

ROSWELL BASIN WATERMASTER

20th

ANNUAL REPORT

1985

Glenn W. Brim, Watermaster

909 East Second Street

Roswell, New Mexico 88201

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INTRODUCTION

On January 10, 1966 Partial Judgment and Decree was entered under Cause No. 20294 and No. 22600 Consolidated in Chaves County, New Mexico. This Decree which adjudicated all ground water rights for irrigation, municipal, and industrial purposes in the Roswell Artesian Basin in Chaves and Eddy Counties, further provided for the metering of wells to commence January 1, 1967 and the establishment of a watermaster as follows:

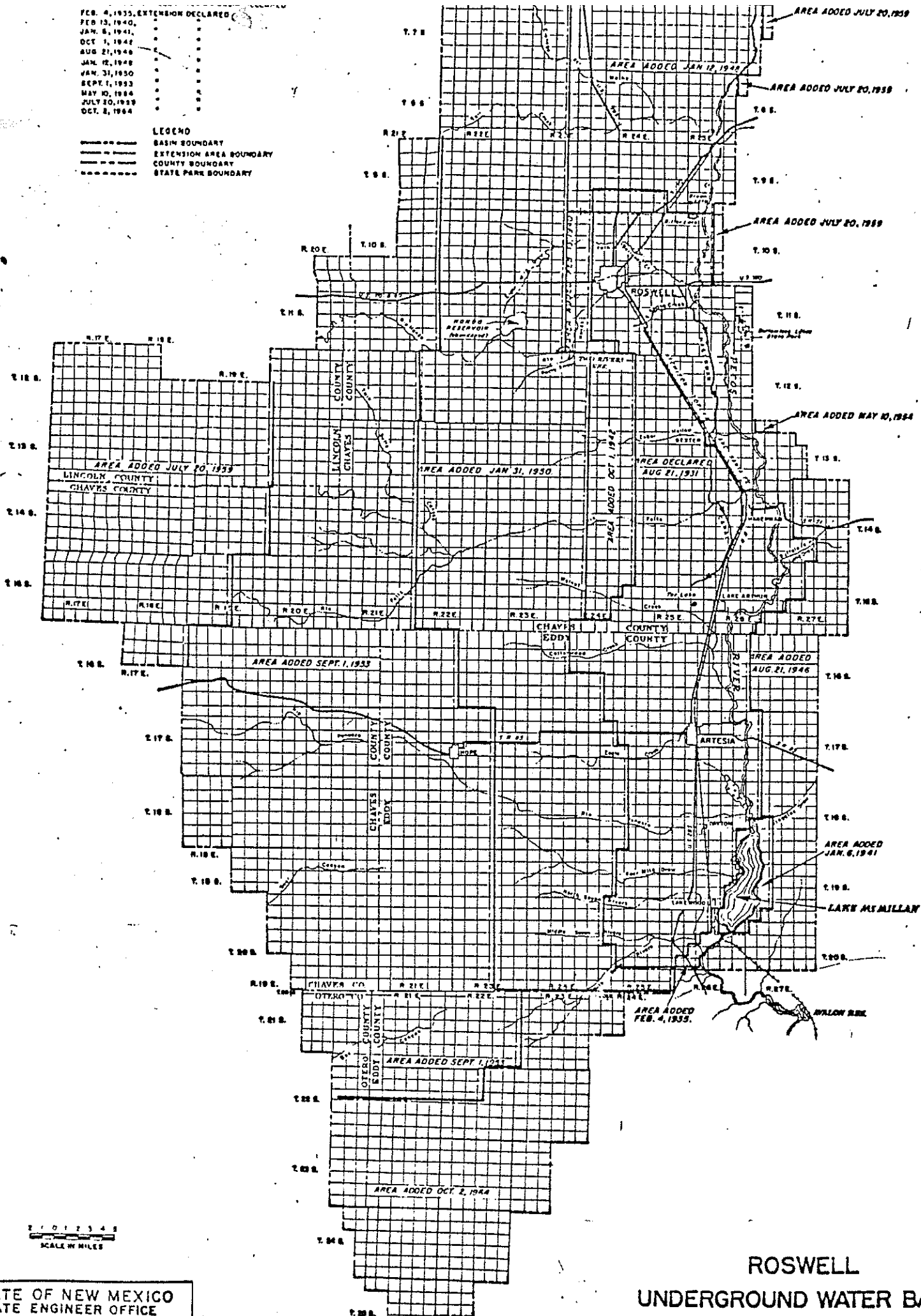
"5. The state engineer shall appoint and employ a watermaster and such assistants as are necessary in the administration and enforcement of this judgment and decree, provided that the appointment of the watermaster shall be subject to the approval of the Court. Such watermaster shall be appointed to commence work not later than July 1, 1966. The watermaster and any assistants appointed shall serve under the direction of the state engineer and under the general supervision of the Court."

The office was established with the appointment of a watermaster on February 2, 1966. The present Watermaster, Glenn W. Brim was appointed by State Engineer, S. E. Reynolds on January 31, 1969.

This is the 20th Annual Report of the Watermaster Office.

FEB. 4, 1935, EXTENSION DECLARED
 FEB. 13, 1940,
 JAN. 6, 1941,
 OCT. 1, 1942,
 AUG. 21, 1946,
 JAN. 12, 1946,
 JAN. 31, 1930,
 SEPT. 1, 1933,
 MAY 10, 1934,
 JULY 20, 1939,
 OCT. 2, 1944

LEGEND
 - - - - - BASIN BOUNDARY
 - - - - - EXTENSION AREA BOUNDARY
 - - - - - COUNTY BOUNDARY
 - - - - - STATE PARE BOUNDARY



0 1 2 3 4
 SCALE IN MILES

STATE OF NEW MEXICO
 STATE ENGINEER OFFICE

**ROSWELL
 UNDERGROUND WATER BASIN**

GENERAL

The Roswell Basin Watermaster administers the diversion of water under the Adjudication Decree in an area extending, in general, six to eighteen miles west of the Pecos River and twenty miles north of Roswell in Chaves County to twenty miles south of Artesia, in Eddy County. A distance of approximately eighty miles. The principal use of water in the area is for agricultural purposes which accounts for about 95% of the total water diverted. Municipal use of water accounts for less than 5% and the remainder is used for commercial and industrial purposes.

Ground water is the principal source of water diverted under the Decree and this is further divided into artesian and shallow ground water. Generally, a little less than two-thirds of the water is diverted from the artesian source, about one-third is diverted from the shallow source. A small portion is diverted from a combination of surface and well waters primarily through the Hagerman Canal.

Approximately, 130,000 acres of land were adjudicated irrigation rights under this Decree. The amount of acreage actually irrigated, however, varies from year to year as some rights have, under permit, been spread over larger acreages. Some rights have been transferred to municipal and industrial uses, while some rights have been retired by the Pecos Valley Artesian Conservancy District, and some acreage is fallow.

Procedures for accounting of water diverted under the Hagerman Canal were revised in January 1977. Rights under the Hagerman Canal not having a supplemental source from individually owned shallow or artesian wells are considered by this office to be adjudicated under the Hope Community Ditch Decree and not under Chaves County Cause No. 22600 and No. 20294 Consolidated. Thereafter, diversion of water for rights under the Hagerman Canal were accounted by the Roswell Basin Watermaster as follows:

(1) Water diverted to farms having canal rights only will not be accounted.

(2) Water diverted to farms having an underground right adjudicated or permitted to supplement the entire canal right shall be accounted as other adjudicated ground water rights with appropriate provisions for 5-year accounting, carriage loss and carryover.

(3) Water diverted to farms having a combined or commingled right (either as decreed or permitted) where part of the canal right is not supplemented by ground water shall be accounted by considering the canal water diverted to be in direct proportion to the ratio of the unsupplemented canal right and only the supplemented right shall be accounted unless otherwise indicated by conditions of approval of an individual permit.

The Honorable Lafel Oman, retired State Supreme Court Chief Justice, sitting by designation as Judge in the Adjudication suit, served during the 1985 reporting period. Personnel of the watermaster office at the beginning of the 1985 season consisted of Glenn W. Brim, Watermaster; Rita Valdez, Secretary-Clerk; and Robert Marr, as an assistant to the Watermaster.

On April 1, 1985 Ramon Torres and Larry Ginn were transferred from the Water Rights Division to the Watermaster's Office to assist during the irrigation season.

Ramon Torres and Larry Ginn transferred to the Water Rights division on October 1, 1985.

The operations of the Watermaster office are financed through the Pecos Valley Artesian Conservancy District. Under the terms of the Adjudication Decree the state engineer annually submits to P.V.A.C.D. a budget for the operations of the watermaster office and the P.V.A.C.D. Board then moves the Court to approve or modify the budget submitted. P.V.A.C.D. then reimburses the state engineer for monthly expenses incurred. The funds of P.V.A.C.D. are derived from a levy of lands within the district.

METERING PROGRAM

Four hundred and seventy-six meters were found inoperative during the 1985 irrigation season. Based on a total of 1626 meters installed on irrigation, feed pen, dairy, and Hagerman Canal wells, this is 29.26% as compared to 29.36% found inoperative in 1984. Each meter was read an average of 10.1 times, including the beginning and year end readings.

The number of totalizing meters, by brand installed on these wells and the number of each brand found to be inoperative during the 1985 irrigation season, are listed as follows:

Make of Meter	Total	% of Total	Total Inoperative	Make Inoperative	% of Total Installed
BRAND A	38	2.37	16	33.33	0.98
BRAND B	1128	69.37	342	32.23	21.03
BRAND C	339	20.85	82	21.93	5.04
BRAND D	82	5.04	14	15.56	0.86
MISC.	39	2.40	22	57.69	1.35
	1626	100.00	476		29.26

Adjustments in amounts of water diverted through inoperative meters for 1985 totaled 7438.4 acre-feet of which 4866.1 acre-feet was artesian and 2572.3 acre-feet of which was shallow. The total adjustment is 2.53% of the total diverted for irrigation use.

The problem remains of having a large percentage of the water meters inoperative at the onset of spring pumping. It is believed that the maintenance program initiated by the Pecos Valley Artesian Conservancy District will alleviate some of this problem.

Meters are being maintained, repaired and/or replaced by field personnel of the PVACD at no cost to the water user.

CHANGES IN THE ADJUDICATION DECREE

There were no changes in the Adjudication Decree during the 1985 water year.

VIOLATION ACTIONS

There were two instances of over use in 1985.

There was one case of meter tampering in 1985. This resulted in a \$5,000.00 fine paid to the Fifth District Court and double repayment of the misappropriated water, 67.16 acre-feet ($67.16 \times 2 = 134.32$ acre-feet).

USE OF WATER IN THE ROSWELL BASIN IN 1985

The total water diverted in the Roswell Ground Water Basin for the water year 1985 (November 1, 1984-October 31, 1985) under the administrative jurisdiction of the Roswell Basin Watermaster, was 313,823.2 acre-feet. Under the decree adjudicating water rights in the basin, discrete five-year periods were set-up for accounting of the metered water. The fourth year of the fourth five-year period was 1985.

Of the total diversion, 205,876.7 acre-feet (65.6%) was from the artesian source, 96,275.4 acre-feet (30.7%) was from the shallow source and 11,671.1 acre-feet (3.7%) was diverted from combined underground and surface sources primarily under the Hagerman Canal and the Rio Hondo.

Irrigation use accounted for 93.5% of the total diverted, municipal type use accounted for 5.5% and miscellaneous, industrial and commercial uses accounted for the remaining 1%.

The irrigation use on 119,333.3 equivalent water right acres (acres as originally adjudicated) permitted an average diversion of 2.58 acre-feet per acre for the basin as a whole varying from a high of 3.22 acre-feet per acre in the Cottonwood area to a low of 1.28 acre-feet per acre in the Upper Felix . The equivalent acreage figures and pumpage figures do not include unmetered stock and domestic uses of water right acreage retired from irrigation under the program of the Pecos Valley Artesian Conservancy District. There are eight hundred and eighty-six farming units.

Included in the totals are 7,438.4 acre-feet (2.53% of the total irrigation diversion) which was computed for periods when meters were inoperative.

NEW MEXICO STATE ENGINEER
 METERED PUMPAGE SUMMARY SHEET

1985

SECTIONS

RANGE

TOWNSHIP

TOWNSHIP	RANGE	SECTION	Location	Right Acres	PUMPAGE - ACRE FEET			Total	Date	Rate of Application
					Surface	Shallow	Artesian			
T 7, 8, 9 S; R 23 Thru 26 E			Northern Extension	30,398.0		377.4	16,642.1	17,019.5		1.68
T 10, 11, 12 S; R 22, 23, 24 E			Roswell - East Grand Plains	103,481.8	500.0	20,222.1	64,377.9	85,100.0		2.47
T 10, 11, 12 S; R 25, 26 E										
T 13, 14, 15 S; R 23, 24 E			Dexter-Hagerman Area	100,229.7	11,171.1	34,364.4	37,889.7	83,425.2		2.50
T S 1/2 12, 13, 14; N 1/2 15 S; R 25, 26, 27 E										
T S 1/2 15; N 2/3 16 S; R 23 thru 26 E			Cottonwood Area	58,928.1		15,117.8	33,169.4	48,287.2		2.46
T 15 S; R 17, 18 E			Upper Rio Felix	2,281.0			975.0	975.0		1.28
T S 1/3 16, 17, 18 S; R 25, 26 E			Artesia Area	51,019.8		17,906.5	30,596.3	48,060.1		2.83
T 19, 20 S; R 25, 26 E			Lakewood - Seven Rivers	11,661.5		5,672.8	4,482.6	10,155.4		2.61
			Total Irrigation Use	357,999.9	11,671.1	93,661.0	188,133.0	293,465.1		2.46

TWP

RNC

METERED PUMPAGE SUMMARY SHEET

1985

TOWNSHIP _____ RANGE _____ SECTIONS _____

Water Right No.	Well No.	Source	Use	Well Location	Right Acre Feet	PUMPAGE - ACRE FEET			Remarks
						Surface	Shallow	Artesian	
			MUNICIPAL & MUNICIPAL TYPE USE						
				Roswell			10,500.3	10,500.3	
				Dexter		360.1	307.5	667.6	
				Hagerman			446.6	446.6	
				Lake Arthur			58.1	58.1	
				Artesia			4,350.5	4,350.5	
				Hope			44.1	44.1	
				Co-Ops			1,324.1	1,324.1	
				Domestic Utilities		36.2	66.9	103.1	
				TOTAL		396.3	17,098.1	17,494.4	
						110.1	-0-	110.1	*
			FEED PEN OPERATIONS (NOT FARM CONNECTED)			20.7	200.8	221.5	* Not to be included in total
			FEED PEN OPERATIONS (FARM CONNECTED)			434.4	685.5	1,102.9	
			DAIRIES-FARM CONNECTED- CHARGED TO						
			IRRIGATION WATER RIGHTS						
			SCHOOL SYSTEMS: ROSWELL				56.3	56.3	
			MISCELLANEOUS INDUSTRIAL & COMMERCIAL						
				Chaves County		2,037.5	196.9	2,234.4	
				Eddy County		70.5	392.4	462.9	
			TOTALS			2,218.1	645.6	2,863.7	
			TOTALS			2,614.4	17,743.7	20,358.1	

TWP _____ RNC _____

Glenn W. Brim
Approved Budget for the
74th Fiscal Year
(1985-1986)

SALARIES:

Watermaster	\$ 33,720.00
Assistant	18,000.00
Secretary	12,252.00
Aide 6 mos.	9,000.00
Aide 6 mos.	6,426.00
Temporary	4,900.00

BENEFITS:

Group Insurance	3,862.00
Retirement	9,115.00
FICA	5,985.00
Workman's Compensation	370.00
Unemployment Compensation	93.00
Liability Insurance	253.00

TRAVEL:

Mileage and Fares	18,920.00
Per Diem	3,630.00

Postage	351.00
Maintenance	150.00
Communications	660.00
Rent & Utilities	1,980.00

TOTAL \$129,667.00

It is anticipated that line items will vary, but that the total will not exceed \$127,864.00 for the 74th Fiscal Year.

Glenn W. Brim
Roswell Basin Watermaster

	July	August	September	October	November	December	1985 LAST HALF	1985 YEAR
ARIES:								
Watermaster	\$ 2,583.84	\$ 2,583.84	\$ 3,875.76	\$ 2,583.84	\$ 2,583.84	\$ 2,574.40	\$ 16,785.52	\$ 33,519.12
Assistant Watermaster	1,379.36	1,379.36	2,069.04	1,379.36	1,379.36	1,365.28	8,951.76	17,825.78
Secretary	938.88	938.88	1,408.32	938.88	938.88	923.04	6,086.88	12,086.64
Other	1,408.55	2,315.28	2,812.37	876.78			7,412.98	12,884.01
Insurance, State Share	209.93	272.54	371.37	162.56	130.02	363.10	1,509.52	2,981.63
Social Security	444.90	508.79	734.18	553.09	345.60	341.61	2,928.17	5,680.09
Retirement	664.07	828.53	1,172.95	623.83	562.76	488.70	4,340.84	8,263.61
Workman's Compensation								554.00
Unemployment								266.00
Mileage, Gas, Maint. & Repairs	1,884.96	2,234.98	1,960.86	1,796.74	226.16	84.70	8,188.40	18,264.84
Travel	330.00	372.00	318.00	328.00	30.00	36.00	1,414.00	3,370.00
Liability Insurance								332.00
Communications	55.00	55.00	55.00	55.00	55.00	50.00	325.00	625.00
Equipment	165.00	165.00	165.00	165.00	165.00	150.00	975.00	1,875.00
Maint., Fixt., Supplies								305.69
Service to other Agency								
TOTALS	\$10,064.49	\$11,654.20	\$14,942.85	\$9,463.08	\$6,416.62	\$6,376.83	\$58,918.07	\$120,833.71

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	1985 FIRST HALF	1984 LAST HALF
ARIES:								
Watermaster	\$2,574.40	\$2,574.40	\$2,574.40	\$ 2,574.40	\$ 3,861.60	\$ 2,574.40	\$16,733.60	\$17,699.00
Assistant Watermaster	1,365.28	1,365.28	1,365.28	1,365.28	2,047.62	1,365.28	8,874.02	8,874.32
Secretary	923.04	923.04	923.04	923.04	1,384.56	923.04	5,999.76	5,999.76
Other		242.32	1,832.49	1,832.49	3,178.38	2,217.84	7,471.03	7,650.68
Insurance, State Share	148.02	148.02	159.98	270.63	440.95	304.51	1,472.11	1,503.47
Social Security	342.84	342.84	359.93	472.04	735.06	499.21	2,751.92	2,816.78
Retirement	488.70	488.70	513.05	672.88	1,047.83	711.61	3,922.77	3,945.48
Workman's Compensation							554.00	
Unemployment							266.00	
Liability Insurance							10,076.44	7,657.54
Telephone	1,180.30	1,047.42	1,627.12	2,055.46	2,196.70	1,969.44	1,956.00	1,776.00
Electric	78.00	240.00	294.00	252.00	744.00	348.00	332.00	300.00
Communications	50.00	50.00	50.00	50.00	50.00	50.00	300.00	900.00
Maint., Fixt., Supplies	150.00	150.00	150.00	150.00	150.00	150.00	305.69	2.77
Service to other Agency								
	\$7,300.58	\$7,329.70	\$8,259.12	\$10,618.22	\$15,852.39	\$12,555.33	\$61,915.34	\$59,125.80

SUMMARY

Metered use of water during 1985 resulted in an average use, for irrigation purposes, of 2.58 acre-feet per water right acre. The total quantity diverted for all uses was the lowest since metering began in 1967.

Inoperative meters continued to present some problems, however, under the present system of making adjustments essentially all of the water diverted through inoperative meters is accounted for. The program of checking and rating meters with the present staff seems to be working satisfactory.