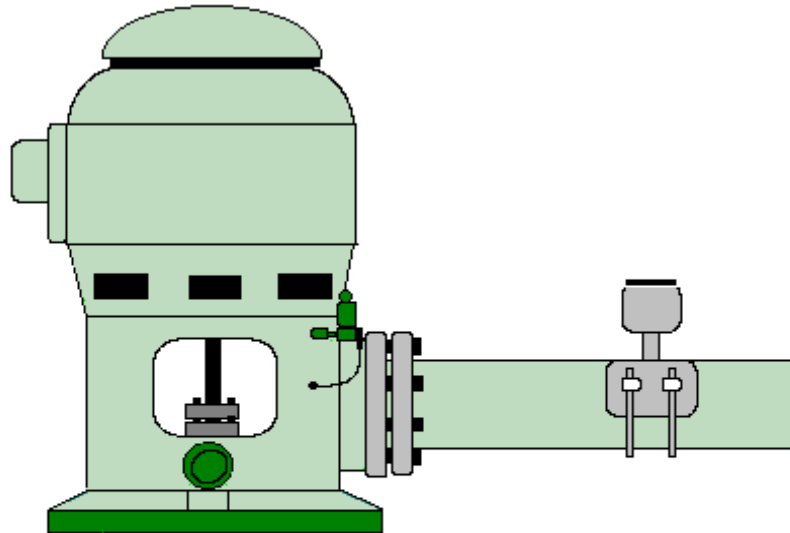


***ROSWELL BASIN WATERMASTER***

***41st***

***ANNUAL REPORT***

***2006***



***DAVID L. THOMAS, WATERMASTER***

***1900 WEST SECOND STREET***

***ROSWELL, NEW MEXICO 88203***

**TABLE OF CONTENTS**

**INTRODUCTION.....1**  
**MAP of ROSWELL UNDERGROUND BASIN.....2**

**ADMINISTRATION**

**General.....3**  
**Metering Program.....6**  
**Adjudication.....8**  
**Violations.....9**  
**Accounting Procedure Revision.....10**

**WATER DIVERSION**

**Chart Showing Percent of Use for Irrigation, Commercial and Industrial.....11**  
**Use of Water in the Roswell Basin in 2006.....12**  
**Chart Showing Last Five Years Comparison of Total Diversion.....13**  
**Tabulations of Annual Diversions.....14**  
**Municipal Diversion.....16**  
**Industrial and Commercial Diversion.....17**  
**Map Indicating Areas of Irrigation Use.....18**  
**Diversion by Area.....19**

**FINANCIAL STATEMENTS**

**Approved Budget for 2006.....20**  
**Expenditures for 2006.....21**  
**SUMMARY.....22**

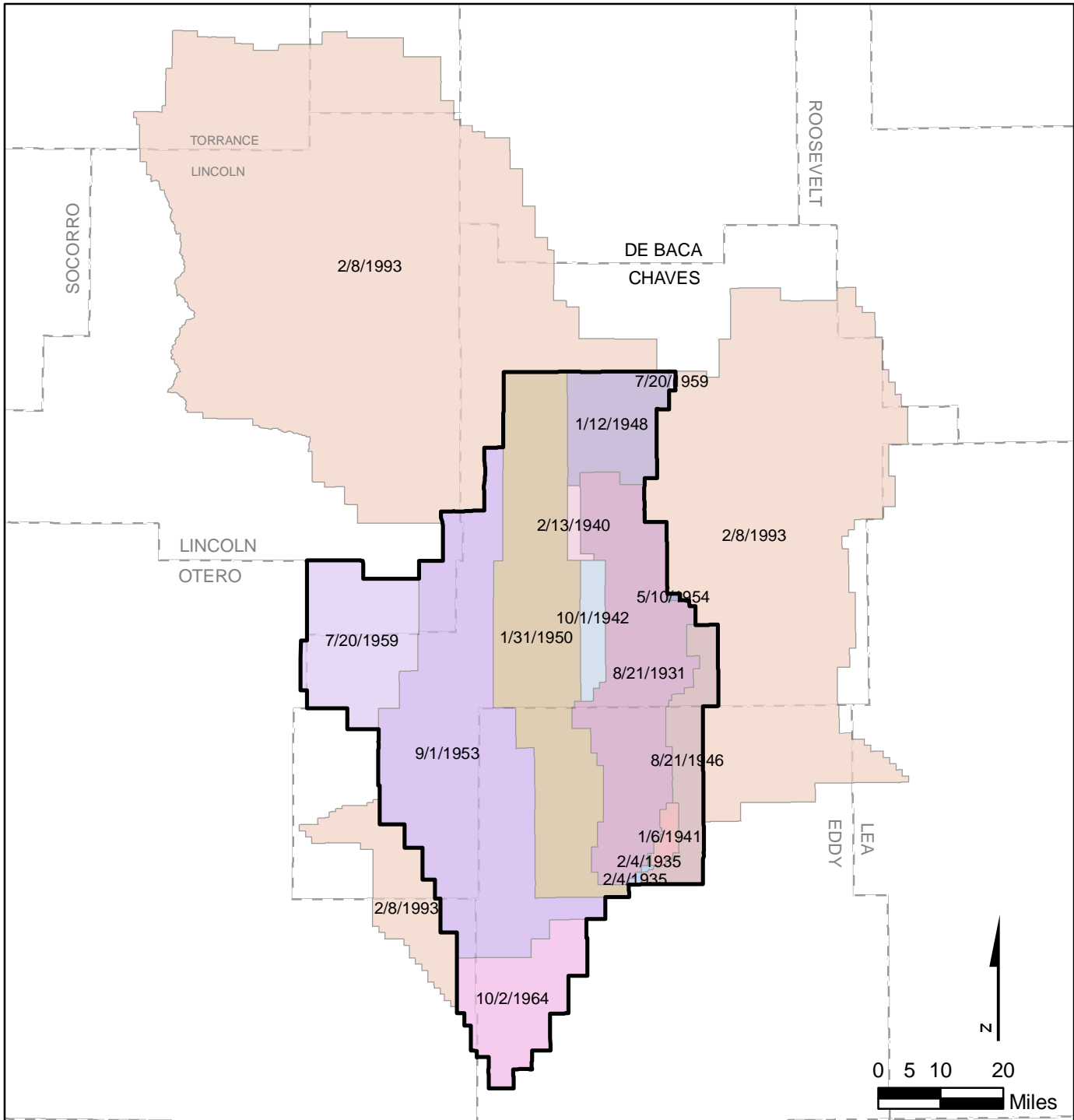
## **INTRODUCTION**

***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 David L. Thomas was appointed by the Honorable Harl D. Byrd, District Judge, on July 20, 2001.***

***This is the 41st Annual Report of the Watermaster’s Office.***



**Legend**  
**Roswell Underground Basins**

- Example:**
- 2/8/1993
  - 9/1/1953
  - 1/31/1950

Adjudication Boundary

County

## **GENERAL**

*The Roswell Basin Water Master administers the diversion of water under the Adjudication Decree in an area existing, 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 91.5% of the total water diverted. Municipal use of water accounts for about 7.0% and about 1.5% 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 acreage. Some rights have been transferred to Municipal and Industrial uses, while the Pecos Valley Artesian Conservancy District (PVACD) has retired some rights 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. 20294 and No. 22600 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 non-supplemented canal right and only the supplemented right shall be accounted unless otherwise indicated by conditions of approval of an individual permit.*

*The Honorable Judge David W. Bonem served during the 2006 reporting period.*

*Personnel of the Watermaster Office at the beginning of the 2006 season consisted of David L. Thomas, Roswell Basin Water Master, Angela Molinar, Secretary-Clerk, Phillip Fields, Assistant Water Master. On June 6<sup>th</sup> John Stewart transferred out of the Water Master's Office. On February 26<sup>th</sup> Mike Hunter started working as Assistant Water Master. On January 1<sup>st</sup> 2006 Brad Todd transferred to the Water Master's Office to assist with meter reading through the end of October 2006. Mr. Todd remained in the Water Masters Office to assist with the annual accounting until December 31<sup>st</sup> 2006.*

*The operations of the Watermaster Office are financed through the Pecos Valley Artesian Conservancy District. Under the terms of the Adjudication Decree, the Office of the State Engineer annually submits to PVACD, a budget for the operations of the Watermaster Office and the PVACD Board then moves the Court to approve or modify the budget submitted. PVACD reimburses the Office of the State Engineer for monthly expenses incurred. The funds of PVACD are derived from a levy of lands from within the district.*

## **METERING PROGRAM**

*Three hundred and twenty nine meters were found inoperative during the 2006 irrigation season. Based on a total of 1521 (primary)\*\* meters installed on irrigation, feed pen, dairy, and Hagerman Canal Wells, this is 21.6% as compared to 29.3% found inoperative in 2005. Each meter was read an average of 8.0 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 2006 irrigation season, are listed as follows:*

<b>MAKE OF METER</b>	<b>TOTAL OF MAKE</b>	<b>% OF TOTAL</b>	<b>TOTAL IN-OP</b>	<b>% MAKE IN-OP</b>	<b>% OF TOTAL INSTALLED</b>
<b>McCROMETER</b>	<b>1393</b>	<b>91.6</b>	<b>324</b>	<b>23.3</b>	<b>21.3</b>
<b>ROCKWELL/SENSUS</b>	<b>106</b>	<b>7.0</b>	<b>5</b>	<b>4.7</b>	<b>0.3</b>
<b>SPARLING</b>	<b>2</b>	<b>0.1</b>	<b>0</b>	<b>0</b>	<b>0.0</b>
<b>MISCELLANEOUS</b>	<b>20</b>	<b>1.3</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>
<b>TOTALS</b>	<b>1521</b>	<b>100</b>	<b>329</b>		<b>21.6</b>

*Adjustments in amount of water diverted through inoperative meters for 2006 totaled 7330.53 acre-feet of which 4490.14 acre-feet was Artesian underground water and 2840.39 acre-feet of which was Shallow underground water diverted for irrigation use.*

*\*\* Primary meters are meters the P.V.A.C.D. will repair or replace in the field.*



***The problem remains of having a large percentage of the water meters inoperative at the onset of spring pumping.***

***Primary meters are being maintained, repaired and/or replaced by field personnel of the PVACD.***

***CHANGES IN THE ADJUDICATION DECREE***

*There were no changes in the Adjudication Decree during the 2006 water year.*

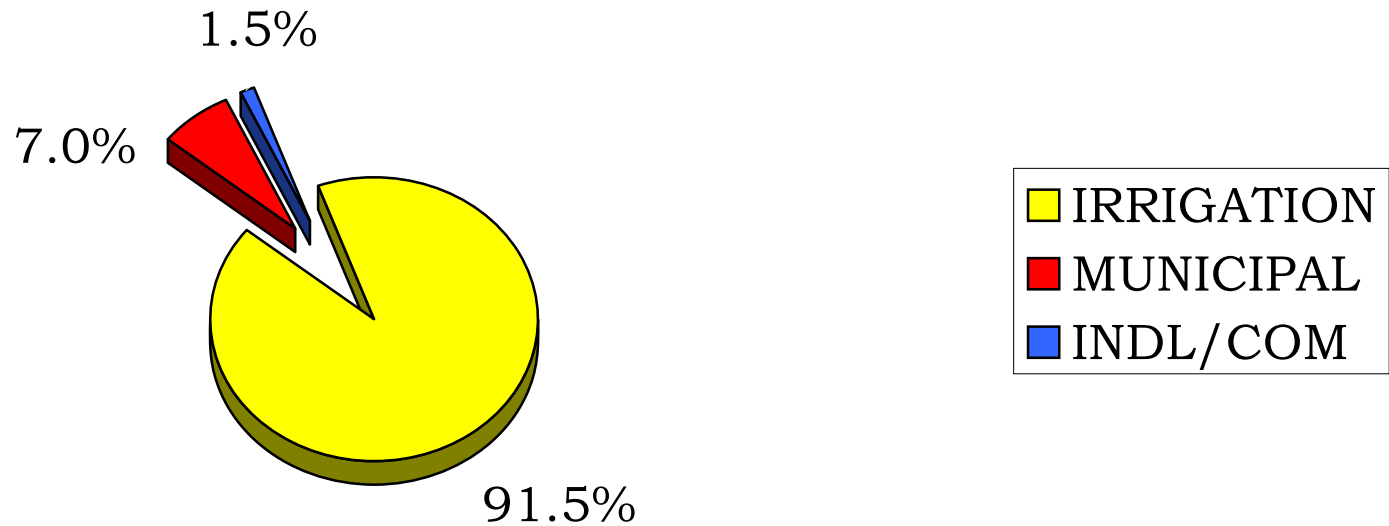
## **VIOLATIONS ACTIONS**

*There were **thirty-three** instances of overuse in 2006. Of the **thirty-three** water right owners **twenty** entered into consent agreements that include monetary fines as well as double repayment of water. **Eight** have pending applications, which, will or may affect the amount of over diversion and consequently the fine. **One** has set aside an application pending further review. **Four** water right owners have been referred to the Legal Division for further litigation.*

## **ACCOUNTING PROCEDURE REVISION**

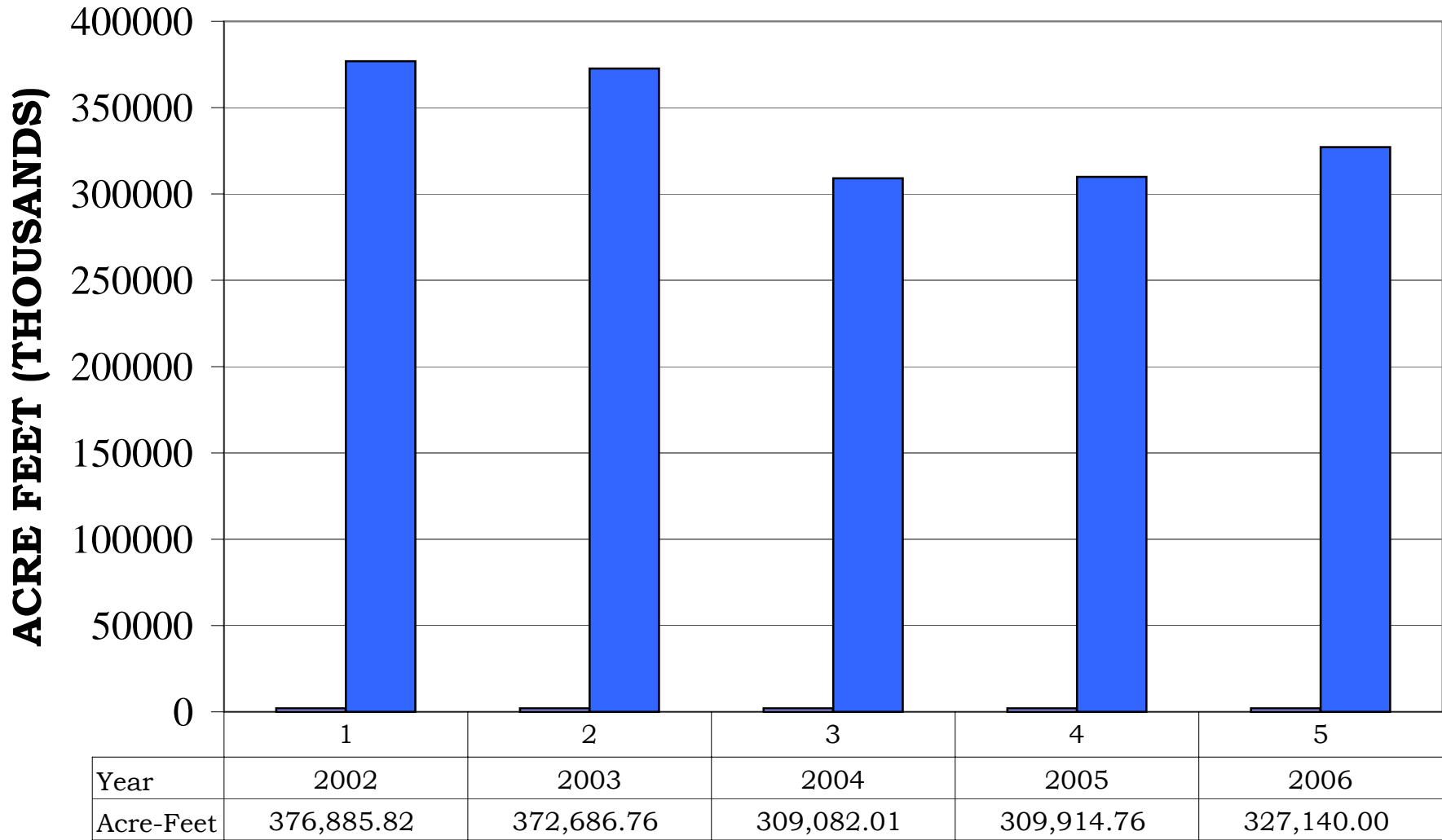
*Beginning in 1998 total diversion of water shown for commercial and industrial use and percentages there of, will be based on “actual” diversions. In the past, diversion amounts were multiplied by 1.43 or 1.67 where applicable; to compensate for carriage loss and/or lack of return flow were used. Although this is the amount charged against the water right it is not actual diversion amounts. This pertains to commercial or industrial operations that are farm connected.*

PERCENT OF WATER USED IN 2006 FOR  
IRRIGATION, MUNICIPAL, INDUSTRIAL & COMMERCIAL





### FIVE YEAR COMPARISON OF **TOTAL DIVERSION**



**TABULATION OF ANNUAL WATER DIVERSION**

**1967 TO PRESENT**

YEAR	IRRIGATION ACRE FEET	IRRIGATION EQ. AC.	ACRE FEET PER ACRE	MUNICIPAL ACRE FEET	INDL./COML. ACRE-FEET	TOTAL ACRE-FEET
1967	371,250.60	130,132.70	2.85	14,528.30	1,582.60	387,361.50
1968	323,917.10	128,245.00	2.53	13,596.30	1,611.10	339,124.50
1969	345,087.10	128,330.60	2.69	15,586.90	899.10	361,573.10
1970	358,686.80	126,002.40	2.85	15,888.50	916.30	375,491.60
1971	384,228.10	126,121.00	3.05	16,439.60	3,082.00	403,749.70
5-YEAR AVG.	356,633.94	127,766.34	2.79	15,207.92	1,618.22	373,460.08
1972	367,363.60	125,233.80	2.93	14,821.20	2,398.90	384,583.70
1973	386,288.80	125,293.00	3.08	15,335.00	2,983.00	404,606.80
1974	392,413.30	124,240.10	3.16	18,318.50	3,646.30	414,378.10
1975	368,512.60	123,740.70	2.98	16,145.90	3,083.90	387,742.40
1976	419,491.90	123,170.10	3.41	18,182.20	3,271.90	440,946.00
5-YEAR AVG.	386,814.04	124,335.54	3.11	16,560.56	3,076.80	406,451.40
1977	387,858.00	122,703.70	3.16	18,422.70	3,071.40	409,352.10
1978	359,011.00	122,233.70	2.94	15,569.70	3,270.70	377,851.40
1979	355,163.80	122,002.40	2.91	16,181.90	2,853.00	374,198.70
1980	360,484.40	121,763.30	2.96	17,804.30	2,388.60	380,677.30
1981	317,225.20	121,530.00	2.61	14,558.10	2,340.80	334,124.10
5-YEAR AVG.	355,948.48	122,046.62	2.92	16,507.34	2,784.90	375,240.72
1982	377,179.40	120,932.00	3.12	18,292.10	2,747.20	398,218.70
1983	356,836.00	120,277.70	2.97	19,312.30	2,818.30	378,966.60
1984	304,691.90	119,415.20	2.55	19,246.40	2,424.10	326,362.40
1985	293,465.10	119,333.30	2.46	17,494.40	2,863.70	313,823.20
1986	259,739.90	118,634.10	2.19	17,800.60	2,673.00	280,213.50
5-YEAR AVG.	318,382.46	119,718.46	2.66	18,429.16	2,705.26	339,516.88



**TABULATION OF ANNUAL WATER DIVERSION (CONT.)**

**1967 TO PRESENT**

YEAR	IRRIGATION ACRE FEET	IRRIGATION EQ. AC.	ACRE FEET PER ACRE	MUNICIPAL ACRE FEET	INDL./COML. ACRE-FEET	TOTAL ACRE-FEET
1987	285,389.60	118,324.90	2.41	15,775.50	2,892.50	304,057.60
1988	306,838.70	115,696.10	2.65	16,734.60	4,887.40	328,460.70
1989	364,436.70	115,088.00	3.17	17,771.40	4,566.50	386,774.60
1990	356,612.10	115,433.00	3.09	20,569.60	4,733.20	381,914.90
1991	314,893.30	115,378.30	2.73	18,887.10	9,768.90	343,549.30
5-YEAR AVG.	325,634.08	115,984.06	2.81	17,947.64	5,369.70	348,951.42
1992	305,168.40	115,510.40	2.64	17,765.70	4,389.80	327,323.90
1993	356,286.10	115,456.10	3.09	23,841.70	6,215.90	386,343.70
1994	352,106.70	114,402.90	3.08	21,024.60	7,060.00	380,191.30
1995	356,806.30	114,507.90	3.12	24,009.90	5,827.80	386,644.00
1996	345,278.53	113,481.60	3.04	22,245.70	5,781.10	373,305.33
5-YEAR AVG.	343,129.21	114,671.78	2.99	21,777.52	5,854.92	370,761.65
1997	346,681.00	113,568.02	3.05	21,076.10	5,316.80	373,073.90
1998	368,057.77	113,691.05	3.24	22,308.50	5,995.40	396,361.67
1999	317,652.73	113,686.18	2.79	20,275.90	5,765.18	343,693.81
2000	374,090.19	116,364.42	3.21	23,887.60	3,665.50	401,643.29
2001	310,134.69	113,497.67	2.73	22,315.80	3,789.40	336,239.89
5-YEAR AVG.	343,323.28	114,161.47	3.01	21,972.78	4,906.46	370,202.51
2002	348,596.69	113,325.27	3.08	22,815.18	5,473.95	376,885.82
2003	344,034.63	113,537.16	3.03	24,161.26	4,490.87	372,686.76
2004	282,067.23	114,493.28	2.46	21,631.54	5,383.24	309,082.01
2005	283,360.59	114,209.79	2.48	21,864.83	4,689.34	309,914.76
2006	299,201.31	113,967.87	2.63	23,035.87	4,902.82	327,140.00
5-YEAR AVG.	311,452.09	113,906.67	2.74	22,701.74	4,988.04	339,141.87

**MUNICIPAL USE**

**FOR 2006**

<b>PUMPAGE IN ACRE-FEET</b>				
<b>MUNICIPAL &amp; MUNICIPAL TYPE USE</b>	<b>SHALLOW</b>	<b>ARTESIAN</b>	<b>TOTAL</b>	<b>REMARKS</b>
<b>ROSWELL</b>	0.00	13,819.31	13,819.31	
<b>DEXTER</b>	694.27	460.19	1,154.46	
<b>HAGERMAN</b>	0.00	668.92	668.92	
<b>LAKE ARTHUR</b>	10.71	103.96	114.67	
<b>ARTESIA</b>	0.00	4,349.79	4,349.79	
<b>HOPE</b>	0.00	43.16	43.16	
<b>CO OPS</b>	0.08	2,441.72	2,441.80	
<b>DOMESTIC UTILITIES</b>	84.56	272.67	357.23	
<b>SCHOOL SYSTEMS</b>	13.20	73.33	86.53	<b>DEXTER &amp; ROSWELL</b>
<b>TOTAL MUNICIPAL USE</b>	<b>802.82</b>	<b>22,233.05</b>	<b>23,035.87</b>	

**COMMERCIAL AND INDUSTRIAL USE**

**FOR 2006**

	PUMPAGE IN ACRE FEET			REMARKS
	SHALLOW	ARTESIAN	TOTAL	
<b>COMMERCIAL DAIRY &amp; FEED PEN USE</b>				
FEED PEN OPERATIONS (N. F. C.)	0.00	0.00	0.00	Not Farm Connected
FEED PEN OPERATIONS ( F. C.)	0.35	0.00	0.35	Farm Connected
DAIRIES (F. C.) **	10,815.88	21,687.01	32,502.89	**Included in IRR. Total
DAIRIES ( N. F. C. )	120.29	1,883.15	2,003.44	Not Included in IRR. Total
<b>TOTALS</b>	<b>120.64</b>	<b>1,883.15</b>	<b>2,003.79</b>	
<b>MISC. INDUSTRIAL &amp; COMMERCIAL</b>				
CHAVES COUNTY	1,901.68	204.37	2,106.05	
EDDY COUNTY	99.60	693.38	792.98	
<b>TOTALS</b>	<b>2,001.28</b>	<b>897.75</b>	<b>2,899.03</b>	
<b>TOTAL ALL COML. &amp; INDUST.</b>	<b>2,121.92</b>	<b>2,780.90</b>	<b>4,902.82</b>	
<b>TOTAL ALL MUNICIPAL (pg.16), COMMERCIAL AND INDUSTRIAL USE</b>	<b>2,924.74</b>	<b>25,013.95</b>	<b>27,938.69</b>	<b>** EXCLUDES FARM CONNECTED DAIRIES</b>



**2006**

**AREA BREAKDOWN**

<i>DESCRIPTION</i>	<i>ACRE-FEET</i>	<b>PUMPAGE IN ACRE-FEET</b>				<i>APP. RATE</i>
		<b>SURF</b>	<b>SHALLOW</b>	<b>ARTESIAN</b>	<b>TOTAL</b>	
<b>NORTHERN EXTENSION</b>	<b>29,495.66</b>		0.00	15,063.21	15,063.21	<b>1.53</b>
<b>ROSWELL - EAST GRAND PLAINS</b>	<b>102,227.41</b>		23,935.33	66,751.35	90,686.68	<b>2.66</b>
<b>DEXTER - HAGERMAN</b>	<b>90,098.78</b>	5,133.03	28,866.27	47,196.48	81,195.78	<b>2.70</b>
<b>HAGERMAN IRR. COMPANY</b>	<b>24,996.21</b>		3,052.69	11,583.90	14,636.59	<b>1.76</b>
<b>NON SUPPLEMENTAL CANAL USE</b>		5,272.69			5,272.69	
<b>COTTONWOOD AREA</b>	<b>58,151.04</b>	0.00	14,414.11	35,966.93	50,381.04	<b>2.60</b>
<b>UPPER RIO FELIX</b>	<b>2,280.39</b>	0.00	0.00	725.96	725.96	<b>0.96</b>
<b>ARTESIA AREA</b>	<b>50,181.34</b>		16,214.23	32,420.41	48,634.64	<b>2.91</b>
<b>LAKWOOD - SEVEN RIVERS</b>	<b>9,469.00</b>		5,682.37	6,831.63	12,514.00	<b>3.96</b>
<b>TOTAL ALL AREAS ( DOES NOT INCLUDE H.I.C.)</b>	<b>341,903.62</b>	<b>10,405.72</b>	<b>89,112.31</b>	<b>204,955.97</b>	<b>299,201.31</b>	<b>2.63</b>

## FY 2007 Roswell Watermaster Operating Budget

Employees:

David L. Thomas  
 Angela Molinar  
 Phillip Fields  
 Robert B. Todd  
 Mike Hunter

Object Code	Object Item	Amount
2031	Permanent Position F/T	202,800.00
2111	Group Insurance	26,600.00
2121	Retirement	33,700.00
2131	FICA	15,500.00
2141	Workers Compensation	0.00
2171	Retiree Health Care Act	2,600.00
2191	Other Employee Benefits	0.00
	Salaries and Benefits	281,200.00
4221	In-State Travel	200.00
4251	Gas & Oil	9,000.00
4281	State Transportation Pool	17,900.00
	In-State Travel	27,100.00
4321	Furniture Fixtures & Equipment	1,300.00
4382	IT Maintenance Rept.	1,900.00
	Maintenance & Repair	3,200.00
4411	Office Supplies	900.00
4441	Field Supplies	1,400.00
4491	Inventory Exempt	400.00
	Supplies	2,700.00
4571	ISD Services	0.00
4592	Printing & Photographic	100.00
4612	Postage & Mail Service	600.00
4642	Rent/Land & Building	17,900.00
4662	Telecommunications	2,500.00
4681	Employee Train & Educator	100.00
		21,200.00
4831	Data Processing	4,200.00
		4,200.00
	Grand Total	339,600.00

Roswell Basin Watermaster  
Expenditures For Calendar Year 2006  
January - December 2006

	January - June 2006	July - December 2006	Total
Salaries/Benefits	130,340.00	114,839.19	245,179.19
Travel	0.00	0.00	0.00
Vehicle Leases/Gasoline	16,639.46	11,646.09	28,285.55
Supplies - Office/Field Inv. Exempt	1,250.78	1,996.81	3,247.59
Postage & Mail/Printing	230.91	0.00	230.91
Rent	7,458.31	7,458.30	14,916.61
Telecommunications	1,457.88	1,770.78	3,228.66
Data Processing Equipment	740.85	4,091.56	4,832.41
<b>Total Expenditures</b>	<b>158,118.19</b>	<b>141,802.73</b>	<b>299,920.92</b>

## **SUMMARY**

*Metered use of water during 2006 resulted in an average use, for irrigation purposes, of 2.63 acre-feet per water right acre. The total quantity diverted for all uses was the thirty-third highest 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 satisfactorily.*