

ROSWELL BASIN WATERMASTER

10th

ANNUAL REPORT

Calendar

Year

1975

Glenn W. Brim, Watermaster

909 East Second Street

Roswell, New Mexico

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INTRODUCTION

On January 10, 1966 Partial Final Judgment and Decree was entered under Causes Nos. 20294 and 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:

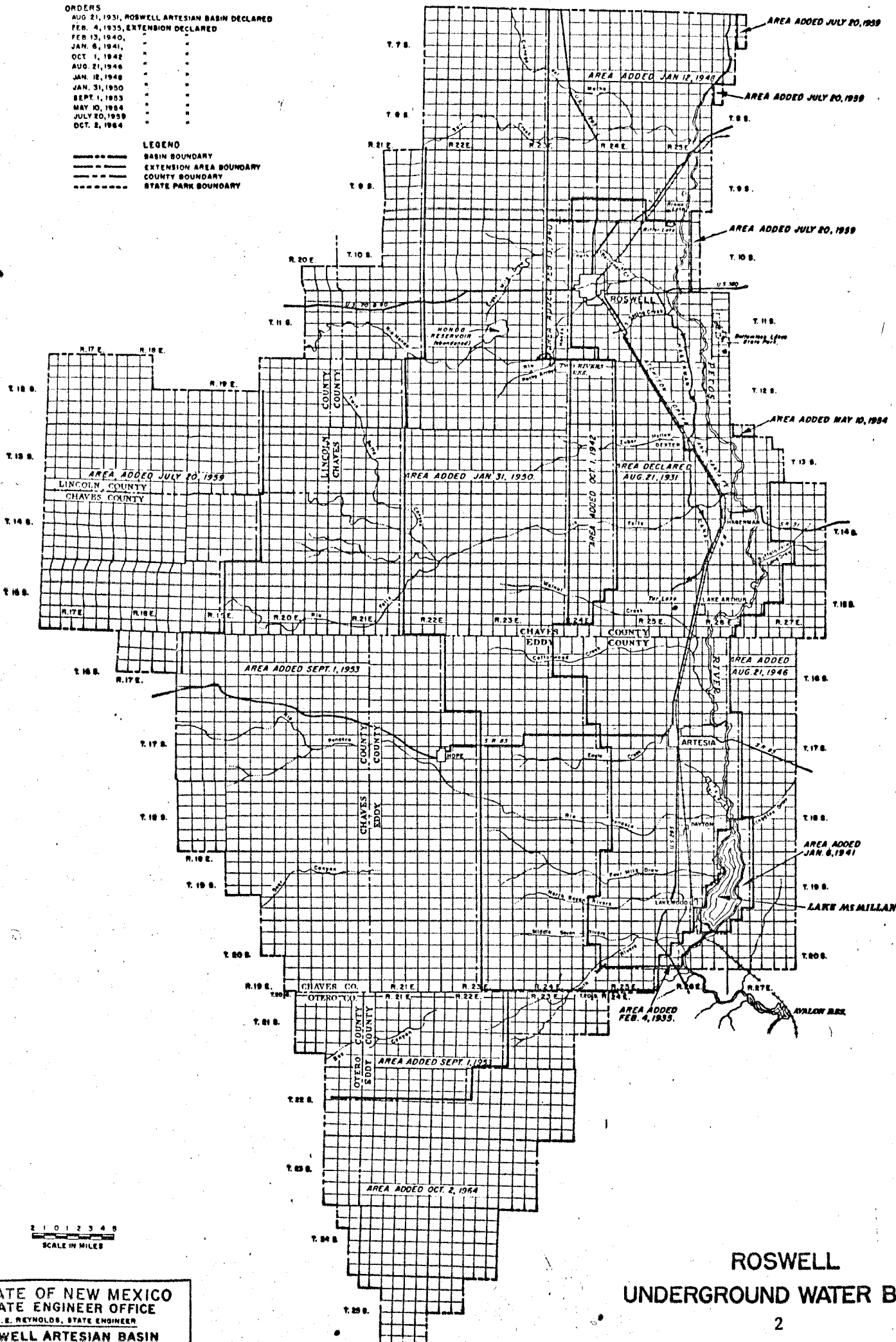
"5. The state engineer shall appoint and employ a watermaster and such assistants as are necessary in the administration and enforcement of this judgment and decree, provided that the appointment of the watermaster shall be subject to the approval of the Court. Such watermaster shall be appointed to 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 10th Annual Report of The Watermaster Office.

ORDERS
 AUG 21, 1931, ROSWELL ARTESIAN BASIN DECLARED
 FEB. 4, 1935, EXTENSION DECLARED
 FEB 13, 1940, " " " "
 JAN. 6, 1941, " " " "
 OCT. 1, 1942, " " " "
 AUG. 21, 1946, " " " "
 JAN. 12, 1948, " " " "
 JAN. 31, 1950, " " " "
 SEPT. 1, 1953, " " " "
 MAY 10, 1954, " " " "
 JULY 20, 1959, " " " "
 OCT. 2, 1964, " " " "

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



2 1 0 1 2 3 4 8
 SCALE IN MILES

ROSWELL UNDERGROUND WATER BASIN

STATE OF NEW MEXICO
 STATE ENGINEER OFFICE
 S. E. REYNOLDS, STATE ENGINEER
 ROSWELL ARTESIAN BASIN

ADMINISTRATION

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 from twenty miles north of Roswell in Chaves County to twenty miles south of Artesia in Eddy County, a distance of about eighty miles. The principal use of water in the area is for agricultural purposes which accounts for about 95% of the total diverted. Municipal use accounts for less than 5% and the remainder is used for commercial and industrial purposes.

Groundwater is the principal source of water diverted under the Decree and this is further divided into artesian and shallow groundwaters. 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 and 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 the Decree. The amount of acreage actually irrigated, however, varies from year to year as some rights have, under permit, been spread over larger acreages, a few rights have been "stacked" to permit larger diversions on reduced acreages, some rights have been transferred to municipal and industrial uses, some rights have been retired by the Pecos Valley Artesian Conservancy District, and some acreage is fallowed.

The Honorable Joe Angel, Judge of the Fourth Judicial District, served by designation as judge in the adjudication suit during most of the 1975 reporting period; in the later part of 1975, The Honorable Paul Snead of

the Fifth Judicial District assumed jurisdiction.

Personnel of the Watermaster Office at the beginning of 1975 consisted of Glenn W. Brim, Watermaster, Kathryn H. Kendall, Secretary-Clerk, and Charles H. Marson, Assistant Watermaster. On March 1st Frank Bradley transferred from the Water Rights Division to serve as an additional assistant during the irrigation season, and on April 1st Mike Ramirez and Robert Marr were transferred from the Water Rights Division to the Watermaster's office. On September 15th Ramon Torres was hired to replace Frank Bradley who returned to the Water Rights Division. On October 1st Ramon Torres and Mike Ramirez were transferred to the Water Rights Division, and Robert Marr remained in the Watermaster's office until November 30th to assist in the annual accounting.

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 the Pecos Valley Artesian Conservancy District a budget for the operations of the Watermaster Office and the District Board then moves the Court to approve or modify the budget submitted. The District then reimburses the State Engineer for monthly expenses incurred. The funds of the Conservancy District are derived from a levy on lands within the District.

METERING PROGRAM

Five hundred and fifty-nine meters were found inoperative during the 1975 irrigation season. Based on a total of 1600 meters installed on irrigation, feed pen and Hagerman Canal wells this is 34.94% as compared to 38.05% found inoperative in 1974. Each meter was read an average of 12.0 times.

The number of totalizing meters, by brand, installed on irrigation and feed pen wells and the number of each brand found to be inoperative during the 1975 irrigation season, are listed as follows:

Make of Meter	Installed Total	% of Total	Total Inoperative	Make % Inoperative	% of Total Installed
Brand A	344	21.50	130	37.79	8.12
Brand B	770	48.13	281	36.49	17.56
Brand C	326	20.37	119	36.50	7.44
Brand D	144	9.00	27	19.00	1.69
Misc.	<u>16</u>	<u>1.00</u>	<u>2</u>	13.69	<u>0.13</u>
	1600	100.00	559		34.94

Adjustment in amounts of water diverted through inoperative meters for 1975 totaled 5,272.7 acre feet; 2,996.4 acre feet of which was artesian and 2,276.3 acre feet of which was shallow. The total adjustment is 1.43% 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 an extensive winter maintenance program would alleviate most of this problem.

Meters are being maintained, repaired and/or replaced by field personnel of the Pecos Valley Artesian Conservancy District, at no cost to the water user.

CHANGES OR ORDERS IN THE ADJUDICATION DECREE

In August of 1975 an Order was entered wherein the Watermaster was authorized, when he determines that a consent agreement is appropriate, to enter into consent agreements in uncontested matters involving the diversion and use of water in excess of the adjudicated five year water right, with suitable fines and penalties. The penalties provide for the double repayment of excess water diverted to be deducted from the third five-year accounting period (1977 - 1981) and the payment of a fine to the Irrigation Works Construction Fund of the Interstate Stream Commission. The fine schedule is as follows:

<u>Fine Factor</u>	<u>Fine</u>
under 1	\$0
1 - 10	\$100
11 - 20	\$200
21 - 50	\$300
51 - 100	\$400
over 100	\$500

and the fine factor is determined by the total acre feet diverted in excess of the five-year water right multiplied by the percentage of excess diversion to the one-year adjudicated water right.

VIOLATION ACTIONS

The case pending during the last annual period concerning tampering with a water meter by C. C. Connors of Artesia was settled July 10, 1975 by the District Court with the assessment of a \$2,500.00 civil fine.

On July 30, 1975 Consent Order was entered wherein Richard Harshey was ordered to repay double the amount (24.14 acre feet) computed to be diverted from an unmetered unauthorized well, and to pay a fine of \$750.00.

Consent agreements in uncontested matters involving the diversion and use of water in excess of the five-year adjudicated right were entered as follows:

<u>Water User</u>	<u>Amount of Overuse</u>	<u>Amount of Repayment</u>	<u>Fine</u>
Losee, Vandiver and Menefee	88.00 ac. ft.	176.0 ac. ft.	\$300.00
J. S. Terry, et al. and W. E. Welch	4.85 ac. ft.	9.7 ac. ft.	\$ 0.00
Langenegger & Sons	34.80 ac. ft.	69.6 ac. ft.	\$200.00
Blaine B. Haines	1.60 ac. ft.	3.2 ac. ft.	\$ 0.00
Ed Hobson	141.20 ac. ft.	282.4 ac. ft.	\$400.00
Jim Bristow	144.00 ac. ft.	288.0 ac. ft.	\$300.00

Further action was pending involving overuse by the Artesia Rural Water Cooperative and non-authorized use by Duff Johnson.

WATER DIVERSION

Use of Water in the Roswell Basin in 1975

The total water diverted in the Roswell ground water basin for the water year 1975 (November 1, 1974 - October 31, 1975) under the administrative jurisdiction of the Roswell Basin Watermaster, was 387,742.4 acre feet. Under the decree adjudicating water rights in the basin, five year periods were set up for accounting of the metered water and the 1975 water year was the fourth year of the second five year period.

Of the total diversion, 245,692.3 acre feet (63%) was from the artesian source, and 128,989.1 acre feet (33%) was from the shallow source, and 13,061.0 acre feet (4.0%) was diverted from combined underground and surface sources primarily under the Hagerman Canal.

Included in the totals are 5,272.7 acre feet (1.43% of the total irrigation diversion) which was computed for periods when meters were inoperative.

Irrigation use accounted for 95% of the total diverted, municipal use accounted for 4% and miscellaneous industrial and commercial uses accounted for the remaining 1%.

The irrigation use on 123,740.7 equivalent water right acres (acres as originally adjudicated) permitted an average diversion of 2.98 acre feet per acre for the basin as a whole, varying from a high of 3.32 acre feet per acre in the Cottonwood area to a low of 1.50 acre feet per acre in the Upper Felix area. The equivalent acreage figures and pumpage figures do not include unmetered stock and domestic uses, water right acreage (less than 200) not metered and not farmed, and water right acreage retired from irrigation under the program of the Pecos Valley Artesian Conservancy District. Eight hundred and ninety-six farming units are included.

Roswell Basin Watermaster Office
December 1975

NEW MEXICO STATE ENGINEER
METERED PUMPAGE SUMMARY SHEET
1975

TOWNSHIP _____ RANGE _____ SECTIONS _____

	Location	Right Acre Feet	PUMPAGE - ACRE FEET				Rate	Rate of Application
			Surface	Shallow	Artesian	Total		
T 7,8,9 S; R 23 Thru 26 E	Northern	30974.3	0	2049.0	24584.4	26633.4	2.58	
	Extension	10324.8						
T 10,11,12 S; R 22,23,24 E	Roswell - East	104831.8	145.3	27533.6	74058.5	101737.4	2.91	
T 10,11,N $\frac{1}{2}$ 12 S; R 25,26 E	Grand Plains	34943.9						
T 13,14, N $\frac{1}{2}$ 15 S; R 23,24 E	Dexter-Hagerman	106752.5	12915.7	46508.0	46519.2	105942.9	2.98	
T S $\frac{1}{2}$ 12,13,14; N $\frac{1}{2}$ 15 S; R 25,26,27 E	Area	35584.2						
T S $\frac{1}{2}$ 15; N 2/3 16 S; R 23 thru 26 E	Cottonwood	60333.9	0	23230.1	43605.6	66835.7	3.32	
	Area	20111.3						
T 15 S; R 17, 18 E	Upper Rio	2281.0	0	0	1140.0	1140.0	1.50	
	Felix	760.3						
T S 1/3 16,17,18 S; R 25,26 E	Artesia	54327.1	0	21100.2	34730.4	55830.6	3.08	
	Area	18109.0						
T 19,20 S; R 25,26 E	Lakewood -	11721.5	0	5881.2	4511.4	10392.6	2.66	
	Seven Rivers	3907.2						
	Total Irrigation	371222.1	13061.0	126302.1	229149.5	368512.6	2.98	
	Use	123740.7						

METERED PUMPAGE SUMMARY SHEET
1975

TOWNSHIP _____ RANGE _____ SECTIONS _____

Water Right No.	Well No.	Source	Use	Well Location	Right Acre Feet	PUMPAGE - ACRE FEET				Date	Remarks
						Surface	Shallow	Artesian	Total		
				MUNICIPAL & MUNICIPAL TYPE USE							
				Roswell				10749.8	10749.8		
				Dexter			581.3	313.0	894.3		
				Hagerman				544.6	544.6		
				Lake Arthur			.7	27.7	28.4		
				Artesia				3500.0	3500.0		
				Hope				29.9	29.9		
				Co-ops			19.9	379.0	398.9		
				Total			(601.9)	(15544.0)	(16145.9)		
				FEED PEN OPERATIONS (NOT FARM CONNECTED)			223.4	21.7	245.1		
				(Feed Pen Operations - Farm Connected Charged to Irrigation Water Right)			(64.7)*	(201.0)*	(265.7)*		*Do not include in total
				SCHOOL SYSTEMS			-0-	72.8	72.8		
				POWER GENERATION							
				S.W.P.S. Co.				491.1	491.1		
				MISCELLANEOUS INDUSTRIAL & COMMERCIAL							
				Chaves County			1729.8	400.1	2129.9		
				Eddy County			131.9	13.1	145.0		
				TOTALS			2687.0	16542.8	19229.8		

1975 METERED USE
(IRRIGATION)

NORTHERN EXTENSION
26,633.4 AC. FT.
2.58 AC. FT. / AC.

ROSWELL -
EAST GRAND PLAINS
101,737.4 AC. FT.
2.91 AC. FT. / AC.

DEXTER - HAGERMAN
105,942.9 AC. FT.
2.98 AC. FT. / AC.

UPPER FELIX
1,140.0 AC. FT.
1.50 AC. FT. / AC.

COTTONWOOD
66,835.7 AC. FT.
3.32 AC. FT. / AC.

ARTESIA
55,830.6 AC. FT.
3.08 AC. FT. / AC.

LAKESWOOD - SEVEN RIVERS
10,392.6 AC. FT.
2.66 AC. FT. / AC.

BASIN WIDE
368,512.6 AC. FT.
2.98 AC. FT. / AC.

ROSWELL BASIN WATERMASTER

Tabulation of Annual Water Diverted

: Year :	Ac. Ft.	Irrigation Eq. Ac.	Ac.Ft./Ac.:	Municipal Ac.Ft.	Ind. & Com. Ac.Ft.	Total Ac. Ft.
:1967 :	371,250.6	130,132.7	2.85	14,528.3	1,582.6	387,361.5
:1968 :	323,917.1	128,245.0	2.53	13,596.3	1,611.1	339,124.5
:1969 :	345,087.1	128,330.6	2.69	15,586.9	899.1	361,573.1
:1970 :	358,686.8	126,002.4	2.85	15,888.5	916.3	375,491.6
:1971 :	384,228.1	126,121.0	3.05	16,439.6	3,082.0	403,749.7
:5 Yr.:						
:Aver.:	356,633.9	127,766.3	2.79	15,207.9	1,618.2	373,460.0
:1972 :	367,363.6	125,233.8	2.93	14,821.2	2,398.9	384,583.7
:1973 :	386,288.8	125,293.0	3.08	15,335.0	2,983.0	404,606.8
:1974 :	392,413.3	124,240.1	3.16	18,318.5	3,646.3	414,378.1
:1975 :	368,512.6	123,740.7	2.98	16,145.9	3,083.9	387,742.4
:1976 :						
:5 Yr.:						
:Aver.:						

FINANCIAL STATEMENTS

STATE OF NEW MEXICO
ROSWELL BASIN WATERMASTER OFFICE
Glenn W. Brim, Watermaster
APPROVED BUDGET
for the
64th Fiscal Year
(1975-1976)

Salaries	
Watermaster	\$12,580.00
Secretary	10,020.00
Assistant Watermaster	8,380.00
Assistant Watermaster	5,035.00
Aide	2,854.00
Aide	2,842.00
Temporary	2,000.00
Total:	<u>43,711.00</u>
Group Insurance	1,150.00
Social Security	2,555.00
Retirement	2,625.00
Workmen's Compensation	200.00
Total:	<u>6,530.00</u>
Mileage and Fares	9,000.00
Gas and Maint. PVACD Vehicle	950.00
Per Diem	1,600.00
Total:	<u>11,550.00</u>
Maintenance, Supplies, Tools and Equipment	150.00
Services to Others Agencies	350.00
Communications	450.00
Rent	1,200.00
Total:	<u>2,150.00</u>
Grand Total:	\$63,941.00

It is anticipated that line items will vary, but that the total will not exceed \$63,941 for the 64th fiscal year.



Fred H. Hennighausen
District II Supervisor
March 20, 1975

ROSWELL BASIN WATERMASTER

ITEMIZED EXPENDITURES

	1975												Totals			
	January	February	March	April	May	June	1975	1974								
							First Half	Last Half								
Salaries:																
Watermaster	\$ 980.00	980.00	980.00	980.00	980.00	980.00	5880.00	5720.00								
Assistant Watermaster	630.00	630.00	660.00	660.00	660.00	660.00	3900.00	3780.00								
Secretary	750.00	750.00	750.00	750.00	750.00	750.00	4500.00	4320.00								
Other			860.55	1360.00	1360.00	1790.00	5370.55	6885.48								
Insurance																
State Share	36.88	36.88	67.12	65.40	65.40	65.40	337.08	256.73								
Services of Other Agencies							323.00									
Social Security	138.08	138.08	190.20	219.42	219.42	244.58	1149.78	1211.43								
Gas, Maint, Repairs OF-2552		68.08	96.01	54.65												
Retirement	141.60	141.60	195.03	225.00	225.00	250.80	1179.03	1242.33								
Workmen's Compensation							152.00									
Mileage	531.72	453.00	1029.12	1356.60	1086.24	1196.76	5653.44	4370.16								
Per Diem	25.00	50.00	105.00	130.00	155.00	180.00	645.00	812.50								
Postcards, Env., & Stamps Communications	33.80	33.33	33.33	33.33	33.33	33.33	200.45	200.98								
Capitol Outlay Rent	100.00	100.00	100.00	100.00	100.00	100.00	600.00	600.00								
Maint., Fixt., Equip. Supplies		17.00				4.62	21.62	18.98								
Totals	\$ 3367.08	3397.97	5066.36	5934.40	5634.39	6786.30	30,186.50	29,785.71								

SUMMARY

SUMMARY

Metered use of water during 1975 resulted in an average use, for irrigation purposes, of 2.98 acre feet per water right acre. The total quantity diverted for all uses was the fourth highest in the nine years since metering began.

Meters inoperative 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 satisfactorily.

The Order of the Court permitting the Watermaster to enter into consent agreements with water users in uncontested matters involving the use of water in excess of the five year adjudicated right has greatly facilitated settlement of these matters.