

ROSWELL BASIN WATERMASTER

7th

ANNUAL REPORT

Calendar

Year

1972

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. This is the 7th Annual Report of that office.



**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 20 miles north of Roswell in Chaves County to 20 miles south of Artesia in Eddy County, a distance of about 80 miles. The principle 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 the artesian and shallow source. About 63% of the water is diverted from the artesian source, about 34% from the shallow source and about 3% is diverted from a combination of surface and well waters primarily through the Hagerman Canal.

Approximately 130,000 acres are irrigated with rights adjudicated under the Decree. This figure of acreage irrigated varies from year to year, as some rights have, since metering began, 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 use, and a few rights have been "retired" by the Pecos Valley Artesian Conservancy District.

The Honorable LaFel E. Oman, Judge of the New Mexico Supreme Court, and the Honorable Lewis R. Sutin, Judge of the New Mexico Court of Appeals, served by designation as judges in the adjudication suit during the period.

Personnel of the Watermaster Office at the beginning of 1972 consisted of Glenn Brim, Watermaster, Kathryn H. Kendall, Secretary-Clerk, and Charles H. Marson, Assistant Watermaster. Robert Richardson was transferred from the Water Rights Division to serve as second Assistant Watermaster from April 1, 1972 to June 7, 1972, when he began leave without pay to return to college. Deven West transferred from the Water Rights Division on September 15, 1972 to this office.

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 and the District Board then moves the Court to approve or modify the budget submitted. The budget as approved or modified by the Court is included in the budget of the District who then reimburses the State Engineer for expenses incurred in accordance with such budget. The funds of the Conservancy District are derived from a levy on lands within the District.

### METERING PROGRAM

Five hundred and eighty seven inoperative meters were found during the 1972 irrigation season. Based on a total of 1577 meters installed on irrigation and feed pen wells and Hagerman Canal laterals this is 37.22% of the meters as compared to 40.27% (631 inoperative of a total of 1563 meters) in 1971.

The four major brands of totalizing meters and the number of each installed on irrigation wells and feed pen wells in addition to the number of each brand found to be inoperative during the 1972 irrigation season, are listed as follows:

Make of Meter	Installed		Total Inoperative	Inoperative	
	Total	% of Total		% Brand	% of Total Installed
Brand A	534	33.86	250	46.82	15.85
Brand B	583	36.97	196	33.36	12.43
Brand C	284	18.01	103	36.27	6.53
Brand D	150	9.51	31	20.67	1.97
Misc.	<u>26</u>	<u>1.65</u>	<u>7</u>	26.92	<u>.44</u>
	1577	100.00	587		37.22%

Adjustments in amounts of water diverted through inoperative meters for 1972 totaled 8,003.12 acre feet; 4,270.64 acre feet of which was artesian and 3,732.48 acre feet of which was shallow. This is 2.18% of the total diverted for irrigation use.



The major problem remains of having a large percentage of the water meters inoperative at the onset of spring pumping. It is still believed that an extensive winter maintenance program would alleviate most of this problem.

Cards were not mailed out this year (1972) requesting year end totalizing meter readings, the reasoning behind this being that only about 55% or 60% of the cards were filled in and returned; thus requiring the Watermaster Office to go and read the remaining 40% or 50%. This method of operation cost more in man hours and mileage than reading all meters at once. In addition, it created a delay in beginning the computations necessary to complete the year's diversion records.

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

## CHANGES IN THE ADJUDICATION DECREE

On April 25, 1972, Judge Lewis R. Sutin granted a motion filed jointly by the State Engineer and the Pecos Valley Artesian Conservancy District to change Paragraphs 3 and 4 of the Partial Final Judgment and Decree, wherein the annual accounting period would be changed from January 1st through December 31st to January 1st through October 31, 1972. Thereafter each annual accounting period will commence on November 1st and end on October 31st. The Order amending the Partial Final Judgment and Decree reads:

IT IS ORDERED that paragraphs 3 and 4 of the Partial Final Judgment and Decree are amended to read as follows:

3. Each defendant required to install a measuring device shall report annually to the water master on a date to be set by him the total amount of water diverted from each well in each year commencing with 1967.
4. Administration of the duty of water in each sub-file herein shall be based upon a series of consecutive five-year periods, the first of which shall be January 1, 1967, through December 31, 1971. The accounting period for 1972 will commence on January 1, 1972 and terminate on October 31, 1972. Thereafter each annual accounting period will commence on November 1st and terminate on October 31st. The duty of water may be exceeded in any year, provided that the total amount diverted in each of

the five year periods shall not exceed five times the adjudicated annual duty of water; provided that, if the water diverted in any of the said five-year periods is less than five times the annual duty, that portion not diverted, up to two-thirds (2/3) of the duty for one year, may be carried forward into the next five year period.

All other provisions of the said Partial Final Judgment and Decree shall remain in force and intact.

DATED this 25th day of April, 1972.

LEWIS R. SUTIN  
Judge of the Court of Appeals  
Sitting by designation

## VIOLATION ACTIONS

On May 17, 1972, following filing of Motion for Order to Show Cause and Order to Show Cause under Sub File 1194 and 1213, by the Watermaster, a Consent Order was signed by Judge Lewis R. Sutin. In the Order Barney Green was ordered to strictly adhere thereafter to the order of the Court and the rules and regulations of the Court's Watermaster. Further, to at all times thereafter exert his best efforts and all reasonable diligence to prevent any water wells of his, subject to control of the Court, to be utilized, and water diverted therefrom without the water meter attached, functioning in good order and repair, and to cease and desist from pumping any of the said wells, except when the meters are in operation. He was additionally ordered to pay a fine of \$100.00, and to repay his overuse in the amount of 140.07 acre feet during the accounting period 1972 - 1976.

In November and December 1972 following the filing of complaints by the Watermaster, Consent Orders were filed by Judge Sutin in five (5) cases. In each case the defendant was ordered as shown below:

- (1) O. R. Hall, diversion in excess of the total adjudicated right in artesian well #RA-967, in the amount of 18.0 acre feet, ordered to repay 36.0 acre feet from the accounting period 1972 - 1976.
- (2) Glenn Marshall, diversion in excess of the total adjudicated right in artesian wells #RA-505, RA-505-S, RA-505-S-3, and RA-505-S-4, in the amount of 14.1 acre feet, ordered to repay 28.1 acre feet from the accounting period 1972 - 1976.

- (3) James M. Buck, diversion in excess of the total adjudicated right in shallow wells #RA-1588 and RA-1588-S, in the amount of 15.8 acre feet, ordered to repay 31.6 acre feet from the accounting period 1972 - 1976.
- (4) Virgil Haley, diversion in excess of the total adjudicated right in shallow wells #RA-2679 and RA-2679-S, in the amount of 122.3 acre feet, ordered to repay 122.3 acre feet from the accounting period 1972 - 1976 and fined \$200.00. (An additional 122.3 acre feet had previously been transferred in for repayment.)
- (5) Leon Bowles, diversion in excess of the total adjudicated right in shallow well #RA-1323-AA, in the amount of 25.67 acre feet, ordered to repay 51.34 acre feet from the accounting period 1972 - 1976 and fined \$200.00.

Action on ten (10) additional over-use cases is expected during the coming year.

**WATER DIVERSION**

## USE OF WATER IN THE ROSWELL BASIN IN 1972

The total water diverted under the jurisdiction of the Roswell Basin Watermaster in the Roswell Ground Water Basin for the year 1972 was 384,583.7 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 1972 water year commenced the first year of the second five year period.

Of the total diversion 369,552.1 acre feet was from underground sources; 239,257.0 acre feet (65%) of this being from the artesian source and 130,295.1 acre feet (35%) being from the shallow source. The remaining 15,031.6 acre feet of the total was diverted primarily from surface water sources under the Hagerman Canal.

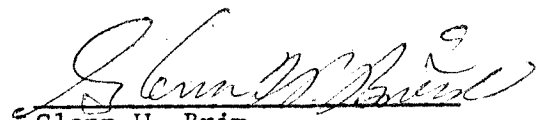
Included in the totals are 8,003 acre feet (2.18% of the total diverted for irrigation) which was computed for periods when meters were inoperative.

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 125,234 equivalent water right acres (acres as originally adjudicated) permitted an average diversion of 2.93 acre feet per acre for the basin as a whole, varying from a high of 3.24 acre feet per acre in the Lakewood-Seven Rivers area to a low of 2.25 acre feet per acre in the Northern Extension. 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. Nine hundred and twenty four farming units are included.

Rainfall within the irrigated area was considerably below normal until the end of June after which precipitation well above normal was received through September.

In the attached tabulations the acres of right are the water right acres as originally adjudicated and do not necessarily reflect those actually irrigated since, with the use of metered water, many rights have been spread, by permit, over greater areas to facilitate farming operations and a few have been "stacked" to permit more use per acre.

  
Glenn W. Brim  
Roswell Basin Watermaster

FHH:kk  
Attachments  
1-8-73

NEW MEXICO STATE ENGINEER  
METERED PUMPAGE SUMMARY SHEET  
1972

TOWNSHIP \_\_\_\_\_ RANGE \_\_\_\_\_ SECTIONS \_\_\_\_\_

	Location	Right Acre Feet	PUMPAGE - ACRE FEET				Date	Remarks
			Surface	Shallow	Artesian	Total		
T 7,8,9 S; R 23 Thru 26 E	Northern	31,451.4					1972	Rate of Application
	Extension	10,483.8		1,492.7	22,080.7	23,573.4		2.25
T 10,11,12 S; R 22,23,24 E	Roswell - East	106,944.2						
T 10,11,N $\frac{1}{2}$ 12 S; R 25, 26 E	Grand Plains	35,648.1	216.6	26,855.8	72,512.4	99,584.8		2.79
T 13,14, N $\frac{1}{2}$ 15 S; R 23,24 E	Dexter-Hagerman	107,360.3						
T S $\frac{1}{2}$ 12,13,14, N $\frac{1}{2}$ 15 S; R 25,26,27 E	Area	35,786.8	14,815.0	48,834.0	47,637.3	111,286.3		3.11
					48,037.3	112,286.3		3.14
T S $\frac{1}{2}$ 15, N 2/3 16 S; R 23 Thru 26 E	Cottonwood	60,276.0						
	Area	20,092.0		21,233.5	39,840.0	61,073.5		3.04
T 15 S; R 17, 18 E	Upper Rio	2,281.0						
	Felix	760.3			1,819.5	1,819.5		2.39
T S 1/3 16,17,18 S; R 25,26 E	Artesia	55,657.9						
	Area	18,552.6		22,639.9	34,720.6	57,360.5		3.09
T 19,20 S; R 25,26 E	Lakewood -	11,730.5						
	Seven Rivers	3,910.2		7,342.2	5,323.4	12,665.6		3.24
	Total Irrigation	375,701.3						
	Use	125,233.8	15,031.6	128,398.1	223,933.9	367,363.6		2.93 (2.94)
					224,933.9	368,363.6		



METERED PUMPAGE SUMMARY SHEET  
1972

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						1972	
				Roswell				9,736.4	9,736.4		
				Dexter			559.0	137.6	696.6		
				Hagerman				425.2	425.2		
				Lake Arthur			.6	15.0	15.6		
				Artesia				3,817.5	3,817.5		
				Co-ops				129.9	129.9		
				Total			559.6	14,261.6	14,821.2		
				FEED PEN OPERATIONS (NOT FARM CONNECTED)			246.9	1.4	248.3		
				SCHOOL SYSTEMS				121.5	121.5		
				POWER GENERATION				321.4	321.4		
				S.W.P.S. Co.							
				MISCELLANEOUS INDUSTRIAL & COMMERCIAL							
				Chaves County			910.6	585.9	1,496.5		
				Eddy County			179.9	31.3	211.2		
				TOTALS			1,897.0	15,323.1	17,220.1		

TWP \_\_\_\_\_ RNG \_\_\_\_\_

1972 METERED USE  
( IRRIGATION )

NORTHERN EXTENSION  
23,573.4 AC. FT.  
2.25 AC. FT. / AC.

ROSWELL -  
EAST GRAND PLAINS  
99,584.8 AC. FT.  
2.79 AC. FT. / AC.

DEXTER - HAGERMAN  
111,286.3 AC. FT.  
3.11 AC. FT. / AC.

UPPER FELIX  
1,819.5 AC. FT.  
2.39 AC. FT. / AC.

COTTONWOOD  
61,073.5 AC. FT.  
3.04 AC. FT. / AC.

ARTESIA  
57,360.5 AC. FT.  
3.09 AC. FT. / AC.

LAKESWOOD - SEVEN RIVERS  
12,665.6 AC. FT.  
3.24 AC. FT. / AC.

BASIN WIDE  
367,363.6 AC. FT.  
2.93 AC. FT. / AC.


**FINANCIAL STATEMENTS**

STATE OF NEW MEXICO  
 Operating Budget  
 for the  
 Roswell Basin Watermaster  
 Glenn W. Brim, Watermaster

Estimated Expenditures for Fiscal Year Ending June 30, 1973

Salaries:	<u>Amount</u>	<u>Total</u>
Watermaster	\$ 9385.00	
Assistant	6100.00	
Assistant	5865.00	
Secretary	7920.00	
Temporary	1500.00	
		\$ 30,770.00
Group Insurance - State's Share	700.00	
Retirement	1540.00	
F.I.C.A.	1580.00	
Workmen's Compensation	115.00	
		3,935.00
Mileage and Fares	6200.00	
Per Diem	1000.00	
		7,200.00
Maintenance Service	50.00	
Office Supplies	100.00	
Miscellaneous Supplies, Tools, etc.	100.00	
		250.00
Services to Other Agencies	250.00	
Communications	470.00	
Rent	1200.00	
Other Professional Services	750.00	
		2,670.00
Capital Outlay - Equipment	0	
		<hr/>
Total		\$ 44,825.00

It is anticipated that the individual line items will vary but that the total expenditure will not exceed \$44,825.00.

  
 Fred H. Hennighausen  
 District II Supervisor  
 May 10, 1972

ITEMIZED EXPENDITURES

	1972											Totals			
	July	August	September	October	November	December	1972 Last Half	Year 1972							
Salaries															
Watermaster	\$ 750.00	785.00	785.00	785.00	785.00	785.00	785.00	785.00	785.00	785.00	785.00	4675.00	9175.00		
Assistant Watermaster	500.00	500.00	500.00	500.00	409.12	8.53	500.00	500.00	409.12	8.53	8.53	2417.65	4984.92		
Assistant Watermaster	105.00	189.00	189.00	420.00	391.36	420.00	420.00	420.00	391.36	420.00	420.00	1525.36	2549.94		
Secretary	660.00	660.00	660.00	660.00	660.00	660.00	660.00	660.00	660.00	660.00	660.00	3960.00	7560.00		
Other		81.67		391.61	713.53				713.53			1186.81	5135.01		
Insurance															
State Share	37.36	37.36	37.36	38.25	58.59	28.84	38.25	38.25	58.59	28.84	28.84	237.76	561.02		
Social Security	104.78	105.39	110.97	138.38	152.58	88.32	138.38	138.38	152.58	88.32	88.32	700.42	1513.70		
Retirement	100.75	101.34	106.71	137.85	147.97	93.68	137.85	137.85	147.97	93.68	93.68	688.30	1470.30		
Mileage	404.40	529.60	569.10	692.60	158.80	115.50	692.60	692.60	158.80	115.50	115.50	2470.00	5776.90		
Per Diem	130.00	80.00	25.00	155.00	158.50	32.50	155.00	155.00	158.50	32.50	32.50	581.00	1001.00		
Postcards, Env., & Stamps Communications	34.93	33.66	33.73	33.33	33.88	38.92	33.33	33.33	33.88	38.92	38.92	208.45	410.96		
Capitol Outlay	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	600.00	1200.00		
Rent															
Maint., Fixt., Equip. Supplies															
TOTALS	\$ 2927.22	3014.02	3116.87	4052.02	3769.33	2371.29	4052.02	4052.02	3769.33	2371.29	2371.29	19,250.75	41,338.75		

SUMMARY

## SUMMARY

Metered use of water during 1972 resulted in an average use, for irrigation purposes, of 2.93 acre feet per water right acre. This was the second largest rate of annual diversion in the six years since metering began.

Changing the accounting period from January 1st through December 31st to November 1st through October 31st appears, initially, to have brought forth the desired results. Previously, compilation and computation of annual water diversion records came at a time when the farmers were preparing for a new year, and were requesting the data only then being processed. This created considerable delay because these records were not only in varying stages of completion but were being processed by different persons. During the 1972 accounting, however, due to the change in dates (November 1st as compared to January 1st) there were perhaps only a half dozen requests for these data, and the completed individual farm diversion records were in the mail by November 20th, 1972, having taken almost a week less for completion than in previous years.