN THE SAN BERNARDINO VALLEY MUNICIPAL WATER  
DISTRICT FOR USE ON LANDS NOT WITHIN  
WESTERN NOR TRIBUTARY TO THE RIVERSIDE NARROWS  
FOR THE FIVE YEAR PERIOD ENDING WITH 1963  
AND THE YEARS OF 1970 & 1971

CITY OF RIALTO  
(Quantities in Acre Feet)

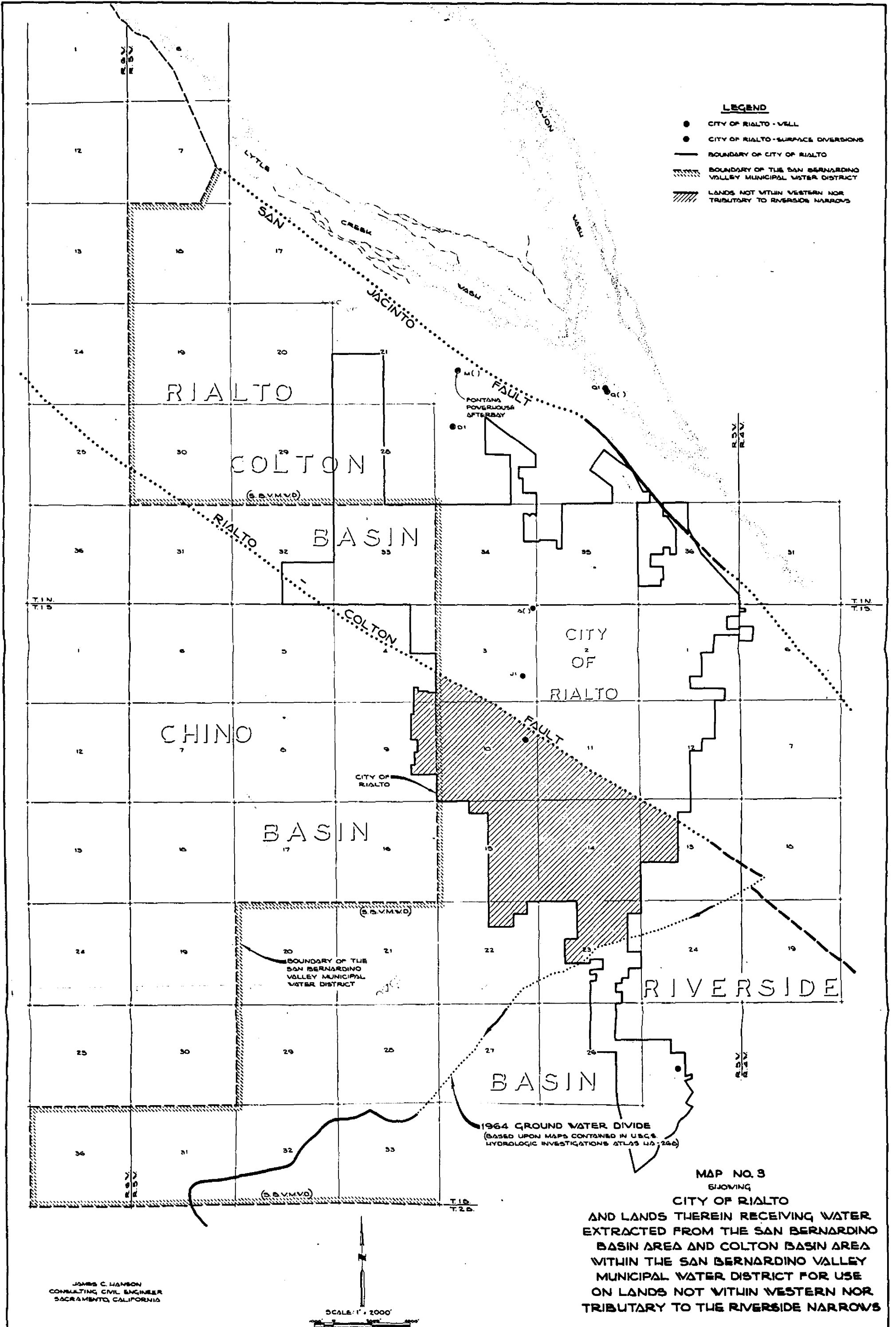
Line No.	WATER SOURCE	YEARS							
		1959	1960	1961	1962	1963	Avg.	1970	1971
1)	Rialto, City of, Wells, Lytle Basin	1,035	169	334	481	773	558	1,549	1,261
2)	" " " Colton Basin	1,147	1,243	1,874	1,873	1,775	1,582	2,123	2,364
3)	Surface water from W.S.B.C.W.D., Lytle Creek	624	626	625	587	624	617	566	509
4)	Purchased water	2,199	2,641	2,531	2,231	2,296	2,380	1,740	1,250
5)	Total prod. subject to export, Lines (1)+(2)+(3)+(4)	5,005	4,679	5,364	5,172	5,468	5,137	5,978	5,384
6)	Well production within Chino Basin	-0-	341	434	325	421	304	-0-	-0-
7)	Total water into system, Lines (5)+(6)	5,005	5,020	5,798	5,497	5,989	5,441	5,978	5,384
8)	Water required in Chino Basin, Line (7)x28%	1,401	1,406	1,623	1,539	1,649	1,523	1,674	1,508
9)	Less Chino Basin production, Line (6)	-0-	341	434	325	421	304	-0-	-0-
10)	San Bdn. & Colton Basins export to Chino Basin(8)-(9)	1,401	1,065	1,189	1,214	1,228	1,219	1,674	1,508
11)	Percent return flow to sewer plant	32%	34%	36%	38%	40%		40%	40%
12)	Return flow to sewer plant, Lines (10)x(11)	448	362	428	461	491	438	670	603
13)	Total export from San Bernardino & Colton Basins not tributary to Riv. Narrows, Lines (10)-(12)	953	703	761	753	737	781	1,004	905

NOTES

- |  |  |
|--|--|
| Line No. 1) Water extractions, Volume 1B, Lytle Basin.   | 8) 28 percent obtained by planimetry area north & south of Chino Basin Edry-Line |
| 2) Water extractions, Volume II, Rialto-Colton Basin.  | 9) Same as Line (6)  |
| 3) Water extractions, Volume 1B, Lytle Basin Rec. No. 3601718.   | 10) Lines (8) minus (9)  |
| 4) "Financial Transactions-Cities" State of Calif. Controller.   | 11) Assumed  |
| Quantities shown were adjusted from fiscal year (July 1 to June 30) to calendar year by percentage method using 44.05% for Jan. 1 to June 30 and 55.95% for July 1st to Dec. 31 periods. | 12) Lines (10) x (11)  |
| 5) Lines (1)+(2)+(3)+(4)   | 13) Line (10) minus (12)   |
| 6) Recordation files D.W.R.  |  |
| 7) Lines (5)+(6)   |  |







**LEGEND**

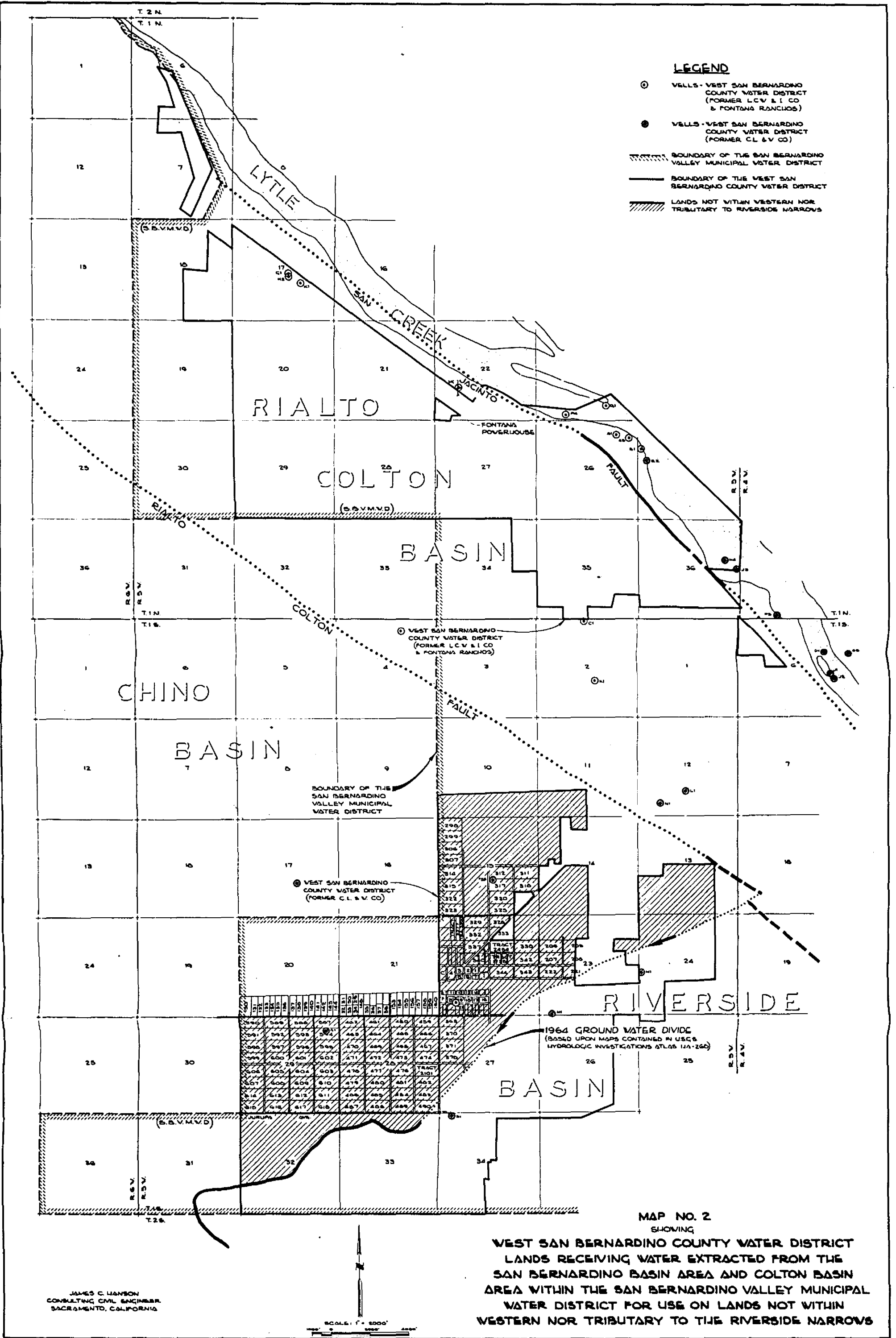
- CITY OF RIALTO - WELL
- CITY OF RIALTO - SURFACE DIVERSIONS
- BOUNDARY OF CITY OF RIALTO
- - - BOUNDARY OF THE SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT
- /// LANDS NOT WITHIN WESTERN NOR TRIBUTARY TO RIVERSIDE NARROWS

**MAP NO. 3**  
SHOWING

**CITY OF RIALTO**  
AND LANDS THEREIN RECEIVING WATER  
EXTRACTED 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

JAMES C. HANSON  
CONSULTING CIVIL ENGINEER  
SACRAMENTO, CALIFORNIA

SCALE: 1" = 2000'



JAMES C. HANSON  
CONSULTING CIVIL ENGINEER  
SACRAMENTO, CALIFORNIA

SCALE: 1" = 5000'