# A Report on Historical and Future Population Dynamics in New Mexico Water Planning Regions

**Population Estimates and Projections Program** 

**Bureau of Business and Economic Research** 

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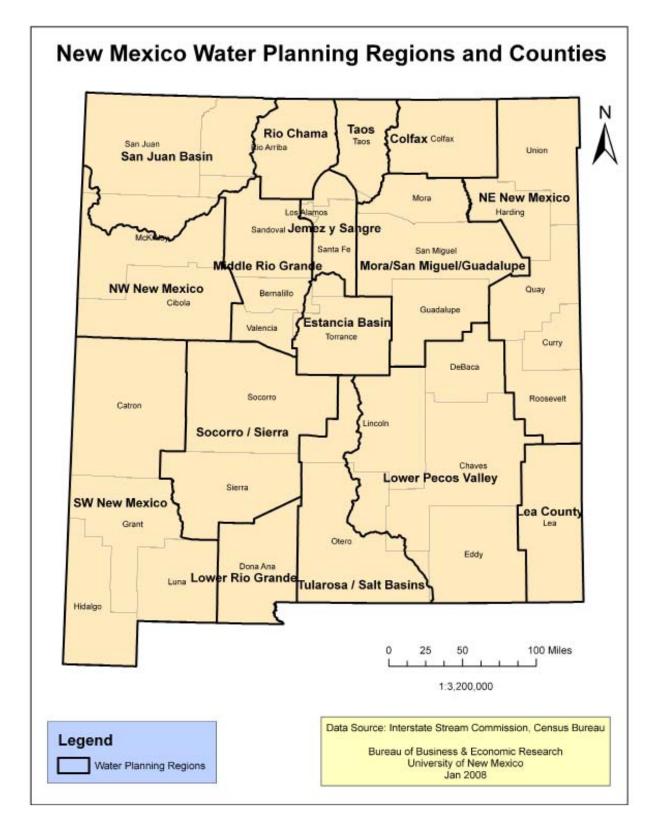
# **CHAPTER 1**

# **INTRODUCTION**

The New Mexico State Engineer's Office has defined sixteen Water Planning Regions within the State. This chapter outlines the historical 1990 to 2005 population and projected 2010 to 2060 populations for each of them. Map 1 outlines the boundaries of these regions in the context of the State and Counties. Alphabetically, they include:

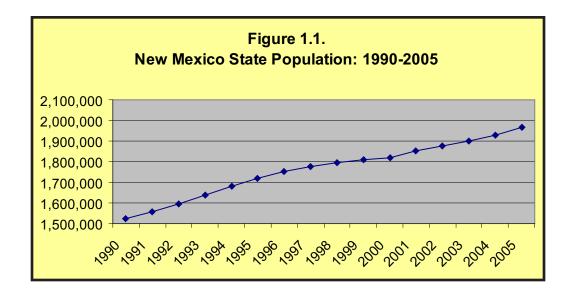
- 1. Colfax
- 2. Estancia Basin
- 3. Jemez y Sangre
- 4. Lea
- 5. Lower Pecos Valley
- 6. Lower Rio Grande
- 7. Middle Rio Grande
- 8. Northeast New Mexico
- 9. Northwest New Mexico
- 10. Rio Chama
- 11. San Juan
- 12. San Miguel/Mora/Guadalupe
- 13. Socorro/Sierra
- 14. Southwest New Mexico
- 15. Taos
- 16. Tularosa/Salt Basins

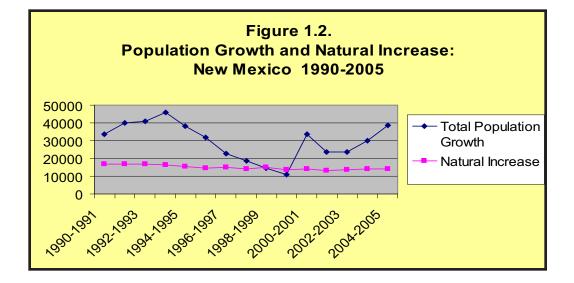
In many cases, Water Planning Regions are comprised of an entire County (such as the Colfax or Lea Regions) or Counties (as with the Northeast New Mexico Region). At other times, the populations of a single County are distributed across several Regions. This report reviews the 1990-2005 historical populations of the Water Planning Regions, then overviews projected trends in the Regional populations and their relative distribution within Counties for the 2005-2060 period. Throughout, the report pays particular attention to the components of demographic change—births, deaths, and migration—that contribute to population growth or decline (see Appendix 1).



Map 1. New Mexico Water Regions and Counties, 2008

At the 2000 Census, 1,819,046 persons were counted in New Mexico. This represented an increase across the 1990s of 303,997 persons. While growth appeared to be leveling off at the time of the 2000 Census (note the flattening line describing population in Figure 1.1 and its more rapid post-2000 increase), between 2001 and 2005, the New Mexico population growth rate increased significantly. The real historical impetus in New Mexico population dynamics has been migration. While natural increase (the difference between births, which add to the population increase fluctuated from year to year based on migration. Figure 1.2 describes this relationship in detail by contrasting natural increase with total population growth.





Economic trends have likely played a significant role in historical population dynamics in New Mexico. These effects are generated through migration; however, the relationships are complex and dynamic. What is clear is that while the early 1990s was characterized by job losses in Defense, high-tech Manufacturing, and Mining, these losses were offset by a peak in the mid 1990s in Trade, Services, Construction, Finance, and Manufacturing sectors. These increases appear to correspond roughly with population growth during this period, suggesting again the importance of migration in New Mexico's population trends. While both employment and population dipped again after 1995, substantial increases in employment in Tele-communications (primarily call centers) and Gaming during the latter part of the decade appear to have fueled population recovery lasting into the early years of the new Millennium. During the 2001-2005 period, sustained growth has been the defining characteristic of the New Mexico population.

Projections of these trends for the 2010 to 2060 period reveal an overall aging of the New Mexico population coupled with increasing concentration of the population into "centers" in the Albuquerque Metro area, Las Cruces, and Santa Fe. Notably, while the total New Mexico population is predicted to nearly double in size between 2005 and 2060, this spatial pattern of the population distribution will remain remarkably similar in spite of a slowing of population growth, especially after 2040. Only one Region, the Rio Chama will experience population loss over the projection period. Between 2005 and 2060, secondary population densities will accumulate in the San Juan, Lower Pecos Valley, and Northwest New Mexico Regions; however, as growth rates diminish in these areas over time, the relatively increased representation of these areas will wane over the 2020-2060 period. If historical patterns continue, growth will inevitably slow in New Mexico dramatically by 2060 as the population ages and migration slows.

The remainder of this report reviews the historical and future population dynamics of each Water Planning Region, describes the study methodologies in greater detail, and presents detailed data in appendices:

Chapter 2. Historical Population Dynamics By Water Planning Region Chapter 3. An Overview of Water Planning Region Size and Growth: 2005 to 2060

Chapter 4. Future Population Dynamics by Water Planning Region

Appendix 1. Study Methodology

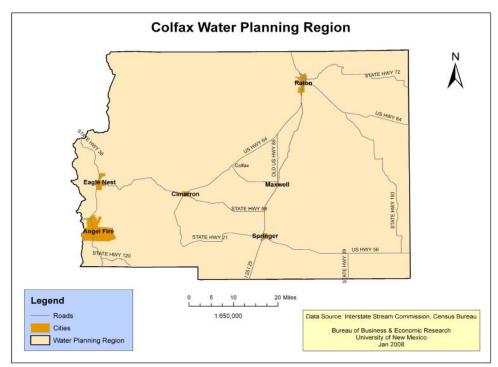
*Appendix 2. Projected County and Water Planning Region Populations: 2005-2060* 

*Appendix 3. Water Planning Region Population in County and Percent Distribution* 

# **CHAPTER 2**

# Historical Population Dynamics by Water Planning Region

This chapter reviews population trends by Water Planning Region for the 1990 to 2005 period. 1990 and 2000 population counts represent the April 01 decennial census counts, adjusted to Water Planning Region boundaries. The 2001 to 2005 July 1 population estimates represent the 2001 to 2005 BBER County estimates, adjusted to Water Planning Region boundaries (see Appendix 1).



### 2.1 Colfax Water Planning Region

Map 2.1 Colfax Water Planning Region, 2008

Situated in the extreme North of the State, Colfax County borders Colorado and comprises its own Water Planning Region. Its principal population center is Raton (Map 2.1), with a population of 14,375 in 2005. Historically, the chief economic influence has been coal mining. Table 2.1 outlines County population trends. The Colfax County population grew slowly but steadily during the 1990s, from 12,195 persons in 1990 to 14,189 persons in 2000. Though its growth slowed between 2000 and 2005 as natural increase turned negative, an additional 200 persons were added over this period, suggesting positive in-migration is occurring at very small but consistent levels. The permitting of 236 new single-family homes during this

period further suggests that growth in the Region has not stalled.

Table 2.1         Share of Region Population in County         Colfax Region				
Census/Estimate Year	County Population in Region			
	Total Region Population	Colfax		
1990	12,925	12,925		
2000	14,189	14,189		
2001	14,304	14,304		
2002	14,326 14,326			
2003	14,351	14,351		
2004	14,351	14,351		
2005	14,375	14,375		
Census/Estimate Year	Annual Growth Rate of Region			
	Total County	Colfax		
1990-2000	0.93	0.93		
2000-2005	0.26	0.26		

## 2.2 Estancia Basin Water Planning Region



Map 2.2 Estancia Basin Water Planning Region, 2008

The Estancia Basin Water Planning Region is comprised of Torrance County, the extreme Southeast of Bernalillo County, and a portion of the Southern end of Santa Fe County (Map 2.2). The principal population center of the Region is Edgewood (Santa Fe County), with 1,791 residents in 2005. Population trends are described in Table 2.2.

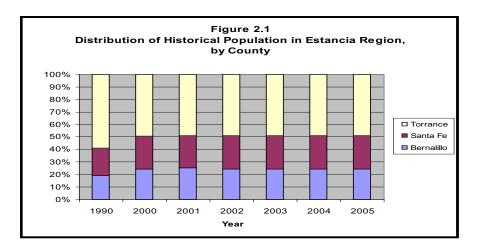
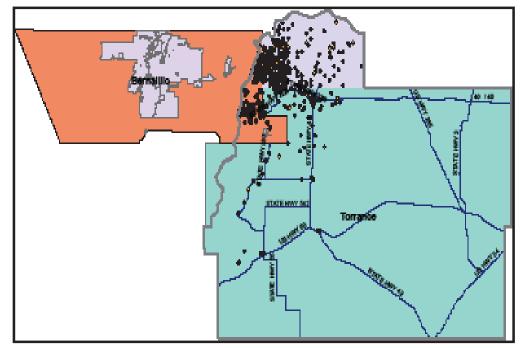


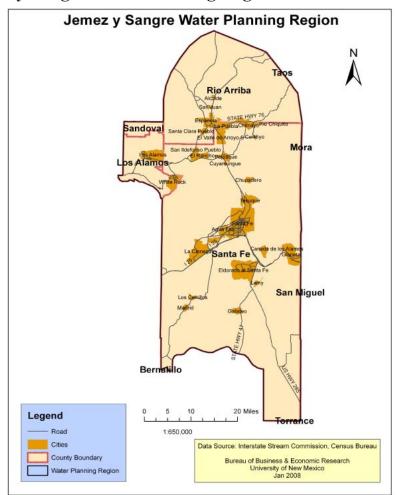
Table 2.2. Share of Region Population in County <i>Estancia Region</i>						
	Co	ounty Population	in Region			
Census/Estimate Year	Total Region Population	Bernalillo S		Torrance		
1990	17,535	3,361	3,889	10,285		
2000	32,064	2,851	12,471	16,742		
2001	32,643	2,908	12,730	17,005		
2002	33,233	2,966	12,995	17,272		
2003	33,833	33,833 3,025 13,265 17				
2004	34,445	34,445 3,085 13,541				
2005	35,069	3,147	13,823	18,099		
Census/Estimate Year	Distributio	on of County Po	pulation in Regio	n		
1990	100.0	19.2	22.2	58.7		
2000	100.0	8.9	38.9	52.1		
2005	100.0	9.0	39.4	51.6		
	Annual Growth	Rate of Region	and County Popu	lation		
Census/Estimate Year	Total Region Population	Bernalillo	Santa Fe	Torrance		
1990-2000	6.04	-1.65	11.65	4.87		
2000-2005	1.81	2.00	2.08	1.57		

The main determinant of population growth in the Region has been the construction of new residences, primarily for individuals commuting to urban areas such as Albuquerque or Santa Fe for work. This is reflected in Map 2.3, which documents building permit issuance between 1992 and 2005 in the Region. The trends are reflected in changes in the proportional contributions of each County to the Region over time. Historically, the majority of the Estancia Basin Region population has resided within Torrance County. Between 1990 and 2000, however, the portion of the Region found within Santa Fe County grew at a much faster rate than that of Torrance or Bernalillo, resulting in a shift in the proportional contribution of each County. In 1990, 58.7 percent of the Region's population was found in Torrance County and an additional 19.2% in Bernalillo County. In 2000, the Torrance County portion contributed only 52.2 percent of the Region's population; and this in spite of quite rapid growth of its own (4.87 percent per year). Bernalillo County's contribution shrank from 19.2 percent in 1990 to only 8.9 percent in 2000 as growth in that sub-County portion was actually negative (-1.65 percent per year). Between 1990 and 2000, the Santa Fe County portion of the Region grew at an unprecedented rate of 11.65 percent that when combined with the lesser growth in Torrance and negative growth in Bernalillo between 1990 and 2000 produced this noteworthy shift in the population distribution. By 2005, Santa Fe County contributed 39.4% of the Region's total population. (Figure 2.1).

The diminishing growth in the Region after Census 2000 may reflect a reduced preference of individuals for commuting to nearby urban centers or reductions in available land for development in the Region. While the overall Bernalillo and Santa Fe economies appeared strong to 2005, the Torrance County economy has seen a relatively small impact from either the growth of the 1990s or the subsequent, post-2000 slowing. Between 1990 and 2005, the majority of building permits issued in the Region have been in the East Mountains area of Bernalillo and Santa Fe Counties, in the vicinity of Sandia Park. Only scattered permits have ever been issued within outlying areas of Torrance County. While building has slowed, the economy has remained similar. This suggests that the population growth of the 1990s was fueled by suburban construction that is now slowing. Overall, growth in this Region slowed between 2000 and 2005 (from 6.04 percent per year from 1990 to 2000 to only 1.81 percent per year for the 2000 to 2005 period). Growth in the Santa Fe County portion decreased significantly, to 2.08 percent per year, but a noteworthy reversal of growth in the Bernalillo County portion was observed (from – 1.65 percent per year from 1990 to 2000 to 2.00 percent per year between 2000 and 2005). Torrance County growth slowed also, to 1.57 percent per year, suggesting that 2000 to 2005 growth continued to be concentrated primarily in the Santa Fe and Bernalillo County portions.



Map 2.3 Building Permits, Estancia Basin Planning Region, 1990 to 2005



2.3 Jemez y Sangre Water Planning Region

Map 2.4 Jemez y Sangre Water Planning Region, 2008

The Jemez y Sangre Water Planning Region occupies portions of four Counties: Santa Fe, Los Alamos, Sandoval, and Rio Arriba (Map 2.4). Santa Fe County is included entirely within this Region with the exception of its southernmost portion, which is within the Estancia Basin Region. Los Alamos County resides entirely within the Region and Sandoval County contributes only a small segment of the Jemez National Forest. Within Rio Arriba County, the important population center of Espanola (with 9,655 persons in 2005), as well as smaller centers such as San Juan Pueblo, Santa Clara Pueblo, and Chimayo are found within this Region. Strong and continued growth in Santa Fe County, coupled with diminished growth in the Rio Arriba and Los Alamos County segments between 2000 and 2005, has shifted the proportional contribution of Counties within the Region since 1990 (Figure 2.2). Santa Fe County now occupies a relatively greater position within the Region. Santa Fe County's growth rate between 1990 and 2000 was 1.66 percent, and accelerated between 2000 and 2005 to 2.08 percent per year. On the contrary, growth rates between 1990 and 2000 in the Rio Arriba County portion were 1.52 percent per year, but slowed to only 0.88 percent between 2000 and 2005. Population growth rates in

Los Alamos were slower in the 1990s (annual average rate was only 0.13 percent per year), accelerating to an annual average rate of 1.61 percent between 2000 and 2005. Due to the relatively small number of persons living in Los Alamos County relative to Santa Fe County, however, these processes had minimal impact upon the percentage of the Region's population in Los Alamos County (it showed no change from 2000). Diminished growth rates in Rio Arriba County led to a small decline in its proportional contribution to the Regional population (from 17.2 percent to 16.4 percent) between 2000 and 2005 (Table 2.3). Overall, the Santa Fe County population expansion likely came at the expense of growth in Rio Arriba County. Continuing trends toward downsizing the Los Alamos National Laboratory—the major economic force in the Region, employing approximately 9,000 persons—likely contributed to this stagnating growth in Rio Arriba County, from which many people commute to work. According to IRS records, during the 2000 to 2003 period, substantial out-migration was observed in this County as a whole, suggesting that residents may be exploring other economic opportunities.

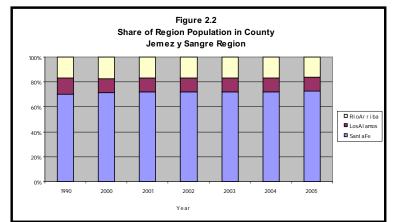
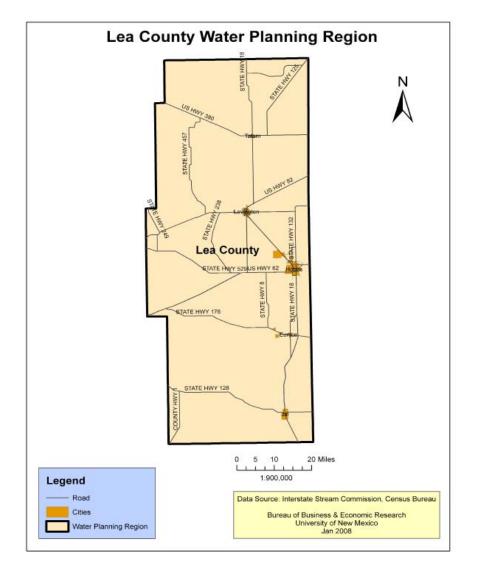


Table 2.3           Share of Region Population in County           Jemez y Sangre Region					
Census/Estimate		County Population	on in Region		
Year	Total Region Population	Santa Fe	Los Alamos	Rio Arriba	
1990	141,145	98,928	18,115	24,102	
2000	163,231	116,821	18,343	28,068	
2001	166,201	119,250	18,638	28,314	
2002	169,228	121,730	18,937	28,561	
2003	172,314	124,261	19,241	28,811	
2004	175,459	126,845	19,550	29,064	
2005	178,667	129,483	19,864	29,318	
Census/Estimate Year	Distribu	tion of County P	opulation in Regi	on	
1990	100.0	70.1	12.8	17.1	
2000	100.0	71.6	11.2	17.2	
2005	100.0	72.5	11.1	16.4	
Census/Estimate	Annual Growth Rate of Region and County Population				
Year	Total Region Population	Santa Fe	Los Alamos	Rio Arriba	
1990-2000	1.45	1.66	0.13	1.52	
2000-2005	1.82	2.08	1.61	0.88	

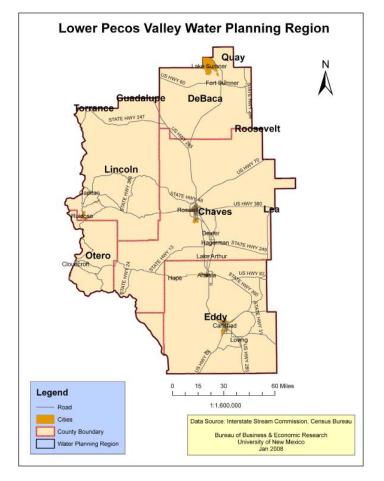


### 2.4 Lea County Water Planning Region

Map 2.5. Lea Water Planning Region, 2008

Lea County comprises its own Water Planning Region. Located in the extreme Southeastern corner of the state, its economy has been historically characterized by a dependence upon oil production. The "boom or bust" nature of the industry is mirrored in year-to-year fluctuations in both population and indicators of economic growth. Between 1990 and 2000, Lea County experienced very slow declines in population at an average annual rate of 0.05% (Table 2.4). Since 2000, this trend appears to have reversed, with the County enjoying steady average annual increases of 0.53%. This trend has been due to both positive net-migration (more in-migrants than out-migrants) and a very small but steady rate of natural increase. Population loss in the 1990s was a continuation of trends stemming from the 1970s when the oil and gas boom slowed in this Region. The population recovery now observed is likely linked to increased economic productivity in Lea County, of which mining (primarily oil production) has seen the greatest increase recently. Since 2002, the Lea County economy appears to have been recovering, with positive growth in gross receipts and the number of business establishments, and decreases in unemployment. Between 2004 and 2005, over 1,000 new mining sector jobs were added in the region. The principal obstacle to further short-term population growth in Lea County is available housing, but a marked increase in the issuance of building permits (from 17 in 2001 to 106 in 2005) has been observed recently. This may suggest that this limitation will be relaxed in the near future, promoting increased short-term population growth. Unless other industry sectors enter the Lea County economy in the near future, further population growth will continue to be tied to oil and natural gas extraction in the Region.

Table 2.4Share of Region Population in CountyLea Region				
Comous /Fatimata	County Popul	ation in Region		
Census/Estimate Year	Total Region Population	Lea		
1990	55,765	55,765		
2000	55,511	55,511		
2001	55,587	55,587		
2002	55,644	55,644		
2003	55,783	55,783		
2004	56,657	56,657		
2005	57,006	57,006		
	Annual Growth	n Rate of Region		
Census/Estimate Year	Total Region	Lea		
1990-2000	-0.05	-0.05		
2000-2005	0.53	0.53		



#### 2.5 Lower Pecos Valley Water Planning Region

Map 2.6 Lower Pecos Valley Water Planning Region, 2008

The Lower Pecos Valley Water Planning Region is comprised of the Counties of Chaves and De Baca, the vast majority of Eddy County, and large sections of Lincoln and rural Otero Counties. Table 2.5 and Figure 2.3 summarize the Region's population trends. Historically, the Chaves and Eddy County populations have contributed the largest share to the Region's population (Figure 2.3). Chaves County's growth rate was slow (0.43% per year) between 1990 and 2000, and decreased even further in the 2000 to 2005 period (0.27% per year). Eddy County's population growth mirrored that of Chaves (0.58% per year between 1990 and 2000, dropping to 0.20% per year between 2001 and 2005), maintaining an approximately stable proportional contribution of each County to the Region's population. Eddy County contributed 40% of the Water Planning Region population in 1990. By 2005, this number dropped to 37.9%. In contrast to Chaves and Eddy Counties, between 1990 and 2000, Lincoln and Otero Counties experienced more rapid growth. The Lincoln County population grew rapidly between 1990 and 2000 (3.98% average annually) with its contribution to the Region increasingly proportionally. Since that time, it has continued to grow at a slower rate (2.44% per year), contributing 13.0% of the Region's population

in 2005. Although Otero County has always contributed a smaller portion of the Region's population, its very rapid growth between 1990 and 2000 (9.87% per year) led to a 2.6 % increase in its proportional share between 1990 and 2005 (from 1.8% in 1990 to 4.4% by 2005). This occurred in spite of slowed growth since 2000 (0.54% per year).

Since 2002, economic indicators in Chaves County have improved, suggesting their sluggish growth could increase. Since 2003, Chaves County has also seen a marked increase in new residential construction, primarily around Roswell. Government, Health Care/Social Services, Retail Trade, and Agriculture continue to be the main employers in the County, with little recent growth in any sector except Construction, which added over 100 jobs between 2004 and 2005. These economic improvements correspond with population recovery beyond 2003. Fluctuations in population during the 1990s and early 2000s suggest these patterns may be cyclic within Chaves County, as has been observed in neighboring Lea county. While Chaves County enjoyed positive natural increase from 2000 to 2005, its population has grown slower than expected by around 1,000 persons,which may suggest that economic factors have led to fluctuating patterns of in and out-migration as a response.

In neighboring Eddy and Lincoln Counties, building permit issuance has been strong. Lincoln County continued to show very strong construction trends between 2000 and 2005, with a total of 1,071 building permits issued during this period. While its population has grown by 2.44% on average each year during that time, there are signs that this housing unit growth (and related population growth) may be slowing. Construction jobs decreased 19%, from 792 persons in 2004 to 642 in 2005. While building has remained strong in Lincoln County, it is necessary to remember that occupancy rates are historically low in the County since many of these homes are seasonally occupied. In Eddy County, building permit issuance increased markedly between 2000 and 2005 (from only 12 in 2000 to 68 in 2005 and a high of 77 in 2003), suggesting the possibility of continued growth in that County.

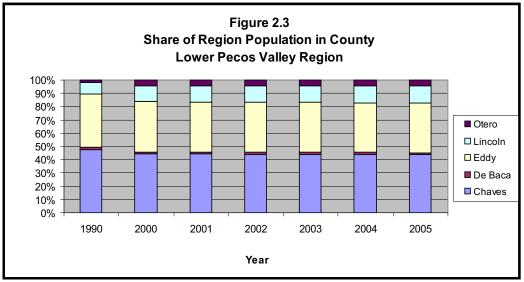
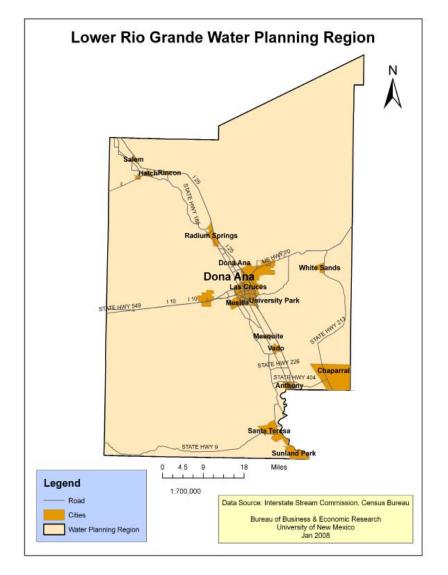


Table 2.5Share of Region Population in CountyLower Pecos Valley Region						
		Cοι	unty Populati	ion in Region		
Census/Estimate Year	Total Region Population	Chaves	De Baca	Eddy	Lincoln	Otero
1990	121,843	57,831	2,246	48,706	10,810	2,250
2000	136,382	60,374	2,240	51,636	16,096	6,035
2001	137,072	60,535	2,243	51,737	16,489	6,067
2002	137,773	60,696	2,246	51,839	16,891	6,100
2003	138,485	60,858	2,250	51,941	17,304	6,133
2004	139,207	61,020	2,253	52,043	17,726	6,166
2005	139,941	61,182	2,256	52,145	18,159	6,199
Census/Estimate Year		Distribution	n of County I	Population in	Region	
1990	100.0	47.5	1.8	40.0	8.9	1.8
2000	100.0	44.3	1.6	37.9	11.8	4.4
2005	100.0	43.7	1.6	37.3	13.0	4.4
	Ar	nual Growth I	Rate of Regio	on and Count	y Population	
Census/Estimate Year	Total Region Population	Chaves	De Baca	Eddy	Lincoln	Otero
1990-2000	1.13	0.43	-0.03	0.58	3.98	9.87
2000-2005	0.52	0.27	0.14	0.20	2.44	0.54

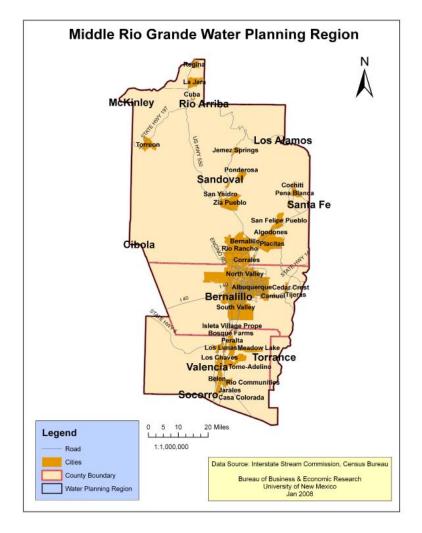


#### 2.6 Lower Rio Grande Water Planning Region

Map 2.7 Lower Rio Grande Water Planning Region, 2008

This Region is comprised solely of Dona Ana County (Map 2.7). Population growth around the Las Cruces metropolitan area dominates this region's historical and future trajectories. Between 1990 and 2005, the Dona Ana County population grew at an annual average rate of 2.54% per year. Between 2000 and 2005, population growth has slowed somewhat, to 1.96% per year, but appears to remain strong and consistently positive. These trends are summarized in Table 2.6. The observed population growth in the Region is linked to both natural increase and positive net-migration. Curiously, natural increase has actually out-weighed migration as a contributor to this growth (68.6% vs 31.31%). Strong migration from highly Hispanic areas such as Mexico and Texas has likely contributed to these high rates of fertility, which have occurred along with strong economic growth and residential building. According to the BBER- PEP's housing unit database, between 2000 and 2005 building permit issuance within Dona Ana County exceeded 8,500 permits, with amounts increasing every year except for 2004. 2005 saw a record number of permits in the County, 2,271 in all. Population growth in Dona Ana County has been strong and unabated since 1990, continuing to the present.

Table 2.6 Share of Region Population in County <i>Lower Rio Grande Region</i>					
	County Popula	ation in Region			
Census/Estimate Year	Total Region Population	Dona Ana			
1990	135,510	135,510			
2000	174,682	174,682			
2001	178,043	178,043			
2002	181,468	181,468			
2003	184,960	184,960			
2004	188,518	188,518			
2005	192,474	192,474			
Census/Estimate	Annual Growth Rate of Region and County Population				
Year	Total Region Population	Dona Ana			
1990-2000	2.54 2.54				
2000-2005	1.96	1.96			

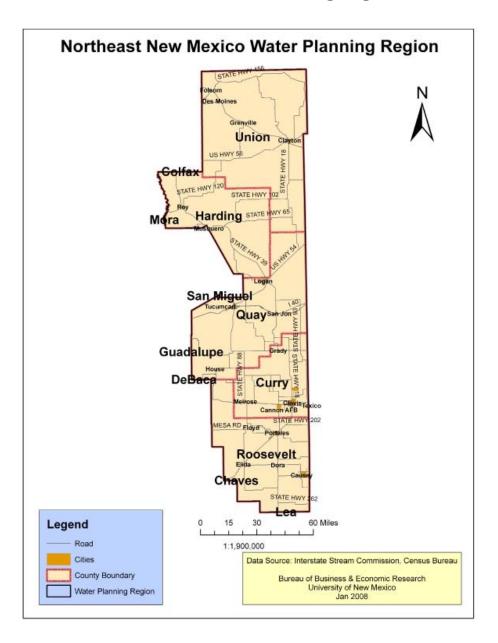


#### 2.7 Middle Rio Grande Water Planning Region

Map 2.8 Middle Rio Grande Water Planning Region, 2008

Due to the presence of the Albuquerque metro area, the Middle Rio Grande Water Planning Region is the most populated within the State and will continue to be so for quite some time. The Region is comprised of the vast majority of Bernalillo and Sandoval Counties, all of Valencia County, and a sliver of Torrance County. Albuquerque, Rio Rancho, Bernalillo, Los Lunas, Bosque Farms, and Isleta Pueblo all comprise population centers in the Region with deep history and continued, significant population growth. Suburban residential building in the East Mountain communities appears to be slowing (this is primarily in the Estancia Basin Water Region —see previous section) but planned developments taking place in Valencia County (such as the Huning Ranch) suggest further building outside of the Albuquerque metro area. Bernalillo County in general—and the City of Albuquerque in particular— continues to be the most significant contributor to the Region's population (Table 2.7).

Table 2.7         Share of Region Population in County         Middle Rio Grande Region							
	County Population in Region						
Census/Estimate Year	Total Region Population	Bernalillo	Sandoval	Valencia	Torrance		
1990	584,683	477,216	62,128	45,235	104		
1991	595,374	483,896	64,387	46,987	104		
1992	606,309	490,670	66,728	48,808	104		
1993	617,495	497,538	69,154	50,698	104		
1994	628,938	504,503	71,668	52,663	104		
1995	640,646	511,565	74,274	54,703	104		
1996	652,627	518,726	76,975	56,822	105		
1997	664,888	525,987	79,773	59,023	105		
1998	677,438	533,350	82,674	61,310	105		
1999	690,285	540,816	85,680	63,685	105		
2000	708,709	553,827	88,560	66,152	169		
2001	723,789	564,883	91,553	67,181	172		
2002	739,209	576,161	94,648	68,226	174		
2003	754,974	587,663	97,847	69,287	177		
2004	771,094	599,395	101,154	70,365	180		
2005	788,515	611,361	105,512	71,459	183		
Census/Estimate Year	Distri	ibution of Cou	unty Population	in Region			
1990	100.0	81.6	10.6	7.7	0.00		
2000	100.0	78.1	12.5	9.3	0.02		
2005	100.0	77.5	13.4	9.1	0.02		
	Annual Gr	owth Rate of	Region and Cou	nty Populati	on		
Census/Estimate Year	Total Region Population	Bernalillo	Sandoval	Valencia	Torrance		
1990-2000	1.92	1.49	3.54	3.80	4.86		
2000-2005	2.16	2.00	3.57	1.56	1.57		



#### 2.8 Northeast New Mexico Water Planning Region

Map 2.9 Northeast New Mexico Planning Region, 2008

The Northeast New Mexico Water Planning Region is comprised of the entire area of five of the easternmost Counties in New Mexico: Curry, Harding, Roosevelt, Union, and Quay (Map 2.9). These Counties are correlated by their slow, even negative, patterns of population growth. Table 2.8 and Figure 2.4 summarize these trends. Between 1990 and 2000, the average annual growth rate of the Region was 0.44 %, ranging from a low of -1.98 % for Harding County, to a high of 0.76 % for Roosevelt County. Between 2000 and 2005, overall growth in the Region increased, primarily due to modest increases in the growth rate of Roosevelt County

(from 0.76 percent per year in the 1990s to 0.82 percent per year between 2000 and 2005). Though the overall average increased to 0.52 percent per year for the Region during this period, the rate of growth in Curry County—the main contributor to the Region's population—reduced to only 0.55 percent per year.

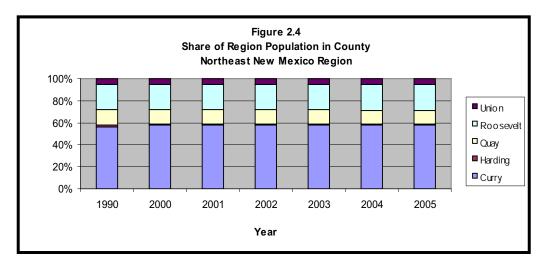


Table 2.8           Share of Region Population in County           Northeast New Mexico Region						
		Cou	nty Populatio	on in Regio	n	
Census/Estimate Year	Total Region Population	Curry	Harding	Quay	Roosevelt	Union
1990	74,843	42,207	987	10,823	16,702	4,124
2000	78,201	45,044	810	10,155	18,018	4,174
2001	78,727	45,267	809	10,220	18,252	4,179
2002	78,674	45,395	811	10,217	18,076	4,175
2003	79,121	45,609	805	10,174	18,293	4,240
2004	79,208	45,670	790	10,109	18,429	4,210
2005	80,259	46,289	778	10,106	18,771	4,315
Census/Estimate Year		Distribution	of County P	opulation i	n Region	
1990	100.0	56.4	1.3	14.5	22.3	5.5
2000	100.0	57.6	1.0	13.0	23.0	5.3
2005	100.0	57.7	1.0	12.6	23.4	5.4
	Aı	nnual Growth R	ate of Regio	n and Cour	ty Population	
Census/Estimate Year	Total Region Population	Curry	Harding	Quay	Roosevelt	Union
1990-2000	0.44	0.65	-1.98	-0.64	0.76	0.12
2000-2005	0.52	0.55	-0.80	-0.10	0.82	0.67

In spite of its slow growth overall, Curry County has recently shown signs of economic revitalization that could spur population growth. While the continued presence of Cannon Air Force Base, located outside of Clovis, lends some stability to the Curry County population, evidence of positive economic growth indicates potential for population growth. New residential construction permits have increased dramatically in Curry County, starting in 2002 with 135 permits, reaching a high of 281 in 2004, then falling to 158 in 2005. Between 2004 and 2005, employment in the Construction sector grew by over 10 percent, suggesting the short-term strength of this trend. Since population growth tracks housing units, it is clear that the Curry County population has potential for growth, at least over the short-term. The presence of Eastern New Mexico University provides stability to the Roosevelt County population as well, and it has grown slowly but steadily since 1990, at an annual rate of 0.76 percent per year between 1990 and 2000, and at an accelerated rate of 0.82 percent between 2000 and 2005. Recent economic growth in Roosevelt County has been inconsistent, however, with gross receipts income fluctuating and new job growth actually declining between 2001 and 2005. These patterns appear to be a continuation of long-term patterns of fluctuation in the Roosevelt County economy and suggest that this population is roughly stable. This is borne out by a reduction in construction jobs observed between 2004 and 2005, as well as a reduction in the number of building permits issued between 2004 and 2005 (from 57 in 2004 to 41 in 2005).

The results of these patterns for population growth in the Region are predictable and observed in the percent contributions reported in Figure 2.4. Curry County is both the largest numerical contributor to the Region's population and has experienced greater than average growth across the 1990 to 2005 period. As such, it has increased its proportional contribution to the Region's population from 56.4 percent in 1990 to 57.7 percent in 2005. While Roosevelt County grew faster during both between 1990 and 2000 (0.76 percent per year) and from 2000 to 2005 (0.82 percent per year), the large numerical difference between its total population and that of Curry has meant that its proportional contribution has risen only slightly over this period (from 22.3 percent in 1990 to 23.4 percent in 2005). These trends appear stable.



#### 2.9 Northwest New Mexico Water Planning Region

Map 2.10 Northwest New Mexico Planning Region, 2008

The Northwest New Mexico Water Planning Region is comprised of Cibola County, approximately eighty percent of McKinley County, and a significant portion of San Juan County. Table 2.9 and Figure 2.5 summarize population trends in the Region. McKinley County has been the major contributor to the Region's population between 1990 and 2005, due to large contributions of American Indian Reservations. A significant but smaller contribution has been made from Cibola County, while San Juan County has contributed a very small number of persons (less than 1.0 percent over the entire time period). Between 1990 and 2000, the McKinley County portion grew at a rate of 0.90 percent per year, while Cibola County's portion increased annually at a rate of 0.73 percent. These trends resulted in a slightly increasing proportional contribution of McKinley County, from 67.3 percent in 1990 to 67.6 in 2000. Between 2000 and 2005, however, Cibola County grew at a much faster rate (2.18 percent per year) than the McKinley County portion (0.85 percent per year), resulting in an up-shift in Cibola County's contribution from 31.7 percent in 2000 to 33.1 percent in 2005.

This shift of the Region's population toward Cibola County appears to have resulted largely from in-migration. While McKinley County's rates of birth and death appear fairly constant for the 1990 to 2000 and 2000 to 2005 periods, Cibola County has experienced increasing deaths and decreasing births (which would result in lowered natural increase) for the entire 1990 to 2005 periods. Since the population is clearly growing, by necessity the increases result from in-migration. Reductions in McKinley County may reflect an increasing tendency of families to leave the County over the 2000 to 2005 period. IRS tax return data for the period tend to support this scenario in McKinley County and may suggest movement into neighboring San Juan County over this period.

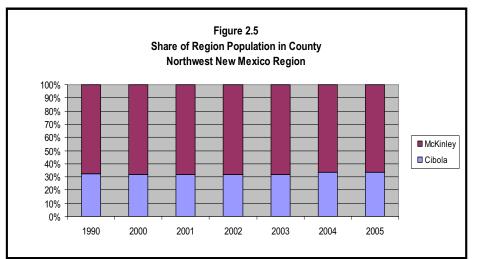
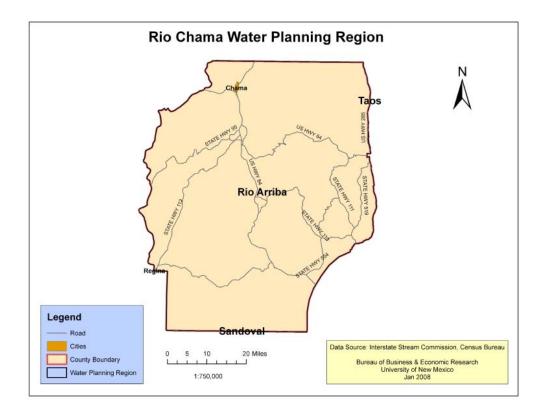


Table 2.9 Share of Region Population in County Northwest New Mexico Region						
	С	ounty Populati	on in Region			
Census/Estimate Year	Total Region Population	Cibola	McKinley	San Juan		
1990	74,305	23,794	50,019	492		
2000	80,885	25,595	54,712	578		
2001	81,628	25,865	55,174	589		
2002	82,381	26,140	55,641	600		
2003	83,220	26,498	56,111	612		
2004	85,486	28,278	56,585	623		
2005	86,204	28,506	57,063	635		
Census/Estimate Year	Distribut	ion of County F	Population in Re	egion		
1990	100.0	32.0	67.3	0.7		
2000	100.0	31.7	67.6	0.7		
2005	100.0	33.1	66.2	0.7		
	Annual Growt	h Rate of Regio	on and County F	Population		
Census/Estimate Year	Total Region Population	Cibola	McKinley	San Juan		
1990-2000	0.85	0.73	0.90	1.61		
2000-2005	1.28	2.18	0.85	1.90		

#### 2.10 Rio Chama Water Planning Region



Map 2.11 Rio Chama Planning Region, 2008

Historically, the Rio Chama Water Planning Region has been the smallest in the State. Comprised only of a rural fraction of Rio Arriba County that is covered in large part by the Carson and Santa Fe National Forests, the Region is sparsely inhabited within small communities such as Abiquiu, Chama, El Rito, El Vado, and a portion of the Santa Clara Indian Reservation. Table 2.10 presents the population trends for the Region, and indicates positive, but diminishing growth between 1990 and 2005. Between 1990 and 2000, the Rio Chama Region population grew at an average annual rate of 1.58 percent. This rate diminished between 2000 and 2005 to only 0.88 percent. Natural increase has been slightly positive over the 1990 to 2005 period and net-migration has contributed significantly to the County population, mostly due to retirement and amenity migration located within the Chama area. Additionally, a moderate amount of construction in the Southeast corner of the Region has occurred during this time, perhaps due to increased demand by commuters to the Santa Fe job market. The main employer in the Region has been the Los Alamos National Laboratory. Its presence, and contribution of some 9,000 jobs to the surrounding area, explains in large part why the Rio Arriba County population, and the portion contained by the Rio Chama Region, has continued to be populated—and to even grow at particular points in time-during a period where similarly rural Counties in the State have

suffered either very limited growth or actual declines. In spite of this overall historical trend, recent observations of substantial out-migration from the County suggest (see discussion of Jemez y Sangre Region below) that the Region may soon be experiencing decline.

Table 2.10 Share of Region Population in County Rio Chama Region					
	County Popula	ation in Region			
Census/Estimate Year	Total Region Population	Rio Arriba			
1990	6,832	6,832			
2000	8,000	8,000			
2001	8,089	8,089			
2002	8,112	8,112			
2003	8,140	8,140			
2004	8,180	8,180			
2005	8,356	8,356			
	Annual Growth	Rate of Region			
Census/Estimate Year	Total County	Rio Arriba			
1990-2000	1.58	1.58			
2000-2005	0.88	0.88			

#### 2.11 San Juan Basin Water Planning Region



Map 2.12 San Juan Water Planning Region, 2008

The San Juan Water Planning Region draws upon the populations of San Juan, McKinley, Rio Arriba, and Sandoval Counties (Map 2.12). Historically, San Juan County has always been the major contributor of population to the Region, ranging from 85.7 percent in 1990 to 81.8 percent in 2005 (Table 2.11, Figure 2.6). San Juan County's continued strong positive growth (2.17 percent per year between 1990 and 2000 and 2.06 percent per year between 2000 and 2005), coupled with McKinley County's diminished growth in the Region since 2000, has enhanced this pattern. Sandoval County has always contributed minimally to this Region's population. The Region has been characterized by expansion and contraction, resulting from its economic dependence upon mining and oil production. A positive economic growth trend, continuing from the mid-1990s, has probably contributed to the continued population growth of San Juan County and Region. Residential construction has increased dramatically during the period between 2002 and 2005, at which time it peaked at 427 new residential permits. This building appears to have been concentrated in the Farmington metro area, but also including outlying communities such as Aztec and Bloomfield. In addition to potential migration suggested by the current building trends, natural increase has also remained strongly positive within San Juan County, perhaps due to the relatively higher fertility levels experienced by American Indian populations in the area.

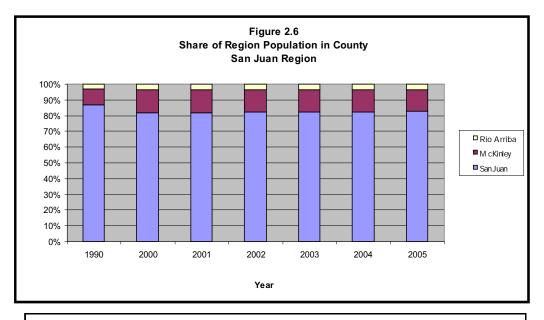
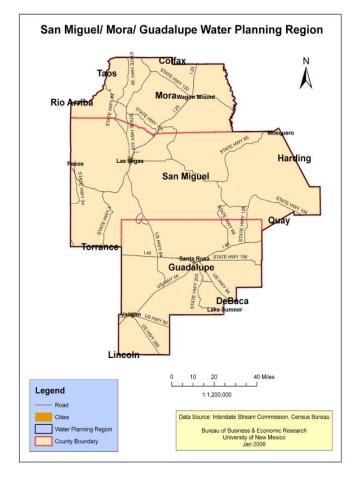


Table 2.11 Share of Region Population in County <i>San Juan Region</i>						
		County F	Population in	Region		
Census/Estimate Year	Total Region Population	San Juan	McKinley	Rio Arriba	Sandoval	
1990	106,373	91,113	10,667	3,402	1,191	
2000	139,770	113,223	20,086	5,112	1,348	
2001	142,361	115,555	20,256	5,157	1,394	
2002	145,005	117,935	20,427	5,202	1,441	
2003	147,701	120,364	20,600	5,248	1,490	
2004	150,451	122,843	20,774	5,294	1,540	
2005	153,255	125,373	20,950	5,340	1,592	
Census/Estimate Year	Dis	tribution of C	County Popul	ation in Regi	on	
1990	100.0	85.7	10.0	3.2	1.1	
2000	100.0	81.0	14.4	3.7	1.0	
2005	100.0	81.8	13.7	3.5	1.0	
Census/Estimate	Annual Growth Rate of Region and County Population					
Year	Total Region Population	San Juan	McKinley	Rio Arriba	Sandoval	
1990-2000	2.73	2.17	6.33	4.07	1.24	
2000-2005	1.86	2.06	0.85	0.88	3.38	



### 2.12 San Miguel/ Mora/ Guadalupe Water Planning Region

Map 2.13 San Miguel/Mora/Guadalupe Water Planning Region, 2007

The San Miguel/Mora/Guadalupe Water Planning Region encompasses three Counties from which its name is derived (Map 2.13). The proportional contribution of each of these Counties has remained approximately stable over the entire 1990 to 2005 periods (Figure 2.7, Table 2.12). Over this period, San Miguel County has contributed approximately 75.0 percent, with Mora contributing between 12.5 and 13.1 percent and Guadalupe's contribution shrinking slightly from 12.1 and 11.6 percent. This stability is largely related to the overall magnitude of San Miguel County's contribution as annual growth rates have varied between the Counties. The growth rate of each County has shrunk between 2000 to 2005 from the 1990 to 2000 period. The growth rate of San Miguel County fell from 1.54 percent per year between 1990 and 2000 to just 0.39 percent per year for 2000 to 2005. Guadalupe fell from 1.19 to 0.27 percent per year over the same period, while Mora County's growth rates slowed nearly a percent as well, from 1.95 percent to 0.98 percent per year. The outcome of these trends is an overall stability in the proportional contributions of each County to the Region's population that, given the presence of New Mexico Highlands University in Las Vegas (San Miguel County) is likely to continue.

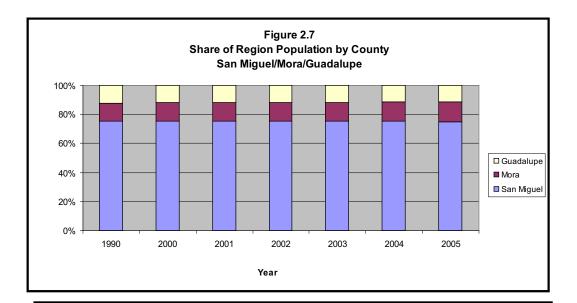
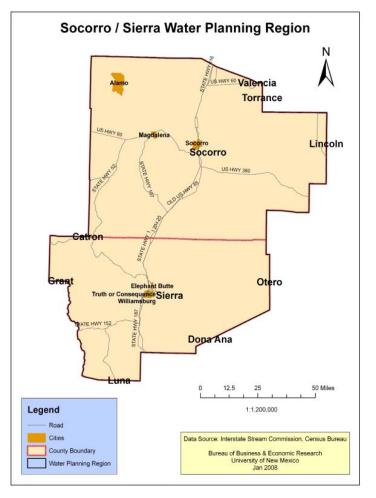


Table 2.12
Share of Region Population in County
San Miguel/Mora/Guadalupe Region

	County Population in Region				
Census/Estimate Year	Total Region Population	San Miguel	Mora	Guadalupe	
1990	34,240	25,820	4,264	4,156	
2000	39,986	30,126	5,180	4,680	
2001	40,290	30,337	5,231	4,722	
2002	40,509	30,497	5,282	4,730	
2003	40,625	30,561	5,334	4,730	
2004	40,718	30,606	5,387	4,725	
2005	40,902	30,719	5,440	4,743	
Census/Estimate Year	Distribution of County Population in Region				
1990	100.0	75.4	12.5	12.1	
2000	100.0	75.3	13.0	11.7	
2005	100.0	75.1	13.3	11.6	
Census/Estimate Year	Annual Growth Rate of Region and County Population				
	Total Region Population	San Miguel	Mora	Guadalupe	
1990-2000	1.55	1.54	1.95	1.19	
2000-2005	0.45	0.39	0.98	0.27	



#### 2.13 Socorro/ Sierra Water Planning Region

Map 2.14 Socorro/Sierra Water Planning Region, 2008

The Socorro/Sierra Water Planning Region consists of the entire land-mass of Socorro and Sierra Counties (Map 2.14). The New Mexico Technical Institute resides in the City of Socorro—the major population center— and the County is also home to the National Radio Astronomy Observatory. These institutions provide stability to this County's population, which grew rapidly at an average annual rate of 2.03 percent between 1990 and 2000, then much more slowly between 2000 and 2005 at a rate of 0.48 percent per year. In contrast, Sierra County has been primarily a retirement destination. Sierra County grew rapidly between 1990 and 2000 within the Region, at a rate of 2.80 percent per year; however, between 2000 and 2005 its growth rate slowed considerably, to only 0.58 percent per year. Overall, the similarly rapid growth rates of the 1990s, coupled with the similarly slowed rates between 2000 and 2005 (Table 2.13) left the relative contribution of each County to the overall Regional population essentially unchanged between 1990 and 2005 (Figure 2.8).

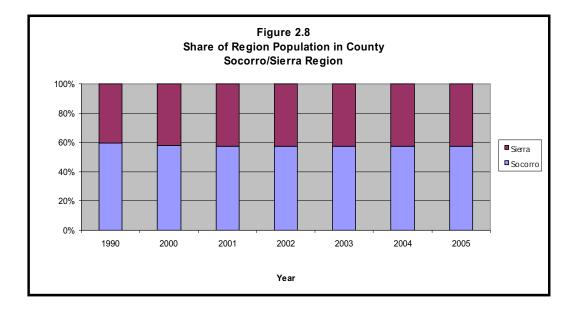
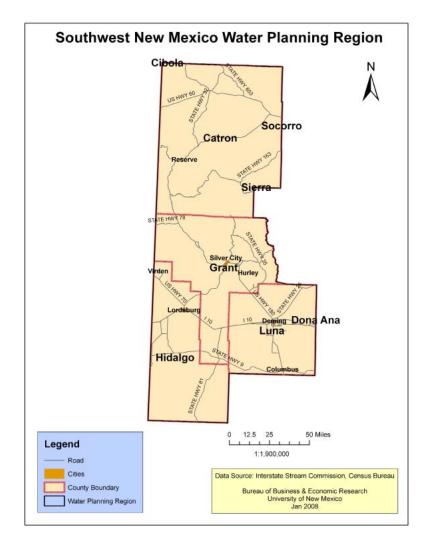


Table 2.13 Share of Region Population in County Socorro/Sierra Region						
	County Population in Region					
Census/Estimate Year	Total Region Population	Socorro	Sierra			
1990	24,794	14,764	10,030			
2000	31,348	18,078	13,270			
2001	31,861	18,276	13,585			
2002	31,959	18,321	13,638			
2003	32,014	18,362	13,652			
2004	32,036	18,389	13,647			
2005	32,170	18,513	13,657			
Census/Estimate Year	Distribution of County Population in Region					
1990	100.0	59.6	40.4			
2000	100.0	57.7	42.3			
2005	100.0	57.5	42.5			
Census/Estimate Year	Annual Growth Rate of Region and County Population					
	Total Region Population	Socorro	Sierra			
1990-2000	2.35	2.03	2.80			
2000-2005	0.52	0.48	0.58			

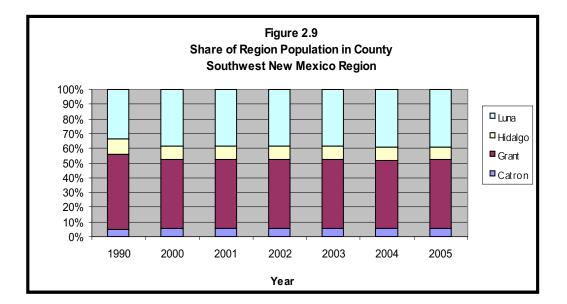


#### 2.14 Southwest New Mexico Water Planning Region

Map 2.15 Southwest New Mexico Water Planning Region, 2008

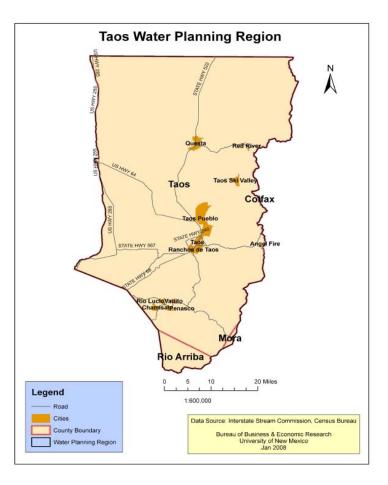
The Southwest New Mexico Water Planning Region encompasses several Counties in entirety (Map 2.15). Catron, Grant, Luna, and Hidalgo Counties all contribute their entire population to the Region. In the 1990s, growth was strong throughout the Region (Table 2.14), fueled primarily by migration. In Luna County, the city of Columbus has historically been a popular destination of Mexican families with school-aged children. Conversely, the city of Deming has typically drawn elderly retirees. The presence of Western New Mexico University in Silver City has made Grant County a destination of young adult migrants. Between 2000 and 2005, this growth trend slowed considerably. Between 1990 and 2000, the overall Regional growth rate was 1.87 percent, driven by high rates in Catron (3.24 percent annually) and Luna Counties (3.23 percent annually). Hidalgo County has remained remarkably stationary over the 1990 to 2005 period, while Grant County displayed a similar trend to that observed in Grant and Luna Counties, but at a smaller magnitude. The growth rate in this County was 1.13 percent per year in the 1990s, but fell to only 0.33 percent between 2000 and 2005. Luna County's annual growth rate also diminished between 2000 and 2005, slowing to 1.08. Mixed indicators of economic growth in Catron County indicate that increases in growth rate may be observed in the short-term. In 2005, a nearly five-fold increase in new residential building permit issuance was observed (from 10 in 2004 to 48 in 2005). An even more profound increase in building permit issuance in Luna County was observed, with new residential permits increasing from only 6 in 2004 to 120 in 2005.

While not as marked, Grant County did log some 100 permits between 2000 and 2005. Conversely, residential permit issuance in Hidalgo was near zero, indicating little potential population growth over the short term. These results indicate that population growth is occurring at low levels in the Region, with differential building occurring in each of the Counties. The proportional contribution of the Counties to the Regional population reflects this (Figure 2.9), as Luna County continues to increase its proportional representation while the Grant County remains a strong contributor as well. Overall, Luna County shows a strong trend toward added construction between 2004 and 2005—adding 408 construction-industry jobs between 2004 and 2005. If this trend continues, it will eventually replace Grant County as the main contributor to the population. Historically, Catron County population growth rate has fluctuated over time, suggesting the recent building permit boom may be episodic, perhaps occurring to accommodate seasonal occupation or second homes.



Sr	Table 2.14 Share of Region Population in County Southwest New Mexico Region												
Census/Estimate		County Po	opulation in	Region									
Year	Total Region Population	Catron	Grant	Hidalgo	Luna								
1990	54,307	2,563	27,676	5,958	18,110								
2000	65,493	3,543	31,002	5,932	25,016								
2001	66,124	3,589	31,191	5,919	25,425								
2002	66,294	3,595	31,232 31,300	5,913 5,903	25,554 25,766								
2003	66,564	3,595											
2004	67,248	3,643	31,337	5,918	26,350								
2005	67,583	3,712	31,511	5,966	26,394								
Census/Estimate Year	Distri	bution of Co	ounty Popula	ation in Regi	on								
1990	100.0	4.7	51.0	11.0	33.3								
2000	100.0	5.4	47.3	9.1	38.2								
2005	100.0	5.5	46.6	8.8	39.1								
	Annual Gro	owth Rate of	Region and	County Po	oulation								
Census/Estimate Year	Total Region Population	Catron	Grant	Hidalgo	Luna								
1990-2000	1.87	1.87 3.24 1.13 -0.04 3.2											
2000-2005	0.63	0.94	0.33	0.11	1.08								

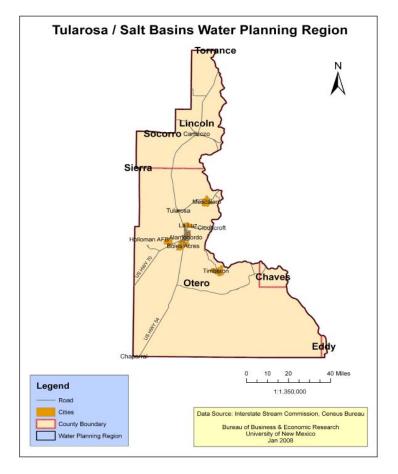
#### 2.15 Taos Water Planning Region



#### Map 2.16 Taos Water Planning Region, 2008

The Taos Water Planning Region encompasses Taos County in its entirety, as well as very small portions of Rio Arriba and Mora Counties (Map 2.16). Over 99 percent of the population of the Region is derived from Taos County (Table 2.15). Rio Arriba and Mora Counties have contributed a small proportion of the total Regional population historically. Strong, but diminishing rates of growth have characterized Taos County. It increased by 2.60 percent per year in the 1990s, then by 1.27 percent annually from 2000 to 2005. The majority of the 1990 to 2000 growth was driven by in-migration of older, wealthy individuals between 45 and 64 years of age. Strong economic growth continues in the Region, including a steady influx of new residential construction and accompanying jobs. Births remained notably stable over the period, while deaths increased steadily. Internal Revenue Service data on migration suggests that in-migration outweighed out-migration within the Region and appears to correspond to construction trends. These in-migrants are primarily older individuals and have had relatively small secondary effect on population growth rates since they tend to have fewer dependents.

Table 2.15         Share of Region Population in County         Taos Region											
	County Po	pulation in F	Region								
Census/Estimate Year	Total Region Population	Taos	Rio Arriba								
1990	23,128	23,118	10								
2000	29,989	29,979	10								
2001	30,392	30,382	10								
2002	30,880	30,870	10								
2003	31,311	31,301	10								
2004	31,566	31,556	10								
2005	31,941	31,931	10								
Census/Estimate Year	Distribution of County Population in Region										
1990	100.0	99.8	0.20								
2000	100.0	99.97	0.03								
2005	100.0	99.97	0.03								
	Annual Grow Coun	th Rate of Re ity Populatio	-								
Census/Estimate Year	Total Region Population	Taos	Rio Arriba								
1990-2000	2.60	2.60	0.00								
2000-2005	1.27	1.27	0.00								



#### 2.16 Tularosa / Salt Basins Water Planning Region

Map 2.17 Tularosa/Salt Basins Water Planning Region, 2008

With only minor contributions of population from Lincoln, Eddy, and Chaves Counties, Otero County has been-and and will continue to be-the primary contributor to the Tularosa/Salt Basins Water Planning Region population (Map 2.17, Table 2.16, Figure 2.10). While the portion of Lincoln County within the Region increased rapidly (average annual growth rate of 8.57 percent from 1990 to 2000 and 2.44 percent from 2000 to 2005) over the entire period, the Otero County population contributes 92.4 percent of the population in 2005. With a large population center in Alamogordo and a substantial population at nearby Holloman Air Force Base, the Region appeared to reach a degree of population stability, growing at an annual rate of 1.70 percent between 1990 and 2000 and 0.64 percent per year between 2000 and 2005. Strong construction trends centered around Alamogordo (354 building permits were issued in 2005 in Otero County), coupled with strong growth in employment (especially within Construction) has fueled recent growth. A major historical contributor to Otero County trends in population growth has been military spending. Ultimately, growth within the Region will likely continue to be tied to this economic input.

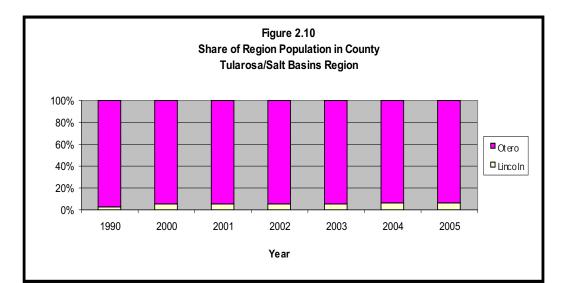


	Table 2.16 Share of Region Population in County <i>Tularosa/Salt Basins Region</i>												
	County Population in Region												
Census/Estimate Year	Total Region Population	Chaves	Eddy	Lincoln	Otero								
1990	51,114	18	11	1,407	49,678								
2000	60,608	1,008	22	3,315	56,263								
2001	60,994	1,011	22	3,396	56,566								
2002	61,385	1,013	22	3,479	56,871								
2003	61,778	1,016	22	3,563 3,650	57,177								
2004	62,176	1,018	22		57,485								
2005	62,577	1,021	22	3,739	57,795								
Census/Estimate Year	Distri	bution of Cour	nty Populat	ion in Regio	n								
1990	100.0	0.04	0.02	2.75	97.20								
2000	100.0	1.70	0.04	5.50	92.80								
2005	100.0	1.60	0.04	6.00	92.40								
	Annual Gro	owth Rate of R	egion and (	County Popu	ulation								
Census/Estimate Year	Total Region Population	Chaves	Eddy	Lincoln	Otero								
1990-2000	1.70	40.25	6.93	8.57	1.24								
2000-2005	0.64	0.27	0.20	2.44	0.54								

### **CHAPTER 3**

# AN OVERVIEW OF WATER PLANNING REGION POPULATION SIZE AND GROWTH: 2005-2060

This chapter presents the results of population projections for each County and Water Planning Region within the State for the period between 2005 and 2060. Using maps and tables as visual aids, the chapter will track population growth throughout the different geographies while identifying the relative roles of the various Water Planning Regions as future population centers within the State. Throughout, it should be remembered that the trends projected here are continuations of historical trends observed over the recent past in New Mexico. As such, these projections differ from forecasts—which seek to explicitly predict population at some time in the future. Forecasts typically are quite inaccurate over the long time periods associated with this report. Population projections are not only more accurate over long time periods, but are also considered to be more useful for planning because they point out the inevitable consequence of continuing historical trends. As such, they allow targeted interventions based on historical trends rather than an oversimplified or unrealistic view of a future that may change as new economic, social, or geographic developments occur.

Regional population maps are presented for the projection period, displaying projected population using color variation. Lighter colors represent fewer people while a greater total population is represented by increasingly dark color. The scale is based upon quantiles (division of the range of the population numbers into five equal parts), representing the relative magnitude of each Region's contribution to the State population as a whole. The maps are presented in ten-year intervals, depicting the total population and portraying increasing concentration of the New Mexico population into specific Water Planning Regions. A second set of maps depicting the average annual growth rates for each Water Planning Region at ten-year intervals is presented to place the total population growth in the context of long-term trends in the relative growth of the different Regions. Tables presenting total Water Planning Region population, County shares of each Water Planning Region, and the projected age-structure of each Water Planning Region follow in Chapter 4 to complete this report's overview of future New Mexico and Water Planning Region population trends.

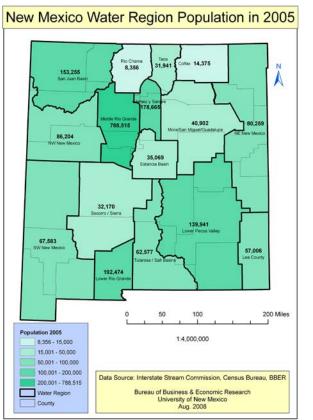
#### New Mexico Projected Population Dynamics: Overall Trends and Region-Specific Population Centers

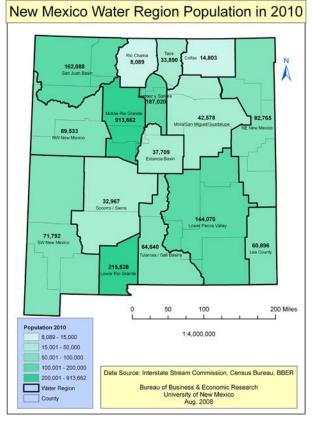
Population growth is dictated by the underlying processes of births, deaths, and migration, demographic events that are patterned across age intervals, over time, and in space. Population differences in the rates of these events drive differences in growth across the Water Planning Regions. Between 2005 and 2010, the two fastest growing regions will all exceed two percent average annual population

growth—from a high of 2.91 percent in the Middle Rio Grande Region to the lower rate of 2.21 percent in the Lower Rio Grande Region. This increase will be fueled by positive net migration, which will drive increases in the population over the projection period. Over time, however, in-migration must slow resulting in a generally diminished rate of increase in these populations between 2010 and 2060. While growth rates in these centers will diminish, it will remain positive and at the highest levels in the State to 2060. Meanwhile, the rate of growth will increase in other Regions, such as the Southwest New Mexico and Lower Pecos Valley, whose growth rates will become similar over the projection period to those observed in the Middle and Lower Rio Grande Regions.

In 2005, the New Mexico population is characterized by concentrations around the Rio Grande. While the entire State will nearly double in population size, this picture of the relative distribution of populations will change only slightly. What will be different, however, is the magnitude of population in outlying areas. Between 2005 and 2060, the New Mexico population will grow from 1,968,353 persons to 3,681,922. The majority of this growth is expected to center around the Counties of Bernalillo, Dona Ana, and Santa Fe. As a result, an overriding conclusion of this report is that if historical trends continue, the New Mexico population between 2005 and 2060 will become increasingly concentrated in the Middle Rio Grande, Lower Rio Grande, and Jemez y Sangre Water Planning Regions. This will result from continued growth in the Albuquerque Metro area and the Cities of Las Cruces and Santa Fe. Secondary densities will accumulate in the San Juan, Lower Pecos Valley, and Northwest New Mexico Regions between 2005 and 2020 but as growth rates in these regions begin to diminish, these centers will wane in their relative contribution between 2020-2060, leaving the majority concentration of the State's population—as originally observed-within the Middle and Lower Rio Grande and Jemez y Sangre Regions. Of these Regions, the Middle Rio Grande Region will continue to dominate the population of the State, growing from 781,777 persons in 2005 to a high of 1,952,232 persons in 2060. Meanwhile, while in 2005 only five Regions exceeded 100,000 persons (Middle Rio Grande, Lower Rio Grande, San JuanBasin, Jemez y Sangre, and Lower Pecos Valley), in 2060 seven Regions will comprise more than 100,000 persons (Middle Rio Grande, Lower Rio Grande, Jemez y Sangre, Lower Pecos Valley, San Juan, NW New Mexico, and Southwest New Mexico) and one other (Northeast New Mexico) will be approaching this level. Only one Region, the Rio Chama, will experience population loss over the projection period. The Rio Chama Region is projected to lose population for the entire projection period.

# Water Region population July 1,2005 to July 1, 2060





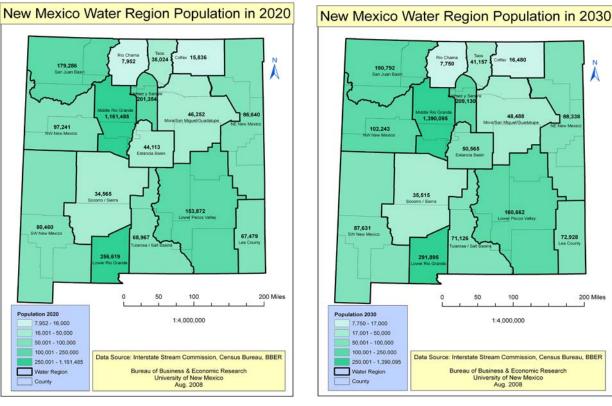
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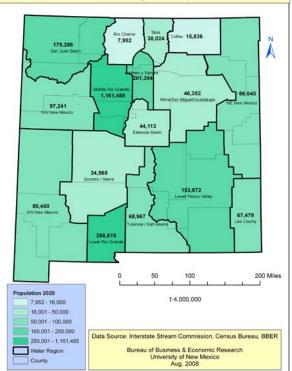
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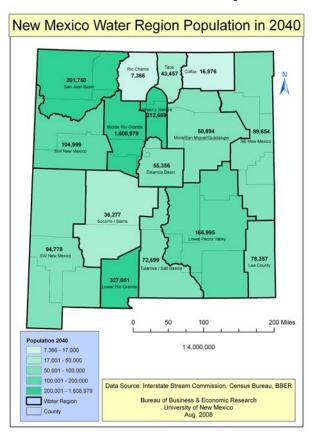
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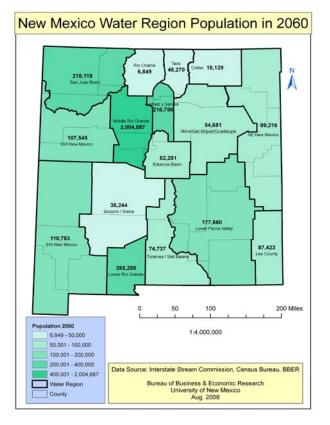
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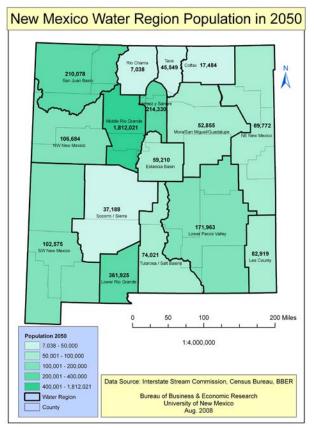




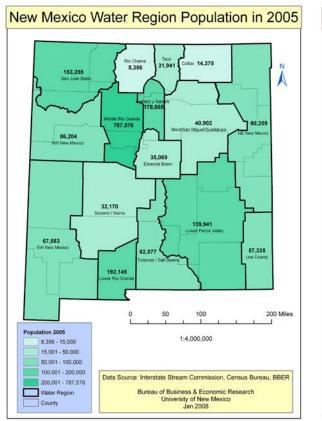
# Water Region population July 1,2005 to July 1, 2060

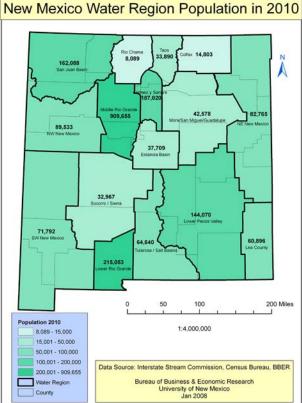


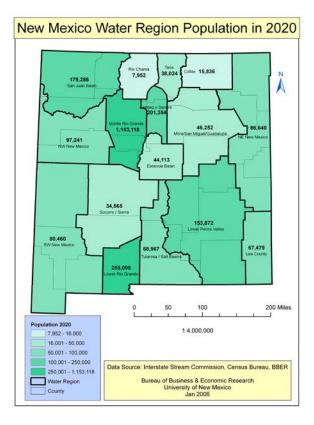


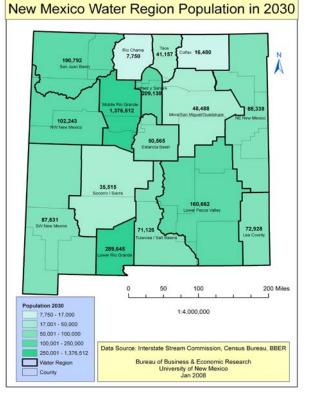


# Water Region population July 1,2005 to July 1, 2060

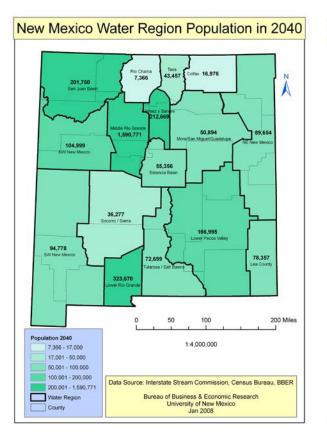


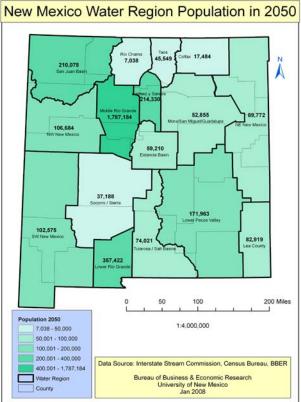


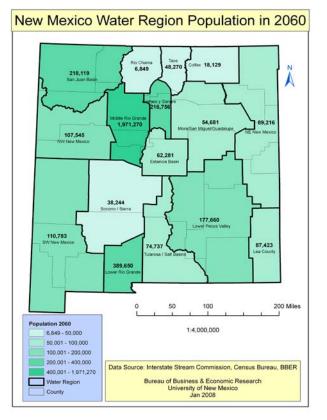




# Water Region population July 1,2005 to July 1, 2060







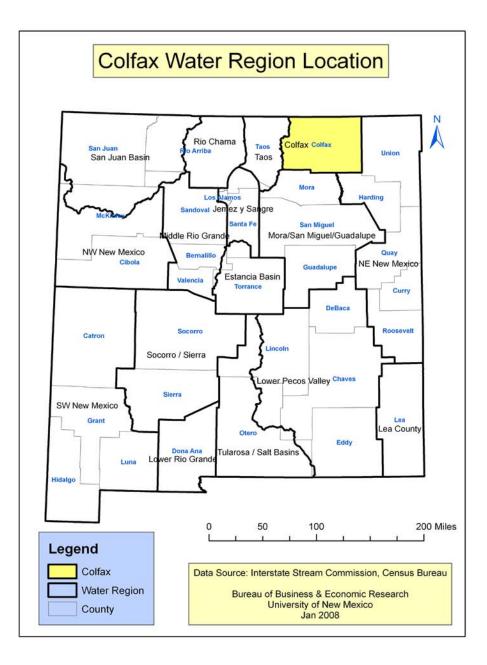
### **CHAPTER 4**

# Future Population Dynamics by Water Planning Region

This chapter reviews the 2005-2060 population projections for each Water Planning Region in further detail, focusing upon a description of anticipated trends in rates of births, deaths, and migration and the resulting implications for each Water Planning Region's population age structure and household composition. Trends in vital events may be used to inform our understanding of the population growth of "native" populations within each Region, while the structure of migration events can tell us something about the kinds of people that are anticipated to join the New Mexico population during the projection period. Understanding the age-structure of births, deaths, and migration events-and their implications for the population age structure during the projection period—may inform our future understanding of linkages between water consumption and housing unit growth. Since population age-structure is implicitly tied to the average number of persons living in a given household (the "average household size"), understanding changing dynamics in age structure will allow more accurate predictions about the relationship between the number of housing units in a Water Planning Region and its anticipated consumption.

Results were obtained using the well-validated cohort component method of demographic projection based on modeling of future rates of these vital and migration events. The model was implemented for each Water Planning Region by developing estimates of age-specific rates of births, deaths, and migration for each Region to perform projections, then validating them against the County projections. This method allows for rigorous control of the Water Planning Region projections to those of New Mexico Counties, as well as understanding of how County dynamics relate to the composition of Water Planning Regions proportionally structured from the Counties. Since younger populations tend to grow faster while older ones tend to stabilize or shrink, this method also allows for projection of trends in the population that account for dynamics introduced by age structure on total population growth. These methods are detailed further in Appendix 1.

### 4.1 Colfax Water Planning Region



Between 2005 and 2060, Colfax County will grow slowly—at an average annual rate of 0.40 percent—increasing from 14,375 persons in 2005 to 18,129 in 2060 (Table 4.1). The majority of this slow growth will be accounted for by positive net-migration, which is anticipated to be slow and steady over the projection period. Growth rates will vary, however. Between 2005 and 2020, the rate of growth is projected to be higher as increasing fertility will offset mortality in a relatively younger population. Beyond 2020, as the population begins to age somewhat, fertility will be reduced as overall death rates increase. Toward the end of the projection period (between 2050 and 2060), population growth will

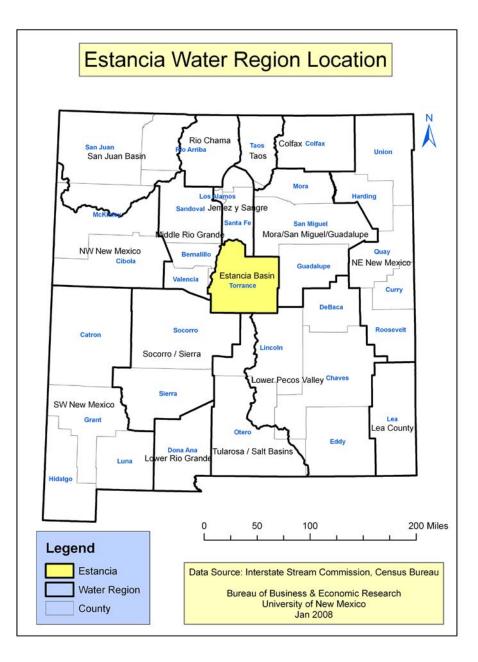
strengthen again as death rates stabilize and fertility begins to increase somewhat again.

As a result of these dynamics, between 2005 and 2060 the population will age (Table 4.2). In 2005, the 65 and over age-group accounted for 17.7 percent of the population while the 0-19 age group comprised 25.7 percent of Colfax County's population. In 2060, the proportions represented by the oldest and youngest age groups will approximately equalize to 23.1 percent and 23.9 percent, respectively. At the same time, small but positive in-migration will continue in the 20-44 age-bracket, maintaining a proportionally larger distribution of the population in this age-category throughout the projection period. In fact, while the proportional representation of the 0-19 and 65 + agecategories are anticipated to swell, then shrink somewhat through the projection period, the percentage of the population comprised of adults 20-44 will remain fairly constant throughout the entire projection period. The resulting implications of this in-migration pattern are greater dependency of the aged and young on working age adults as well as the likelihood that the number of persons occupying each household will remain similar between 2005 and 2060 in spite of the overall aging.

Projec	Table 4.1         Projected Population and Annual Average Growth Rate: July 1, 2000 to July 1, 2060         Colfax Water Planning Region											
Projection	Рори	lation	Deciention Veer	Annual Gro	wth Rate %							
Year	Region	Colfax	<ul> <li>Projection Year</li> </ul>	Region	Colfax							
2000	14,189	14,189										
2005	14,375	14,375	2000 - 05	0.26	0.26							
2010	14,803	14,803	2005 - 10	0.59	0.59							
2015	15,323	15,323	2010 - 15	0.69	0.69							
2020	15,836	15,836	2015 - 20	0.66	0.66							
2025	16,214	16,214	2020 - 25	0.47	0.47							
2030	16,480	16,480	2025 - 30	0.33	0.33							
2035	16,720	16,720	2030 - 35	0.29	0.29							
2040	16,976	16,976	2035 - 40	0.30	0.30							
2045	17,230	17,230	2040 - 45	0.30	0.30							
2050	17,484	17,484	2045 - 50	0.29	0.29							
2055	17,766	17,766	2050 - 55	0.32	0.32							
2060	18,129	18,129	2055 - 60	0.41	0.41							
Source: Bureau	of Business and E	conomic Resear	ch, University of New	Mexico								

		Projecte	ed Populatio Colfax Wa	Table 4.2 n Age Struc ter Planning		o 2060		
		Ма	le			Fem	ale	
Year	0 - 19	20 - 44	45 - 64	65 +	0 - 19	20 - 44	45 - 64	65 +
2005	1,956	1,952	2,225	1,163	1,749	1,883	2,066	1,381
2010	1,782	2,195	2,261	1,259	1,706	1,831	2,207	1,562
2015	1,772	2,365	2,202	1,410	1,675	1,951	2,152	1,796
2020	1,793	2,658	1,958	1,586	1,720	2,162	1,905	2,054
2025	2,038	2,641	1,749	1,746	1,935	2,104	1,662	2,339
2030	2,065	2,778	1,695	1,770	1,961	2,230	1,457	2,524
2035	2,047	2,684	1,955	1,759	1,941	2,260	1,526	2,548
2040	2,043	2,700	2,246	1,616	1,936	2,261	1,779	2,395
2045	2,101	2,684	2,477	1,517	1,991	2,266	1,931	2,263
2050	2,177	2,900	2,414	1,475	2,063	2,458	1,890	2,107
2055	2,220	2,953	2,265	1,724	2,106	2,509	1,850	2,139
2060	2,230	2,979	2,259	1,910	2,115	2,527	1,830	2,279
Source: Bure	au of Busine	ess and Ecor	nomic Resea	rch, Univers	ity of New M	exico		

### 4.2 Estancia Water Planning Region



The Region's population is projected to increase steadily from 35,064 persons in 2005 to 62, 281 persons in 2060—representing nearly a doubling of the population (Table 4.3). Historically, Torrance County has been the largest contributor to the Region's population. Between 2000 and 2005, Santa Fe has contributed the fastest growth to the Region, with a 2.06 percent average annual growth rate. Bernalillo's growth in the Region has also been strong at 1.98 percent, while the Torrance County portion of the Region has grown only slightly slower at 1.56 percent per year. Throughout the projection period, Torrance County will continue to contribute the greatest amount to Estancia Basin Water

Planning Region growth, growing from 51.6 percent in 2005 to 61.5 percent in 2060 (Figure 4.1). The contributions of Bernalillo and Santa Fe Counties will shrink correspondingly, especially that of Santa Fe County. The proportional representation of Torrance County will increase even more rapidly between 2005 and 2025 as its growth rate will continue to increase through 2025 (reaching a high of 2.07 percent per year between 2015 and 2020) while those observed in the Santa Fe and Bernalillo County portions of the Region will decline throughout the projection period.

The initial rapid growth in the Region will be driven by very high fertility relative to mortality between 2005 and 2040 and a constant and significant rate of in-migration. Beyond 2040, mortality will increase to a near equilibrium with fertility, slowing growth. These differences in fertility and mortality rates will be driven by-and respond to-trends in population age structure linked to proportionally large levels of in-migration in the 45-64 year age category. As this in-migration drives increases in death rates over time, population growth will slow as the death rate nearly equals a fertility rate that is also diminishing after 2040. As a result, the Estancia Basin Water Planning Region will age substantially over the 2005 to 2060 period. In 2005, the Region's over 65 years of age population comprised 7.3 percent of the total population. In 2060 it will account for 22.1 percent of the Region's total population. In fact, in 2060 the population of the Estancia Basin Region is anticipated to be extraordinarily "rectangular", with an approximately equal number of persons in all age-categories except the 20-44 age bracket that will be only somewhat larger (Table 4.4). The implication of these age-structure trends is that the average household size should be anticipated to decline significantly over the projection period.

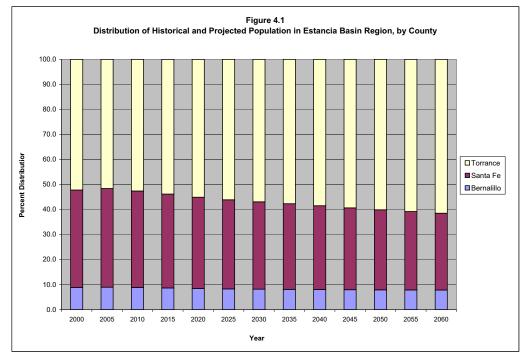
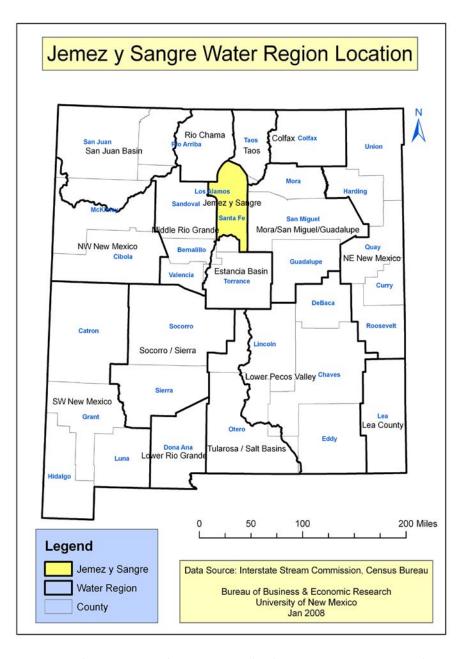


	Table 4.3         Projected Population and Annual Average Growth Rate: July 1, 2000 to July 1, 2060         Estancia Basin Region													
Projection	Population					Populatio	on Share %	6	Projection		Annual (	Growth Rate	%	
Year	Region	Bernalillo	Santa Fe	Torrance	Region	Bernalillo	Santa Fe	Torrance	Year	Region	Bernalillo	Santa Fe	Torrance	
2000	32,064	2,851	12,471	16,742	100	8.9	38.9	52.2						
2005	35,069	3,147	13,823	18,099	100	9.0	39.4	51.6	2000 - 05	1.81	1.98	2.06	1.56	
2010	37,709	3,339	14,531	19,839	100	8.9	38.5	52.6	2005 - 10	1.46	1.20	1.00	1.85	
2015	40,749	3,532	15,281	21,936	100	8.7	37.5	53.8	2010 - 15	1.56	1.13	1.01	2.03	
2020	44,113	3,729	16,083	24,300	100	8.5	36.5	55.1	2015 - 20	1.60	1.09	1.03	2.07	
2025	47,539	3,941	16,926	26,672	100	8.3	35.6	56.1	2020 - 25	1.51	1.11	1.03	1.88	
2030	50,565	4,136	17,647	28,782	100	8.2	34.9	56.9	2025 - 30	1.24	0.97	0.84	1.53	
2035	53,098	4,301	18,171	30,626	100	8.1	34.2	57.7	2030 - 35	0.98	0.78	0.59	1.25	
2040	55,356	4,444	18,534	32,377	100	8.0	33.5	58.5	2035 - 40	0.84	0.66	0.40	1.12	
2045	57,410	4,571	18,773	34,066	100	8.0	32.7	59.3	2040 - 45	0.73	0.56	0.26	1.02	
2050	59,210	4,681	18,935	35,594	100	7.9	32.0	60.1	2045 - 50	0.62	0.48	0.17	0.88	
2055	60,790	4,779	19,041	36,969	100	7.9	31.3	60.8	2050 - 55	0.53	0.42	0.11	0.76	
2060	62,281	4,879	19,116	38,286	100	7.8	30.7	61.5	2055 - 60	0.49	0.41	0.08	0.70	
Source: Bu	reau of E	Business an	d Economi	c Research	n, Univers	sity of New	Mexico							

	Table 4.4         Projected Population Age Structure: 2005 to 2060         Estancia Basin Region													
		Ma	ale			Fen	nale							
Year	0 - 19	20 - 44	45 - 64	65 +	0 - 19	20 - 44	45 - 64	65 +						
2005	5,745	7,096	3,733	1,259	5,461	6,886	3,603	1,286						
2010	5,973	6,563	4,892	1,733	5,881	6,160	4,812	1,695						
2015	5,868	6,511	5,986	2,328	5,802	6,035	5,848	2,371						
2020	5,795	6,867	6,809	2,897	5,677	6,308	6,757	3,003						
2025	6,109	7,322	6,765	3,867	5,926	6,810	6,652	4,088						
2030	6,641	7,732	6,191	4,980	6,436	7,285	5,960	5,340						
2035	7,011	8,101	5,694	5,967	6,784	7,836	5,225	6,480						
2040	7,138	8,283	5,819	6,617	6,894	8,033	5,195	7,377						
2045	7,210	8,393	6,473	6,769	6,947	8,080	5,905	7,633						
2050	7,421	8,671	7,106	6,532	7,143	8,288	6,657	7,392						
2055	7,722	9,140	7,342	6,327	7,419	8,740	7,075	7,025						
2060	7,984	9,546	7,239	6,543	7,658	9,121	6,996	7,194						
Source: Bure	eau of Bu	siness and	d Economic	Researc	h, Univers	ity of New	Mexico							

#### 4.3 Jemez y Sangre Water Planning Region



Between 2000 and 2005, growth was strong in the Jemez y Sangre Region, averaging a 1.82 percent increase per year. This growth has been driven primarily by increases in the Santa Fe County portion of the Region (a rate of 2.06 percent per year), which is the largest contributor both of land area and population. Between 2005 and 2060, the population of this Region will grow from 178,665 persons to a total of 216,756 persons (Table 4.5). Growth rates in Santa Fe County will continue to be stronger between 2005 and 2060 and it will slowly increase its proportional representation from 71.6 to 74.8 percent over the projection period (Figure 4.2). This growth will be driven by positive net-migraton across the projection period. Differential in-migration of individuals over 25 years of age will result in dramatic aging of the Jemez y Sangre Region population between 2005 and 2060. The proportion of persons over 65 years of age will more than double—from 9.7 percent in 2005 to 24.2 percent in 2060 (Table 4.6). The result is likely a decrease in average household size over the projection period.

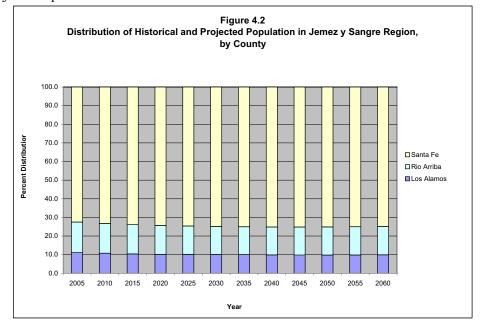
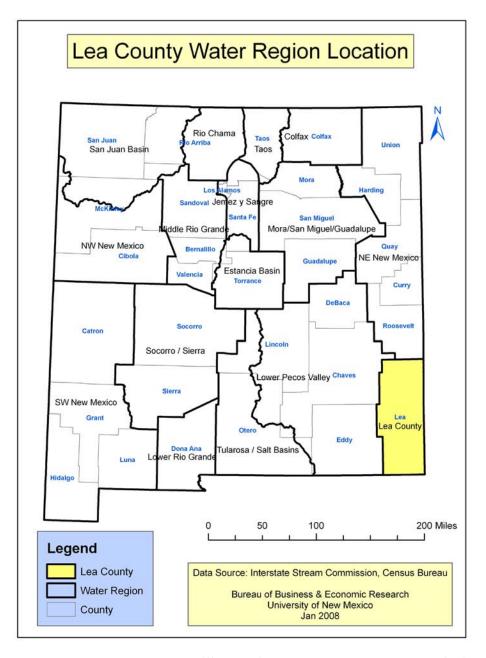


	Table 4.5 Projected Population and Annual Average Growth Rate: July 1, 2000 to July 1, 2060 <i>Jemez y Sangre Region</i>												
Projection		Рори	lation		I	Populatio	n Share S	%	Projection Year	An	inual Grov	vth Rate	%
Year	Region	Los Alamos	Rio Arriba	Santa Fe	Region	Los Alamos	Rio Arriba	Santa Fe		Region	Los Alamos	Rio Arriba	Santa Fe
2000	163,231	18,343	28,068	116,821	100	11.2	17.2	71.6					
2005	178,665	19,864	29,318	129,483	100	11.1	16.4	72.5	2000 - 05	1.81	1.59	0.87	2.06
2010	187,020	20,129	29,912	136,979	100	10.8	16.0	73.2	2005 - 10	0.92	0.27	0.40	1.13
2015	194,637	20,252	30,609	143,776	100	10.4	15.7	73.9	2010 - 15	0.80	0.12	0.46	0.97
2020	201,354	20,503	31,215	149,635	100	10.2	15.5	74.3	2015 - 20	0.68	0.25	0.39	0.80
2025	206,141	20,880	31,457	153,804	100	10.1	15.3	74.6	2020 - 25	0.47	0.37	0.15	0.55
2030	209,130	21,158	31,495	156,477	100	10.1	15.1	74.8	2025 - 30	0.29	0.26	0.02	0.35
2035	211,216	21,157	31,618	158,440	100	10.0	15.0	75.0	2030 - 35	0.20	0.00	0.08	0.25
2040	212,669	21,004	31,871	159,794	100	9.9	15.0	75.1	2035 - 40	0.14	-0.15	0.16	0.17
2045	213,585	20,915	32,142	160,528	100	9.8	15.0	75.2	2040 - 45	0.09	-0.08	0.17	0.09
2050	214,330	20,971	32,373	160,986	100	9.8	15.1	75.1	2045 - 50	0.07	0.05	0.14	0.06
2055	215,205	21,164	32,640	161,402	100	9.8	15.2	75.0	2050 - 55	0.08	0.18	0.16	0.05
2060	216,756	21,505	33,105	162,146	100	9.9	15.3	74.8	2055 - 60	0.14	0.32	0.28	0.09
Source: Bu	reau of Bu	isiness and	d Economi	c Research	, Univers	sity of New	/ Mexico						

	Table 4.6         Projected Population Age Structure: 2005 to 2060         Jemez y Sangre Region												
	Male Female												
Year	0 - 19	20 - 44	45 - 64	65 +	0 - 19	20 - 44	45 - 64	65 +					
2005	25,072	30,891	24,253	7,599	24,140	30,339	26,644	9,728					
2010	24,350	30,659	26,664	9,803	24,138	28,425	30,424	12,557					
2015	23,743	31,013	27,246	12,986	23,550	28,107	32,079	15,914					
2020	24,087	31,749	24,823	17,503	23,911	28,874	29,717	20,691					
2025	26,266	30,220	22,576	21,287	25,880	27,860	26,568	25,483					
2030	26,328	30,567	21,388	23,281	25,940	29,148	23,925	28,552					
2035	26,168	30,305	21,603	24,265	25,776	29,731	22,761	30,605					
2040	26,087	30,061	23,000	23,798	25,686	29,531	24,117	30,387					
2045	26,523	30,095	23,673	23,181	26,090	29,576	25,014	29,433					
2050	27,134	31,872	22,339	22,679	26,661	31,204	24,638	27,803					
2055	27,428	32,155	21,801	23,274	26,934	31,467	24,793	27,351					
2060	27,436	32,377	21,475	24,280	26,930	31,661	24,440	28,157					
Source: Burea	u of Busine	ss and Ecor	nomic Resea	rch, Univer	sity of New I	Mexico							

### 4.4 Lea County Water Planning Region



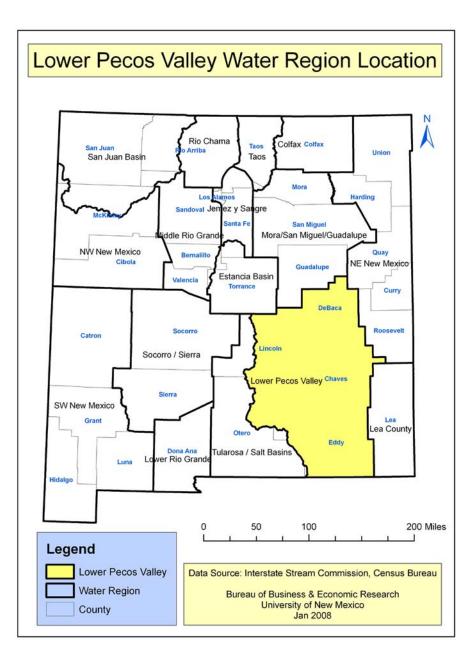
From 2005 to 2060, Lea County will grow from 57,335 persons to a total of 87,423 (Table 4.7). The vast majority of this growth will come in the form of natural increase, as overall net-migration is projected to be slightly negative over this time period. Growth rates will be relatively high (from 1.21 percent per annum to 1.13 percent—Table 4.8) between 2005 and 2015, dropping off thereafter and slowing gradually as the population ages, mortality increases, and fertility declines after 2035. As a consequence of these vital trends and age-specific differences in out-migration in younger intervals, the Lea County population will age over time with a significant decrease in the share of the 0-19

age interval and an	n increase in the proportion of the population 65 and over from
12.7 percent in 20	05 to 22.4 percent in 2060. The implication of these patterns is
that the average he	ousehold size will likely decline over the projection period.

Proje	Table 4.7         Projected Population and Annual Average Growth Rate: July 1, 2000 to July 1, 2060         Lea County Region												
Projection	Рори	lation	Draigation Voor	Annual Gro	wth Rate %								
Year	Region	Lea	– Projection Year –	Region	Lea								
2000	55,511	55,511											
2005	57,335	57,335	2000 - 05	0.65	0.65								
2010	60,896	60,896	2005 - 10	1.21	1.21								
2015	64,410	64,410	2010 - 15	1.13	1.13								
2020	67,479	67,479	2015 - 20	0.94	0.94								
2025	70,193	70,193	2020 - 25	0.79	0.79								
2030	72,928	72,928	2025 - 30	0.77	0.77								
2035	75,716	75,716	2030 - 35	0.75	0.75								
2040	78,357	78,357	2035 - 40	0.69	0.69								
2045	80,712	80,712	2040 - 45	0.59	0.59								
2050	82,919	82,919	2045 - 50	0.54	0.54								
2055	85,159	85,159	2050 - 55	0.53	0.53								
2060	87,423	87,423	2055 - 60	0.53	0.53								
Source: Bureau	u of Business and E	conomic Research	n, University of New	Mexico									

				Table 4.8									
	Projected Population Age Structure: 2005 to 2060												
		Ma	ale			Fem	ale						
Year	0 - 19	20 - 44	45 - 64	65 +	0 - 19	20 - 44	45 - 64	65 +					
2005	8,930	10,134	6,438	3,160	8,639	9,538	6,375	4,121					
2010	9,143	10,527	7,354	3,398	8,752	10,072	7,224	4,426					
2015	9,494	11,183	7,657	3,821	9,136	10,700	7,523	4,896					
2020	10,400	11,173	7,593	4,484	9,876	10,827	7,537	5 <i>,</i> 589					
2025	10,459	11,753	7,419	5,316	9,963	11,373	7,422	6,488					
2030	10,389	11,903	7,922	6,028	9,898	11,631	7,834	7,323					
2035	10,410	12,196	8,632	6,322	9,918	11,821	8,659	7,758					
2040	10,644	12,398	9,302	6,464	10,139	12,060	9,275	8,075					
2045	10,927	13,185	9,133	6,679	10,412	12,695	9,260	8,421					
2050	11,064	13,365	9,078	7,465	10,545	12,898	9,269	9,235					
2055	11,079	13,465	9,339	8,150	10,559	12,990	9,416	10,161					
2060	11,103	13,553	9,721	8,722	10,579	13,070	9,815	10,860					
Source: Bure	au of Busine	ss and Econc	omic Research	n, University	of New Mex	ico							

### 4.5 Lower Pecos Valley Water Planning Region



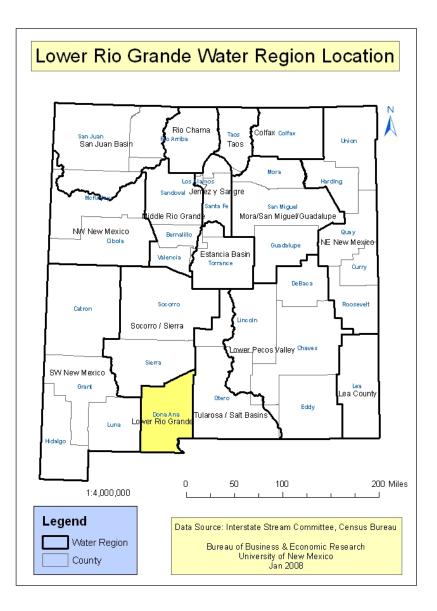
Between 2000 and 2005, growth in the Lower Pecos Valley Region slowed from the 1990s, to just 0.52 percent per year. It will continue to be slow over the 2005 to 2060 period, even diminishing to reach a low of just 0.27% between 2050 and 2060. Overall, the Region's population will increase from 139,941 persons in 2005 to 177,660 persons in 2060 (Table 4.9). Because the Region is geographically large, however, it will contribute a significant share of the State's population over the period in spite of this slow growth. The source of this sluggish growth will be a lack of in-migration. Instead, the little growth seen in the Region is projected to be due to a moderate amount of positive natural

increase as birth rates will fluctuate cyclically but in a rather constant fashion while deaths are projected to increase moderately as the population ages, damping growth rates beyond 2030 in particular. Historically, the populations of Chaves and Eddy Counties have contributed the greatest share of the Region's population. Although a recent spike in growth in the Lincoln County portion of the Region (2.41 percent per year on average) occurred between 2000 and 2005, this is not anticipated to continue in the long-term and the proportional representation of the Counties in the Region is anticipated to be similar over the projection period. Given these trends, only minor changes in the age structure of the Region over time are anticipated, though it will age somewhat, as mentioned before. The population structure will remain quite similar over the projection period, with the 0-19 and 45-64 year age groups shrinking somewhat as the porportional share of the 65 + age category increases by about 5 percent over the 2005-2060 interval (Table 4.10). The overall implication of this is that the average household size will probably diminish only moderately over the projection period in the Region.

				Pro	jected P	opulati	on and <i>I</i>		Table 4. verage Gr Pecos Vall	owth I		y 1, 20(	00 to July 1, 2060	)					
Projection Year			Popula	tion			Population Share %					Projection Year		Ann	ual Growt	h Rate	;%		
riojection real	Region	Chaves	De Baca	Eddy	Lincoln	Otero	Region	Chaves	De Baca	Eddy	Lincoln	Otero		Region	Chaves	De Baca	Eddy	Lincoln	Otero
2000	136,382	60,374	2,240	51,636	16,096	6,035	100	44.3	1.6	37.9	11.8	4.4							
2005	139,941	61,182	2,256	52,145	18,159	6,199	100	43.7	1.6	37.3	13.0	4.4	2000 - 05	0.52	0.27	0.14	0.20	2.41	0.54
2010	144,070	62,250	2,268	54,123	18,907	6,522	100	43.2	1.6	37.6	13.1	4.5	2005 - 10	0.58	0.35	0.11	0.75	0.81	1.02
2015	149,130	63,991	2,313	56,308	19,655	6,863	100	42.9	1.6	37.8	13.2	4.6	2010 - 15	0.69	0.55	0.39	0.79	0.78	1.02
2020	153,872	65,880	2,349	58,270	20,221	7,152	100	42.8	1.5	37.9	13.1	4.6	2015 - 20	0.63	0.58	0.31	0.69	0.57	0.83
2025	157,559	67,644	2,372	59,707	20,497	7,338	100	42.9	1.5	37.9	13.0	4.7	2020 - 25	0.47	0.53	0.19	0.49	0.27	0.52
2030	160,662	69,448	2,401	60,740	20,613	7,460	100	43.2	1.5	37.8	12.8	4.6	2025 - 30	0.39	0.53	0.24	0.34	0.11	0.33
2035	163,846	71,539	2,438	61,580	20,716	7,572	100	43.7	1.5	37.6	12.6	4.6	2030 - 35	0.39	0.60	0.31	0.28	0.10	0.30
2040	166,995	73,784	2,484	62,204	20,849	7,673	100	44.2	1.5	37.2	12.5	4.6	2035 - 40	0.38	0.62	0.38	0.20	0.13	0.26
2045	169,690	75,896	2,539	62,505	21,011	7,739	100	44.7	1.5	36.8	12.4	4.6	2040 - 45	0.32	0.57	0.43	0.10	0.15	0.17
2050	171,963	77,920	2,597	62,505	21,190	7,752	100	45.3	1.5	36.3	12.3	4.5	2045 - 50	0.27	0.53	0.46	0.00	0.17	0.03
2055	174,399	80,070	2,650	62,512	21,441	7,726	100	45.9	1.5	35.8	12.3	4.4	2050 - 55	0.28	0.55	0.41	0.00	0.24	-0.07
2060	177,660	82,525	2,719	62,837	21,856	7,723	100	46.5	1.5	35.4	12.3	4.3	2055 - 60	0.37	0.61	0.52	0.10	0.38	-0.01
Source: Bureau o	of Busines	s and Ec	conomic Re	esearch,	Universi	ty of Ne	w Mexic	0											

	Pi	-		•	icture: 200	05 to 2060								
		Ma	le		Fem	ale								
Year	0 - 19	20 - 44	45 - 64	65 +	0 - 19	20 - 44	45 - 64	65 +						
2005	21,121	20,372	17,291	9,542	20,270	21,492	17,807	12,046						
2010														
2015														
2020	20,599	25,193	17,883	12,171	20,000	24,294	18,903	14,829						
2025	22,356	25,569	15,695	14,188	21,589	24,496	16,682	16,984						
2030	22,485	26,661	14,557	15,735	21,703	25,521	15,145	18,855						
2035	22,212	26,185	16,675	16,028	21,434	25,221	16,327	19,764						
2040	22,238	26,271	19,322	14,963	21,451	25,336	18,472	18,942						
2045	22,774	26,601	21,026	13,928	21,954	25,585	19,970	17,852						
2050	23,389	28,141	20,625	13,566	22,534	26,990	19,659	17,059						
2055	23,658	28,544	19,612	15,418	22,787	27,351	18,791	18,238						
2060	23,655	28,628	19,752	17,066	22,778	27,409	18,918	19,454						
Source: Bure	eau of Busir	ness and Ec	conomic Re	esearch, Ur	niversity of N	New Mexico	)							

#### 4.6 Lower Rio Grande Water Planning Region



Between 2000 and 2005, the Lower Rio Grande Water Planning Region, comprised exclusively of Dona Ana County, has been the second largest-growing Region in the State. It will continue to grow more rapidly than the rest of the State throughout the projection period, with only the exception of the Middle Rio Grande Region. Overall (Table 4.11), the Region will more than double its total population, from 192,474 persons in 2005 to a total of 395,295 in 2060. This trend will be driven by strong fertility in younger age intervals coupled with strong net migration throughout the period, that will outweigh increases in death rates resulting from an overall aging of the population. While the 45-64 year old age category is predicted to occupy a fairly stable proportion of the population total between 2005 and 2060, the 0-19 and 20-44 year age brackets will shrink somewhat while the 65 and over population is anticipated to nearly double its proportional contribution from 11.6 to 22.0 percent (Table 4.12). The end result will be an older population with an implied reduction in the average household size for this Region.

Projec	Table 4.11 Projected Population and Annual Average Growth Rate: July 1, 2000 to July 1, 2060 <i>Lower Rio Grande Region</i>												
Projection	Popu	lation	Droigation Voor	Annual Growth Rate %									
Year	Region	Dona Ana	<ul> <li>Projection Year</li> </ul>	Region	Dona Ana								
2000	174,682	174,682											
2005	192,474	192,474	2000 - 05	1.96	1.96								
2010	215,828	215,828	2005 - 10	2.32	2.32								
2015	237,241	237,241	2010 - 15	1.91	1.91								
2020	256,619	256,619	2015 - 20	1.58	1.58								
2025	274,661	274,661	2020 - 25	1.37	1.37								
2030	291,895	291,895	2025 - 30	1.22	1.22								
2035	309,279	309,279	2030 - 35	1.16	1.16								
2040	327,051	327,051	2035 - 40	1.12	1.12								
2045	344,700	344,700	2040 - 45	1.06	1.06								
2050	361,925	361,925	2045 - 50	0.98	0.98								
2055	378,735	378,735	2050 - 55	0.91	0.91								
2060	395,295	395,295	2055 - 60	0.86	0.86								
Source: Bureau	u of Business and I	Economic Researd	h, University of Nev	v Mexico									

	Table 4.12         Projected Population Age Structure: 2005 to 2060         Lower Rio Grande Region														
	Male Female														
Year	0 - 19	20 - 44	45 - 64	65 +	0 - 19	20 - 44	45 - 64	65 +							
2005															
2010															
2015															
2020	37,081	47,759	24,453	16,908	35,443	45,448	27,783	21,744							
2025	40,711	49,068	25,720	19,481	38,612	47,063	28,431	25,575							
2030	41,589	49,856	30,198	21,732	39,439	47,979	31,931	29,171							
2035	42,354	52,054	34,726	22,750	40,169	49,675	36,132	31,419							
2040	43,792	54,519	38,448	23,894	41,537	52,011	39,337	33,513							
2045	45,813	57,134	40,592	25,893	43,468	54,408	41,632	35,760							
2050	47,772	60,868	38,704	30,668	45,337	57,723	40,146	40,707							
2055	49,161	62,465	40,194	34,513	46,661	59,222	41,161	45,358							
2060	50,118	64,021	42,633	37,654	47,572	60,681	43,450	49,166							
Source: Bure	eau of Busi	iness and E	conomic Re	esearch, Ur	niversity of I	New Mexic	0								

#### Middle Rio Grande Water Region Location Rio Chama Colfax Colfax Taos San Juan Union San Juan Basir Taos Mora Los Harding Sandoval Je zvS are anta San Miquel Mora/San Miguel/Guadalupe dle Rio Grand NW New Mexico Quay Bernalillo Cibola NE New Mexico Guadalur Estancia Basin Valencia Torrance Curry DeBaca Socorro Roosevelt Catron Lincoln Socorro / Sierra Lower Pecos Valley Chaves ierra SW New Mexico Grant Lea Lea County Oter Eddy Dona Ana ularosa / Salt Basins wer Rio Grand Lo Luna Hidalgo

#### 4.7 Middle Rio Grande Water Planning Region

Throughout the 2005 to 2060 projection period, the Middle Rio Grande Water Planning Region will continue to dominate the State's population as its principal center of concentration. By 2060, the Region will consist of a population approximately equal to the 2005 population for the entire State of New Mexico. While the growth rate of the Region will diminish over time along with the rest of the State, from 2.16 percent per year between 2000 and 2005 to approximately 1.0 percent between 2050 and 2060, the total population will increase from 788,515 persons in 2005 to 2,004,887 in 2060 (Table 4.13). The growth is driven by the presence of the Albuquerque Metro area, with the majority of growth occurring

50

0

Legend

Middle Rio Grande

Water Region

County

100

Data Source: Interstate Stream Commission, Census Bureau

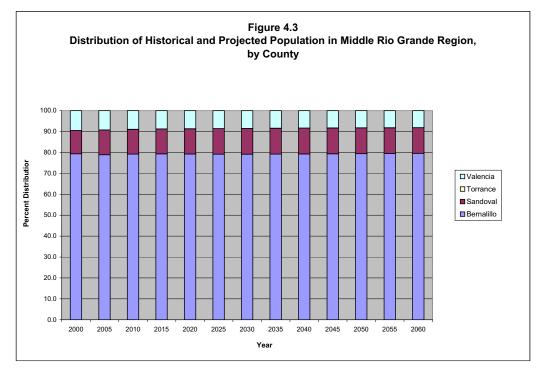
Bureau of Business & Economic Research University of New Mexico

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in the Cities of Albuquerque and Rio Rancho, as well as by growth in housing in Valencia County in and around Los Lunas. As such, Bernalillo County will continue to contribute the majority of the Region's population because of the large Albuquerque population; Sandoval County is anticipated to increase its share over time while Valencia's will shrink slightly (Figure 4.3, Table 4.13).

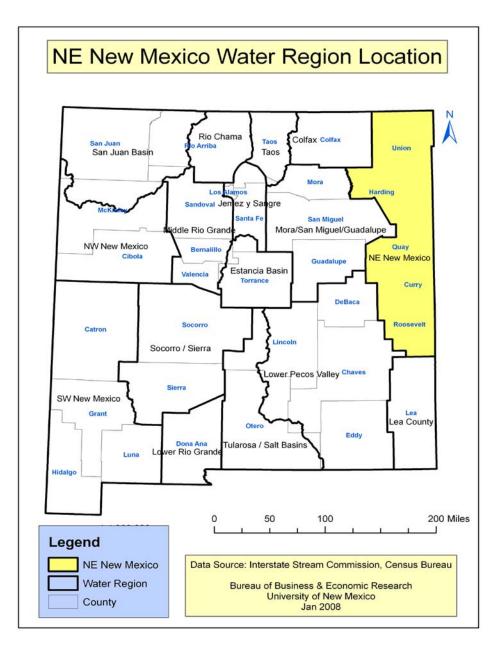
This growth will be contributed by a combination of both natural increase-in which only slightly-diminishing fertility trends will continue to offset deaths—and strong but diminishing in-migration over the projection period. Currently, in-migration more than offsets deaths within the Region leading to strong population growth even before births are considered. Although in-migration is expected to diminish over time, only after 2030 will the number of deaths exceed this influx of population. Diminishing growth in the Region will, then, result from decreases in in-migration over time, not from expected changes in vital event dynamics. Because of the importance of migration, and its greater occurrence in adult working-aged intervals (20-64), much of the effect of age-structured in-migration effects will be dampened over time and offset by a fairly constant set of birth and death rates. This will result in little change in the proportional contribution of the younger age intervals (0-19 and 20-44) but reductions in the 45-64 age group and increases in the 65+ age group resulting in less pronounced aging of the population relative to other Regions (Table 4.14). The implication of these trends is that the average household size for this Region may remain fairly constant over the projection period, with only possible minor reductions in its value.



				Projecto	ed Populat	ion and <i>I</i>	Annual Ave	Table 4.13 Trage Grow io Grande I		ıly 1, 2000	) to July 1, 2(	)60				
Projection		I	Population			Population Share %					Projection		Ann	ual Growth	Rate %	
Year						Region	Bernalillo	Sandoval	Torrance	Valencia	Year	Region	Bernalillo	Sandoval	Torrance	Valencia
2000	708,709	553,827	88,560	169	66,152	100	78.1	12.5	0.02	9.3						
2005																1.56
2010	913,662	709,680	119,868	213	79,894	100	77.7	13.6	0.02	8.7	2005-10	2.99	3.03	3.26	3.10	2.26
2015	1,039,695	808,329	142,073	248	89,045	100	77.7	13.7	0.02	8.6	2010 - 15	2.62	2.64	2.78	3.06	2.19
2020	1,161,485	901,664	161,078	284	98,459	100	77.6	13.9	0.02	8.5	2015 - 20	224	2.21	2.54	2.77	2.03
2025	1,277,459	989,710	180,137	318	107,294	100	77.5	14.1	0.03	8.4	2020 - 25	1.92	1.88	2.26	2.29	1.73
2030	1,390,095	1,076,161	198,168	350	115,416	100	77.4	14.3	0.03	8.3	2025-30	1.70	1.69	1.93	1.94	1.47
2035	1,500,857	1,162,290	214,974	381	123,212	100	77.4	14.3	0.03	8.2	2030-35	1.55	1.55	1.64	1.73	1.32
2040	1,608,979	1,246,717	230,993	413	130,856	100	77.5	14.4	0.03	8.1	2035-40	1.40	1.41	1.45	1.59	1.21
2045	1,712,884	1,327,528	246,627	443	138,286	100	77.5	14.4	0.03	8.1	2040-45	1.26	1.26	1.32	1.44	1.11
2050	1,812,021	1,404,289	261,951	472	145,309	100	77.5	14.5	0.03	8.0	2045-50	1.13	1.13	1.21	1.25	1.00
2055	1,908,387	1,478,953	277,025	498	151,911	100	77.5	14.5	0.03	8.0	2050-55	1.04	1.04	1.13	1.11	0.89
2060	2,004,887	1,553,486	292,367	524	158,409	100	77.5	14.6	0.03	7.9	2055-60	0.99	0.99	1.08	1.02	0.85
Source: Bur	eau of Busin	less and Eco	onomic Rese	arch, Unive	rsity of New	Mexico										

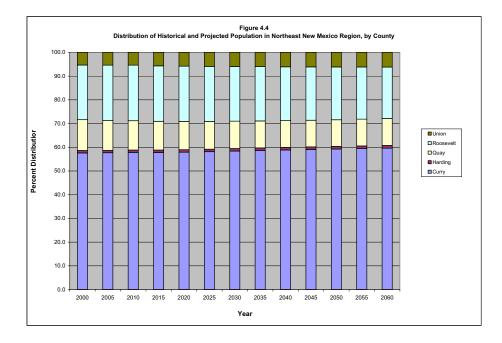
	Table 4.14         Projected Population Age Structure: 2005 to 2060         Middle Rio Grande Region													
		Ма	le		Fen	nale								
Year	0 - 19	20 - 44	45 - 64	65 +	0 - 19	20 - 44	45 - 64	65 +						
2005	108,973	136,826	98,954	38,722	108,030	143,695	104,788	48,528						
2010	124,132	157,951	117,409	46,560	120,802	162,365	128,251	56,192						
2015	141,571	182,433	124,314	60,407	135,965	184,881	139,353	70,771						
2020	169,578	197,255	125,295	76,612	161,055	198,124	142,958	90,608						
2025	186,989	216,409	129,821	92,062	176,723	213,104	149,801	112,542						
2030	197,809	234,473	141,669	105,983	187,180	226,116	162,428	134,43						
2035	208,325	249,386	162,128	114,054	197,324	239,189	181,217	149,23						
2040	221,979	263,090	184,108	117,875	210,462	251,343	201,242	158,88						
2045	237,425	286,324	190,554	124,543	225,313	272,719	204,718	171,28						
2050	251,273	301,782	198,123	137,594	238,649	287,170	208,669	188,76						
2055	262,195	312,601	207,663	154,918	249,187	298,117	216,209	207,49						
2060	271,183	323,060	219,686	171,848	257,879	308,661	226,355	226,21						

#### 4.8 Northeast New Mexico Water Planning Region



Relatively very slow growth is anticipated to characterize the Northeast New Mexico Water Planning Region between 2005 and 2060. During this period, the Region will grow from 80, 259 persons to only 89, 216 persons (Table 4.15). Given growth rates that are proportionally quite similar across the projection period, the proportional contribution of each of the Counties is anticipated to remain fairly constant as well. Curry County will continue to contribute the largest share with Roosevelt, Quay, and Union Counties contributing smaller, but significant portions of the Region's population over time (Figure 4.4). An already slow growth rate (0.52 percent per year between 2000 and 2005) will decrease

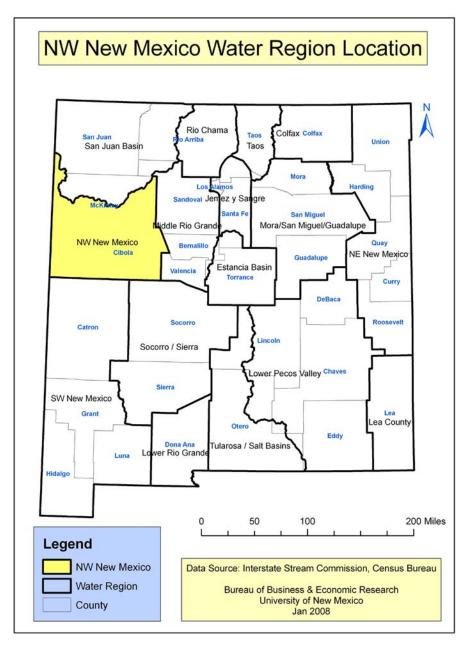
over time as well due to consistent negative net-migration and a combination of decreasing fertility and increasing mortality. Fertility and mortality levels will approximately equalize after 2045, resulting in slightly negative growth for the 2050-2060 period (- 0.07 percent per year). Overall, in the absence of strong effects of age-specific in-migration patterns, the population will age gradually, with a nearly equal representation in all age intervals by 2060 (Table 4.16). The implication is little if any change in the average household size for this Region.



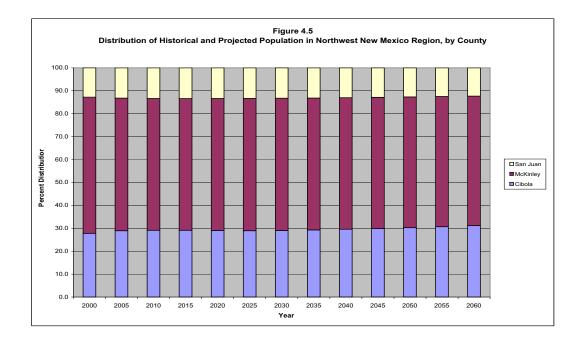
					Projec	ted Popu	lation and		Table 4 Average G ast New Me	rowth R	•	, 2000 to	July 1, 2060						
Projection								Population Share %							A	Innual Gro	wth Rat	e %	
Year	Region	Curry	Harding	Quay	Roosevelt	Union	Region	Curry	Harding	Quay	Rooseve It	Union	Year	Region	Curry	Harding	Quay	Roosevelt	Union
2000	78,201	45,044	810	10,155	18,018	4,174	100	57.6	1.0	13.0	23.0	5.3							
2005	2005 80,259 46,289 778 10,106 18,771 4,315 100 57.7 1.0 12.6 23.4 5.4 2000-05 0.52 0.55 -0.81 -0.10 0.82 0															0.66			
2010	82,765	47,861	823	10,232	19,399	4,449	100	57.8	1.0	12.4	23.4	5.4	2005 - 10	0.62	0.67	1.14	0.25	0.66	0.61
2015	84,987	49,117	868	10,311	19,876	4,814	100	57.8	1.0	12.1	23.4	5.7	2010 - 15	0.53	0.52	1.07	0.15	0.49	1.59
2020	86,640	50,177	901	10,344	20,188	5,029	100	57.9	1.0	11.9	23.3	5.8	2015 - 20	0.39	0.43	0.74	0.06	0.31	0.88
2025	87,660	50,955	918	10,289	20,330	5,169	100	58.1	1.0	11.7	23.2	5.9	2020 - 25	0.23	0.31	0.37	-0.11	0.14	0.55
2030	88,338	51,582	932	10,199	20,366	5,259	100	58.4	1.1	11.5	23.1	6.0	2025 - 30	0.15	0.24	0.31	-0.18	0.04	0.35
2035	89,054	52,226	954	10,145	20,378	5,352	100	58.6	1.1	11.4	22.9	6.0	2030 - 35	0.16	0.25	0.47	-0.11	0.01	0.35
2040	89,654	52,765	976	10,117	20,351	5,445	100	58.9	1.1	11.3	22.7	6.1	2035 - 40	0.13	0.21	0.46	-0.05	-0.03	0.35
2045	89,871	53,073	989	10,094	20,218	5,496	100	59.1	1.1	11.2	22.5	6.1	2040 - 45	0.05	0.12	0.26	-0.05	-0.13	0.19
2050	89,772	53,179	1,002	10,087	19,997	5,508	100	59.2	1.1	11.2	22.3	6.1	2045 - 50	-0.02	0.04	0.26	-0.01	-0.22	0.04
2055	89,537	53,201	1,019	10,105	19,708	5,504	100	59.4	1.1	11.3	22.0	6.1	2050 - 55	-0.05	0.01	0.34	0.04	-0.29	-0.01
2060	89,216	53,175	1,033	10,157	19,342	5,509	100	59.6	1.2	11.4	21.7	6.2	2055 - 60	-0.07	-0.01	0.28	0.10	-0.37	0.02
Source: Bur	reau of Bu	isiness an	d Economic	Research	n, University a	f New Me	xico												

		•		•	cture: 2005 o <i>Region</i>	i to 2060								
		nale												
Year	0 - 19	20 - 44	45 - 64	65 +	0 - 19	20 - 44	45 - 64	65 +						
2005	12,053	14,020	8,478	5,028	11,461	13,800	9,027	6,392						
2010														
2015														
2020	11,759	14,700	9,623	6,595	11,077	14,223	10,181	8,482						
2025	11,824	14,438	9,464	7,402	11,241	13,985	9,862	9,444						
2030	11,475	13,780	9,881	8,305	10,908	13,519	9,977	10,493						
2035	11,080	13,439	10,525	8,799	10,525	13,117	10,509	11,060						
2040	10,915	13,240	11,292	8,740	10,362	12,918	11,093	11,094						
2045	10,920	13,383	10,901	9,084	10,366	12,994	10,943	11,280						
2050	10,935	13,383	9,994	9,942	10,378	13,077	10,121	11,942						
2055	10,825	13,137	9,626	10,584	10,268	12,828	9,694	12,575						
2060	10,624	12,872	9,631	10,926	10,075	12,544	9,674	12,870						
Source: Bure	au of Busine	ess and Econ	iomic Resea	rch, Univers	ity of New M	exico								

#### 4.9 Northwest New Mexico Water Planning Region

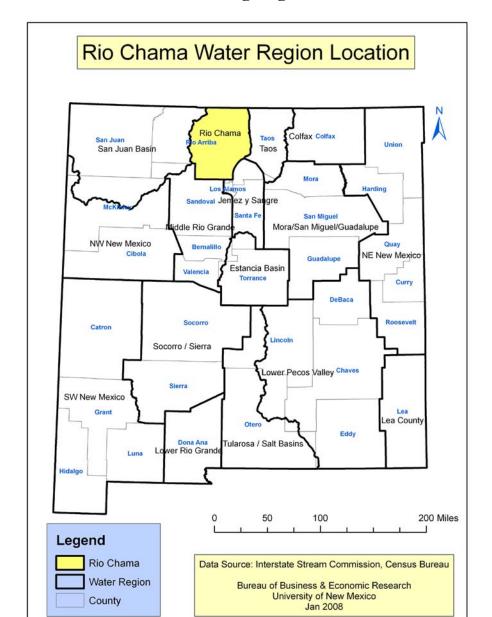


The Northwest New Mexico Water Planning Region will be characterized by slow but positive growth that will diminish after 2030. Between 2000 and 2005, the Region grew at an annual rate of 1.28 percent (Table 4.17), but by 2055 the rate will have slowed to 0.10 percent per year. What growth does occur will be due to positive natural increase that will offset small but consistent negative migration trends. Growth will slow as birth and death rates converge after 2050. The proportional contributions of McKinley, Cibola, and San Juan Counties will remain approximately constant over the projection period, with McKinley County continuing to contribute the majority of the Region's population (Figure 4.5). Overall, between 2005 and 2060 the Region's population will increase from 86,204 persons in 2005 to 107,545 in 2060. Since population age structure will be shaped largely by birth and death rates and declining fertility is the anticipated trend in the Region, the population is expected to age over the projection period resulting in a more than doubling of the share of the 65 and over population in the Region and significant decreases in the share of the 0-19 and 20-44 year age categories (Table 4.18). The implication of this aging of the Region's population includes an expected decrease in its average household size over time.



		Pro	ojected Po	pulatior		nual Av	Table 4.17 erage Gro New Mexi	wth Rate:	July 1, 2000 to .	July 1, 2	060		
Projection	Population					Populat	ion Share	%			Annual	Growth Ra	te %
Year	Region	Cibola	McKinley	San Juan	Region	Cibola	McKinley	San Juan	Projection Year	Region	Cibola	McKinley	San Juan
2000	80,885	25,595	54,712	578	100	31.6	67.6	0.7					
2005	86,204	28,506	57,063	635	100	33.1	66.2	0.7	2000 - 05	1.27	2.15	0.84	1.88
2010	89,533	29,844	58,995	694	100	33.3	65.9	0.8	2005 - 10	0.76	0.92	0.67	1.79
2015	93,371	31,164	61,462	745	100	33.4	65.8	0.8	2010 - 15	0.84	0.87	0.82	1.43
2020	97,241	32,293	64,152	796	100	33.2	66.0	0.8	2015 - 20	0.82	0.71	0.86	1.33
2025	100,221	33,138	66,238	845	100	33.1	66.1	0.8	2020 - 25	0.61	0.52	0.64	1.20
2030	102,243	33,873	67,475	895	100	33.1	66.0	0.9	2025 - 30	0.40	0.44	0.37	1.16
2035	103,728	34,624	68,161	943	100	33.4	65.7	0.9	2030 - 35	0.29	0.44	0.20	1.05
2040	104,999	35,375	68,635	989	100	33.7	65.4	0.9	2035 - 40	0.24	0.43	0.14	0.96
2045	106,051	36,042	68,977	1,032	100	34.0	65.0	1.0	2040 - 45	0.20	0.37	0.10	0.85
2050	106,684	36,585	69,026	1,073	100	34.3	64.7	1.0	2045 - 50	0.12	0.30	0.01	0.78
2055	107,034	37,100	68,821	1,113	100	34.7	64.3	1.0	2050 - 55	0.07	0.28	-0.06	0.73
2060	107,545	37,761	68,632	1,152	100	35.1	63.8	1.1	2055 - 60	0.10	0.35	-0.05	0.69
ource: Burea	u of Busir	ness and	Economic	Resear	ch, Unive	rsity of I	New Mexico	)					

	Pro	-	T opulation orthwest N	-	icture: 20		0						
		Ма	ale			Fen	nale						
Year	0 - 19	20 - 44	45 - 64	65 +	0 - 19	20 - 44	45 - 64	65 +					
2005	14,700	14,046	9,417	3,738	14,311	15,200	10,296	4,496					
2010													
2015													
2020	12,758	16,885	11,283	6,622	12,353	16,925	12,416	7,998					
2025	14,091	16,828	10,252	7,903	13,541	16,738	11,178	9,691					
2030	14,272	17,310	9,257	9,283	13,699	16,958	10,041	11,423					
2035	13,959	16,975	10,004	9,976	13,383	16,709	10,241	12,481					
2040	13,558	16,389	11,890	9,773	12,983	16,132	11,828	12,446					
2045	13,524	16,011	13,530	9,176	12,939	15,529	13,440	11,902					
2050	13,741	17,080	13,105	8,794	13,129	16,482	12,880	11,474					
2055	2055 13,878 17,234 12,364 9,605 13,245 16,617 12,220 11,870												
2060	13,787	17,078	11,639	10,997	13,147	16,439	11,470	12,989					
Source: Bure	eau of Bus	iness and I	Economic F	Research,	University of	of New Mex	kico						



# 4.10 Rio Chama Water Planning Region

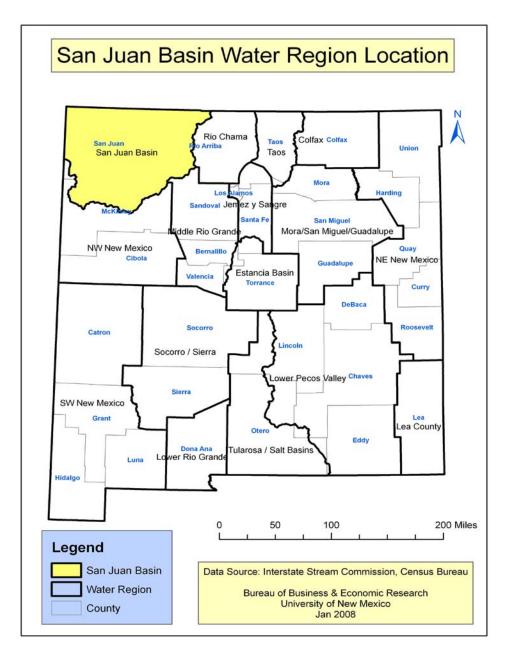
In spite of small but positive growth between 2000 and 2005, the Rio Chama Water Planning Region is the only Region in the State that is anticipated to experience population losses over the entire 2005-2060 projection period. Consistent negative net-migration, coupled with natural increase that is either 0 or slightly negative, will contribute to this trend. Between 2005 and 2060, the population of the Region will decrease from 8,356 persons in 2005 to 6,849 persons (Table 4.19). In 2005, the population age structure consists of greater proportional concentration in the 20-64 age year intervals. From 2005 to 2060, decreases in the 0-19 and 45-64 age intervals will be observed as the population becomes more

concentrated in the 20-44 and 65 plus age intervals (Table 4.20). The decrease in the 45-64 age intervals will be observed due to consistent trendsof differential out-migration in these age classes. As a consequence of this aging and age-related out-migration, the average household size value in this Region will decrease over the projection period. should be expected to decrease over the projection period.

Projected	Population and	Table Annual Average <i>Rio Chama</i>	Growth Rate: July	y 1, 2000 to J	uly 1, 2060
Projection	Ρορι	Ilation	- Projection Year-	Annual Gr	owth Rate %
Year	Region	Rio Arriba		Region	Rio Arriba
2000	8,000	8,000			
2005	8,356	8,356	2000 - 05	0.87	0.87
2010	8,089	8,089	2005 - 10	-0.65	-0.65
2015	7,997	7,997	2010 - 15	-0.23	-0.23
2020	7,952	7,952	2015 - 20	-0.11	-0.11
2025	7,885	7,885	2020 - 25	-0.17	-0.17
2030	7,750	7,750	2025 - 30	-0.34	-0.34
2035	7,568	7,568	2030 - 35	-0.47	-0.47
2040	7,366	7,366	2035 - 40	-0.54	-0.54
2045	7,183	7,183	2040 - 45	-0.50	-0.50
2050	7,038	7,038	2045 - 50	-0.41	-0.41
2055	6,922	6,922	2050 - 55	-0.33	-0.33
2060	6,849	6,849	2055 - 60	-0.21	-0.21
Source: Bureau	of Business and	Economic Resea	rch, University of N	lew Mexico	

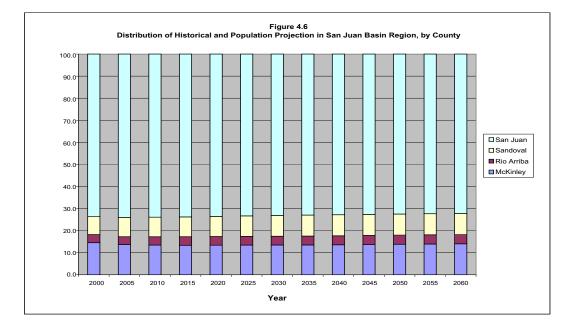
	Projec	ted Pop	Tat ulation A <i>Rio Cha</i>	-	ucture: 2	2005 to 2	2060								
	Male Female														
Year	0 - 19	20 - 44	45 - 64	65 +	0 - 19	20 - 44	45 - 64	65 +							
<b>2005</b> 1,188 1,081 1,261 680 1,093 1,087 1,202 764															
<b>2010</b> 1,008 1,127 1,192 736 1,017 990 1,197 822															
2015															
2020	814	1,273	960	914	823	1,209	967	992							
2025	907	1,293	757	956	862	1,236	795	1,079							
2030	951	1,303	641	938	905	1,239	641	1,132							
2035	940	1,170	694	927	893	1,201	634	1,109							
2040	894	1,066	851	812	847	1,161	755	980							
2045	856	1,021	1,003	654	812	1,043	936	858							
2050	844	1,088	984	558	803	1,060	963	738							
2055	849	1,109	829	637	810	1,077	897	714							
2060	846	1,098	704	739	807	1,066	824	765							
Source: Bure	eau of Bu	isiness ar	d Econon	nic Rese	earch, Uni	iversity of	New Mex	ico							

# 4.11 San Juan Basin Water Planning Region



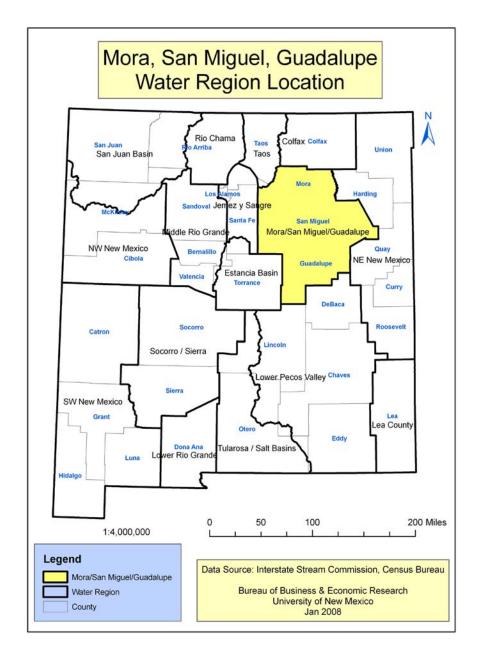
At present, the San Juan Basin Water Planning Region represents one of the fastest growing Regions in the State. Between 2000 and 2005 it posted an average annual rate of increase of 1.84 percent (Table 4.21). Between 2005 and 2060, this rate of growth will diminish steadily along with that of the rest of the State to 0.42 percent per year between 2055 and 2060. Over the same period, the proportional contribution of the component Counties of San Juan, McKinley, Rio Arriba, and Sandoval will remain approximately constant (Figure 4.6), with San Juan County continuing to contribute the majority of the Region's population. The vast majority of this growth will be spurred by strong positive natural increase as

fertility rates will continue to out-weigh death rates throughout the projection period. Net-migration is slightly positive to the area, but will have little relative impact upon total population growth in the Region. As a consequence, the population will age naturally between 2005 and 2060, nearly doubling the relative contribution of persons (Table 4.22) over 65 years and slowing growth rates as mortality increases are accompanied by fertility decreases. Over time, we should expect average household size values to decrease somewhat in this Region, tempered perhaps by tendencies toward greater household size in Reservation areas that comprise much of the Region.



				Pro	jected Pop	oulation		ual Aver	able 4.21 age Growth n Basin Reg		1, 2000 to July	ı 1, 2060				
Projection		P	opulatio	n			Po	pulatior	Share %		Projection		Ann	ual Growth I	Rate %	
Year	Region	McKinley	Rio Arriba	Sandoval	San Juan	Region	McKinley	Rio Arriba	Sandoval	San Juan	Year	Region	McKinley	Rio Arriba	Sandoval	San Juan
2000	139,770	20,086	5,112	1,348	113,223	100	14.4	3.7	1.0	81.0						
2005																
2010 162,088 21,752 6,060 1,800 132,476 100 13.4 3.7 1.1 81.7 2005 - 10 1.13 0.75 2.56 2.49 1.1													1.11			
2015	171,238	22,839	6,607	2,014	139,778	100	13.3	3.9	1.2	81.6	2010 - 15	1.10	0.98	1.74	2.27	1.08
2020	179,286	24,003	7,028	2,237	146,019	100	13.4	3.9	1.2	81.4	2015 - 20	0.92	1.00	1.24	2.12	0.88
2025	185,392	24,962	7,320	2,455	150,656	100	13.5	3.9	1.3	81.3	2020 - 25	0.67	0.79	0.82	1.88	0.63
2030	190,792	25,818	7,622	2,654	154,698	100	13.5	4.0	1.4	81.1	2025 - 30	0.58	0.68	0.81	1.58	0.53
2035	196,318	26,676	7,972	2,832	158,838	100	13.6	4.1	1.4	80.9	2030 - 35	0.57	0.66	0.90	1.31	0.53
2040	201,750	27,601	8,333	2,994	162,823	100	13.7	4.1	1.5	80.7	2035 - 40	0.55	0.68	0.89	1.11	0.50
2045	206,390	28,536	8,628	3,142	166,084	100	13.8	4.2	1.5	80.5	2040 - 45	0.46	0.67	0.70	0.97	0.40
2050	210,078	29,398	8,843	3,279	168,558	100	14.0	4.2	1.6	80.2	2045 - 50	0.35	0.60	0.49	0.86	0.30
2055	213,635	30,219	9,037	3,409	170,970	100	14.1	4.2	1.6	80.0	2050 - 55	0.34	0.55	0.44	0.78	0.28
2060	218,119	31,102	9,268	3,539	174,210	100	14.3	4.2	1.6	79.9	2055 - 60	0.42	0.58	0.51	0.75	0.38
Source: Bu	reau of Bus	siness and E	conomic	Research,	University of	of New N	lexico									

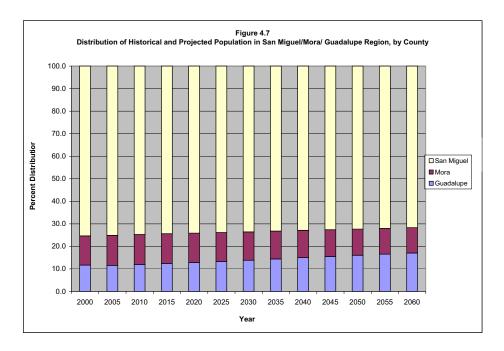
	Pi	rojected P	opulation	able 4.22 Age Stru n Basin F		05 to 206	D							
	Male Female													
Year	0 - 19	20 - 44	45 - 64	65 +	0 - 19	20 - 44	45 - 64	65 +						
2005	24,800	25,342	17,881	7,841	23,303	25,699	18,829	9,560						
2010	<b>2010</b> 23,927 26,401 20,885 8,947 22,746 26,126 21,818 11,238													
2015														
2020	26,462	28,905	20,567	12,607	25,289	27,848	21,959	15,650						
2025	27,896	29,822	18,605	15,154	26,742	28,573	19,821	18,779						
2030	27,755	30,625	18,163	17,527	26,624	29,387	18,976	21,735						
2035	27,510	30,392	20,420	18,408	26,396	29,401	20,504	23,287						
2040	27,884	30,629	23,092	17,796	26,752	29,682	22,889	23,027						
2045	28,926	32,115	23,790	16,973	27,743	31,172	23,495	22,176						
2050	29,752	33,556	23,016	17,517	28,533	32,648	22,728	22,328						
2055	<b>2055</b> 30,051 33,897 22,383 19,514 28,810 32,985 22,273 23,722													
2060	30,046	34,133	22,907	21,129	28,792	33,198	22,780	25,133						
Source: Bure	au of Busi	ness and E	conomic Re	esearch, U	niversity of	New Mexic	0							



# 4.12 San Miguel/Mora/Guadalupe Water Planning Region

The San Miguel/Mora/Guadalupe Water Planning Region is expected to grow slowly between 2005 and 2060, from a total of 40,902 persons in 2005 to 54,681 in 2060 (Table 4.23). San Miguel County will continue to contribute the majority of the population throughout the projection period (Figure 4.7), but Guadalupe County will increase its share significantly. Growth in this Region will be fueled by natural increase, as births will continue to outnumber deaths throughout the projection period and net-migration will be a small, but slightly negative influence. With trends toward decreasing fertility, the population will age over the projection period, with the proportional contribution of the population over 65

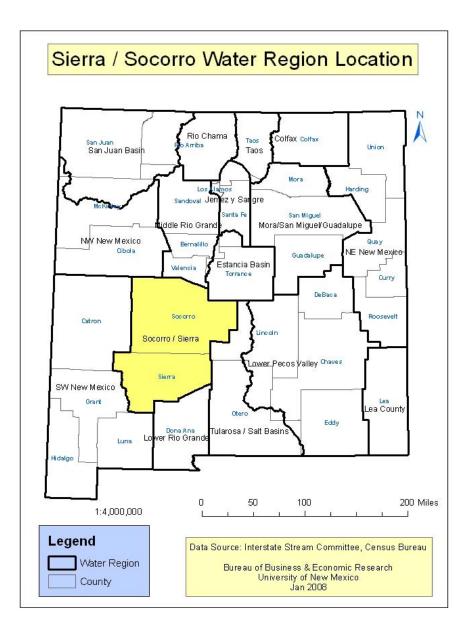
years increasing from 12.7 to 20.0 percent while the contribution of each of the younger age intervals decreases by as much as nearly 3.0 percent (Table 4.24). The resulting age structure will likely result in decreases in the average household size observed in this Region.



			Projec	ted Populatic		nnual Avera	-		uly 1, 2000 to Ju on	ıly 1, 206	60		
Projection		Рори	lation			Population	n Share	e %	Duciostica Vecu		Annual Gro	owth Ra	ite %
Year	Region	Guadalupe	Mora	San Miguel	Region	Guadalupe	Mora	San Miguel	Projection Year	Region	Guadalupe	Mora	San Miguel
2000	39,986	4,680	5,180	30,126	100	11.7	13.0	75.3					
2005	40,902	4,743	5,440	30,719	100	11.6	13.3	75.1	2000 - 05	0.45	0.27	0.98	0.39
2010	42,578	5,114	5,636	31,827	100	12.0	13.2	74.8	2005 - 10	0.81	1.52	0.71	0.71
2015	44,545	5,553	5,855	33,137	100	12.5	13.1	74.4	2010 - 15	0.91	1.66	0.76	0.81
2020	46,252	5,961	6,007	34,284	100	12.9	13.0	74.1	2015 - 20	0.75	1.43	0.51	0.68
2025	47,461	6,328	6,066	35,067	100	13.3	12.8	73.9	2020 - 25	0.52	1.20	0.20	0.45
2030	48,488	6,717	6,094	35,677	100	13.9	12.6	73.6	2025 - 30	0.43	1.20	0.09	0.35
2035	49,631	7,160	6,134	36,337	100	14.4	12.4	73.2	2030 - 35	0.47	1.29	0.13	0.37
2040	50,894	7,636	6,171	37,087	100	15.0	12.1	72.9	2035 - 40	0.50	1.30	0.12	0.41
2045	52,010	8,085	6,163	37,762	100	15.5	11.8	72.6	2040 - 45	0.43	1.15	-0.03	0.36
2050	52,855	8,488	6,131	38,236	100	16.1	11.6	72.3	2045 - 50	0.32	0.98	-0.10	0.25
2055	53,618	8,876	6,116	38,626	100	16.6	11.4	72.0	2050 - 55	0.29	0.90	-0.05	0.20
2060	54,681	9,327	6,153	39,202	100	17.1	11.3	71.7	2055 - 60	0.39	0.99	0.12	0.30

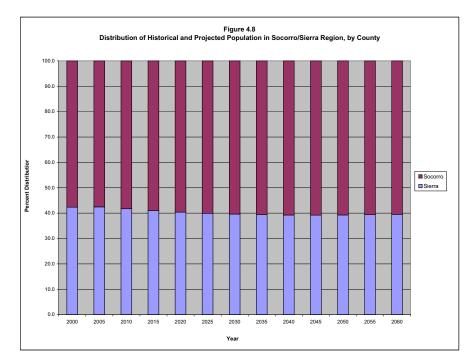
	Proj		Ta pulation <i>liguel/Mo</i>	•	ucture: 2		60							
	Male Female													
Year														
2005	6,362	7,097	4,804	2,401	5,948	6,693	4,785	2,812						
2010														
2015														
2020	6,783	7,457	5,733	3,268	6,240	7,483	5,458	3,830						
2025	7,230	7,648	5,069	3,844	6,886	7,357	4,932	4,495						
2030	7,115	8,016	4,639	4,481	6,772	7,713	4,660	5,092						
2035	6,977	7,984	4,884	4,940	6,637	7,594	5,039	5,576						
2040	7,061	8,123	5,526	4,675	6,716	7,626	5,785	5,382						
2045	7,365	8,353	5,896	4,303	7,001	7,925	5,992	5,175						
2050	7,627	8,779	5,721	4,195	7,251	8,553	5,598	5,131						
2055	7,711	8,826	5,560	4,601	7,332	8,590	5,335	5,663						
2060	7,709	8,828	5,815	4,880	7,328	8,589	5,472	6,060						
Source: Bure	eau of Bu	isiness an	d Economi	c Researd	h, Univer	sity of Nev	/ Mexico							

# 4.13 Socorro / Sierra Water Planning Region



The Socorro/Sierra Water Planning Region will show rather slow growth throughout the 2005 to 2060 projection period (Table 4.25). Overall, its population will increase from 32,170 persons in 2005 to a high of 38,244 in 2060. Socorro County is predicted to grow slightly faster than Sierra over the interval, increasing its proportional share of the Region's population from 57.5 percent in 2005 to 61.3 percent in 2060 (Figure 4.8). Trends of both positive natural increase and positive net-migration will fuel the growth of this Region throughout the projection period, with migration taking on a slightly larger role than fertility in determining growth.

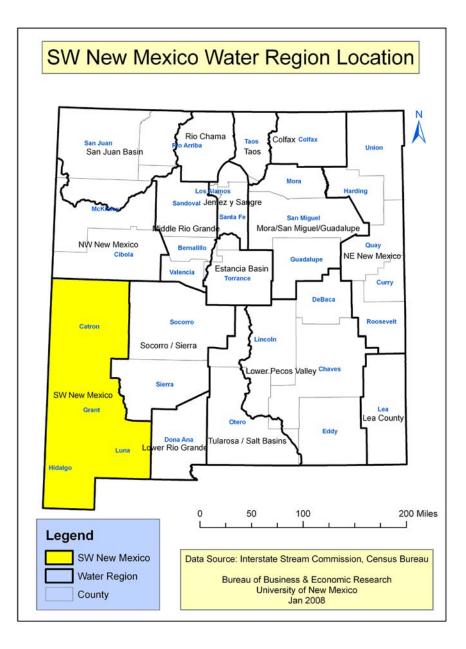
Differential in-migration in the 20-44 year age interval will alter the agestructure of the Region's population, inflating this age-interval to a greater degree than births or deaths, but overall the population will age between 2005 and 2060. The proportional representation of the over 65 year population is predicted to increase substantially, from 19.1 percent in 2005 to 24.6 percent in 2060 (Table 4.26). A corresponding decrease in the average household size, expected by this aging trend, will likely be offset by increases in the 20-44 year population.



	Р	Projected Po	pulation and	Annual Ave	able 4.25 rage Growt o/Sierra Reg	-	1, 2000 to July 1,	2060		
		Populatior	ı	Рор	oulation Sha	re %		Annua	al Growth	Rate %
Projection Year	Region	Sierra	Socorro	Region	Sierra	Socorro	Projection Year	Region	Sierra	Socorro
2000	31,348	13,270	18,078	100	42.3	57.7				
2005	32,170	13,657	18,513	100	42.5	57.5	2000 - 05	0.52	0.57	0.48
2010	32,967	13,717	19,250	100	41.6	58.4	2005 - 10	0.49	0.09	0.78
2015	33,805	13,793	20,012	100	40.8	59.2	2010 - 15	0.50	0.11	0.78
2020	34,565	13,887	20,678	100	40.2	59.8	2015 - 20	0.45	0.14	0.66
2025	35,126	13,959	21,167	100	39.7	60.3	2020 - 25	0.32	0.10	0.47
2030	35,515	13,989	21,526	100	39.4	60.6	2025 - 30	0.22	0.04	0.34
2035	35,865	14,028	21,837	100	39.1	60.9	2030 - 35	0.20	0.06	0.29
2040	36,277	14,109	22,168	100	38.9	61.1	2035 - 40	0.23	0.12	0.30
2045	36,740	14,252	22,488	100	38.8	61.2	2040 - 45	0.25	0.20	0.29
2050	37,188	14,429	22,759	100	38.8	61.2	2045 - 50	0.24	0.25	0.24
2055	37,650	14,604	23,046	100	38.8	61.2	2050 - 55	0.25	0.24	0.25
2060	38,244	14,817	23,427	100	38.7	61.3	2055 - 60	0.31	0.29	0.33
Source: Bureau o	of Business	and Econom	ic Research, I	University of	New Mexico					

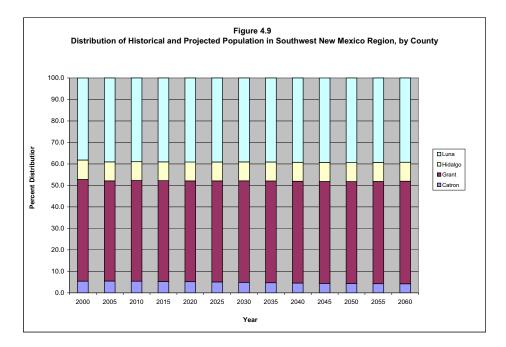
	Proj	ected Po	Ta pulation Socorro	-		005 to 20	60							
	Male Female													
Year														
2005	4,487	4,482	4,241	3,052	4,060	4,464	4,300	3,084						
2010														
2015														
2020	4,045	5,647	3,864	3,774	3,950	4,931	4,047	4,307						
2025	4,438	5,717	3,485	3,935	4,241	5,140	3,544	4,626						
2030	4,495	5,736	3,465	4,063	4,297	5,145	3,372	4,942						
2035	4,455	5,462	3,986	4,050	4,254	5,115	3,534	5,009						
2040	4,437	5,350	4,614	3,786	4,229	5,136	3,954	4,771						
2045	4,498	5,426	4,977	3,555	4,289	5,151	4,425	4,419						
2050	4,602	5,769	4,707	3,656	4,391	5,393	4,248	4,422						
2055	4,668	5,847	4,360	4,145	4,451	5,472	4,110	4,597						
2060	4,680	5,868	4,243	4,557	4,460	5,486	4,110	4,840						
Source: Bure	eau of Bus	siness and	l Economic	Researc	h, Univers	ity of New	Mexico							

# 4.14 Southwest New Mexico Water Planning Region



Grant, Hidalgo, and Luna Counties are expected to show strong growth in the short-term, contributing to significant population growth in this Region between 2005 and 2020 (Table 4.27). After 2020, this growth will diminish but not at the same rate as the remainder of the State. As a consequence, at the end of the projection period this Region will maintain one of the higher growth rates in the State. Slower growth in Catron County and proportionally equivalent growth in the other Counties within the Region will lead to approximately stable proportional contributions from Grant, Hidalgo, and Luna with a small decrease in that of Catron County (Figure 4.9). Overall, the Region is expected to

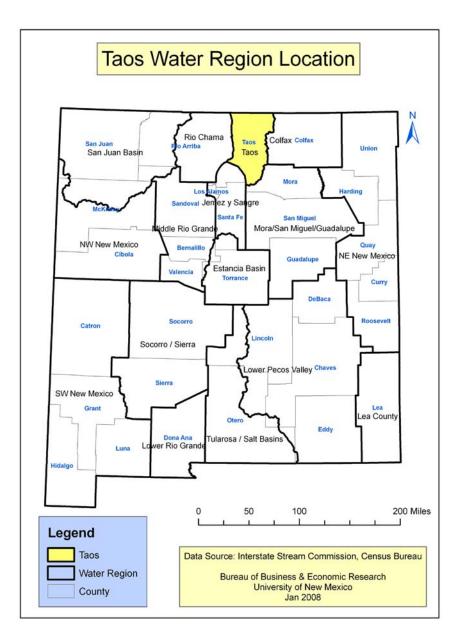
increase from a total population of 67,583 persons in 2005 to a total of 110,783 in 2060—an increase of 63.9 percent population size over the projection period. Most of this growth will continue to be supported approximately equally by positive natural increase and positive net-migration. Age-specific differences in migration rates will produce unexpected population age structures, with increases in 20-44 age group but decreases in the share of the 0-19 year age interval (Table 4.28). The results are likely to mean little difference in the average household size value of this Region over the projection period.



			Projecto	ed Populat	ion and Anr Soເ		-	wth R	-	<sup>,</sup> 1, 20	00 to July 1	, 2060				
Projection			Populat	ion			Populat	ion Sh	are %		Projection	A	nnual C	Growth	Rate %	
Year	Region	Catron	Grant	Hidalgo	Luna	Region	Catron	Grant	Hidalgo	Luna	Year	Region	Catron	Grant	Hidalgo	Luna
2000	65,493	3,543	31,002	5,932	25,016	100	5.4	47.3	9.1	38.2						
2005	67,583	3,712	31,511	5,966	26,394	100	5.5	46.6	8.8	39.1	2000 - 05	0.63	0.94	0.33	0.11	1.07
2010	71,792	3,881	33,626	6,300	27,985	100	5.4	46.8	8.8	39.0	2005 - 10	1.22	0.90	1.31	1.09	1.18
2015	76,210	4,040	35,748	6,667	29,755	100	5.3	46.9	8.7	39.0	2010 - 15	1.20	0.80	1.23	1.14	1.23
2020	80,460	4,176	37,744	7,061	31,479	100	5.2	46.9	8.8	39.1	2015 - 20	1.09	0.67	1.09	1.15	1.13
2025	84,191	4,263	39,589	7,420	32,919	100	5.1	47.0	8.8	39.1	2020 - 25	0.91	0.41	0.96	1.00	0.90
2030	87,631	4,292	41,369	7,739	34,231	100	4.9	47.2	8.8	39.1	2025 - 30	0.80	0.14	0.88	0.84	0.78
2035	91,130	4,292	43,140	8,051	35,647	100	4.7	47.3	8.8	39.1	2030 - 35	0.79	0.00	0.84	0.79	0.81
2040	94,778	4,306	44,908	8,367	37,197	100	4.5	47.4	8.8	39.2	2035 - 40	0.79	0.07	0.81	0.77	0.85
2045	98,619	4,349	46,745	8,709	38,816	100	4.4	47.4	8.8	39.4	2040 - 45	0.80	0.20	0.81	0.80	0.86
2050	2050 102,575 4,424 48,683 9,061 40,40						4.3	47.5	8.8	39.4	2045 - 50	0.79	0.34	0.82	0.80	0.81
2055	106,577	4,528	50,713	9,419	41,917	100	4.2	47.6	8.8	39.3	2050 - 55	0.77	0.47	0.82	0.78	0.74
2060	2060 110,783 4,655 52,881 9,801 43,446							47.7	8.8	39.2	2055 - 60	0.78	0.56	0.84	0.80	0.72
Source: Bu	reau of B	usiness a	nd Econo	mic Resear	ch, Universit	y of New	Mexico									

	Pro	-	T opulation <i>uthwest I</i>	-	icture: 20		0							
	Male Female													
Year	0 - 19	20 - 44	45 - 64	65 +	0 - 19	20 - 44	45 - 64	65 +						
2005	9,770	8,467	8,871	5,904	9,512	9,642	8,980	6,437						
2010	9,747	9,598	9,182	6,612	9,572	10,331	9,554	7,196						
2015	10,148	10,853	8,959	7,400	9,867	11,144	9,620	8,219						
2020	10,722	12,469	8,028	8,263	10,477	12,087	8,983	9,431						
2025	12,083	12,943	7,435	8,883	11,613	12,397	8,783	10,054						
2030	12,469	14,119	7,390	9,096	11,972	13,128	8,821	10,636						
2035	12,671	14,475	8,689	9,033	12,159	13,538	9,535	11,030						
2040	12,984	15,021	10,269	8,515	12,448	13,972	10,646	10,923						
2045	13,540	15,513	11,556	8,218	12,978	14,493	11,551	10,770						
2050	14,161	16,816	11,747	8,226	13,564	15,601	11,517	10,943						
2055														
2060	14,894	17,830	12,212	10,486	14,250	16,553	11,927	12,631						
Source: Bure	eau of Bus	iness and l	Economic F	Research,	University of	of New Me	xico							

# 4.15 Taos Water Planning Region

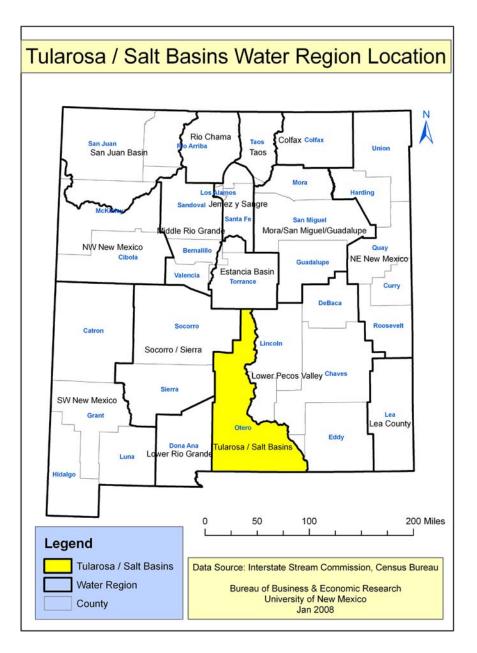


Over 99 percent of the Region's population is comprised of Taos County. Though relatively small in population in 2005, the Taos Water Planning Region is expected to grow rather strongly between 2005 and 2020, with growth diminishing thereafter, but still increasing faster than the remainder of the State (Table 4.29). Overall, the Region's population is predicted to increase from 31,941 persons in 2005 to 48,270 persons in 2060. This growth will be fed by continued increases in total fertility of the population as it grows, a delayed offset in the form of mortality as the population ages, and consistent positive in-migration. Over the long-term, natural increase will provide the greater source of growth, which will slow as the population ages. Overall, between 2005 and 2060, the population of the Region over 65 years of age will increase from 13.4 percent to 22.5 percent (Table 4.30), likely introducing decreases in average household size.

			Projected Po	opulation and Annual A	Table 4.2 verage Gr Taos Regi	owth R	ate: July 1, 3	2000 to July	1, 2060		
Projection		Populati	on	Projection Year	Рори	lation S	hare %	Projection	An	nual Growt	h Rate %
Year	Region	Taos	Rio Arriba	Projection real	Region	Taos	Rio Arriba	Year	Region	Taos	Rio Arriba
2000	29,989	29,979	10	2000	100	99.97	0.03				
2005	31,941	31,931	10	2005	100	99.97	0.03	2000 - 05	1.26	1.26	0.00
2010	33,890	33,879	11	2010	100	99.97	0.03	2005 - 10	1.19	1.19	1.92
2015	35,971	35,960	11	2015	100	99.97	0.03	2010 - 15	1.20	1.20	0.00
2020	38,024	38,013	11	2020	100	99.97	0.03	2015 - 20	1.12	1.12	0.00
2025	39,755	39,743	12	2025	100	99.97	0.03	2020 - 25	0.89	0.89	1.76
2030	41,157	41,145	12	2030	100	99.97	0.03	2025 - 30	0.70	0.70	0.00
2035	42,379	42,367	12	2035	100	99.97	0.03	2030 - 35	0.59	0.59	0.00
2040	43,457	43,445	12	2040	100	99.97	0.03	2035 - 40	0.50	0.50	0.00
2045	44,449	44,436	13	2045	100	99.97	0.03	2040 - 45	0.45	0.45	1.61
2050	45,549	45,536	13	2050	100	99.97	0.03	2045 - 50	0.49	0.49	0.00
2055	46,807	46,794	13	2055	100	99.97	0.03	2050 - 55	0.55	0.55	0.00
2060	48,270	48,257	13	2060	100	99.97	0.03	2055 - 60	0.62	0.62	0.00
ource: Burea		,	Economic Re	search, University of New	v Mexico	-					

Table 4.30 Projected Population Age Structure: 2005 to 2060 <i>Taos Region</i>								
		M	ale			Fen	nale	
Year	0 - 19	20 - 44	45 - 64	65 +	0 - 19	20 - 44	45 - 64	65 +
2005	4,072	4,743	4,957	1,872	3,886	4,631	5,375	2,405
2010	4,136	4,779	5,245	2,441	3,964	4,428	5,975	2,922
2015	4,233	4,862	5,526	3,005	3,952	4,594	6,128	3,671
2020	4,470	5,118	5,098	3,938	4,203	4,848	5,502	4,847
2025	5,000	5,222	4,485	4,740	4,763	4,933	4,665	5,948
2030	5,240	5,694	4,139	5,026	4,991	5,483	4,008	6,577
2035	5,368	5,938	4,107	5,274	5,114	5,730	3,938	6,911
2040	5,506	6,146	4,405	5,191	5,244	5,825	4,352	6,789
2045	5,761	6,355	4,818	4,870	5,483	6,053	4,766	6,344
2050	6,057	6,869	4,989	4,522	5,765	6,602	4,974	5,772
2055	6,306	7,171	5,065	4,599	6,000	6,893	5,055	5,719
2060	6,480	7,411	5,188	4,842	6,167	7,124	5,061	5,998
Source: Bure	eau of Bu	siness and	d Economi	c Researc	h, Univer	sity of Ne	w Mexico	

# 4.16 Tularosa / Salt Basins Water Planning Region



The contribution of Otero County to the Tularosa/Salt Basins Water Planning Region will continue to overshadow that of other contributing Counties such as Eddy, Chaves, and Lincoln over the projection period (Table 4.31). Growth in the Region is projected to be slow and to diminish to near zero growth by 2060. Because of the relative uniformity of this pattern, the proportional contribution of each of the Counties will remain fairly constant over the projection period (Figure 4.10). What growth does occur will be driven by positive natural increase, diminishing as the aging of the population increases mortality to a level that offsets a diminishing fertility (Table 4.32). This aging is reflected in the population age-structure over the projection interval. At the end of the interval, the proportion of the population over 65 years of age will increase dramatically from approximately 14.4 percent to 23.0 percent. This will likely be reflected in decreases in average household size.

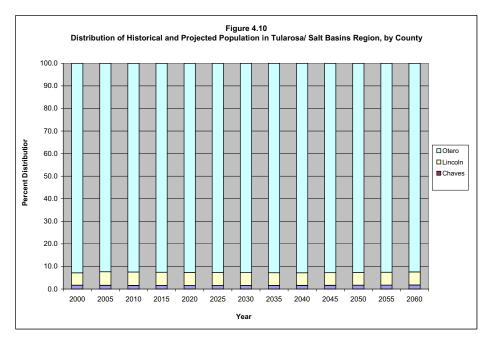


	Table 4.31 Projected Population and Annual Average Growth Rate: July 1, 2000 to July 1, 2060 <i>Tularosa / Salt Basins Region</i>															
Projection		Ро	pulati	on			Populat	ion Sh	are %		Droigotion Voor		Annual	Grow	th Rate %	6
Year	Region	Chaves	Eddy	Lincoln	Otero	Region	Chaves	Eddy	Lincoln	Otero	Projection Year	Region	Chaves	Eddy	Lincoln	Otero
2000	60,607	1,008	22	3,315	56,263	100	1.7	0.04	5.5	92.8						
2005	62,577	1,021	22	3,739	57,795	100	1.6	0.04	6.0	92.4	2000 - 05	0.64	0.26	0.00	2.41	0.54
2010	64,640	1,021	23	3,827	59,769	100	1.6	0.04	5.9	92.5	2005 - 10	0.65	0.00	0.40	0.46	0.67
2015	66,928	1,034	23	3,919	61,951	100	1.5	0.03	5.9	92.6	2010 - 15	0.70	0.25	0.49	0.48	0.72
2020	68,967	1,054	24	3,990	63,899	100	1.5	0.03	5.8	92.7	2015 - 20	0.60	0.38	0.48	0.36	0.62
2025	70,300	1,076	24	4,021	65,179	100	1.5	0.03	5.7	92.7	2020 - 25	0.38	0.41	0.37	0.15	0.40
2030	71,126	1,099	25	4,027	65,975	100	1.5	0.03	5.7	92.8	2025 - 30	0.23	0.44	0.26	0.03	0.24
2035	71,885	1,128	25	4,031	66,701	100	1.6	0.03	5.6	92.8	2030 - 35	0.21	0.52	0.20	0.02	0.22
2040	72,699	1,161	25	4,049	67,463	100	1.6	0.03	5.6	92.8	2035 - 40	0.23	0.58	0.16	0.09	0.23
2045	73,480	1,197	25	4,088	68,170	100	1.6	0.03	5.6	92.8	2040 - 45	0.21	0.60	0.13	0.19	0.21
2050	74,021	1,235	25	4,143	68,618	100	1.7	0.03	5.6	92.7	2045 - 50	0.15	0.63	0.10	0.27	0.13
2055	74,271	1,276	25	4,215	68,755	100	1.7	0.03	5.7	92.6	2050 - 55	0.07	0.65	0.11	0.34	0.04
2060	74,737	1,321	26	4,318	69,072	100	1.8	0.03	5.8	92.4	2055 - 60	0.13	0.71	0.20	0.48	0.09
Source: Bu	ireau of	Business	and E	conomic	Resear	ch, Univ	ersity of	New M	exico							

	Table 4.32 Projected Poulation Age Structure: 2005 to 2060 <i>Tularosa / Salt Basins Region</i>							
		Ма	le			Ferr	nale	
Year	0 - 19	20 - 44	45 - 64	65 +	0 - 19	20 - 44	45 - 64	65 +
2005	9,501	9,897	7,320	4,220	8,921	10,125	7,819	4,774
2010	9,197	9,909	7,997	4,827	8,510	10,051	8,559	5,590
2015	8,663	10,122	8,969	5,284	8,158	10,162	9,356	6,214
2020	8,635	11,025	8,323	6,027	8,369	10,569	8,997	7,022
2025	9,526	10,943	7,755	6,393	9,181	10,594	8,110	7,798
2030	9,548	11,381	7,069	6,996	9,195	10,865	7,397	8,675
2035	9,332	11,382	6,843	7,801	8,970	10,752	7,326	9,479
2040	9,193	10,951	8,141	7,470	8,827	10,482	8,226	9,409
2045	9,335	10,736	9,125	6,981	8,958	10,497	9,025	8,823
2050	9,577	11,455	8,828	6,656	9,183	11,159	8,636	8,527
2055	9,688	11,533	8,554	6,931	9,284	11,229	8,246	8,806
2060	9,626	11,484	8,111	7,785	9,222	11,154	7,949	9,406
Source: Bure	eau of Bus	siness and	Economic	Researc	h, Univers	ity of New	Mexico	

# **Appendix 1. Study Methodologies**

#### An Introduction to Spatially-Explicit Demographic Estimation and Projection

Population estimates describe populations in their historical past while population projections model their future trajectories over time. Both demographic models include estimates of the effect of both time and space on a given population. Projections are often confused with forecasts, which seek to predict the size of a population at some point in the near future based on a wide variety of information. In reality, estimates serve as a basis for projections, which are simply models of the unavoidable consequences of the continuance of historical population trends into the future. As such, projections are useful tools by which planners may understand what the implications of trends in births, deaths, and migration are for future population dynamics. Given this information, planners may then make decisions on how best to shape policies in light of population trends to accomplish specific objectives.

A wide variety of techniques exist for estimating and projecting populations. Traditionally, the "cohort-component" method has been the most widely used method for both estimation and projection. It is based upon an updating of a base population over time based on a set of underlying hazard models that describe its experiences of birth, death, and migration. The well-known "population balancing equation" describes the overall process captured in the cohort component model:

#### **Population = Base Population + (Births - Deaths) + (In-Migration – Out-Migration)**

This equation, however, ignores the fact that populations are "structured" into categories of age and sex that affect their rate of growth over time. A consideration of population structure is an essential aspect of estimating and projecting populations. For example, younger populations tend to grow faster since—relative to an older population—a larger portion of the population is subject to risk for giving birth. Older population is at a higher risk for dying and because a larger proportion of the population is subject to risk for giving birth. Older population is subject to risk for giving birth. The cohort component model considers these internal population dynamics, estimating population growth as the sum of products of population at risk for birth or death and the estimated rates for these events. The estimated number of persons in any given age interval from 1 to 85 + would equal the number of persons entering that age interval at time "0", multiplied against their likelihood of surviving to the next interval:

N t, x = No, x \* 
$$l_x$$

The number of persons estimated in age interval "0" would include all children estimated to have been born to reproductive aged women, discounted by their

mother's probability of surviving from the beginning of their given age interval to the end of it:

N t, 
$$0 = \sum No$$
, x \* lx \* m

The cohort component method allows the demographer to estimate the total population—as well as its age-structure—at any given point in time. Estimates for 2006, for example, may be based on the Census 2000 as a base population, extrapolated forward based on estimates of birth and death rates. Projections may be accomplished for any point in the future by continuing this extrapolation process. Typically, for projections, rates are modeled to increase or decrease based on historical trends and migration is modeled separately for each age interval and added to the estimated total in each age category:

N t, x = [No, x \* lx] + Net Migrants<sub>x</sub> N t, tot =  $\sum$  [No, x \* lx\* mx] + Net Migrants<sub>x</sub>

The process is iterative, repeated year by year. Inputs from the base population are updated to the following year, and the process is repeated annually by updating the previous year's population—the procedure involves a recursive estimation sequence. Males and females are typically modeled separately and then aggregated to arrive at the final population estimate or projection. Success in the use of the model is based upon experience in modeling the future trajectories of the rates used to update the population at each time interval.

While the cohort component model has been validated in a wide variety of settings and shown to be both accurate and reliable under a variety of conditions, its principal weakness revolves around its lack of responsiveness in the short-term to prevailing economic conditions. Because of this, many demographers also apply an alternative estimation procedure known as the "housing-unit" method, based on information about housing unit stock, the percentage of homes occupied, the average number of persons residing in each household, and the population living in group quarters facilities such as college dormitories, nursing homes, prisons, and military barracks. The simple estimating equation for this method includes terms for occupied housing units (HUOcc), the average household size (PPH), and the group quarters population (GQ):

### **Population = (HUOcc\*PPH) + GQ**

Presumably, this method tracks small-area dynamics much better than the cohort component method, and also allows the demographer to accurately estimate spatial trends in the proportion of the population residing in different, smaller geographies. For example, the United States Census Bureau uses the housing unit method to distribute its County population estimates to sub-County areas based on the proportion of each sub-County area to the total population in the County. The Population Estimates Program at the University of New Mexico's Bureau of Business and Economic Research (BBER-PEP) does the reverse—it uses the housing unit method as its principal method of estimating the total population of each County in New Mexico, relying upon the cohort component model to structure these populations into categories of age and sex and as a secondary method of estimating the total population in each County.

All population estimates and projections are spatial—occurring within geographic boundaries such as States, Counties, Cities, or Water Planning Regions. Because of this, data presented in one set of boundaries must often be "normalized" or converted to other boundaries. For example, County level data may need to be placed within Cities, or State-wide data presented within Counties might require presentation in alternative geographies—such as Water Regions. The first problem—allocating larger geography data to smaller geographies requires the use of Sub-Area Allocation Models (SAMs), which are based upon a variety of assumptions. The second issue-of inter-converting data across multiple geographies with the same total aggregate population (as in Water Planning Regions and Counties, which both sum to the State) requires adjustment based on specifying the relationship between the two geographies in a spatial context-usually based upon their geographic area of overlap. Popular SAMs include "share-based" methods such as the areal and proportional weight methods, by which a proportion of a larger population (like a County) is allocated downward to a smaller geography (such as a City) based upon its proportional contribution to the total physical area of the larger geography or its proportional contribution to the total population of the larger geography. Normalization methods typically follow similar share-based procedures. SAMs and geographic normalization models use similar procedures that reduce to estimation of spatial probabilities of assignment of population presented in one geography into another—e.g., the probability that any one person in the County is found within a specific City.

The estimates and projections presented in this report required several levels of geographic normalization, estimation of spatial population structure, computation of historical trends, and projection modeling. 1990 and 2000 Census data had to be normalized to account for geographic boundary changes between decennial censuses. The spatial structure of County populations had to be estimated based on housing unit data. Normalization of these data between County and Water Planning Region boundaries had to be made, and rates of births, deaths, and migration modeled for each separately. Based on these data, demographic projections were carried out using the cohort component procedure described previously. These estimates then were subjected to extensive diagnostics and, where necessary, input data were adjusted. The Water Planning Region projections were then controlled to the County projections where necessary and all estimates and projections were evaluated in terms of internal consistency.

#### Water Planning Regions: Estimation and Projection Methodologies

Water Planning Region baselines for 1990 and 2000 were computed by first normalizing 1990 Census block-level data to 2000 Census geographies, then aggregating block level population to Water Planning Regions based on a proportional area weight SAM, utilized when block boundaries were split by Water Planning Region boundaries. The area weight SAM was operationalized by assuming that the block-level population was evenly-distributed across the geographic area of the block, then splitting the block's population based on the relative area of each block found within each Water Planning Region. For example, if a given block had a population of 100 persons and 40% of its area was found within the Estancia Water Planning Region, then 40 persons would be allocated to that Region. Post-2000 (2001-2005) populations were estimated using a similar algorithm with the one additional step of estimating the block's population based on the share of the 2000 Census population in that block relative to the County. With this procedure, the estimate of a given block's population in 2005 would be the 2000 block/County share multiplied by the 2005 County population estimate. This value would then be split using the area weight procedure just described to allocate 2005 County populations to portions of blocks found within each Water Planning Region. These block portions were then simply aggregated to arrive at the Water Planning Region estimates. Minimal rounding error was recorded and the residual between the 2005 Counties and the state-wide sum of the Water Planning Regions was evenly distributed across the Water Planning Regions to arrive at an estimate of each that was 100% consistent.

Using the 2005 estimates as a baseline, 2010-2060 projections were made using a cohort-component model. Inputs for the model were computed by normalizing births, deaths, and migration data to Census tracts, then re-aggregating them to Water Planning Regions using a joint probability distribution that formally identified the mathematical relationship between Census Tracts, Counties, and Water Planning Regions using the population share ratio method described above. Rates were computed independently for each Water Planning Region and then used to update the population at five-year intervals from 2005 to 2060, compute growth rates, and estimate trends in age structure. Migration estimates were based on trends from 1990 to 2005 captured in IRS tax return data, 1990 and 2000 Census data, and 2000 to 2005 driver's license records, which were averaged and combined with results from the "forward survival" method for estimating migration based on decennial census data and available information on mortality and fertility rates. The forward survival method computes an expected number of persons by age for 2000 based on a 1990 baseline and a life-table. The life-table function is used to update the population between 1990 and 2000, adding births to the 1990 baseline each year, then "surviving" each year's cohort forward based on the life-table. This model, along with the averages of the other administrative records were used to arrive at migration estimates used in this study. Applications of the normalization procedure allowed continual controlling of the Water Planning Region projections to more well-validated County projections previously produced by BBER in 2003 and updated in conjunction with this report. Final Water Planning Region projections were controlled to the counties with a rounding error of only one person in 2060.

### **Evaluation of Projections**

All projections are based on assumptions about an unknown future. The cohort-component method relies upon assumptions about future trends in births, deaths, and migration; by inference, manipulation of the model also involves the demographer's impression of economic, socio-cultural, political, and consumer trends. The projections produced for this report were evaluated several times, both externally and internally. Most recently, they were scrutinized in light of BBER's most recent round of population estimates for the State and County (2007) as well as new information on migration trends in New Mexico, made available from the Internal Revenue Service in partnership with the Census Bureau. Careful consideration was made about current down-trends in the housing market and the general economy in New Mexico. These latter considerations were conducted in discussion with BBER economists as well as planners, consultants, and other interested parties from around the State. In light of these data, the projections were adjusted in a final round of review prior to release of this report to ensure that the assumptions made about birth, death, and migration trends could be assumed to be reliable. Final decision on the shape of the projections reported here, then, were made in agreement between a variety of experts in various fields. Successful projections always involve such collaborations and every effort was made in the production of this report to adhere to the highest standards of demographic methodology as well as expert review.

# Appendix 2.1 Projected County Population July 1, 2000 to July 1, 2060

	July 1, 2000 to July 1, 2060						
	Bernalillo	Catron	Chaves	Cibola	Colfax	Curry	De Baca
2000	556,678	3,543	61,382	25,595	14,189	45,044	2,240
2005	614,508	3,712	62,203	28,506	14,375	46,289	2,256
2010	713,020	3,881	63,272	29,844	14,803	47,861	2,268
2015	811,861	4,040	65,025	31,164	15,323	49,117	2,313
2020	905,393	4,176	66,933	32,293	15,836	50,177	2,349
2025	993,650	4,263	68,720	33,138	16,214	50,955	2,372
2030	1,080,297	4,292	70,547	33,873	16,480	51,582	2,401
2035	1,166,590	4,292	72,667	34,624	16,720	52,226	2,438
2040	1,251,161	4,306	74,946	35,375	16,976	52,765	2,484
2045	1,332,099	4,349	77,093	36,042	17,230	53,073	2,539
2050	1,408,970	4,424	79,155	36,585	17,484	53,179	2,597
2055	1,483,732	4,528	81,346	37,100	17,766	53,201	2,650
2060	1,558,365	4,655	83,847	37,761	18,129	53,175	2,719
	Dona Ana	Eddy	Grant	Guadalupe	Harding	Hidalgo	Lea
2000	174,682	51,658	31,002	4,680	810	5,932	55,511
2005	192,474	52,167	31,511	4,743	778	5,966	57,006
2010	215,828	54,145	33,626	5,114	823	6,300	60,896
2015	237,241	56,331	35,748	5,553	868	6,667	64,410
2020	256,619	58,294	37,744	5,961	901	7,061	67,479
2025	274,661	59,731	39,589	6,328	918	7,420	70,193
2030	291,895	60,764	41,369	6,717	932	7,739	72,928
2035	309,279	61,605	43,140	7,160	954	8,051	75,716
2040	327,051	62,229	44,908	7,636	976	8,367	78,357
2045	344,700	62,530	46,745	8,085	989	8,709	80,712
2050	361,925	62,530	48,683	8,488	1,002	9,061	82,919
2055	378,735	62,537	50,713	8,876	1,019	9,419	85,159
2060	395,295	62,862	52,881	9,327	1,033	9,801	87,423
	1						
	Lincoln	Los Alamos	Luna	McKinley	Mora	Otero	Quay
2000	19,411	18,343	25,016	74,798	5,180	62,298	10,155
2005	21,898	19,864	26,394	78,013	5,440	63,994	10,106
2010	22,733	20,129	27,985	80,747	5,636	66,292	10,232
2015	23,574		29,755	84,301	5,855	68,814	10,311
2020	24,211	20,503	31,479	88,155	6,007	71,051	10,344
2025	24,518	20,880	32,919	91,200	6,066	72,517	10,289
2030	24,640	21,158	34,231	93,294	6,094	73,436	10,199
2035	24,747	21,157	35,647	94,837	6,134	74,274	10,145
2040	24,899	21,004	37,197	96,236	6,171	75,137	10,117
2045	25,100	20,915	38,816	97,513	6,163	75,908	10,094
2050	25,333	20,971	40,408	98,424	6,131	76,369	10,087
2055	25,655	21,164	41,917	99,041	6,116	76,481	10,105
2060	26,174	21,505	43,446	99,734	6,153	76,795	10,157

Appendix 2.1 Projected County Population July 1, 2000 to July 1, 2060

	July 1, 2000 to July 1, 2000						
	Rio Arriba	Roosevelt	Sandoval	San Juan	San Miguel	Santa Fe	Sierra
2000	41,190	18,018	89,908	113,801	30,126	129,292	13,270
2005	43,024	18,771	107,104	126,008	30,719	143,306	13,657
2010	44,072	19,399	125,675	133,170	31,827	151,510	13,717
2015	45,224	19,876	144,087	140,523	33,137	159,056	13,793
2020	46,206	20,188	163,315	146,815	34,284	165,719	13,887
2025	46,674	20,330	182,592	151,501	35,067	170,730	13,959
2030	46,879	20,366	200,822	155,593	35,677	174,124	13,989
2035	47,170	20,378	217,806	159,781	36,337	176,612	14,028
2040	47,582	20,351	233,987	163,812	37,087	178,328	14,109
2045	47,966	20,218	249,769	167,116	37,762	179,301	14,252
2050	48,267	19,997	265,230	169,631	38,236	179,921	14,429
2055	48,612	19,708	280,434	172,083	38,626	180,443	14,604
2060	49, 235	19,342	295,906	175,362	39,202	181,262	14,817

	Socorro	Taos	Torrance	Union	Valencia	NM Totals
	3000110	1405	TOTTAILLE	UNION	Valencia	
2000	18,078	29,979	16,911	4,174	66,152	1,819,046
2005	18,513	31,931	18,282	4,315	71,459	1,969,291
2010	19,250	33,879	20,052	4,449	79,894	2,162,331
2015	20,012	35,960	22,184	4,814	89 <i>,</i> 045	2,356,236
2020	20,678	38,013	24,584	5,029	98 <i>,</i> 459	2,540,145
2025	21,167	39,743	26,990	5,169	107,294	2,707,757
2030	21,526	41,145	29,132	5,259	115,416	2,864,796
2035	21,837	42,367	31,007	5 <i>,</i> 352	123,212	3,018,289
2040	22,168	43,445	32,790	5,445	130,856	3,168,256
2045	22,488	44,436	34,509	5 <i>,</i> 496	138,286	3,311,004
2050	22,759	45,536	36,065	5,508	145,309	3,445,612
2055	23,046	46,794	37,468	5,504	151,911	3,576,493
2060	23,427	48,257	38,811	5,509	158,509	3,710,875

July 1, 2000 to July 1, 2060						
Projection	Colfax	Estancia	Jemez y		Lower	Lower Rio
Year	Collax	Estancia	Sangre	Lea	Pecos	Grande
2000	14,189	32,064	163,231	55,511	136,382	174,682
2005	14,375	35,069	178,665	57,006	139,941	192,474
2010	14,803	37,709	187,020	60,896	144,070	215,828
2015	15,323	40,749	194,637	64,410	149,130	237,241
2020	15,836	44,113	201,354	67,479	153,872	256,619
2025	16,214	47,539	206,141	70,193	157,559	274,661
2030	16,480	50,565	209,130	72,928	160,662	291,895
2035	16,720	53,098	211,216	75,716	163,846	309,279
2040	16,976	55,356	212,669	78,357	166,995	327,051
2045	17,230	57,410	213,585	80,712	169,690	344,700
2050	17,484	59,210	214,330	82,919	171,963	361,925
2055	17,766	60,790	215,205	85,159	174,399	378,735
2060	18,129	62,281	216,756	87,423	177,660	395,295
					-	i
	Middle Rio	NE New	NW New			Mora / San
	Grande	Mexico	Mexico	Rio Chama	San Juan	Miguel /
						Guadalupe
2000	708,709	78,201	80,885	8,000	139,770	39,986
2005	788,515	80,259	86,204	8,356	153,255	40,902
2010	913,662	82,765	89,533	8,089	162,088	42,578
2015	1,039,695	84,987	93,371	7,997	171,238	44,545
2020	1,161,485	86,640	97,241	7,952	179,286	46,252
2025	1,277,459	87,660	100,221	7,885	185,392	47,461
2030	1,390,095	88,338	102,243	7,750	190,792	48,488
2035	1,500,857	89,054	103,728	7,568	196,318	49,631
2040	1,608,979	89,654	104,999	7,366	201,750	50,894
2045	1,712,884	89,871	106,051	7,183	206,390	52,010
2050	1,812,021	89,772	106,684	7,038	210,078	52,855
2055	1,908,387	89,537	107,034	6,922	213,635	53,618
2060	2,004,887	89,216	107,545	6,849	218,119	54,681
	Socorro /	SW New	Taos	Tularosa /	NM	Total
	Seirra	Mexico		Salt Basin		
2000	31,348	65,493	29,989	60,607		9,046
2005	32,170	67,583	31,941	62,577		9,292
2010	32,967	71,792	33,890	64,640	2,162	2,331
2015	33,805	76,210	35,971	66,928	2,356	5,236
2020	34,565	80,460	38,024	68,967	2,540	0,145
2025	35,126	84,191	39,755	70,300	2,707	7,757
2030	35,515	87,631	41,157	71,126	2,864	4,796
2035	35,865	91,130	42,379	71,885	3,018	8,289
2040	36,277	94,778	43,457	72,699	3,168	8,256
2045	36,740	98,619	44,449	73,480	3,311	1,004
2050	27 1 0 0	102,575	45,549	74,021	3 44'	5,612
2050	37,188	102,575	45,545	74,021	3)113	5)01E
2050 2055	37,188	102,575	46,807	74,271		5,493

# Appendix 2.2 **Projected Water Region Population**

Source: Bureau of Business and Economic Research, University of New Mexico

	July 1, 2000 to July 1, 2060						
	Bernalillo County						
	Water Region Population in County						
Projection	Total County						
Year	Population	Middle Rio Grande	Estancia				
2000	556,678	553,827	2,851				
2005	614,508	611,361	3,147				
2010	713,020	709,680	3,339				
2015	811,861	808,329	3,532				
2020	905,393	901,664	3,729				
2025	993,650	989,710	3,941				
2030	1,080,297	1,076,161	4,136				
2035	1,166,590	1,162,290	4,301				
2040	1,251,161	1,246,717	4,444				
2045	1,332,099	1,327,528	4,571				
2050	1,408,970	1,404,289	4,681				
2055	1,483,732	1,478,953	4,779				
2060	1,558,365	1,553,486	4,879				
Projection	Per	cent Distribution					
Year	Total County	Middle Rio Grande	Estancia				
2000	100.0	99.5	0.5				
2005	100.0	99.5	0.5				
2010	100.0	99.5	0.5				
2015	100.0	99.6	0.4				
2020	100.0	99.6	0.4				
2025	100.0	99.6	0.4				
2030	100.0	99.6	0.4				
2035	100.0	99.6	0.4				
2040	100.0	99.6	0.4				
2045	100.0	99.7	0.3				
2050	100.0	99.7	0.3				
2055	100.0	99.7	0.3				
2060	100.0	99.7	0.3				

Appendix 3.1 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060

Appendix 3.2
Water Region Population in County and Percent Distribution
July 1, 2000 to July 1, 2060
Catron County

	Water Region Pop	ulation in County			
Projection Year					
	Total County Population	Southwest New Mexico			
2000	3,543	3,543			
2005	3,712	3,712			
2010	3,881	3,881			
2015	4,040	4,040			
2020	4,176	4,176			
2025	4,263	4,263			
2030	4,292	4,292			
2035	4,292	4,292			
2040	4,306	4,306			
2045	4,349	4,349			
2050	4,424	4,424			
2055	4,528	4,528			
2060	4,655	4,655			
Drojaction Voor	Percent Distribution				
Projection Year	Total County	Southwest New Mexico			
2000	100.0	100.0			
2005	100.0	100.0			
2010	100.0	100.0			
2015	100.0	100.0			
2020	100.0	100.0			
2025	100.0	100.0			
2030	100.0	100.0			
2035	100.0	100.0			
2040	100.0	100.0			
2045	100.0	100.0			
2050	100.0	100.0			
2055	100.0	100.0			
2060	100.0	100.0			

	•	aves County	
		r Region Population ir	n County
Projection Year	Total County		
Tear	Population	Lower Pecos Valley	Tularosa/Sacramento
2000	61,382	60,374	1,008
2005	62,203	61,182	1,021
2010	63,272	62,250	1,021
2015	65,025	63,991	1,034
2020	66,933	65,880	1,054
2025	68,720	67,644	1,076
2030	70,547	69,448	1,099
2035	72,667	71,539	1,128
2040	74,946	73,784	1,161
2045	77,093	75,896	1,197
2050	79,155	77,920	1,235
2055	81,346	80,070	1,276
2060	83,847	82,525	1,321
Projection		Percent Distribution	า
Year	Total County	Lower Pecos Valley	Tularosa/Sacramento
2000	100.0	98.4	1.6
2005	100.0	98.4	1.6
2010	100.0	98.4	1.6
2015	100.0	98.4	1.6
2020	100.0	98.4	1.6
2025	100.0	98.4	1.6
2030	100.0	98.4	1.6
2035	100.0	98.4	1.6
2040	100.0	98.5	1.5
2045	100.0	98.4	1.6
2050	100.0	98.4	1.6
2055	100.0	98.4	1.6
2060	100.0	98.4	1.6

Appendix 3.3 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060

	Cibola County						
Ducientian	Water Region Popu	lation in County					
Projection Year							
rear	Total County Population	Northwest New Mexico					
2000	25,595	25,595					
2005	28,506	28,506					
2010	29,844	29,844					
2015	31,164	31,164					
2020	32,293	32,293					
2025	33,138	33,138					
2030	33,873	33,873					
2035	34,624	34,624					
2040	35,375	35,375					
2045	36,042	36,042					
2050	36,585	36,585					
2055	37,100	37,100					
2060	37,761	37,761					
Projection	Percent Dis	tribution					
Year	Total County	Northwest New Mexico					
2000	100.0	100.0					
2005	100.0	100.0					
2010	100.0	100.0					
2015	100.0	100.0					
2020	100.0	100.0					
2025	100.0	100.0					
2030	100.0	100.0					
2035	100.0	100.0					
2040	100.0	100.0					
2045	100.0	100.0					
2050	100.0	100.0					
2055	100.0	100.0					
2060	100.0	100.0					

Appendix 3.4 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060

July 1, 2000 to July 1, 2060 Colfax County				
	Water Region Population in County			
Projection Year				
	Total County Population	Colfax		
2000	14,189	14,189		
2005	14,375	14,375		
2010	14,803	14,803		
2015	15,323	15,323		
2020	15,836	15,836		
2025	16,214	16,214		
2030	16,480	16,480		
2035	16,720	16,720		
2040	16,976	16,976		
2045	17,230	17,230		
2050	17,484	17,484		
2055	17,766	17,766		
2060	18,129	18,129		
Projection Year	Percent Distribution			
	Total County	Colfax		
2000	100.0	100.0		
2005	100.0	100.0		
2010	100.0	100.0		
2015	100.0	100.0		
2020	100.0	100.0		
2025	100.0	100.0		
2030	100.0	100.0		
2035	100.0	100.0		
2040	100.0	100.0		
2045	100.0	100.0		
2050	100.0	100.0		
2055	100.0	100.0		
2060	100.0	100.0		

# Appendix 3.5 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060

July 1, 2000 to July 1, 2060 <i>Curry County</i>				
	Water Region Population in County			
Projection Year	Total County Population	Northeast New Mexico		
2000	45044	45044		
2005	46289	46289		
2010	47861	47861		
2015	49117	49117		
2020	50177	50177		
2025	50955	50955		
2030	51582	51582		
2035	52226	52226		
2040	52765	52765		
2045	53073	53073		
2050	53179	53179		
2055	53201	53201		
2060	53175	53175		
	Percent Distribution			
Projection Year	Total County	Northeast New Mexico		
2000	100.0	100.0		
2005	100.0	100.0		
2010	100.0	100.0		
2015	100.0	100.0		
2020	100.0	100.0		
2025	100.0	100.0		
2030	100.0	100.0		
2035	100.0	100.0		
2040	100.0	100.0		
2045	100.0	100.0		
2050	100.0	100.0		
2055	100.0	100.0		
2060	100.0	100.0		

Appendix 3.6 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060

July 1, 2000 to July 1, 2060				
De Baca County Water Region Reputation in County				
	Water Region Population in County			
Projection Year				
	Total County Population	Lower Pecos Valley		
2000	2,240	2,240		
2005	2,256	2,256		
2010	2,268	2,268		
2015	2,313	2,313		
2020	2,349	2,349		
2025	2,372	2,372		
2030	2,401	2,401		
2035	2,438	2,438		
2040	2,484	2,484		
2045	2,539	2,539		
2050	2,597	2,597		
2055	2,650	2,650		
2060	2,719	2,719		
Projection Year	Percent Distribution			
	Total County	Lower Pecos Valley		
2000	100.0	100.0		
2005	100.0	100.0		
2010	100.0	100.0		
2015	100.0	100.0		
2020	100.0	100.0		
2025	100.0	100.0		
2030	100.0	100.0		
2035	100.0	100.0		
2040	100.0	100.0		
2045	100.0	100.0		
2050	100.0	100.0		
2055	100.0	100.0		
2060	100.0	100.0		

Appendix 3.7			
Water Region Population and Percent Distribution			
July 1, 2000 to July 1, 2060			
De Raca County			

Dona Ana County				
Water Region Population in County				
Projection Year	• •	•		
-	Total County Population	Lower Rio Grande		
2000	174,682	174,682		
2005	192,474	192,474		
2010	215,828	215,828		
2015	237,241	237,241		
2020	256,619	256,619		
2025	274,661	274,661		
2030	291,895	291,895		
2035	309,279	309,279		
2040	327,051	327,051		
2045	344,700	344,700		
2050	361,925	361,925		
2055	378,735	378,735		
2060	395,295	395,295		
Projection Year	Percent Distribution			
-	Total County	Lower Rio Grande		
2000	100.0	100.0		
2005	100.0	100.0		
2010	100.0	100.0		
2015	100.0	100.0		
2020	100.0	100.0		
2025	100.0	100.0		
2030	100.0	100.0		
2035	100.0	100.0		
2040	100.0	100.0		
2045	100.0	100.0		
2050	100.0	100.0		
2055	100.0	100.0		
2060	100.0	100.0		

# Appendix 3.8 Water Region Population and Percent Distribution July 1, 2000 to July 1, 2060

Eddy County			
	Water Region Population in County		
Projection Year	Total County		
	Population	Lower Pecos Valley	Tularosa/Sacramento
2000	51,658	51,636	22
2005	52,167	52,145	22
2010	54,145	54,123	23
2015	56,331	56,308	23
2020	58,294	58,270	24
2025	59,731	59,707	24
2030	60,764	60,740	25
2035	61,605	61,580	25
2040	62,229	62,204	25
2045	62,530	62,505	25
2050	62,530	62,505	25
2055	62,537	62,512	25
2060	62,862	62,837	26
Projection Year		Percent Distributior	1
	Total County	Lower Pecos Valley	Tularosa/Sacramento
2000	100.0	99.96	0.04
2005	100.0	99.96	0.04
2010	100.0	99.96	0.04
2015	100.0	99.96	0.04
2020	100.0	99.96	0.04
2025	100.0	99.96	0.04
2030	100.0	99.96	0.04
2035	100.0	99.96	0.04
2040	100.0	99.96	0.04
2045	100.0	99.96	0.04
2050	100.0	99.96	0.04
2055	100.0	99.96	0.04
2060	100.0	99.96	0.04

Appendix 3.9 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060

	Grant County	2000
Draiastian	Water Region Popu	lation in County
Projection Year		
Tear	Total County Population	Southwest New Mexico
2000	31,002	31,002
2005	31,511	31,511
2010	33,626	33,626
2015	35,748	35,748
2020	37,744	37,744
2025	39,589	39,589
2030	41,369	41,369
2035	43,140	43,140
2040	44,908	44,908
2045	46,745	46,745
2050	48,683	48,683
2055	50,713	50,713
2060	52,881	52,881
Projection -	Percent Dis	tribution
Year		
	Total County	Southwest New Mexico
2000	100.0	100.0
2005	100.0	100.0
2010	100.0	100.0
2015	100.0	100.0
2020	100.0	100.0
2025	100.0	100.0
2030	100.0	100.0
2035	100.0	100.0
2040	100.0	100.0
2045	100.0	100.0
2050	100.0	100.0
2055	100.0	100.0
2060	100.0	100.0

Appendix 3.10
Water Region Population in County and Percent Distribution
July 1, 2000 to July 1, 2060

July 1, 2000 to July 1, 2060 <i>Guadalupe County</i>			
	Water Region Pop		
Projection Year			
	Total County Population	Northeast New Mexico	
2000	4,680	4,680	
2005	4,743	4,743	
2010	5,114	5,114	
2015	5,553	5,553	
2020	5,961	5,961	
2025	6,328	6,328	
2030	6,717	6,717	
2035	7,160	7,160	
2040	7,636	7,636	
2045	8,085	8,085	
2050	8,488	8,488	
2055	8,876	8,876	
2060	9,327	9,327	
Projection Year	Percent Distribution		
	Total County	Northeast New Mexico	
2000	100.0	100.0	
2005	100.0	100.0	
2010	100.0	100.0	
2015	100.0	100.0	
2020	100.0	100.0	
2025	100.0	100.0	
2030	100.0	100.0	
2035	100.0	100.0	
2035 2040	100.0 100.0	100.0 100.0	
2040	100.0	100.0	
2040 2045	100.0 100.0	100.0 100.0	

### Appendix 3.11 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060 *Guadalupe County*

	July 1, 2000 to July 1, 2 Harding County	000	
	Water Region Population in County		
Projection Year			
	Total County Population	Northeast New Mexico	
2000	810	810	
2005	778	778	
2010	823	823	
2015	868	868	
2020	901	901	
2025	918	918	
2030	932	932	
2035	954	954	
2040	976	976	
2045	989	989	
2050	1,002	1,002	
2055	1,019	1,019	
2060	1,033	1,033	
	1,033 Percent Dis		
Projection Year		tribution	
Projection Year 2000	Percent Dis	tribution	
Projection Year 2000 2005	Percent Dis Total County 100.0 100.0	tribution Northeast New Mexico 100.0 100.0	
Projection Year 2000 2005 2010	Percent Dis Total County 100.0	tribution Northeast New Mexico 100.0 100.0 100.0	
Projection Year 2000 2005 2010 2015	Percent Dis Total County 100.0 100.0	tribution Northeast New Mexico 100.0 100.0	
Projection Year 2000 2005 2010 2015 2020	Percent Dis Total County 100.0 100.0 100.0	tribution Northeast New Mexico 100.0 100.0 100.0 100.0 100.0 100.0	
Projection Year 2000 2005 2010 2015 2020 2025	Percent Dis Total County 100.0 100.0 100.0 100.0 100.0 100.0	tribution Northeast New Mexico 100.0 100.0 100.0 100.0 100.0 100.0	
Projection Year 2000 2005 2010 2015 2020 2025 2030	Percent Dis Total County 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	tribution Northeast New Mexico 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	
Projection Year 2000 2005 2010 2015 2020 2025 2030 2035	Percent Dis Total County 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	tribution Northeast New Mexico 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	
Projection Year 2000 2005 2010 2015 2020 2025 2030 2035 2040	Percent Dis           Total County           100.0           100.0           100.0           100.0           100.0           100.0           100.0           100.0           100.0           100.0           100.0           100.0           100.0           100.0           100.0           100.0           100.0           100.0	tribution Northeast New Mexico 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	
Projection Year 2000 2005 2010 2015 2020 2025 2030 2035 2040 2045	Percent Dis Total County 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	tribution Northeast New Mexico 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	
Projection Year 2000 2005 2010 2015 2020 2025 2030 2035 2030 2035 2040 2045 2050	Percent Dis           Total County           100.0	Itribution           Northeast New Mexico           100.0	
Projection Year 2000 2005 2010 2015 2020 2025 2030 2035 2040 2045	Percent Dis           Total County           100.0	tribution Northeast New Mexico 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	

#### Appendix 3.12 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060 Harding County

Hidalgo County				
	Water Region Population in County			
Projection Year				
	Total County Population	Southwest New Mexico		
2000	5,932	5,932		
2005	5,966	5,966		
2010	6,300	6,300		
2015	6,667	6,667		
2020	7,061	7,061		
2025	7,420	7,420		
2030	7,739	7,739		
2035	8,051	8,051		
2040	8,367	8,367		
2045	8,709	8,709		
2050	9,061	9,061		
2055	9,419	9,419		
2060	9,801	9,801		
Projection Year	Percent Distribution			
-	Total County	Southwest New Mexico		
2000	100.0	100.0		
2005	100.0	100.0		
2010	100.0	100.0		
2015	100.0	100.0		
2020	100.0	100.0		
2025	100.0	100.0		
2030	100.0	100.0		
2035	100.0	100.0		
2040	100.0	100.0		
2045	100.0	100.0		
	100.0 100.0	100.0 100.0		
2045				

#### Appendix 3.13 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060 Hidalgo County

Appendix 3.14 Water Region Population in County and Percent Distribution			
	July 1, 2000 to July 1, 2060 Lea County		
	Water Region Population in (	County	
Projection Year			
r rojection r cur	Total County Population	Lea County	
2000	55,511	55,511	
2005	57,335	57,335	
2010	60,896	60,896	
2015	64,410	64,410	
2020	67,479	67,479	
2025	70,193	70,193	
2030	72,928	72,928	
2035	75,716	75,716	
2040	78,357	78,357	
2045	80,712	80,712	
2050	82,919	82,919	
2055	85,159	85,159	
2060	87,423	87,423	
Droigstion Voor	Percent Distribution		
Projection Year	Total County Population	Lea County	
2000	100.0	100.0	
2005	100.0	100.0	
2010	100.0	100.0	
2015	100.0	100.0	
2020	100.0	100.0	
2025	100.0	100.0	
2030	100.0	100.0	
2035	100.0	100.0	
2040	100.0	100.0	
2045	100.0	100.0	
2050	100.0	100.0	
2055	100.0	100.0	
2060	100.0	100.0	

	Linco	In County	
Projection	Water Region Population in County		
Year	Total County Population	Lower Pecos Valley	Tularosa/Sacramento
2000	19,411	16,096	3,315
2005	21,898	18,159	3,739
2010	22,733	18,907	3,827
2015	23,574	19,655	3,919
2020	24,211	20,221	3,990
2025	24,518	20,497	4,021
2030	24,640	20,613	4,027
2035	24,747	20,716	4,031
2040	24,899	20,849	4,049
2045	25,100	21,011	4,088
2050	25,333	21,190	4,143
2055	25,655	21,441	4,215
2060	26,174	21,856	4,318
Projection		Percent Distribution	
Year	Total County	Lower Pecos Valley	Tularosa/Sacramento
2000	100.0	82.9	17.1
2005	100.0	82.9	17.1
2010	100.0	83.2	16.8
2015	100.0	83.4	16.6
2020	100.0	83.5	16.5
2025	100.0	83.6	16.4
2030	100.0	83.7	16.3
2035	100.0	83.7	16.3
2040	100.0	83.7	16.3
2045	100.0	83.7	16.3
2050	100.0	83.6	16.4
2055	100.0	83.6	16.4
2060	100.0	83.5	16.5

Appendix 3.15 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060

Los Alamos County			
	Water Region Popula	tion in County	
Projection Year			
	Total County Population	Jemez y Sangre	
2000	18,343	18,343	
2005	19,864	19,864	
2010	20,129	20,129	
2015	20,252	20,252	
2020	20,503	20,503	
2025	20,880	20,880	
2030	21,158	21,158	
2035	21,157	21,157	
2040	21,004	21,004	
2045	20,915	20,915	
2050	20,971	20,971	
2055	21,164	21,164	
2060	21,505	21,505	
Projection Year	Percent Distribution		
	Total County	Jemez y Sangre	
2000	100.0	100.0	
2005	100.0	100.0	
2010	100.0	100.0	
2015	100.0	100.0	
2020	100.0	100.0	
2025	100.0	100.0	
2030	100.0	100.0	
2035	100.0	100.0	
2040	100.0	100.0	
2045	100.0	100.0	
2050	100.0	100.0	
2055	100.0	100.0	
2060	100.0	100.0	

### Appendix 3.16 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060 Los Alamos County

Luna County				
	Water Region Popu	lation in County		
Projection Year				
	Total County Population	Southwest New Mexico		
2000	25,016	25,016		
2005	26,394	26,394		
2010	27,985	27,985		
2015	29,755	29,755		
2020	31,479	31,479		
2025	32,919	32,919		
2030	34,231	34,231		
2035	35,647	35,647		
2040	37,197	37,197		
2045	38,816	38,816		
2050	40,408	40,408		
2055	41,917	41,917		
2060	43,446	43,446		
Projection Year	Percent Distribution			
	Total County	Southwest New Mexico		
2000	100.0	100.0		
2005	100.0	100.0		
2010	100.0	100.0		
2015	100.0	100.0		
2020	100.0	100.0		
2025	100.0	100.0		
2030	100.0	100.0		
2035	100.0	100.0		
2040	100.0	100.0		
2045	100.0	100.0		
2050	100.0	100.0		
2055	100.0	100.0		
2060	100.0	100.0		

# Appendix 3.17 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060

McKinley County				
	Water Reg	gion Population in Count	ly 🗌	
Projection Year				
	Total County Population	Northwest New Mexico	San Juan Basin	
2000	74,798	54,712	20,086	
2005	78,013	57,063	20,950	
2010	80,747	58,995	21,752	
2015	84,301	61,462	22,839	
2020	88,155	64,152	24,003	
2025	91,200	66,238	24,962	
2030	93,294	67,475	25,818	
2035	94,837	68,161	26,676	
2040	96,236	68,635	27,601	
2045	97,513	68,977	28,536	
2050	98,424	69,026	29,398	
2055	99,041	68,821	30,219	
2060	99,734	68,632	31,102	
Projection Year		ercent Distribution		
	Total County	Northwest New Mexico	San Juan Basin	
2000	100.0	73.1	26.9	
2005	100.0	73.1	26.9	
2010	100.0	73.1	26.9	
2015	100.0	72.9	27.1	
2020	100.0	72.8	27.2	
2025	100.0	72.6	27.4	
2030	100.0	72.3	27.7	
2035	100.0	71.9	28.1	
2040	100.0	71.3	28.7	
2045	100.0	70.7	29.3	
2050	100.0	70.1	29.9	
2055	100.0	69.5	30.5	
2060	100.0	68.8	31.2	

Appendix 3.18 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060

Mora County			
	Water Region Population in County		
Projection Year			
	Total County Population	Mora/SanMiguel/Guadalupe	
2000	5,180	5,180	
2005	5,440	5,440	
2010	5,636	5,636	
2015	5,855	5,855	
2020	6,007	6,007	
2025	6,066	6,066	
2030	6,094	6,094	
2035	6,134	6,134	
2040	6,171	6,171	
2045	6,163	6,163	
2050	6,131	6,131	
2055	6,116	6,116	
2060	6,153	6,153	
Projection Year	Percent I	Distribution	
	Total County Population	Mora/SanMiguel/Guadalupe	
2000	100.0	100.0	
2005	100.0	100.0	
2010	100.0	100.0	
2015	100.0	100.0	
2020	100.0	100.0	
2025	100.0	100.0	
2030	100.0	100.0	
2035	100.0	100.0	
2040	100.0	100.0	
2045	100.0	100.0	
2050	100.0	100.0	
2055	100.0	100.0	
2060	100.0	100.0	

# Appendix 3.19 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060

Otero County			
	Water Region Population in County		
Projection Year	Total County		
	Population	Tularosa/Sacramento	Lower Pecos Valley
2000	62,298	56,263	6,035
2005	63,994	57,795	6,199
2010	66,292	59,769	6,522
2015	68,814	61,951	6,863
2020	71,051	63,899	7,152
2025	72,517	65,179	7,338
2030	73,436	65,975	7,460
2035	74,274	66,701	7,572
2040	75,137	67,463	7,673
2045	75,908	68,170	7,739
2050	76,369	68,618	7,752
2055	76,481	68,755	7,726
2060	76,795	69,072	7,723
Projection Year		Percent Distribution	
	Total County	Tularosa/Sacramento	Lower Pecos Valley
2000	100.0	90.3	9.7
2005	100.0	90.3	9.7
2010	100.0	90.2	9.8
2015	100.0	90.0	10.0
2020	100.0	89.9	10.1
2025	100.0	89.9	10.1
2030	100.0	89.8	10.2
2035	100.0	89.8	10.2
2040	100.0	89.8	10.2
2045	100.0	89.8	10.2
2050	100.0	89.8	10.2
2055	100.0	89.9	10.1
2060	100.0	89.9	10.1

#### Appendix 3.20 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060 Otero County

Quay County				
	Water Region Population in County			
Projection Year				
	Total County Population	Northeast New Mexico		
2000	10,155	10,155		
2005	10,106	10,106		
2010	10,232	10,232		
2015	10,311	10,311		
2020	10,344	10,344		
2025	10,289	10,289		
2030	10,199	10,199		
2035	10,145	10,145		
2040	10,117	10,117		
2045	10,094	10,094		
2050	10,087	10,087		
2055	10,105	10,105		
2060	10,157	10,157		
Projection Year	Percent Distribution			
	Total County			
2000	100.0	100.0		
2005	100.0	100.0		
2010	100.0	100.0		
2015	100.0	100.0		
2020	100.0	100.0		
2025	100.0	100.0		
2030	100.0	100.0		
2035	100.0	100.0		
2040	100.0	100.0		
2045	100.0	100.0		
2050	100.0	100.0		
2050 2055 2060	100.0 100.0 100.0	100.0 100.0 100.0		

### Appendix 3.21 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060

		Rio Arriba Cour	nty		
		Water Region Po	opulation in Co	unty	
Projection Year	Total County				
	Population	Jemez y Sangre	Rio Chama	San Juan	Taos
2000	41,190	28,068	8,000	5,112	10
2005	43,024	29,318	8,356	5,340	10
2010	44,072	29,912	8,089	6,060	11
2015	45,224	30,609	7,997	6,607	11
2020	46,206	31,215	7,952	7,028	11
2025	46,674	31,457	7,885	7,320	12
2030	46,879	31,495	7,750	7,622	12
2035	47,170	31,618	7,568	7,972	12
2040	47,582	31,871	7,366	8,333	12
2045	47,966	32,142	7,183	8,628	13
2050	48,267	32,373	7,038	8,843	13
2055	48,612	32,640	6,922	9,037	13
2060	49,235	33,105	6,849	9,268	13
Projection Year		Percent	Distribution		
	Total County	Jemez y Sangre	Rio Chama	San Juan	Taos
2000	100.0	68.1	19.4	12.4	0.02
2005	100.0	68.1	19.4	12.4	0.02
2010	100.0	67.9	18.4	13.7	0.02
2015	100.0	67.7	17.7	14.6	0.02
2020	100.0	67.6	17.2	15.2	0.02
2025	100.0	67.4	16.9	15.7	0.03
2030	100.0	67.2	16.5	16.3	0.03
2035	100.0	67.0	16.0	16.9	0.03
2040	100.0	67.0	15.5	17.5	0.03
2045	100.0	67.0	15.0	18.0	0.03
2050	100.0	67.1	14.6	18.3	0.03
2055	100.0	67.1	14.2	18.6	0.03
2060	100.0	67.2	13.9	18.8	0.03

Roosevelt County			
	Water Region Population in County		
Projection Year			
	Total County Population	Northeast New Mexico	
2000	18,018	18,018	
2005	18,771	18,771	
2010	19,399	19,399	
2015	19,876	19,876	
2020	20,188	20,188	
2025	20,330	20,330	
2030	20,366	20,366	
2035	20,378	20,378	
2040	20,351	20,351	
2045	20,218	20,218	
2050	19,997	19,997	
2055	19,708	19,708	
2060	19,342	19,342	
Projection Year	Percent Dis	tribution	
	Total County	Northeast New Mexico	
	Total County		
2000	100.0	100.0	
2005			
2005 2010	100.0 100.0 100.0	100.0 100.0 100.0	
2005	100.0 100.0	100.0 100.0	
2005 2010	100.0 100.0 100.0	100.0 100.0 100.0	
2005 2010 2015	100.0 100.0 100.0 100.0	100.0 100.0 100.0 100.0	
2005 2010 2015 2020	100.0 100.0 100.0 100.0 100.0 100.0	100.0 100.0 100.0 100.0 100.0	
2005 2010 2015 2020 2025	100.0 100.0 100.0 100.0 100.0 100.0 100.0	100.0 100.0 100.0 100.0 100.0 100.0	
2005 2010 2015 2020 2025 2030	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	100.0 100.0 100.0 100.0 100.0 100.0 100.0	
2005 2010 2015 2020 2025 2030 2035	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	
2005 2010 2015 2020 2025 2030 2035 2040	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	
2005 2010 2015 2020 2025 2030 2035 2040 2045	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	

#### Appendix 3.23 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060 Roosevelt County

	Si	andoval County		
	W	ater Region Populatio	n in County	
Projection Year	Total County			
	Population	Middle Rio Grande	San Juan	Jemez y Sangre
2000	89,908	88,560	1,348	0
2005	107,104	105,512	1,592	0
2010	125,675	123,875	1,800	0
2015	144,087	142,073	2,014	0
2020	163,315	161,078	2,237	0
2025	182,592	180,137	2,455	0
2030	200,822	198,168	2,654	0
2035	217,806	214,974	2,832	0
2040	233,987	230,993	2,994	0
2045	249,769	246,627	3,142	0
2050	265,230	261,951	3,279	0
2055	280,434	277,025	3,409	0
2060	295,906	292,367	3,539	0
		Percent Distribut	tion	
Projection Year				
	Total County	Middle Rio Grande	San Juan	Jemez y Sangre
2000	100.0	98.5	1.5	0.0
2005	100.0	98.5	1.5	0.0
2010	100.0	98.6	1.4	0.0
2015	100.0	98.6	1.4	0.0
2020	100.0	98.6	1.4	0.0
2025	100.0	98.7	1.3	0.0
2030	100.0	98.7	1.3	0.0
2035	100.0	98.7	1.3	0.0
2040	100.0	98.7	1.3	0.0
2045	100.0	98.7	1.3	0.0
2050	100.0	98.8	1.2	0.0
2055	100.0	98.8	1.2	0.0
2060	100.0	98.8	1.2	0.0

#### Appendix 3.24 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060

	San Juan Co	ounty	
	Water Region	n Population ir	n County
Projection Year			
	Total County Population	San Juan	Northwest New Mexico
2000	113,801	113,223	578
2005	126,008	125,373	635
2010	133,170	132,476	694
2015	140,523	139,778	745
2020	146,815	146,019	796
2025	151,501	150,656	845
2030	155,593	154,698	895
2035	159,781	158,838	943
2040	163,812	162,823	989
2045	167,116	166,084	1,032
2050	169,631	168,558	1,073
2055	172,083	170,970	1,113
2060	175,362	174,210	1,152
Projection Year	Perce	ent Distribution	n
	Total County	San Juan	Northwest New Mexico
2000	100.0	99.5	0.5
2005	100.0	99.5	0.5
2010	100.0	99.5	0.5
2015	100.0	99.5	0.5
2020	100.0	99.5	0.5
2025	100.0	99.4	0.6
2030	100.0	99.4	0.6
2035	100.0	99.4	0.6
2040	100.0	99.4	0.6
2045	100.0	99.4	0.6
2050	100.0	99.4	0.6
2055	100.0	99.4	0.6
2060	100.0	99.3	0.7

Appendix 3.25 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060 San Juan County

	July 1, 2000 to July 1, 2060 San Miguel County	
	Water Region Population in (	County
Projection Year		
	Total County Population	San Miguel
2000	30,126	30,126
2005	30,719	30,719
2010	31,827	31,827
2015	33,137	33,137
2020	34,284	34,284
2025	35,067	35,067
2030	35,677	35,677
2035	36,337	36,337
2040	37,087	37,087
2045	37,762	37,762
2050	38,236	38,236
2055	38,626	38,626
2060	39,202	39,202
Projection Year	Percent Distribution	
	Total County	San Miguel
2000	100.0	100.0
2005	100.0	100.0
2010	100.0	100.0
2015	100.0	100.0
2020	100.0	100.0
2025	100.0	100.0
2030	100.0	100.0
2035	100.0	100.0
2040	100.0	100.0
2045	100.0	100.0
2050	100.0	100.0
2055	100.0	100.0
2060	100.0	100.0

### Appendix 3.26 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060 San Miguel County

	Santa Fe Cour	nty	
	Water Region F	Population in County	
Projection Year			
	Total County Population	Jemez y Sangre	Estancia
2000	129,292	116,821	12,471
2005	143,306	129,483	13,823
2010	151,510	136,979	14,531
2015	159,056	143,776	15,281
2020	165,719	149,635	16,083
2025	170,730	153,804	16,926
2030	174,124	156,477	17,647
2035	176,612	158,440	18,171
2040	178,328	159,794	18,534
2045	179,301	160,528	18,773
2050	179,921	160,986	18,935
2055	180,443	161,402	19,041
2060	181,262	162,146	19,116
Projection Year	Percen	t Distribution	
	Total County	Jemez y Sangre	Estancia
2000	100.0	90.4	9.6
2005	100.0	90.4	9.6
2010	100.0	90.4	9.6
2015	100.0	90.4	9.6
2020	100.0	90.3	9.7
2025	100.0	90.1	9.9
2030	100.0	89.9	10.1
2035	100.0	89.7	10.3
2040	100.0	89.6	10.4
2045	100.0	89.5	10.5
2050	100.0	89.5	10.5
2055	100.0	89.4	10.6
2060	100.0	89.5	10.5

Appendix 3.27 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060 Santa Fe County

Sierra County			
	Water Region Populat	ion in County	
Projection Year			
	Total County Population	Sierra/Socorro	
2000	13,270	13,270	
2005	13,657	13,657	
2010	13,717	13,717	
2015	13,793	13,793	
2020	13,887	13,887	
2025	13,959	13,959	
2030	13,989	13,989	
2035	14,028	14,028	
2040	14,109	14,109	
2045	14,252	14,252	
2050	14,429	14,429	
2055	14,604	14,604	
2060	14,817	14,817	
Projection Year	Percent Distrib		
-	Total County	Sierra/Socorro	
2000	100.0	100.0	
2005	100.0	100.0	
2010	100.0	100.0	
2015	100.0	100.0	
2020	100.0	100.0	
2025	100.0	100.0	
2030	100.0	100.0	
2035	100.0	100.0	
2040	100.0	100.0	
2045	100.0	100.0	
2050	100.0	100.0	
2055	100.0	100.0	
2060	100.0	100.0	

## Appendix 3.28 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060

Socorro County				
	Water Region Population in County			
Projection Year				
	Total County Population	Socorro		
2000	18,078	18,078		
2005	18,513	18,513		
2010	19,250	19,250		
2015	20,012	20,012		
2020	20,678	20,678		
2025	21,167	21,167		
2030	21,526	21,526		
2035	21,837	21,837		
2040	22,168	22,168		
2045	22,488	22,488		
2050	22,759	22,759		
2055	23,046	23,046		
2060	23,427	23,427		
Projection Year	Percent Distribution			
	Total County	Socorro		
2000	100.0	100.0		
2005	100.0	100.0		
2010	100.0	100.0		
2015	100.0	100.0		
2020	100.0	100.0		
2025	100.0	100.0		
2030	100.0	100.0		
2035	100.0	100.0		
2040	100.0	100.0		
2045	100.0	100.0		
2050	100.0	100.0		
2055	100.0	100.0		
2060	100.0	100.0		

#### Appendix 3.29 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060 Socorro County

	Taos County	
	Water Region Population in Co	ounty
Projection Year		
	Total County Population	Taos
2000	29,979	29,979
2005	31,931	31,931
2010	33,879	33,879
2015	35,960	35,960
2020	38,013	38,013
2025	39,743	39,743
2030	41,145	41,145
2035	42,367	42,367
2040	43,445	43,445
2045	44,436	44,436
2050	45,536	45,536
2055	46,794	46,794
2060	48,257	48,257
Projection Year	Percent Distribution	
	Total County	Taos
2000	100.0	100.0
2005	100.0	100.0
2010	100.0	100.0
2015	100.0	100.0
2020	100.0	100.0
2025	100.0	100.0
2030	100.0	100.0
2035	100.0	100.0
2040	100.0	100.0
2045	100.0	100.0
2050	100.0	100.0
2055	100.0	100.0
2060	100.0	100.0

### Appendix 3.30 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060

	Torrance Cour	nty			
	Water Region Population in County				
Projection Year					
	Total County Population	Estancia	Middle Rio Grande		
2000	16,911	16,742	169		
2005	18,282	18,099	183		
2010	20,052	19,839	213		
2015	22,184	21,936	248		
2020	24,584	24,300	284		
2025	26,990	26,672	318		
2030	29,132	28,782	350		
2035	31,007	30,626	381		
2040	32,790	32,377	413		
2045	34,509	34,066	443		
2050	36,065	35,594	472		
2055	37,468	36,969	498		
2060	38,811	38,286	524		
Projection Year	Percent Distribution				
	Total County	Estancia	Middle Rio Grande		
2000	100.0	99.0	1.0		
2005	100.0	99.0	1.0		
2010	100.0	98.9	1.1		
2015	100.0	98.9	1.1		
2020	100.0	98.8	1.2		
2025	100.0	98.8	1.2		
2030	100.0	98.8	1.2		
2035	100.0	98.8	1.2		
2040	100.0	98.7	1.3		
2045	100.0	98.7	1.3		
2050	100.0	98.7	1.3		
2055	100.0	98.7	1.3		
2060	100.0	98.6	1.4		

Appendix 3.31 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060 Torrance County

Union County					
	Water Region Population in County				
Projection Year					
	Total County Population	Northeast New Mexico			
2000	4,174	4,174			
2005	4,315	4,315			
2010	4,449	4,449			
2015	4,814	4,814			
2020	5,029	5,029			
2025	5,169	5,169			
2030	5,259	5,259			
2035	5,352	5,352			
2040	5,445	5,445			
2045	5,496	5,496			
2050	5,508	5,508			
2055	5,504	5,504			
2060	5,509	5,509			
Projection Year	Percent Distribution				
	Total County	Northeast New Mexico			
2000	100.0	100.0			
2005	100.0	100.0			
2010	100.0	100.0			
2015	100.0	100.0			
2020	100.0	100.0			
2025	100.0	100.0			
2030	100.0	100.0			
2035	100.0	100.0			
2040	100.0	100.0			
2045	100.0	100.0			
2050	100.0	100.0			
2055	100.0	100.0			
2060	100.0	100.0			

Appendix 3.32
Water Region Population in County and Percent Distribution
July 1, 2000 to July 1, 2060
Union County

Valencia County					
	Water Region Population in County				
Projection Year					
	Total County Population	Middle Rio Grande			
2000	66,152	66,152			
2005	71,459	71,459			
2010	79,894	79,894			
2015	89,045	89,045			
2020	98,459	98,459			
2025	107,294	107,294			
2030	115,416	115,416			
2035	123,212	123,212			
2040	130,856	130,856			
2045	138,286	138,286			
2050	145,309	145,309			
2055	151,911	151,911			
2060	158,509	158,509			
Projection Year	Percent Distribution				
	Total County	Middle Rio Grande			
2000	100.0	100.0			
2005	100.0	100.0			
2010	100.0	100.0			
2015	100 0	400 0			
2015	100.0	100.0			
2020	100.0	100.0			
2020 2025 2030	100.0 100.0 100.0	100.0 100.0 100.0			
2020 2025 2030 2035	100.0 100.0 100.0 100.0	100.0 100.0 100.0 100.0			
2020 2025 2030 2035 2040	100.0 100.0 100.0	100.0 100.0 100.0 100.0 100.0			
2020 2025 2030 2035	100.0 100.0 100.0 100.0	100.0 100.0 100.0 100.0			
2020 2025 2030 2035 2040 2045 2050	100.0 100.0 100.0 100.0 100.0	100.0 100.0 100.0 100.0 100.0			
2020 2025 2030 2035 2040 2045	100.0 100.0 100.0 100.0 100.0 100.0	100.0 100.0 100.0 100.0 100.0 100.0			

#### Appendix 3.33 Water Region Population in County and Percent Distribution July 1, 2000 to July 1, 2060 Valencia County