

**Appendix E**  
**Water Demand**  
**Information**

## **Appendix E1**

### **Water Use by County**

**Table E1-1. Union County Water Use 1975 Through 2000**

Use Category	Withdrawal (acre-feet)		Depletion (acre-feet)		Return Flow (acre-feet)		Withdrawal (acre-feet)	Total Depletion	Total Return Flow
	Surface Water	Groundwater	Surface Water	Groundwater	Surface Water	Groundwater			
<b>2000 Water Year</b>									
Commercial (self-supplied)	0	8.19	0	8.19	0	0	8.19	8.19	0
Domestic (self-supplied)	0	130.12	0	130.12	0	0	130.12	130.12	0
Industrial (self-supplied)	0	0	0	0	0	0	0	0	0
Irrigated Agriculture	6,385.00	77,185.00	2,919.00	66,226.00	3,466.00	10,959.00	83,570.00	69,145.00	14,425.00
Livestock (self-supplied)	176.06	1,591.01	176.06	1,591.01	0	0	1,767.07	1,767.07	0
Mining (self-supplied)	0	0.12	0	0.12	0	0	0.12	0.12	0
Power (self-supplied)	0	0	0	0	0	0	0	0	0
Public Water Supply	0	584.60	0	292.30	0	292.30	584.60	292.30	292.30
Reservoir Evaporation	478.80	0	478.80	0	0	0	478.80	478.80	0
Totals	7,039.86	79,499.04	3,573.86	68,247.74	3,466.00	11,251.30	86,538.90	71,821.60	14,717.30
<b>1995 Water Year</b>									
Commercial (self-supplied)	0	8.19	0	3.69	0	4.50	8.19	3.69	4.50
Domestic (self-supplied)	0	137.20	0	61.74	0	75.46	137.20	61.74	75.46
Industrial (self-supplied)	0	0	0	0	0	0	0	0	0
Irrigated Agriculture	3,780.00	79,798.00	1,716.00	68,386.00	2,064.00	11,412.00	83,578.00	70,102.00	13,476.00
Livestock (self-supplied)	124.78	1,129.48	124.78	1,129.48	0	0	1,254.26	1,254.26	0
Mining (self-supplied)	0	27.26	0	11.26	0	16.00	27.26	11.26	16.00
Power (self-supplied)	0	0	0	0	0	0	0	0	0
Public Water Supply	0	624.95	0	281.22	0	343.73	624.95	281.22	343.73
Reservoir Evaporation	478.80	0	478.80	0	0	0	478.80	478.80	0
Totals	4,383.58	81,725.08	2,319.58	69,873.39	2,064.00	11,851.69	86,108.66	72,192.97	13,915.69
<b>1990 Water Year</b>									
Commercial (self-supplied)	0	2.19	0	0.98	0	1.21	2.19	0.98	1.21
Domestic (self-supplied)	0	109.11	0	49.10	0	60.01	109.11	49.10	60.01
Industrial (self-supplied)	0	0	0	0	0	0	0	0	0
Irrigated Agriculture	6,958.00	73,817.00	3,623.00	62,791.00	3,335.00	11,026.00	80,775.00	66,414.00	14,361.00
Livestock (self-supplied)	125.72	1,163.76	125.72	1,161.52	0	2.24	1,289.48	1,287.24	2.24
Mining (self-supplied)	0	12.35	0	2.24	0	10.11	12.35	2.24	10.11
Power (self-supplied)	0	0	0	0	0	0	0	0	0
Public Water Supply	0	1,050.15	0	472.57	0	577.58	1,050.15	472.57	577.58
Reservoir Evaporation	478.80	0	478.80	0	0	0	478.80	478.80	0
Totals	7,562.52	76,154.56	4,227.52	64,477.41	3,335.00	11,677.15	83,717.08	68,704.93	15,012.15
<b>1985 Water Year</b>									
Commercial	0	0	0	0	0	0	0	0	0
Urban	0	395.00	0	178.00	0	217.00	395.00	178.00	217.00
Rural	0	118.00	0	53.00	0	65.00	118.00	53.00	65.00
Industrial	0	0	0	0	0	0	0	0	0
Irrigated Agriculture	14,341.00	110,648.00	5,449.00	69,628.00	8,892.00	41,020.00	124,989.00	75,077.00	49,912.00
Livestock	658.00	686.00	658.00	682.00	0	4.00	1,344.00	1,340.00	4.00
Minerals	0	54.00	0	7.00	0	47.00	54.00	7.00	47.00
Power	0	0	0	0	0	0	0	0	0

**Table E1-1. Union County Water Use 1975 Through 2000**

Use Category	Withdrawal (acre-feet)		Depletion (acre-feet)		Return Flow (acre-feet)		Withdrawal (acre-feet)	Total Depletion	Total Return Flow
	Surface Water	Groundwater	Surface Water	Groundwater	Surface Water	Groundwater			
<b>1985 Water Year (cont.)</b>									
Stockpond Evaporation	2,250.00	0	2,250.00	0	0	0	2,250.00	2,250.00	0
Military	0	0	0	0	0	0	0	0	0
Fish and Wildlife	0	0	0	0	0	0	0	0	0
Recreation	0	4.00	0	4.00	0	0	4.00	4.00	0
Reservoir Evaporation	1,223.00	0	1,223.00	0	0	0	1,223.00	1,223.00	0
Totals	18,472.00	111,905.00	9,580.00	70,552.00	8,892.00	41,353.00	130,377.00	80,132.00	50,245.00
<b>1980 Water Year</b>									
Commercial	0	0	0	0	0	0	0	0	0
Urban	0	530.00	0	238.00	0	292.00	530.00	238.00	292.00
Rural	0	118.00	0	53.00	0	65.00	118.00	53.00	65.00
Industrial	0	0	0	0	0	0	0	0	0
Irrigated Agriculture	9,740.00	92,380.00	5,030.00	58,190.00	4,710.00	34,190.00	102,120.00	63,220.00	38,900.00
Livestock	652.00	671.00	652.00	668.00	0	3.00	1,323.00	1,320.00	3.00
Minerals	0	23.00	0	5.00	0	18.00	23.00	5.00	18.00
Power	0	54.00	0	6.00	0	48.00	54.00	6.00	48.00
Stockpond Evaporation	2,250.00	0	2,250.00	0	0	0	2,250.00	2,250.00	0
Military	0	0	0	0	0	0	0	0	0
Fish and Wildlife	0	0	0	0	0	0	0	0	0
Recreation	0	0	0	0	0	0	0	0	0
Reservoir Evaporation	1,223.00	0	1,223.00	0	0	0	1,223.00	1,223.00	0
Totals	13,865.00	93,776.00	9,155.00	59,160.00	4,710.00	34,616.00	107,641.00	68,315.00	39,326.00
<b>1975 Water Year</b>									
Manufacturing	0	3.00	0	2.00	0	1.00	3.00	2.00	1.00
Urban	0	610.00	0	274.00	0	336.00	610.00	274.00	336.00
Rural	0	106.00	0	48.00	0	58.00	106.00	48.00	58.00
Irrigated Agriculture	6,320.00	88,680.00	3,110.00	48,890.00	3,210.00	39,790.00	95,000.00	52,000.00	43,000.00
Livestock	949.00	949.00	949.00	949.00	0	0	1,898.00	1,898.00	0
Minerals	0	20.00	0	4.00	0	16.00	20.00	4.00	16.00
Power	0	129.00	0	129.00	0	0	129.00	129.00	0
Stockpond Evaporation	2,240.00	0	2,240.00	0	0	0	2,240.00	2,240.00	0
Military	0	0	0	0	0	0	0	0	0
Fish and Wildlife	500.00	0	500.00	0	0	0	500.00	500.00	0
Recreation	0	0	0	0	0	0	0	0	0
Reservoir Evaporation	800.00	0	800.00	0	0	0	800.00	800.00	0
Playa Lake Evaporation	0	0	0	0	0	0	0	0	0
Totals	10,809.00	90,497.00	7,599.00	50,296.00	3,210.00	40,201.00	101,306.00	57,895.00	43,411.00

**Table E1-2. Harding County Water Use 1975 Through 2000**

Use Category	Withdrawal (acre-feet)		Depletion (acre-feet)		Return Flow (acre-feet)		Withdrawal (acre-feet)	Total Depletion	Total Return Flow
	Surface Water	Groundwater	Surface Water	Groundwater	Surface Water	Groundwater			
<b>2000 Water Year</b>									
Commercial (self-supplied)	0	0.06	0	0.06	0	0	0.06	0.06	0
Domestic (self-supplied)	0	34.59	0	34.59	0	0	34.59	34.59	0
Industrial (self-supplied)	0	0	0	0	0	0	0	0	0
Irrigated Agriculture	0	3,654.00	0	3,167.00	0	487.00	3,654.00	3,167.00	487.00
Livestock (self-supplied)	89.71	363.24	89.71	363.24	0	0	452.95	452.95	0
Mining (self-supplied)	0	0.30	0	0.30	0	0	0.30	0.30	0
Power (self-supplied)	0	0	0	0	0	0	0	0	0
Public Water Supply	0	83.59	0	41.80	0	41.79	83.59	41.80	41.79
Reservoir Evaporation	0	0	0	0	0	0	0	0	0
Totals	89.71	4,135.78	89.71	3,606.99	0	528.79	4,225.49	3,696.70	528.79
<b>1995 Water Year</b>									
Commercial (self-supplied)	0	0.06	0	0.03	0	0.03	0.06	0.03	0.03
Domestic (self-supplied)	0	37.01	0	16.65	0	20.36	37.01	16.65	20.36
Industrial (self-supplied)	0	0	0	0	0	0	0	0	0
Irrigated Agriculture	0	3,905.00	0	3,321.00	0	584.00	3,905.00	3,321.00	584.00
Livestock (self-supplied)	118.94	480.12	118.94	480.12	0	0	599.06	599.06	0
Mining (self-supplied)	0	0.30	0	0.15	0	0.15	0.30	0.15	0.15
Power (self-supplied)	0	0	0	0	0	0	0	0	0
Public Water Supply	0	83.39	0	37.53	0	45.86	83.39	37.53	45.86
Reservoir Evaporation	0	0	0	0	0	0	0	0	0
Totals	118.94	4,505.88	118.94	3,855.48	0.00	650.40	4,624.82	3,974.42	650.40
<b>1990 Water Year</b>									
Commercial (self-supplied)	0	0.06	0	0.03	0	0.03	0.06	0.03	0.03
Domestic (self-supplied)	0	30.68	0	13.81	0	16.87	30.68	13.81	16.87
Industrial (self-supplied)	0	0	0	0	0	0	0	0	0
Irrigated Agriculture	0	3,697.00	0	2,714.00	0	983.00	3,697.00	2,714.00	983.00
Livestock (self-supplied)	107.86	441.62	107.86	441.06	0	0.56	549.48	548.92	0.56
Mining (self-supplied)	0	1.38	0	0.14	0	1.24	1.38	0.14	1.24
Power (self-supplied)	0	0	0	0	0	0	0	0	0
Public Water Supply	0	106.07	0	47.73	0	58.34	106.07	47.73	58.34
Reservoir Evaporation	0	0	0	0	0	0	0	0	0
Totals	107.86	4,276.81	107.86	3,216.77	0.00	1,060.04	4,384.67	3,324.63	1,060.04
<b>1985 Water Year</b>									
Commercial	0	0	0	0	0	0	0	0	0
Urban	0	0	0	0	0	0	0	0	0
Rural	0	125.00	0	56.00	0	69.00	125.00	56.00	69.00
Industrial	0	0	0	0	0	0	0	0	0
Irrigated Agriculture	0	3,540.00	0	2,236.00	0	1,304.00	3,540.00	2,236.00	1,304.00
Livestock	261.00	264.00	261.00	263.00	0	1.00	525.00	524.00	1.00
Minerals	0	18.00	0	6.00	0	12.00	18.00	6.00	12.00
Power	0	0	0	0	0	0	0	0	0

**Table E1-2. Harding County Water Use 1975 Through 2000**

Use Category	Withdrawal (acre-feet)		Depletion (acre-feet)		Return Flow (acre-feet)		Withdrawal (acre-feet)	Total Depletion	Total Return Flow
	Surface Water	Groundwater	Surface Water	Groundwater	Surface Water	Groundwater			
<b>1985 Water Year (cont.)</b>									
Stockpond Evaporation	1,626.00	0	1,626.00	0	0	0	1,626.00	1,626.00	0
Military	0	0	0	0	0	0	0	0	0
Fish and Wildlife	221.00	0	221.00	0	0	0	221.00	221.00	0
Recreation	0	1.00	0	1.00	0	0	1.00	1.00	0
Reservoir Evaporation	512.00	0	512.00	0	0	0	512.00	512.00	0
Totals	2,620.00	3,948.00	2,620.00	2,562.00	0.00	1,386.00	6,568.00	5,182.00	1,386.00
<b>1980 Water Year</b>									
Commercial	0	0	0	0	0	0	0	0	0
Urban	0	0	0	0	0	0	0	0	0
Rural	0	135.00	0	60.00	0	75.00	135.00	60.00	75.00
Industrial	0	0	0	0	0	0	0	0	0
Irrigated Agriculture	0	1,390.00	0	1,040.00	0	350.00	1,390.00	1,040.00	350.00
Livestock	284.00	289.00	284.00	288.00	0	1.00	573.00	572.00	1.00
Minerals	0	3.00	0	1.00	0	2.00	3.00	1.00	2.00
Power	0	0	0	0	0	0	0	0	0
Stockpond Evaporation	1,626.00	0	1,626.00	0	0	0	1,626.00	1,626.00	0
Military	0	0	0	0	0	0	0	0	0
Fish and Wildlife	221.00	0	221.00	0	0	0	221.00	221.00	0
Recreation	0	0	0	0	0	0	0	0	0
Reservoir Evaporation	512.00	0	512.00	0	0	0	512.00	512.00	0
Totals	2,643.00	1,817.00	2,643.00	1,389.00	0.00	428.00	4,460.00	4,032.00	428.00
<b>1975 Water Year</b>									
Manufacturing	0	8.00	0	5.00	0	3.00	8.00	5.00	3.00
Urban	0	0	0	0	0	0	0	0	0
Rural	0	63.00	0	28.00	0	35.00	63.00	28.00	35.00
Irrigated Agriculture	0	9,330.00	0	5,120.00	0	4,210.00	9,330.00	5,120.00	4,210.00
Livestock	259.00	260.00	259.00	260.00	0	0	519.00	519.00	0
Minerals	0	0	0	0	0	0	0	0	0
Power	0	0	0	0	0	0	0	0	0
Stockpond Evaporation	1,670.00	0	1,670.00	0	0	0	1,670.00	1,670.00	0
Military	0	0	0	0	0	0	0	0	0
Fish and Wildlife	100.00	0	100.00	0	0	0	100.00	100.00	0
Recreation	0	0	0	0	0	0	0	0	0
Reservoir Evaporation	600.00	0	600.00	0	0	0	600.00	600.00	0
Playa Lake Evaporation	0	0	0	0	0	0	0	0	0
Totals	2,629.00	9,661.00	2,629.00	5,413.00	0.00	4,248.00	12,290.00	8,042.00	4,248.00

**Table E1-3. Quay County Water Use 1975 Through 2000**

Use Category	Withdrawal (acre-feet)		Depletion (acre-feet)		Return Flow (acre-feet)		Withdrawal (acre-feet)	Total Depletion (acre-feet)	Total Return Flow (acre-feet)
	Surface Water	Groundwater	Surface Water	Groundwater	Surface Water	Groundwater			
<b>2000 Water Year</b>									
Commercial (self-supplied)	0	10.54	0	10.54	0	0	10.54	10.54	0
Domestic (self-supplied)	0	138.27	0	138.27	0	0	138.27	138.27	0
Industrial (self-supplied)	0	0	0	0	0	0	0	0	0
Irrigated Agriculture	107,954.00	6,546.00	34,912.00	5,523.00	73,042.00	1,023.00	114,500.00	40,435.00	74,065.00
Livestock (self-supplied)	86.50	791.90	86.50	791.90	0	0	878.40	878.40	0
Mining (self-supplied)	0	0	0	0	0	0	0	0	0
Power (self-supplied)	0	0	0	0	0	0	0	0	0
Public Water Supply	0	2,172.44	0	1,255.65	0	916.79	2,172.44	1255.65	916.79
Reservoir Evaporation	32,938.00	0	32,938.00	0	0	0	32,938.00	32,938.00	0
Totals	140,978.50	9,659.15	67,936.50	7,719.36	73,042.00	1,939.79	150,637.65	75,655.86	74,981.79
<b>1995 Water Year</b>									
Commercial (self-supplied)	0	10.54	0	4.74	0	5.80	10.54	4.74	5.80
Domestic (self-supplied)	0	139.08	0	62.58	0	76.50	139.08	62.58	76.50
Industrial (self-supplied)	0	0	0	0	0	0	0	0	0
Irrigated Agriculture	119,333.00	28,023.00	40,077.00	21,387.00	79,256.00	6,636.00	147,356.00	61,464.00	85,892.00
Livestock (self-supplied)	71.89	660.40	71.89	660.40	0	0	732.29	732.29	0
Mining (self-supplied)	0	0	0	0	0	0	0	0	0
Power (self-supplied)	0	0	0	0	0	0	0	0	0
Public Water Supply	81.00	2,059.58	69.66	995.86	11.34	1,063.72	2,140.58	1,065.52	1,075.06
Reservoir Evaporation	32,938.00	0	32,938.00	0	0	0	32,938.00	32,938.00	0
Totals	152,423.89	30,892.60	73,156.55	23,110.58	79,267.34	7,782.02	183,316.49	96,267.13	87,049.36
<b>1990 Water Year</b>									
Commercial (self-supplied)	0	6.54	0	2.94	0	3.60	6.54	2.94	3.60
Domestic (self-supplied)	0	154.84	0	69.68	0	85.16	154.84	69.68	85.16
Industrial (self-supplied)	0	0	0	0	0	0	0	0	0
Irrigated Agriculture	78,484.00	18,586.00	31,161.00	14,721.00	47,323.00	3,865.00	97,070.00	45,882.00	51,188.00
Livestock (self-supplied)	68.35	652.00	68.35	649.76	0	2.24	720.35	718.11	2.24
Mining (self-supplied)	0	2.19	0	0.22	0	1.97	2.19	0.22	1.97
Power (self-supplied)	0	0	0	0	0	0	0	0	0
Public Water Supply	81.00	1,971.38	69.66	968.27	11.34	1,003.11	2,052.38	1,037.93	1,014.45
Reservoir Evaporation	34,055.00	0	34,055.00	0	0	0	34,055.00	34,055.00	0
Totals	112,688.35	21,372.95	65,354.01	16,411.87	47,334.34	4,961.08	134,061.30	81,765.88	52,295.42
<b>1985 Water Year</b>									
Commercial	0	0	0	0	0	0	0	0	0
Urban	0	1,807.00	0	813.00	0	994.00	1,807.00	813.00	994.00
Rural	0	427.00	0	214.00	0	213.00	427.00	214.00	213.00
Industrial	0	11.00	0	6.00	0	5.00	11.00	6.00	5.00
Irrigated Agriculture	68,810.00	14,369.00	19,358.00	8,872.00	49,452.00	5,497.00	83,179.00	28,230.00	54,949.00
Livestock	333.00	345.00	333.00	343.00	0	2.00	678.00	676.00	2.00
Minerals	0	12.00	0	2.00	0	10.00	12.00	2.00	10.00

**Table E1-3. Quay County Water Use 1975 Through 2000**

Use Category	Withdrawal (acre-feet)		Depletion (acre-feet)		Return Flow (acre-feet)		Withdrawal (acre-feet)	Total Depletion (acre-feet)	Total Return Flow (acre-feet)
	Surface Water	Groundwater	Surface Water	Groundwater	Surface Water	Groundwater			
<b>1985 Water Year (cont.)</b>									
Power	0	0	0	0	0	0	0	0	0
Stockpond Evaporation	5,292.00	0	5,292.00	0	0	0	5,292.00	5,292.00	0
Military	0	0	0	0	0	0	0	0	0
Fish and Wildlife	0	0	0	0	0	0	0	0	0
Recreation	98.00	15.00	64.00	15.00	34.00	0	113.00	79.00	34.00
Reservoir Evaporation	12,381.00	0	12,381.00	0	0	0	12,381.00	12,381.00	0
Totals	86,914.00	16,986.00	37,428.00	10,265.00	49,486.00	6,721.00	103,900.00	47,693.00	56,207.00
<b>1980 Water Year</b>									
Commercial	0	0	0	0	0	0	0	0	0
Urban	0	1,720.00	0	774.00	0	946.00	1,720.00	774.00	946.00
Rural	0	305.00	0	153.00	0	152.00	305.00	153.00	152.00
Industrial	0	0	0	0	0	0	0	0	0
Irrigated Agriculture	72,750.00	25,110.00	27,510.00	15,830.00	45,240.00	9,280.00	97,860.00	43,340.00	54,520.00
Livestock	327.00	338.00	327.00	336.00	0	2.00	665.00	663.00	2.00
Minerals	0	3.00	0	1.00	0	2.00	3.00	1.00	2.00
Power	0	0	0	0	0	0	0	0	0
Stockpond Evaporation	5,292.00	0	5,292.00	0	0	0	5,292.00	5,292.00	0
Military	0	0	0	0	0	0	0	0	0
Fish and Wildlife	20,000.00	0	20,000.00	0	0	0	20,000.00	20,000.00	0
Recreation	75.00	0	69.00	0	6	0	75.00	69.00	6.00
Reservoir Evaporation	2,959.00	0	2,959.00	0	0	0	2,959.00	2,959.00	0
Totals	101,403.00	27,476.00	56,157.00	17,094.00	45,246.00	10,382.00	128,879.00	73,251.00	55,628.00
<b>1975 Water Year</b>									
Manufacturing	0	43.00	0	26.00	0	17.00	43.00	26.00	17.00
Urban	0	1,706.00	0	768.00	0	938.00	1,706.00	768.00	938.00
Rural	0	230.00	0	115.00	0	115.00	230.00	115.00	115.00
Irrigated Agriculture	60,740.00	34,860.00	21,570.00	18,450.00	39,170.00	16,410.00	95,600.00	40,020.00	55,580.00
Livestock	634.00	634.00	634.00	634.00	0	0	1,268.00	1,268.00	0
Minerals	0	0	0	0	0	0	0	0	0
Power	0	17.00	0	17.00	0	0	17.00	17.00	0
Stockpond Evaporation	4,246.00	0	4,246.00	0	0	0	4,246.00	4,246.00	0
Military	0	0	0	0	0	0	0	0	0
Fish and Wildlife	15,300.00	0	15,300.00	0	0	0	15,300.00	15,300.00	0
Recreation	0	0	0	0	0	0	0	0	0
Reservoir Evaporation	500.00	0	500.00	0	0	0	500.00	500.00	0
Playa Lake Evaporation	0	0	0	0	0	0	0	0	0
Totals	81,420.00	37,490.00	42,250.00	20,010.00	39,170.00	17,480.00	118,910.00	62,260.00	56,650.00



**Table E1-4. Curry County Water Use 1975 Through 2000**

Use Category	Withdrawal (acre-feet)		Depletion (acre-feet)		Return Flow (acre-feet)		Withdrawal (acre-feet)	Total Depletion (acre-feet)	Total Return Flow (acre-feet)
	Surface Water	Groundwater	Surface Water	Groundwater	Surface Water	Groundwater			
<b>2000 Water Year</b>									
Commercial (self-supplied)	0	232.10	0	228.60	0	3.50	232.10	228.60	3.50
Domestic (self-supplied)	0	306.25	0	306.25	0	0	306.25	306.25	0
Industrial (self-supplied)	0	0	0	0	0	0	0	0	0
Irrigated Agriculture	0	195,886.00	0	157,883.00	0	38,003.00	195,886.00	157,883.00	38,003.00
Livestock (self-supplied)	140.22	4,626.40	140.22	4,626.40	0	0	4,766.62	4,766.62	0
Mining (self-supplied)	0	0	0	0	0	0	0	0	0
Power (self-supplied)	0	0	0	0	0	0	0	0	0
Public Water Supply	0	8,416.64	0	4,362.56	0	4,054.08	8,416.64	4,362.56	4,054.08
Reservoir Evaporation	0	0	0	0	0	0	0	0	0
Totals	140.22	209,467.39	140.22	167,406.81	0	42,060.58	209,607.61	167,547.03	42,060.58
<b>1995 Water Year</b>									
Commercial (self-supplied)	0	232.10	0	188.15	0	43.95	232.10	188.15	43.95
Domestic (self-supplied)	0	247.67	0	111.45	0	136.22	247.67	111.45	136.22
Industrial (self-supplied)	0	0	0	0	0	0	0	0	0
Irrigated Agriculture	0	245,049.00	0	199,264.00	0	45,785.00	245,049.00	199,264.00	45,785.00
Livestock (self-supplied)	115.72	2,501.70	115.72	2,356.08	0	145.62	2,617.42	2,471.80	145.62
Mining (self-supplied)	0	10.00	0	2.00	0	8	10	2.00	8.00
Power (self-supplied)	0	0	0	0	0	0	0	0	0
Public Water Supply	0	9,618.53	0	4,977.29	0	4,641.24	9,618.53	4,977.29	4,641.24
Reservoir Evaporation	0	0	0	0	0	0	0	0	0
Totals	115.72	257,659.00	115.72	206,898.97	0.00	50,760.03	257,774.72	207,014.69	50,760.03
<b>1990 Water Year</b>									
Commercial (self-supplied)	0	216.88	0	190.13	0	26.75	216.88	190.13	26.75
Domestic (self-supplied)	0	357.23	0	160.76	0	196.47	357.23	160.76	196.47
Industrial (self-supplied)	0	0	0	0	0	0	0	0	0
Irrigated Agriculture	0	329,831.00	0	272,656.00	0	57,175.00	329,831.00	272,656.00	57,175.00
Livestock (self-supplied)	115.63	1,169.62	115.63	1,157.30	0	12.32	1,285.25	1,272.93	12.32
Mining (self-supplied)	0	10.00	0	2.00	0	8.00	10.00	2.00	8.00
Power (self-supplied)	0	0	0	0	0	0	0	0	0
Public Water Supply	0	8,678.35	0	4,481.88	0	4,196.47	8,678.35	4,481.88	4,196.47
Reservoir Evaporation	0	0	0	0	0	0	0	0	0
Totals	115.63	340,263.08	115.63	278,648.07	0.00	61,615.01	340,378.71	278,763.70	61,615.01
<b>1985 Water Year</b>									
Commercial	0	0	0	0	0	0	0	0	0
Urban	0	5,614.00	0	2,807.00	0	2,807.00	5,614.00	2,807.00	2,807.00
Rural	0	563.00	0	283.00	0	280.00	563.00	283.00	280.00
Industrial	0	0	0	0	0	0	0	0	0
Irrigated Agriculture	0	195,594.00	0	120,725.00	0	74,869.00	195,594.00	120,725.00	74,869.00
Livestock	585.00	677.00	585.00	659.00	0	18.00	1,262.00	1,244.00	18.00

**Table E1-4. Curry County Water Use 1975 Through 2000**

Use Category	Withdrawal (acre-feet)		Depletion (acre-feet)		Return Flow (acre-feet)		Withdrawal (acre-feet)	Total Depletion (acre-feet)	Total Return Flow (acre-feet)
	Surface Water	Groundwater	Surface Water	Groundwater	Surface Water	Groundwater			
<b>1985 Water Year (cont.)</b>									
Power	0	0	0	0	0	0	0	0	0
Minerals	0	11.00	0	2.00	0	9.00	11.00	2.00	9.00
Stockpond Evaporation	648.00	0	648.00	0	0	0	648.00	648.00	0
Military	0	1,330.00	0	798.00	0	532.00	1,330.00	798.00	532.00
Fish and Wildlife	0	0	0	0	0	0	0	0	0
Recreation	0	433.00	0	283.00	0	150.00	433.00	283.00	150.00
Reservoir Evaporation	0	0	0	0	0	0	0	0	0
Totals	1,233.00	204,222.00	1,233.00	125,557.00	0.00	78,665.00	205,455.00	126,790.00	78,665.00
<b>1980 Water Year</b>									
Commercial	0	0	0	0	0	0	0	0	0
Urban	0	6,567.00	0	3,284.00	0	3,283.00	6,567.00	3,284.00	3,283.00
Rural	0	581.00	0	291.00	0	290.00	581.00	291.00	290.00
Industrial	0	0	0	0	0	0	0	0	0
Irrigated Agriculture	0	255,410.00	0	171,860.00	0	83,550.00	255,410.00	171,860.00	83,550.00
Livestock	551.00	616.00	551.00	603.00	0	13.00	1,167.00	1,154.00	13.00
Minerals	0	11.00	0	2.00	0	9.00	11.00	2.00	9.00
Power	0	0	0	0	0	0	0	0	0
Stockpond Evaporation	648.00	0	648.00	0	0	0	648.00	648.00	0
Military	0	2,198.00	0	1,319.00	0	879.00	2,198.00	1,319.00	879.00
Fish and Wildlife	0	0	0	0	0	0	0	0	0
Recreation	4.00	400.00	4.00	312.00	0	88.00	404.00	316.00	88.00
Reservoir Evaporation	0	0	0	0	0	0	0	0	0
Totals	1,203.00	265,783.00	1,203.00	177,671.00	0.00	88,112.00	266,986.00	178,874.00	88,112.00
<b>1975 Water Year</b>									
Manufacturing	0	166.00	0	100.00	0	66.00	166.00	100.00	66.00
Urban	0	6,157.00	0	2,771.00	0	3,386.00	6,157.00	2,771.00	3,386.00
Rural	0	541.00	0	270.00	0	271.00	541.00	270.00	271.00
Irrigated Agriculture	0	305,240.00	0	168,150.00	0	137,090.00	305,240.00	168,150.00	137,090.00
Livestock	630.00	629.00	630.00	629.00	0	0	1,259.00	1,259.00	0
Minerals	0	10.00	0	2.00	0	8.00	10.00	2.00	8.00
Power	0	0	0	0	0	0	0	0	0
Stockpond Evaporation	648.00	0	648.00	0	0	0	648.00	648.00	0
Military	0	1,765.00	0	1,059.00	0	706.00	1,765.00	1,059.00	706.00
Fish and Wildlife	5.00	0	5.00	0	0	0	5.00	5.00	0
Recreation	0	0	0	0	0	0	0	0	0
Reservoir Evaporation	0	0	0	0	0	0	0	0	0
Playa Lake Evaporation	300.00	0	300.00	0	0	0	300.00	300.00	0
Totals	1,583.00	314,508.00	1,583.00	172,981.00	0.00	141,527.00	316,091.00	174,564.00	141,527.00

**Table E1-5. Roosevelt County Water Use 1975 Through 2000**

Use Category	Withdrawal (acre-feet)		Depletion (acre-feet)		Return Flow (acre-feet)		Withdrawal (acre-feet)	Total Depletion	Total Return Flow
	Surface Water	Groundwater	Surface Water	Groundwater	Surface Water	Groundwater			
<b>2000 Water Year</b>									
Commercial (self-supplied)	0	140.83	0	140.83	0	0	140.83	140.83	0
Domestic (self-supplied)	0	239.71	0	239.71	0	0	239.71	239.71	0
Industrial (self-supplied)	0	0.11	0	0.11	0	0	0.11	0.11	0
Irrigated Agriculture	0	148,714.00	0	127,396.00	0	21,318.00	148,714.00	127,396.00	21,318.00
Livestock (self-supplied)	69.77	4,559.51	69.77	4,559.51	0	0	4,629.28	4,629.28	0
Mining (self-supplied)	0	0	0	0	0	0	0	0	0
Power (self-supplied)	0	16.96	0	16.96	0	0	16.96	16.96	0
Public Water Supply	0	4,524.90	0	3,021.41	0	1,503.49	4,524.90	3,021.41	1,503.49
Reservoir Evaporation	0	0	0	0	0	0	0	0	0
Totals	69.77	158,196.02	69.77	135,374.53	0.00	22,821.49	158,265.79	135,444.30	22,821.49
<b>1995 Water Year</b>									
Commercial (self-supplied)	0	140.83	0	128.00	0	12.83	140.83	128.00	12.83
Domestic (self-supplied)	0	269.85	0	121.43	0	148.42	269.85	121.43	148.42
Industrial (self-supplied)	0	18.59	0	18.59	0	0	18.59	18.59	0
Irrigated Agriculture	0	152,551.00	0	127,398.00	0	25,153.00	152,551.00	127,398.00	25,153.00
Livestock (self-supplied)	40.32	2,659.04	40.32	2,430.53	0	228.51	2,699.36	2,470.85	228.51
Mining (self-supplied)	0	16.61	0	8.61	0	8.00	16.61	8.61	8.00
Power (self-supplied)	0	13.48	0	13.48	0	0	13.48	13.48	0
Public Water Supply	0	5,148.75	0	3,483.64	0	1,665.11	5,148.75	3,483.64	1,665.11
Reservoir Evaporation	0	0	0	0	0	0	0	0	0
Totals	40.32	160,818.15	40.32	133,602.28	0.00	27,215.87	160,858.47	133,642.60	27,215.87
<b>1990 Water Year</b>									
Commercial (self-supplied)	0	146.33	0	134.00	0	12.33	146.33	134.00	12.33
Domestic (self-supplied)	0	205.39	0	92.43	0	112.96	205.39	92.43	112.96
Industrial (self-supplied)	0	52.02	0	52.02	0	0	52.02	52.02	0
Irrigated Agriculture	0	224,603.00	0	184,947.00	0	39,656.00	224,603.00	184,947.00	39,656.00
Livestock (self-supplied)	45.43	1,429.67	45.43	1,328.86	0	100.81	1,475.10	1,374.29	100.81
Mining (self-supplied)	0	62.16	0	17.58	0	44.58	62.16	17.58	44.58
Power (self-supplied)	0	0	0	0	0	0	0	0	0
Public Water Supply	0	4,002.19	0	2,695.52	0	1,306.67	4,002.19	2,695.52	1,306.67
Reservoir Evaporation	0	0	0	0	0	0	0	0	0
Totals	45.43	230,500.76	45.43	189,267.41	0.00	41,233.35	230,546.19	189,312.84	41,233.35
<b>1985 Water Year</b>									
Commercial	0	0	0	0	0	0	0	0	0
Urban	0	4,197.00	0	2,099.00	0	2,098.00	4,197.00	2,099.00	2,098.00
Rural	0	395.00	0	198.00	0	197.00	395.00	198.00	197.00
Industrial	0	17.00	0	9.00	0	8.00	17.00	9.00	8.00
Irrigated Agriculture	0	208,993.00	0	130,317.00	0	78,676.00	208,993.00	130,317.00	78,676.00
Livestock	173.00	607.00	173.00	522.00	0	85.00	780.00	695.00	85.00
Minerals	0	622.00	0	65.00	0	557.00	622.00	65.00	557.00
Power	0	0	0	0	0	0	0	0	0

**Table E1-5. Roosevelt County Water Use 1975 Through 2000**

Use Category	Withdrawal (acre-feet)		Depletion (acre-feet)		Return Flow (acre-feet)		Withdrawal (acre-feet)	Total Depletion	Total Return Flow
	Surface Water	Groundwater	Surface Water	Groundwater	Surface Water	Groundwater			
<b>1985 Water Year (cont.)</b>									
Stockpond Evaporation	797.00	0	797.00	0	0	0	797.00	797.00	0
Military	0	0	0	0	0	0	0	0	0
Fish and Wildlife	0	0	0	0	0	0	0	0	0
Recreation	23.00	153.00	23.00	99.00	0	54.00	176.00	122.00	54.00
Reservoir Evaporation	0	0	0	0	0	0	0	0	0
Totals	993.00	214,984.00	993.00	133,309.00	0.00	81,675.00	215,977.00	134,302.00	81,675.00
<b>1980 Water Year</b>									
Commercial	0	34.00	0	20.00	0	14.00	34.00	20.00	14.00
Urban	0	3,197.00	0	1,598.00	0	1,599.00	3,197.00	1,598.00	1,599.00
Rural	0	363.00	0	181.00	0	182.00	363.00	181.00	182.00
Industrial	0	17.00	0	10.00	0	7.00	17.00	10.00	7.00
Irrigated Agriculture	0	168,950.00	0	131,570.00	0	37,380.00	168,950.00	131,570.00	37,380.00
Livestock	346.00	576.00	346.00	530.00	0	46.00	922.00	876.00	46.00
Minerals	0	628.00	0	58.00	0	570.00	628.00	58.00	570.00
Power	0	0	0	0	0	0	0	0	0
Stockpond Evaporation	797.00	0	797.00	0	0	0	797.00	797.00	0
Military	0	0	0	0	0	0	0	0	0
Fish and Wildlife	0	0	0	0	0	0	0	0	0
Recreation	23.00	135.00	23.00	93.00	0	42.00	158.00	116.00	42.00
Reservoir Evaporation	0	0	0	0	0	0	0	0	0
Totals	1,166.00	173,900.00	1,166.00	134,060.00	0.00	39,840.00	175,066.00	135,226.00	39,840.00
<b>1975 Water Year</b>									
Manufacturing	0	40.00	0	24.00	0	16.00	40.00	24.00	16.00
Urban	0	3,483.00	0	1,567.00	0	1,916.00	3,483.00	1,567.00	1,916.00
Rural	0	377.00	0	189.00	0	188.00	377.00	189.00	188.00
Irrigated Agriculture	0	238,860.00	0	131,670.00	0	107,190.00	238,860.00	131,670.00	107,190.00
Livestock	557.00	556.00	557.00	556.00	0	0	1,113.00	1,113.00	0
Minerals	0	676.00	0	85.00	0	591.00	676.00	85.00	591.00
Power	0	0	0	0	0	0	0	0	0
Stockpond Evaporation	797.00	0	797.00	0	0	0	797.00	797.00	0
Military	0	0	0	0	0	0	0	0	0
Fish and Wildlife	23.00	0	23.00	0	0	0	23.00	23.00	0
Recreation	0	0	0	0	0	0	0	0	0
Reservoir Evaporation	0	0	0	0	0	0	0	0	0
Playa Lake Evaporation	9,700.00	0	9,700.00	0	0	0	9,700.00	9,700.00	0
Totals	11,077.00	243,992.00	11,077.00	134,091.00	0.00	109,901.00	255,069.00	145,168.00	109,901.00

## **Appendix E2**

### **Public Water Supply Use Data**

Table E2-1. Northeast New Mexico Public Water System Summary

Community	Basin	Well Field/ Water Rights (ac-ft/yr)	System Mailing Address / Phone Number	Type of System	Estimated Population Served	Estimated Number of Residential Meter Connections	Estimated Number of Commercial Meter Connections	Last Complete Year of Water Use Data	2004 Well System Production <sup>a</sup> (ac-ft)	2004 Metered (sold) Water <sup>a</sup> (ac-ft)	% Loss <sup>b</sup>	Number of Active Wells	Estimated Well Pumping Capacity (ac-ft/yr)	Number of Tanks	Total Capacity of Tanks (gallons)
Cannon Air Force Base, Curry County	Curry				6200 <sup>c</sup>	NA	NA					8 <sup>d</sup>	2,800 <sup>e</sup>		1,138,000 <sup>d</sup>
Causey, Roosevelt County	Causey Lingo	---	117 Main St. Causey, NM 88113 (505) 273-4371	Municipal	75	19	5	---	---	---		2	---	2	11,000+
Clayton, Union County	Clayton	---	1 Chestnut St. Clayton, NM 88415	Municipal	2,400	1,300	252	2004	736	537	27	4	1,915	4	1,325,000
Clovis, Curry County	Curry	31,643	P. O. Box 760 Clovis, NM 88101 (505) 763-9650	Municipal	32,667	14,549	1,593	2004	6,256	5,429	15	36	10,483	2	10,500,000
Des Moines, Union County	Clayton	---	654 Broadway Des Moines NM 88418 (505) 278-2127	Municipal	250	80	15	2004	31	22	32	4	---	2	130,000
Dora, Roosevelt County	Causey Lingo	---	P. O. Box 308 Dora, NM 88115 (505) 477-2411	Municipal	160	49	10	2004	26	22	14	2	306	2	65,000
Floyd, Roosevelt County	Portales	---				19 <sup>f</sup>	18 <sup>f</sup>				---				
Elida, Roosevelt County	Causey Lingo	---	704 Clark St. Elida, NM 88116 (505) 274-6465	Municipal	183	110	13	2004	37	---	---	3	194	3	252,000
Grady, Curry County	Curry	---	P. O. Box 74 Grady, NM 88120 (505) 357-2005	Municipal	98	62	0	2004	---	20	---	3	177	1	200,000
Grenville, Union County	Clayton	---	P. O. Box 246 Grenville NM 88424 (505) 278-2221	Municipal	28	9	0	2004	2	2	3	2	---	1	20,000
House, Quay County	Fort Sumner	250	P. O. Box 682 House, NM 88121 (505) 279-7372	Municipal	75	31	11	2004	21	15	28	1	645	1	72,000
Logan, Quay County	Tucumcari	784.8	P. O. Box 7 108A Hwy 54 Logan, NM 88426 (505) 487-2234	Municipal	1097 <sup>g</sup>	837 <sup>h</sup>	93 <sup>h</sup>	2004	256	243	5	6	2,032	4	1,221,982
Melrose, Curry County	Curry	178.721	P. O. Box 235 Melrose, NM 88124 (505) 253-4274	Municipal	753	321	44	2004	141	---	---	5	---	1	250,000
Mosquero, Harding County	Tucumcari	---	P. O. Box 116 Mosquero, NM 87733 (505) 673-2322	Municipal	120	88	0	2004	16	14	13	4	---	2	200,000
Portales, Roosevelt County	Portales	13063.556	100 W. 1st St. Portales, NM 88130 (505) 356-6662	Municipal	17,721	4,435	347	2003	4,506	4,139	8.1	25	13,440	5	9,260,000

Table E2-1. Northeast New Mexico Public Water System Summary

Community	Basin	Well Field/ Water Rights (ac-ft/yr)	System Mailing Address / Phone Number	Type of System	Estimated Population Served	Estimated Number of Residential Meter Connections	Estimated Number of Commercial Meter Connections	Last Complete Year of Water Use Data	2004 Well System Production <sup>a</sup> (ac-ft)	2004 Metered (sold) Water <sup>a</sup> (ac-ft)	% Loss <sup>b</sup>	Number of Active Wells	Estimated Well Pumping Capacity (ac-ft/yr)	Number of Tanks	Total Capacity of Tanks (gallons)
Roy, Harding County	Tucumcari	---	425 Chicosa St. P. O. Box 8 Roy, NM 87743 (505) 485-2541	Municipal	296	171	23	2004	55	---	---	6	177	2	150,000
San Jon, Quay County	Tucumcari	160.6	P. O. Box 37 San Jon, NM 88434 (505) 576-2922	Municipal	308	121	9	2004	63 <sup>i</sup>	53	16	9	115	4	675,000
Texico, Curry County	Curry	330.625	P. O.Box 208 #219 Griffin St. Clovis, NM 88135	Municipal	1,000	450	40	2004	185	---	---	4	---	2	375,000
Tucumcari, Quay County	Tucumcari	4720	P. O. Box 1188 215 E. Central Tucumcari, NM 88401	Municipal	5,989	2,310	516	2004	1,323	1,203	10	22	3,877	8	5,844,000

<sup>a</sup> From records supplied by individual water systems to Michael J. Barnes, P.E. (under subcontract to DBS&A); production records represent total withdrawals and do not account for return flows.

<sup>b</sup> Based on pumped vs. metered

<sup>c</sup> Year 2000 population (CH2MHill, 2005c); Cannon AFB did not respond to our water users survey

<sup>d</sup> Source CH2MHill, 2005c

<sup>e</sup> Figure refers to the maximum hydraulic capability of the system, not to well capacity.

<sup>f</sup> NMED, 2002 New Mexico Water and Sewer User Charge Survey; Floyd did not respond to water users survey

<sup>g</sup> Full-time population; does not account for summer visitors

<sup>h</sup> Estimate from 2002

<sup>i</sup> Total produced from San Jon wells (47 acre-ft) plus amount purchased from Logan (16 acre-ft).

ac-ft/yr =Acre-feet per year

--- = Data not available

NA =not applicable

Table E2-2a. Clayton Monthly Water Demand

Month	2000 Water Use		2001 Water Use		2002 Water Use		2003 Water Use		2004 Water Use		2005 Water Use	
	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet
Jan	19,499,000	59.8	9,695,000	59.8	18,119,000	55.6	9,633,000	29.6	8,958,000	27.5	7,049,000	21.6
Feb	25,582,000	78.5	8,952,000	27.5	6,781,000	20.8	7,147,000	21.9	6,120,000	18.8	6,131,000	18.8
Mar	15,943,000	48.9	6,598,000	20.2	7,626,000	23.4	7,650,000	23.5	7,212,000	22.1	8,053,000	24.7
Apr	9,771,000	30.0	7,386,000	22.7	13,533,000	41.5	9,841,000	30.2	13,134,000	40.3	6,893,000	21.2
May	16,241,000	49.8	15,056,000	46.2	17,768,000	54.5	19,201,000	58.9	12,028,000	36.9	9,881,000	30.3
Jun	46,510,000	142.7	15,178,000	46.6	29,705,000	91.2	15,971,000	49.0	18,933,000	58.1	13,750,000	42.2
Jul	21,494,000	66.0	23,257,000	71.4	25,686,000	78.8	24,192,000	74.2	18,231,000	55.9	26,215,000	80.5
Aug	33,801,000	103.7	28,428,000	87.2	22,813,000	70.0	25,523,000	78.3	12,654,000	38.8	25,765,000	79.1
Sep	26,805,000	82.3	19,018,000	58.4	24,998,000	76.7	19,104,000	58.6	16,577,000	50.9	9,438,000	29.0
Oct	15,755,000	48.4	13,957,000	42.8	11,076,000	34.0	17,208,000	52.8	9,965,000	30.6	---	---
Nov	10,631,000	32.6	12,472,000	38.3	9,202,000	28.2	9,657,000	29.6	6,419,000	19.7	---	---
Dec	7,925,000	24.3	6,905,000	21.2	8,533,000	26.2	6,636,000	20.4	9,514,000	29.2	---	---
Total	249,957,000	767.1	166,902,000	542.3	195,840,000	601.0	171,763,000	527.1	139,745,000	428.9	113,175,000	347.3
Monthly Avg.	20,829,750	63.9	13,908,500	45.2	16,320,000	50.1	14,313,583	43.9	11,645,417	35.7	12,575,000	38.6

--- = data unavailable



Table E2-2b. Clovis Monthly Water Demand

Month	2000 Water Use		2001 Water Use		2002 Water Use		2003 Water Use		2004 Water Use		2005 Water Use	
	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet
Jan	---	---	---	---	---	---	89,379,000	274.3	161,386,000	495.2	146,767,000	450.3
Feb	---	---	---	---	---	---	103,236,000	316.8	106,194,000	325.8	91,924,000	282.1
Mar	---	---	---	---	---	---	110,532,000	339.2	93,631,000	287.3	113,075,000	347.0
Apr	---	---	---	---	---	---	135,681,000	416.3	138,786,000	425.9	110,038,000	337.6
May	---	---	---	---	---	---	201,676,000	618.8	127,019,000	389.7	142,226,000	436.4
Jun	---	---	---	---	---	---	250,234,000	767.8	234,398,000	719.2	209,263,000	642.1
Jul	---	---	---	---	---	---	172,647,000	529.8	213,109,000	653.9	231,445,000	710.2
Aug	---	---	---	---	---	---	257,147,000	789.0	174,503,000	535.4	---	---
Sep	---	---	---	---	---	---	222,436,000	682.5	215,281,000	660.6	---	---
Oct	---	---	---	---	---	---	147,874,000	453.7	141,282,000	433.5	---	---
Nov	---	---	---	---	---	---	131,403,000	403.2	104,548,000	320.8	---	---
Dec	---	---	---	---	---	---	87,421,000	268.2	59,030,000	181.1	---	---
Total	---	---	---	---	---	---	1,909,666,000	5859.7	1,769,167,000	5428.6	1,044,738,000	3205.7
Monthly Avg.	---	---	---	---	---	---	159,138,833	488.3	147,430,583	452.4	149,248,286	458.0

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Table E2-2c. Des Moines Monthly Water Demand

Month	2000 Water Use		2001 Water Use		2002 Water Use		2003 Water Use		2004 Water Use		2005 Water Use	
	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet
Jan	---	---	---	---	---	---	---	---	538,089	1.7	468,451	1.4
Feb	---	---	---	---	---	---	---	---	474,204	1.5	503,625	1.5
Mar	---	---	---	---	---	---	---	---	441,810	1.4	615,664	1.9
Apr	---	---	---	---	---	---	---	---	544,378	1.7	---	---
May	---	---	---	---	---	---	---	---	652,914	2.0	---	---
Jun	---	---	---	---	---	---	---	---	983,784	3.0	---	---
Jul	---	---	---	---	---	---	522,351	1.6	553,034	1.7	---	---
Aug	---	---	---	---	---	---	---	---	487,074	1.5	---	---
Sep	---	---	---	---	---	---	551,001	1.7	800,021	2.5	---	---
Oct	---	---	---	---	---	---	584,359	1.8	509,641	1.6	---	---
Nov	---	---	---	---	---	---	575,029	1.8	410,011	1.3	---	---
Dec	---	---	---	---	---	---	456,329	1.4	621,661	1.9	---	---
Total	---	---	---	---	---	---	2,689,069	8.3	7,016,621	21.5	1,587,740	4.9
Monthly Avg.	---	---	---	---	---	---	537,814	1.7	584,718	1.8	529,247	1.6

--- = data unavailable

Table E2-2d. Dora Monthly Water Demand

Month	2000 Water Use		2001 Water Use		2002 Water Use		2003 Water Use		2004 Water Use		2005 Water Use	
	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet
Jan	738,200	2.3	1,358,000	4.2	686,500	2.1	599,300	1.8	428,700	1.3	451,100	1.4
Feb	838,700	2.6	850,600	2.6	568,500	1.7	538,600	1.7	678,400	2.1	---	---
Mar	735,100	2.3	547,400	1.7	506,900	1.6	822,400	2.5	395,500	1.2	---	---
Apr	954,000	2.9	1,073,600	3.3	728,040	2.2	1,207,700	3.7	485,300	1.5	---	---
May	1,353,300	4.2	1,371,100	4.2	963,460	3.0	1,279,000	3.9	931,000	2.9	---	---
Jun	1,250,800	3.8	1,474,400	4.5	1,610,400	4.9	1,139,400	3.5	915,610	2.8	---	---
Jul	1,501,300	4.6	1,689,000	5.2	1,245,400	3.8	1,330,800	4.1	1,203,890	3.7	---	---
Aug	1,694,300	5.2	1,393,600	4.3	1,420,100	4.4	1,527,300	4.7	659,100	2.0	---	---
Sep	1,708,900	5.2	842,400	2.6	873,900	2.7	1,094,400	3.4	670,000	2.1	---	---
Oct	877,700	2.7	654,800	2.0	646,800	2.0	715,400	2.2	1,231,700	3.8	---	---
Nov	470,500	1.4	746,200	2.3	372,900	1.1	897,800	2.8	377,300	1.2	---	---
Dec	1,023,900	3.1	757,800	2.3	432,900	1.3	678,100	2.1	553,200	1.7	---	---
Total	13,146,700	40.3	12,758,900	39.1	10,055,800	30.9	11,830,200	36.3	8,529,700	26.2	451,100	1.4
Monthly Avg.	1,095,558	3.4	1,063,242	3.3	837,983	2.6	985,850	3.0	710,808	2.2	451,100	1.4

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Table E2-2e. Elida Monthly Water Demand

Month	2000 Water Use		2001 Water Use		2002 Water Use		2003 Water Use		2004 Water Use		2005 Water Use	
	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet
Jan	---	---	---	---	---	---	---	---	646,000	2.0	593,500	1.8
Feb	---	---	---	---	---	---	---	---	610,000	1.9	687,700	2.1
Mar	---	---	---	---	---	---	---	---	---	---	600,000	1.8
Apr	---	---	---	---	---	---	728,040	2.2	833,100	2.6	---	---
May	---	---	---	---	---	---	1,852,000	5.7	1,113,611	3.4	---	---
Jun	---	---	---	---	---	---	1,333,000	4.1	1,855,800	5.7	---	---
Jul	---	---	---	---	---	---	1,705,000	5.2	1,489,600	4.6	---	---
Aug	---	---	---	---	---	---	1,854,000	5.7	1,204,100	3.7	---	---
Sep	---	---	---	---	---	---	1,175,000	3.6	1,912,800	5.9	---	---
Oct	---	---	---	---	---	---	824,000	2.5	860,000	2.6	---	---
Nov	---	---	---	---	---	---	639,000	2.0	969,400	3.0	---	---
Dec	---	---	---	---	---	---	597,000	1.8	543,500	1.7	---	---
Total	---	---	---	---	---	---	10,707,040	32.9	12,037,911	36.9	1,881,200	5.8
Monthly Avg.	---	---	---	---	---	---	1,189,671	3.7	1,094,356	3.4	627,067	1.9

--- = data unavailable

Table E2-2f. Grady Monthly Water Demand

Month	2000 Water Use		2001 Water Use		2002 Water Use		2003 Water Use		2004 Water Use		2005 Water Use	
	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet
Jan	---	---	357,730	1.1	291,830	0.9	217,660	0.7	318,870	1.0	221,160	0.7
Feb	---	---	307,180	0.9	302,140	0.9	---	---	282,330	0.9	349,180	1.1
Mar	---	---	283,400	0.9	411,840	1.3	329,070	1.0	279,990	0.9	---	---
Apr	---	---	390,890	1.2	588,370	1.8	---	---	686,080	2.1	---	---
May	---	---	554,130	1.7	714,620	2.2	1,018,890	3.1	726,770	2.2	---	---
Jun	---	---	671,420	2.1	---	---	---	---	1,323,720	4.1	---	---
Jul	---	---	1,077,770	3.3	---	---	863,360	2.6	808,820	2.5	---	---
Aug	---	---	759,870	2.3	795,190	2.4	1,198,250	3.7	600,510	1.8	---	---
Sep	---	---	605,750	1.9	723,290	2.2	407,940	1.3	658,050	2.0	---	---
Oct	537,460	1.6	468,410	1.4	441,480	1.4	461,300	1.4	251,730	0.8	---	---
Nov	221,130	0.7	259,790	0.8	258,990	0.8	320,720	1.0	314,480	1.0	---	---
Dec	251,820	0.8	250,260	0.8	241,110	0.7	308,490	0.9	220,530	0.7	---	---
Total	1,010,410	3.1	5,986,600	18.4	4,768,860	14.6	5,125,680	15.7	6,471,880	19.9	570,340	1.8
Monthly Avg.	336,803	1.0	498,883	1.5	476,886	1.5	569,520	1.7	539,323	1.7	285,170	0.9

--- = data unavailable

Table E2-2g. Grenville Monthly Water Demand

Month	2000 Water Use		2001 Water Use		2002 Water Use		2003 Water Use		2004 Water Use		2005 Water Use	
	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet
Jan	---	---	---	---	---	---	---	---	44,500	0.1	---	---
Feb	---	---	---	---	---	---	---	---	50,100	0.2	---	---
Mar	---	---	---	---	---	---	---	---	62,930	0.2	---	---
Apr	---	---	---	---	---	---	---	---	43,270	0.1	---	---
May	---	---	---	---	---	---	---	---	64,700	0.2	---	---
Jun	---	---	---	---	---	---	---	---	103,400	0.3	---	---
Jul	---	---	---	---	---	---	---	---	68,400	0.2	---	---
Aug	---	---	---	---	---	---	---	---	45,600	0.1	---	---
Sep	---	---	---	---	---	---	---	---	67,400	0.2	---	---
Oct	---	---	---	---	---	---	---	---	37,900	0.1	---	---
Nov	---	---	---	---	---	---	---	---	41,300	0.1	---	---
Dec	---	---	---	---	---	---	---	---	43,500	0.1	---	---
Total	---	---	---	---	---	---	---	---	673,000	2.1	---	---
Monthly Avg.	---	---	---	---	---	---	---	---	56,083	0.2	---	---

--- = data unavailable

Table E2-2h. House Monthly Water Demand

Month	2000 Water Use		2001 Water Use		2002 Water Use		2003 Water Use		2004 Water Use		2005 Water Use	
	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet
Jan	158,100	0.5	592,300	1.8	246,400	0.8	299,400	0.9	290,900	0.9	304,900	0.9
Feb	390,700	1.2	249,900	0.8	251,000	0.8	435,800	1.3	508,900	1.6	303,700	0.9
Mar	237,900	0.7	147,800	0.5	508,300	1.6	1,083,000	3.3	1,136,400	3.5	---	---
Apr	236,800	0.7	274,300	0.8	741,700	2.3	2,136,500	6.6	423,500	1.3	---	---
May	489,500	1.5	617,700	1.9	852,100	2.6	1,824,000	5.6	831,400	2.6	---	---
Jun	557,700	1.7	561,500	1.7	959,200	2.9	1,473,200	4.5	825,800	2.5	---	---
Jul	353,600	1.1	577,700	1.8	993,300	3.0	1,225,400	3.8	612,500	1.9	---	---
Aug	689,600	2.1	780,400	2.4	1,336,300	4.1	1,233,200	3.8	397,600	1.2	---	---
Sep	673,200	2.1	634,200	1.9	769,300	2.4	1,214,700	3.7	766,200	2.4	---	---
Oct	380,500	1.2	1,337,500	4.1	603,900	1.9	619,200	1.9	350,300	1.1	---	---
Nov	170,400	0.5	775,700	2.4	327,100	1.0	327,700	1.0	302,000	0.9	---	---
Dec	172,000	0.5	321,600	1.0	296,400	0.9	489,200	1.5	295,200	0.9	---	---
Total	4,510,000	13.8	6,870,600	21.1	7,885,000	24.2	12,361,300	37.9	6,740,700	20.7	608,600	1.9
Monthly Avg.	375,833	1.2	572,550	1.8	657,083	2.0	1,030,108	3.2	561,725	1.7	304,300	0.9

--- = data unavailable

Table E2-2i. Logan Monthly Water Demand

Month	2000 Water Use		2001 Water Use		2002 Water Use		2003 Water Use		2004 Water Use		2005 Water Use	
	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet
Jan	4,404,000	13.5	4,751,300	14.6	5,001,100	15.3	4,370,100	13.4	4,289,200	13.2	6,142,200	18.8
Feb	4,065,700	12.5	2,739,400	8.4	4,394,200	13.5	3,819,900	11.7	4,100,000	12.6	---	---
Mar	5,666,900	17.4	637,700	2.0	6,124,600	18.8	6,762,900	20.8	5,121,300	15.7	---	---
Apr	5,783,700	17.7	4,466,500	13.7	8,511,300	26.1	7,467,900	22.9	6,447,800	19.8	---	---
May	13,053,600	40.1	9,546,600	29.3	11,632,600	35.7	12,168,900	37.3	7,981,800	24.5	---	---
Jun	15,701,600	48.2	8,708,500	26.7	9,938,057	30.5	11,738,900	36.0	10,280,970	31.5	---	---
Jul	22,330,000	68.5	17,688,500	54.3	15,469,000	47.5	15,328,700	47.0	11,862,630	36.4	---	---
Aug	17,450,000	53.5	16,633,300	51.0	12,662,600	38.9	17,308,700	53.1	8,218,400	25.2	---	---
Sep	16,175,000	49.6	7,401,400	22.7	10,055,200	30.9	13,768,000	42.2	11,979,600	36.8	---	---
Oct	10,304,100	31.6	5,801,300	17.8	8,216,900	25.2	6,976,200	21.4	6,085,600	18.7	---	---
Nov	3,893,200	11.9	3,449,500	10.6	4,086,400	12.5	5,290,300	16.2	5,205,700	16.0	---	---
Dec	4,060,600	12.5	3,558,200	10.9	3,502,200	10.7	3,703,000	11.4	4,901,400	15.0	---	---
Total	122,888,400	377.1	85,382,200	262.0	99,594,157	305.6	108,703,500	333.5	86,474,400	265.3	6,142,200	18.8
Monthly Avg.	10,240,700	31.4	7,115,183	21.8	8,299,513	25.5	9,058,625	27.8	7,206,200	22.1	6,142,200	18.8

--- = data unavailable



Table E2-2j. Melrose Monthly Water Demand

Month	2000 Water Use		2001 Water Use		2002 Water Use		2003 Water Use		2004 Water Use		2005 Water Use	
	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet
Jan	3,179,800	9.8	2,322,700	7.1	1,823,300	5.6	2,686,500	8.2	2,912,100	8.9	---	---
Feb	2,974,400	9.1	2,406,100	7.4	1,928,000	5.9	2,540,000	7.8	2,941,400	9.0	---	---
Mar	3,243,000	10.0	2,160,600	6.6	2,667,200	8.2	2,034,500	6.2	2,634,100	8.1	---	---
Apr	5,644,800	17.3	3,931,200	12.1	3,839,300	11.8	3,906,600	12.0	3,299,500	10.1	---	---
May	4,834,800	14.8	4,912,100	15.1	6,081,900	18.7	4,663,400	14.3	5,726,900	17.6	---	---
Jun	6,478,900	19.9	7,815,700	24.0	6,573,200	20.2	6,455,900	19.8	9,049,300	27.8	---	---
Jul	7,509,500	23.0	7,010,700	21.5	7,054,700	21.6	6,904,400	21.2	4,924,000	15.1	---	---
Aug	6,848,900	21.0	5,860,600	18.0	4,553,600	14.0	6,203,400	19.0	4,198,400	12.9	---	---
Sep	6,431,500	19.7	5,645,200	17.3	2,085,400	6.4	5,656,500	17.4	4,288,900	13.2	---	---
Oct	4,011,900	12.3	2,103,900	6.5	2,900,100	8.9	3,199,500	9.8	2,125,700	6.5	---	---
Nov	2,579,200	7.9	1,722,700	5.3	2,295,400	7.0	2,281,800	7.0	2,104,300	6.5	---	---
Dec	2,176,600	6.7	2,211,200	6.8	2,146,600	6.6	2,069,300	6.3	1,830,800	5.6	---	---
Total	55,913,300	171.6	48,102,700	147.6	43,948,700	134.9	48,601,800	149.1	46,035,400	141.3	---	---
Monthly Avg.	4,659,442	14.3	4,008,558	12.3	3,662,392	11.2	4,050,150	12.4	3,836,283	11.8	---	---

--- = data unavailable

Table E2-2k. Mosquero Monthly Water Demand

Month	2000 Water Use		2001 Water Use		2002 Water Use		2003 Water Use		2004 Water Use		2005 Water Use	
	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet
Jan	---	---	---	---	---	---	---	---	279,636	0.9	302,589	0.9
Feb	---	---	---	---	---	---	---	---	295,724	0.9	311,889	1.0
Mar	---	---	---	---	---	---	---	---	324,930	1.0	---	---
Apr	---	---	---	---	---	---	---	---	295,000	0.9	---	---
May	---	---	---	---	---	---	---	---	434,960	1.3	---	---
Jun	---	---	---	---	---	---	---	---	606,110	1.9	---	---
Jul	---	---	---	---	---	---	---	---	486,746	1.5	---	---
Aug	---	---	---	---	---	---	---	---	414,974	1.3	---	---
Sep	---	---	---	---	---	---	---	---	454,650	1.4	---	---
Oct	---	---	---	---	---	---	---	---	290,400	0.9	---	---
Nov	---	---	---	---	---	---	---	---	319,982	1.0	---	---
Dec	---	---	---	---	---	---	---	---	271,769	0.8	---	---
Total	---	---	---	---	---	---	---	---	4,474,881	13.7	614,478	1.9
Monthly Avg.	---	---	---	---	---	---	---	---	372,907	1.1	307,239	0.9

--- = data unavailable

Table E2-21. Portales Monthly Water Demand

Month	2000 Water Use		2001 Water Use		2002 Water Use		2003 Water Use		2004 Water Use		2005 Water Use	
	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet
Jan	---	---	---	---	---	---	---	---	---	---	---	---
Feb	---	---	---	---	---	---	---	---	---	---	---	---
Mar	---	---	---	---	---	---	---	---	---	---	---	---
Apr	---	---	---	---	---	---	---	---	---	---	---	---
May	---	---	---	---	---	---	---	---	---	---	---	---
Jun	---	---	---	---	---	---	---	---	---	---	---	---
Jul	---	---	---	---	---	---	---	---	---	---	---	---
Aug	---	---	---	---	---	---	---	---	---	---	---	---
Sep	---	---	---	---	---	---	---	---	---	---	---	---
Oct	---	---	---	---	---	---	---	---	---	---	---	---
Nov	---	---	---	---	---	---	---	---	---	---	---	---
Dec	---	---	---	---	---	---	---	---	---	---	---	---
Total	1,272,656,000	3,905.1	1,230,241,000	3,774.9	1,262,080,000	3,872.6	1,348,736,000	4,138.5	---	---	---	---
Monthly Avg.	---	---	---	---	---	---	---	---	---	---	---	---

--- = data unavailable

Table E2-2m. Roy Monthly Water Demand

Month	2000 Water Use		2001 Water Use		2002 Water Use		2003 Water Use		2004 Water Use		2005 Water Use	
	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet
Jan	---	---	---	---	---	---	---	---	777,000	2.4	---	---
Feb	---	---	---	---	---	---	---	---	695,000	2.1	---	---
Mar	---	---	---	---	---	---	---	---	1,079,000	3.3	---	---
Apr	---	---	---	---	---	---	---	---	1,188,000	3.6	---	---
May	---	---	---	---	---	---	---	---	1,932,000	5.9	---	---
Jun	---	---	---	---	---	---	---	---	3,370,000	10.3	---	---
Jul	---	---	---	---	---	---	---	---	1,838,000	5.6	---	---
Aug	---	---	---	---	---	---	---	---	1,721,000	5.3	---	---
Sep	---	---	---	---	---	---	---	---	1,664,000	5.1	---	---
Oct	---	---	---	---	---	---	---	---	1,098,000	3.4	---	---
Nov	---	---	---	---	---	---	---	---	1,158,000	3.6	---	---
Dec	---	---	---	---	---	---	---	---	1,343,000	4.1	---	---
Total	---	---	---	---	---	---	---	---	17,863,000	54.8	---	---
Monthly Avg.	---	---	---	---	---	---	---	---	1,488,583	4.6	---	---

--- = data unavailable

Table E2-2n. San Jon Monthly Water Demand

Month	2000 Water Use		2001 Water Use		2002 Water Use		2003 Water Use		2004 Water Use		2005 Water Use	
	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet
Jan	---	---	---	---	---	---	---	---	---	---	---	---
Feb	---	---	---	---	---	---	---	---	---	---	---	---
Mar	---	---	---	---	---	---	---	---	---	---	---	---
Apr	---	---	---	---	---	---	---	---	---	---	---	---
May	---	---	---	---	---	---	---	---	---	---	---	---
Jun	---	---	---	---	---	---	---	---	---	---	---	---
Jul	---	---	---	---	---	---	---	---	---	---	---	---
Aug	---	---	---	---	---	---	---	---	---	---	---	---
Sep	---	---	---	---	---	---	---	---	---	---	---	---
Oct	---	---	---	---	---	---	---	---	---	---	---	---
Nov	---	---	---	---	---	---	---	---	---	---	---	---
Dec	---	---	---	---	---	---	---	---	---	---	---	---
Total	21,706,753	66.6	19,145,150	58.8	19,127,100	58.7	---	---	---	---	---	---
Monthly Avg.	1,808,896	5.6	1,595,429	4.9	1,593,925	4.9	---	---	---	---	---	---

--- = data unavailable

Table E2-2o. Texico Monthly Water Demand

Month	2000 Water Use		2001 Water Use		2002 Water Use		2003 Water Use		2004 Water Use		2005 Water Use	
	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet
Jan	4,018,000	12.3	3,606,000	11.1	3,713,000	11.4	3,769,000	11.6	4,178,000	12.8	---	---
Feb	4,328,000	13.3	3,379,000	10.4	3,338,000	10.2	3,685,000	11.3	3,694,000	11.3	---	---
Mar	5,462,000	16.8	3,461,000	10.6	4,358,000	13.4	5,201,000	16.0	4,006,000	12.3	---	---
Apr	6,423,000	19.7	5,292,000	16.2	5,670,000	17.4	6,891,000	21.1	4,351,000	13.4	---	---
May	9,837,000	30.2	6,415,000	19.7	9,454,000	29.0	9,360,000	28.7	8,110,000	24.9	---	---
Jun	6,332,000	19.4	9,527,000	29.2	10,796,000	33.1	6,979,000	21.4	8,411,000	25.8	---	---
Jul	8,704,000	26.7	10,253,000	31.5	10,049,000	30.8	10,678,000	32.8	6,768,000	20.8	---	---
Aug	11,086,000	34.0	7,131,000	21.9	9,496,000	29.1	10,407,000	31.9	5,576,000	17.1	---	---
Sep	9,003,000	27.6	6,679,000	20.5	5,725,000	17.6	6,434,000	19.7	4,759,000	14.6	---	---
Oct	5,204,000	16.0	5,293,000	16.2	4,203,000	12.9	5,325,000	16.3	3,779,000	11.6	---	---
Nov	3,301,000	10.1	3,696,000	11.3	3,662,000	11.2	4,222,000	13.0	3,254,000	10.0	---	---
Dec	3,700,000	11.4	4,105,000	12.6	3,712,000	11.4	4,075,000	12.5	3,350,000	10.3	---	---
Total	77,398,000	237.5	68,837,000	211.2	74,176,000	227.6	77,026,000	236.3	60,236,000	184.8	---	---
Monthly Avg	6,449,833	19.8	5,736,417	17.6	6,181,333	19.0	6,418,833	19.7	5,019,667	15.4	---	---

--- = data unavailable

Table E2-2p. Tucumcari Monthly Water Demand

Month	2000 Water Use		2001 Water Use		2002 Water Use		2003 Water Use		2004 Water Use		2005 Water Use	
	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet	gallons	acre-feet
Jan	30,185,000	92.6	27,975,000	85.8	30,424,000	93.4	28,574,000	87.7	26,576,000	81.5	25,829,000	79.3
Feb	28,833,000	88.5	26,426,000	81.1	27,604,000	84.7	24,480,000	75.1	23,426,000	71.9	17,717,000	54.4
Mar	33,976,000	104.3	31,146,000	95.6	34,221,000	105.0	32,842,000	100.8	29,276,000	89.8	---	---
Apr	39,345,000	120.7	41,217,000	126.5	48,549,000	149.0	38,152,000	117.1	31,246,000	95.9	---	---
May	62,164,000	190.7	47,125,000	144.6	62,041,000	190.4	56,289,000	172.7	56,000,000	171.8	---	---
Jun	62,747,000	192.5	58,694,000	180.1	80,242,000	246.2	48,764,000	149.6	61,908,000	190.0	---	---
Jul	66,858,000	205.1	72,813,000	223.4	55,676,000	170.8	66,431,000	203.8	53,990,000	165.7	---	---
Aug	75,362,000	231.2	59,727,000	183.3	69,447,000	213.1	63,816,000	195.8	40,747,000	125.0	---	---
Sep	62,998,000	193.3	51,245,000	157.2	38,642,000	118.6	36,060,000	110.6	40,382,000	123.9	---	---
Oct	37,427,000	114.8	40,890,000	125.5	33,955,000	104.2	34,067,000	104.5	26,388,000	81.0	---	---
Nov	32,517,000	99.8	31,972,000	98.1	28,605,000	87.8	24,223,000	74.3	22,685,000	69.6	---	---
Dec	29,811,000	91.5	33,274,000	102.1	27,122,000	83.2	23,742,000	72.9	21,667,000	66.5	---	---
Total	562,223,000	1725.1	522,504,000	1603.3	536,528,000	1646.3	477,440,000	1465.0	434,291,000	1332.6	43,546,000	133.6
Monthly Avg.	46,851,917	143.8	43,542,000	133.6	44,710,667	137.2	39,786,667	122.1	36,190,917	111.0	21,773,000	66.8

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**Appendix E3**  
**Growth Projections**



# Northeast New Mexico Regional Water Plan Economic Analysis and Projections

November 1, 2006



# Table of Contents

<b>INTRODUCTION .....</b>	<b>1</b>
<b>REGIONAL SUMMARY .....</b>	<b>2</b>
<b>Population.....</b>	<b>2</b>
<b>Historic Employment.....</b>	<b>8</b>
<b>Revised Population Projections .....</b>	<b>8</b>
<b>CURRY COUNTY .....</b>	<b>10</b>
<b>Curry County Economy .....</b>	<b>10</b>
<b>Employment Trends .....</b>	<b>11</b>
Major Employers.....	11
New Economic Activity .....	12
Potential Economic Development .....	13
<b>Historical Population Trends.....</b>	<b>14</b>
<b>BBER Population Projections.....</b>	<b>14</b>
<b>Public Meeting Comments .....</b>	<b>14</b>
<b>Revised Population Projections .....</b>	<b>14</b>
<b>HARDING COUNTY .....</b>	<b>16</b>
<b>Local Economy .....</b>	<b>16</b>
Economic Base .....	16
<b>Employment Trends .....</b>	<b>16</b>
Major Employers.....	17
Potential Economic Development .....	17
<b>Historical Population Trends.....</b>	<b>19</b>
<b>BBER Population Projections.....</b>	<b>19</b>
<b>Public Meeting Comments .....</b>	<b>19</b>
<b>Revised Population Projections .....</b>	<b>20</b>
<b>QUAY COUNTY .....</b>	<b>21</b>
<b>Quay County Economy.....</b>	<b>21</b>

Economic Base .....	21
<b>Employment Trends .....</b>	<b>22</b>
Major Employers .....	22
Proposed Business Development .....	23
<b>Historical Trends .....</b>	<b>25</b>
<b>BBER Projections .....</b>	<b>25</b>
<b>Public Meeting Comments .....</b>	<b>26</b>
<b>Revised Projections.....</b>	<b>26</b>
<b>ROOSEVELT COUNTY.....</b>	<b>27</b>
<b>Roosevelt County Economy .....</b>	<b>27</b>
Economic Base .....	27
Employment Trends .....	28
Major Employers.....	29
Recent Economic Development .....	29
Potential Economic Development .....	30
<b>Historical Trends .....</b>	<b>30</b>
<b>BBER Population Projections.....</b>	<b>30</b>
<b>Public Meeting Comments .....</b>	<b>30</b>
<b>Revised Projections.....</b>	<b>31</b>
<b>UNION COUNTY .....</b>	<b>32</b>
<b>Union County Economy .....</b>	<b>32</b>
Economic Base .....	32
Major Employers.....	33
Economic Development .....	34
Proposed Business Development .....	34
<b>Historical Trends .....</b>	<b>35</b>
<b>BBER Projections .....</b>	<b>35</b>
<b>Public Meeting Comments .....</b>	<b>35</b>
<b>Revised Population Projections .....</b>	<b>36</b>
<b>BIBLIOGRAPHY .....</b>	<b>37</b>

## Tables

Table 1. Historic Population, 1970 to 2000 and Population Projections 2010 to 2030.....	5
Table 2. Rates of Population Change by Decade from 1980 to 2030.....	5
Table 3. Population Change by Decade from 1980 to 2030.....	6
Table 4. Historic and Current Population with % Change by City, 1970 to 2004 .....	6
Table 5. Projected Population % Change, 1970 to 2030.....	7
Table 6. Total Employment by County, 1970 to 2000 and 2000 to 2003 .....	8
Table 7. Revised Population Projections by County, 2000 to 2040 .....	9
Table 8. Curry County Employment, 1970 to 2003 .....	11
Table 9. Harding County Employment, 1970 to 2003 .....	17
Table 10. Quay County Employment, 1970 to 2003.....	22
Table 11. Roosevelt County Employment, 1970 to 2003.....	28

## Figures

Figure 1. Northeastern New Mexico Regional Water Plan Area .....	3
Figure 2. Comparison of County to Regional Population Change and Projections .....	4
Figure 3. BBER Population Projections for Curry County, 2000 to 2030 .....	14
Figure 4. Revised Population Projections for Curry County, 2000 - 2040.....	15
Figure 5. BBER Population Projections for Harding County, 2000 to 2030 .....	19
Figure 6. Revised Population Projections for Harding County, 2000 to 2040 .....	20
Figure 7. BBER Population Projections for Quay County, 2000 to 2030.....	25
Figure 8. Revised Population Projections for Quay County, 2000 to 2040 .....	26
Figure 9. BBER Population Projections for Roosevelt County, 2000 to 2030.....	31
Figure 10. Revised Population Projections for Roosevelt County, 2000 to 2040 .....	31
Figure 11. BBER Population Projections for Union County, 2000 to 2030.....	35
Figure 12. Revised Population Projections for Union County, 2000 to 2040 .....	36

# Introduction

The purpose of the projections report is to document economic and growth trends in the Northeastern Plains Regional Water Plan area and to evaluate whether existing projections may be too low based on recent trends and anticipated economic activity in the area.

During the planning process, the consultant team has gathered extensive information about the communities and counties in the region and has obtained input from knowledgeable residents about economic trends, economic development and adopted plans. This input has provided valuable insight into the likely future of the plan area.

In addition, economic activity has potential impact on water use, depending upon the types of businesses that locate in the region. The types of businesses that are anticipated in the area are documented for each county. The economic sectors included in the analysis are municipal, commercial, industrial power, mining, agriculture and livestock.

The population and economic analysis evaluates population and employment trends in the region. Economic Development efforts were reviewed to provide insight into the types of economic activity in the region and impact of this activity on future population growth.

The report includes the following sections:

- ❖ The regional summary summarizes information about the region and highlights the most significant information for each county. Projections for the region are contained in the summary.
- ❖ A description of trends and factors that will affect each county are included in the county chapters. Each county chapter contains the following sections
  - A description of the local economy, including the County's economic base, employment trends, major employers, new economic activity and potential economic development based on the efforts of the County and municipal governments and economic development organizations
  - Economic projections published by the Bureau of Business and Economic Research at UNM
  - Comments from Steering Committee members and the public regarding the validity of these projections
  - Alternative projections that have been adopted by local governments, and
  - Revised projections for the regional water plan.

## **Regional Summary**

The Northeast New Mexico Regional Water Plan area encompasses five counties along the northeastern edge of New Mexico, including Union, Harding, Quay, Curry and Roosevelt Counties. The land use in the region is predominantly agricultural. The major categories of employment, however, are retail and wholesale trade, services and government. The plan area is shown in Figure 1.

Some employers, such as local governments, medical services, and other location-specific businesses have a primarily local economic impact. However, within the region, economic sectors like agriculture and recreation have an impact region-wide as activities in one county create opportunities for similar or related businesses in nearby counties. The dairy industry, for example, spans county boundaries, and related milk processing industries are located throughout the southern part of the region, including Quay, Curry and Roosevelt Counties. In addition to the dairies themselves, agriculture includes the raising of feed.

In the northern part of the region, ranching predominates. Potential new manufacturing and other businesses include metal fabrication in Harding County, a new prison and a meat packing plant in Clayton.

Recreation plays a role in the economy of several of the counties, with locals and tourists skiing and fishing at Ute, Santa Rosa, Sumner and Conchas Lakes. Counties are seeking to increase tourism through Scenic Byways enhancements and promotion of the region for tourism.

The \$270 million Ute Pipeline project, which will impact almost the entire region, will create construction jobs and contribute tax revenues to the local governments.

Specific businesses being targeted in each county are listed and described in the County profiles.

### ***Population***

The northeastern section of New Mexico is primarily agricultural, and the area as a whole is sparsely populated. Cities and towns in the plan area range from fewer than 100 people to over 30,000.

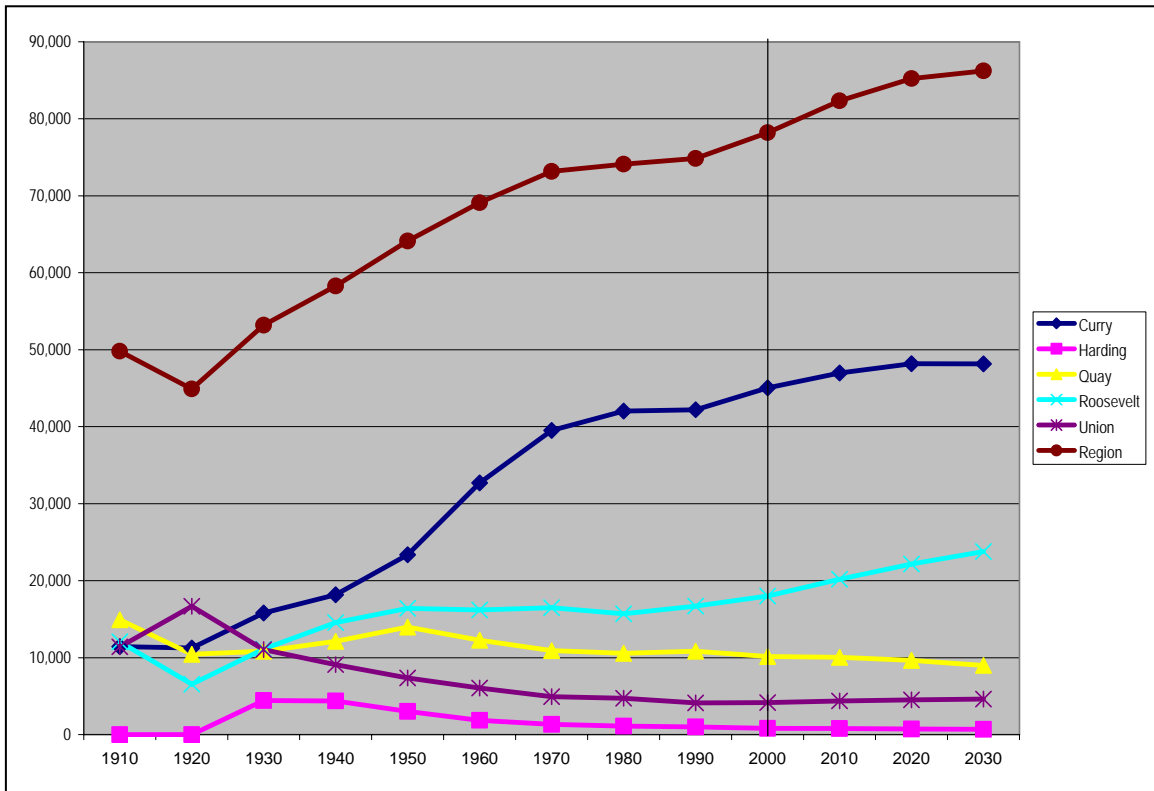
### **Historic Population**

The northeast New Mexico region, which includes Union, Harding, Quay, Curry and Roosevelt Counties, experienced 6.9 percent population growth from 73,172 in 1970 to 78,201 in 2000.



Most counties within the region grew more slowly than the State average from 1970 to 2000. Curry County, which contains 58 percent of the region’s population, grew 14 percent from 1970 to 2000, from 39,517 to 45,044. Roosevelt County population grew 9.3 percent. Harding, Quay and Union counties declined in population from 1970 to 2000. Historic and projected growth by decade is shown in Figure 2.

**Figure 2. Comparison of County to Regional Population Change and Projections**



Source: BBER, UNM.

### County Projections

The growth rates for Counties within the northeast New Mexico region are somewhat disparate. Two counties, Curry and Roosevelt, are experiencing growth, and the remaining three counties have experienced no growth or declining population over the past thirty years. The Bureau of Business and Economic Research at the University of New Mexico (BBER) projects these historical trends to continue into the future, with a population increase projected for Curry, Roosevelt and Union Counties and continued declines in Harding and Quay Counties.

Table 1 through Table 3 show historic growth from 1970 through 2000 and BBER’s projections for 2000 through 2030 for individual counties, the region and the state.



Population totals, rates of change by decade, and actual gains and losses in population are reported in the tables.

Overall, the BBER projects 10.2 percent population growth for the region from 2000 to 2030, with regional population increasing to 86,222 by 2030.

**Table 1. Historic Population, 1970 to 2000 and BBER Population Projections 2010 to 2030**

	Historic Population				Current	Projected Population		
	1970	1980	1990	2000	2004 Estimate	2010	2020	2030
Curry	39,517	42,019	42,207	45,044	45,662	46,973	48,190	48,168
Harding	1,348	1,090	987	810	774	780	726	676
Quay	10,903	10,577	10,823	10,155	9483	10,030	9,659	8,986
Roosevelt	16,479	15,695	16,702	18,018	18,165	20,197	22,159	23,773
Union	4,925	4,725	4,124	4,174	3,827	4,365	4,507	4,619
Region	73,172	74,106	74,843	78,201	77,911	82,345	85,241	86,222
New Mexico	1,017,055	1,303,303	1,515,069	1,819,046	1,903,209	2,112,986	2,383,116	2,626,553

Source: U.S. Census; UNM, BBER

The county that is projected to increase by the largest percentage is Roosevelt County, which is projected to grow 31.9% – almost a 1/3 increase – from 2000 to 2030. Both Harding and Quay Counties are projected to decrease in population by 16.5% and 11.5% respectively.

**Table 2. Rates of Population Change by Decade from 1980 to 2030**

	Historic Growth					Projected Growth			
	1970	1980	1990	2000	1970-2000	2010	2020	2030	2000-2030
Curry	--	6.3%	0.4%	6.7%	14.0%	4.3%	2.6%	0.0%	6.9%
Harding	--	-19.1%	-9.4%	-17.9%	-39.9%	-3.7%	-6.9%	-6.9%	-16.5%
Quay	--	-3.0%	2.3%	-6.2%	-6.9%	-1.2%	-3.7%	-7.0%	-11.5%
Roosevelt	--	-4.8%	6.4%	7.9%	9.3%	12.1%	9.7%	7.3%	31.9%
Union	--	-4.1%	-12.7%	1.2%	-15.2%	4.6%	3.3%	2.5%	10.7%
Region	--	1.3%	1.0%	4.5%	6.9%	5.3%	3.5%	1.2%	10.3%
New Mexico		28.1%	16.2%	20.1%	78.9%	28.1%	16.2%	20.1%	44.4%

Source: U.S. Census; UNM, BBER

In terms of numbers of people, the BBER projects Roosevelt to gain the most, while Quay County is projected to lose the most population. Curry County and Union County are projected to gain population over the next thirty years, and Harding County is projected to continue to decrease in population.

**Table 3. Population Change by Decade from 1980 to 2030**

	Historic Population				Projected Population				2000 to 2030
	1970	1980	1990	2000	1970 to 2000	2010	2020	2030	
Curry	--	2,502	188	2,837	5,527	1,929	1,217	-22	3,124
Harding	--	-258	-103	-177	-538	-30	-54	-50	-134
Quay	--	-326	246	-668	-748	-125	-371	-673	-1,169
Roosevelt	--	-784	1,007	1,316	1,539	2,179	1,962	1,614	5,755
Union	--	-200	-601	50	-751	191	142	112	445
Region	--	934	737	3,358	5,029	4,144	2,896	981	8,021
New Mexico		286,248	211,766	303,977	801,991	293,940	270,130	243,437	807,507

Source: U.S. Census; UNM, BBER

The historic growth trends of incorporated municipalities within each county are shown in Table 4 and Table 5.

**Table 4. Historic and Current Population with % Change by City, 1970 to 2004**

County	City	Historic Population					Current Population	
		1970	1980	1990	2000	1970 to 2000 %	2004 Estimate	2000 to 2004 %
Curry	Clovis	28,495	31,194	31,366	32,667	14.6%	33,063	1.2%
Curry	Grady	104	122	105	98	-5.8%	98	0.0%
Curry	Melrose	636	649	666	736	15.7%	737	0.1%
Curry	Texico	772	958	972	1,065	38.0%	1,073	0.8%
Harding	Mosquero	244	197	164	120	-50.8%	102	-15.0%
Harding	Roy	476	381	362	304	-36.1%	255	-16.1%
Quay	House	119	117	96	72	-39.5%	66	-8.3%
Quay	Logan	386	735	804	1,094	183.4%	1,015	-7.2%
Quay	San Jon	308	341	283	306	-0.6%	282	-7.8%
Quay	Tucumcari	7,189	6,765	6,872	5,989	-16.7%	5,476	-8.6%
Roosevelt	Causey	150	81	57	52	-65.3%	51	-1.9%
Roosevelt	Dora	196	168	171	130	-33.7%	127	-2.3%
Roosevelt	Elida	233	202	322	183	-21.5%	178	-2.7%
Roosevelt	Floyd	248	146	117	78	-68.5%	76	-2.6%
Roosevelt	Portales	10,554	9,940	10,788	11,131	5.5%	11,214	0.7%
Union	Clayton	2,931	2,968	2,514	2,524	-13.9%	2,191	-13.2%
Union	Des Moines	204	178	170	177	-13.2%	154	-13.0%
Union	Folsom	75	73	64	75	0.0%	65	-13.3%
Union	Grenville	21	39	22	25	19.0%	22	-12.0%

Source: U.S. Census; UNM, BBER

Clovis, in Curry County, has the largest population of any municipality, with over 33,000 residents estimated in 2004. Portales in Roosevelt County is the second largest municipality, with over 11,000 residents estimated in 2004. The BBER, which prepares population estimates for counties and cities in New Mexico, estimates that both of these communities have growth slightly in the past four years.

The communities with the highest growth rates from 1970 to 2000 were Logan and Texico. Other communities with growth exceeding the regional average were Clovis, Melrose, and Grenville. Population estimates for 2004 indicate that the rates of growth in the region's municipalities have flattened and that the communities that lost population prior to 2000 have continued to lose population. The estimates, however, are not based on actual counts.

Some of the Counties and/or communities in the plan area have adopted comprehensive plans or infrastructure plans that include population projections. Population projections contained in comprehensive plans are shown in Table 6. These projections typically contain growth scenarios that indicate a range of future population. Table 6 reports the low and high projections in these alternatives to the state projections.

**Table 5. Projected Population % Change, 1970 to 2030**

County	Town	Historic Population		Current 2004 Est.	Projected Population		
		2000	1970 to 2000 %		2010 (low- high)	2020 (low- high)	2030 (low- high)
Curry	Clovis	32,667	14.6%	33,063			
Curry	Grady	98	-5.8%	98			
Curry	Melrose	736	15.7%	737			
Curry	Texico	1,065	38.0%	1,073			
Harding	Mosquero	120	-50.8%	102			
Harding	Roy	304	-36.1%	255			
Quay	House	72	-39.5%	66	65-94	58-122	52-158
Quay	Logan	1,094	183.4%	1,015	1,081-1,324	1,041-1,602	968-1,938
Quay	San Jon	306	-0.6%	282	302-370	291-448	271-542
Quay	Tucumcari	5,989	-16.7%	5,476	5,915-7,247	5,696-8,768	5,300-10,610
Roosevelt	Causey	52	-65.3%	51			
Roosevelt	Dora	130	-33.7%	127			
Roosevelt	Elida	183	-21.5%	178			
Roosevelt	Floyd	78	-68.5%	76			
Roosevelt	Portales	11,131	5.5%	11,214			
Union	Clayton	2,524	-13.9%	2,191			
Union	Des Moines	177	-13.2%	154			
Union	Folsom	75	0.0%	65			
Union	Grenville	25	19.0%	22			

Source: U.S. Census; UNM, BBER, Quay County 40-Year Water Plan (Draft), Tucumcari Comprehensive Plan

## Historic Employment

Total employment in the region is shown in Table 6. Decade employment is shown from 1970 through 2000, and annual employment is shown from 2000 to 2004. Data are from the Bureau of Economic Analysis and include both wage and salary employment and self employment. The inclusion of self employment is significant because of the large number of self employed people in the region.

In all counties except Quay County, recent employment trends indicate a much higher rate of job creation than in the prior 30 years. This indicates the extent to which recent economic development efforts have paid off for these counties.

**Table 6. Total Employment by County, 1970 to 2000 and 2000 to 2003**

Total Employment	1970	1980	1990	2000	2001	2002	2003	2004	Annual Rate of Change, 1970 to 2000	Annual Rate of Change 2000 to 2004
Curry County	18,595	20,329	19,813	22,183	22,219	22,971	23,959	24,478	0.6%	2.5%
Harding County	662	568	530	617	685	728	755	764	-0.2%	5.5%
Quay County	4,834	5,032	5,185	5,006	4,788	4,876	4,799	4,836	0.1%	-0.9%
Roosevelt County	6,243	6,442	6,680	7,800	8,400	8,924	9,330	9,484	0.7%	5.0%
Union County	2,341	2,411	2,216	2,586	2,631	2,644	2,691	2,697	0.3%	1.1%
Regional Total	32,675	34,782	34,424	38,192	38,723	40,143	41,534	42,259	0.5%	2.8%

Source: Bureau of Economic Analysis

## Revised Population Projections

Revised population projections were prepared for each county based on historic trends, recent trends (since 2000), new and pending economic activity and the potential for job growth, given the activities of local governments and economic development organizations. Generally, economic activity has increased in the region as reflected in the data above. Revised projections include high and low series based on the recent and longer term trends, with growth to 2010 weighted toward the most recent trends.

If a County has prepared an alternative set of population projections as part of a recent document, the local projections were used in lieu of new projections prepared specifically for this plan. The revised County projections are shown in Table 7.

**Table 7. Revised Population Projections by County, 2000 to 2040**

County	Scenario	2000	2010	2020	2030	2040
Curry County	High	45,044	54,562	63,457	73,802	85,834
	Low	45,044	51,617	60,032	69,819	81,201
Harding County	High	810	1,062	1,392	1,825	2,392
	Low	810	791	773	755	737
Quay County*	High	10,155	12,288	14,868	17,990	19,789
	Low	10,155	10,359	10,567	10,780	10,888
Roosevelt County	High	18,018	24,355	31,283	40,182	51,613
	Low	18,018	21,109	27,114	34,827	44,735
Union County	High	4,174	4,849	5,634	6,545	7,604
	Low	4,174	4,315	4,460	4,611	4,766
Regional Total	High	78,201	97,116	116,634	140,344	167,232
	Low	78,201	88,191	102,946	120,792	142,327

\* Quay County projections are taken from the Quay County 40-Year Water Plan, Draft, July 2004.

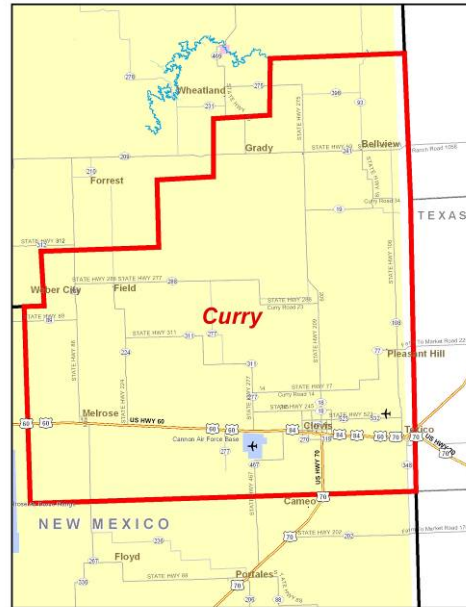
# Curry County

## Curry County Economy

Clovis is the retail hub for a geographic area extending 75 miles in all directions. The nearest minor retail hubs are Portales in Roosevelt County and Tucumcari in Quay County.

### Economic Base

**Agriculture** - Agriculture is a large force in the Curry County economy. There are over 948,000 acres of farmland employing 1,150 in agricultural jobs. Typical plantings include wheat, sorghum, sugar beets, alfalfa, barley, soybeans, and potatoes, with a growing emphasis on specialty crops like spinach and green beans. The County produces approximately 45 percent of New Mexico's wheat crop, 38 percent of the sorghum crop, and 37 percent of the corn crop. The overall agricultural product market value totals nearly \$195 million. The Clovis stockyard is one of the largest in the country and processes over 100,000 head of cattle.



**Military** - Cannon Air Force Base is a significant sector of the local economy, employing approximately 3,281 military personnel and 900 civilians. In June 2006, the Air Force announced that Cannon AFB will be the new home for the 16<sup>th</sup> Special Operations Wing, replacing Air Combat Command's 27<sup>th</sup> Fighter Wing. The net impact is anticipated to be loss of approximately 4,000 27<sup>th</sup> Wing personnel beginning in 2007. At the same time 16<sup>th</sup> SOW personnel will begin transferring to Cannon, with 5,000 to 5,500 16<sup>th</sup> SOW personnel anticipated by 2010.

**Municipal Government** – The Clovis Municipal School System employs 1,155, and Clovis Community College has a staff of 555. The City of Clovis employs 389 people, the Federal government employs 368, and State of New Mexico employs 215. Cocoa Cola Bottling employs 200, and McDonalds Restaurant employs 150.

Smaller but significant economic contributors to the County economy include Burlington Northern Santa Fe Railroad with 550 jobs and Allsup's Convenience Stores Headquarters with 200 jobs.

## Employment Trends

Table 8 shows county employment by major industrial classification for 1970 through 2000 and annually from 2000 through 2003, as reported by the U.S. Department of Commerce, Bureau of Economic Analysis (BEA). Agricultural employment has increased 50% since 2001. Construction, trade, and services have also experienced significant increases. The overall increase in agricultural and non-agricultural wage and salary employment has been 11.5% in only three years, with an overall increase of 1,684 jobs. Non-farm self employment has decreased, although farm related self employment has increased in recent years. The County has weathered annual fluctuations in individual economic sectors to maintain steady overall growth.

**Table 8. Curry County Employment, 1970 to 2003**

Employment Type	1970	1980	1990	2000	90-2000 change	2001	2002	2003	00-03 change
Total employment	18,595	20,329	19,813	22,183	2,370	22,219	23,001	23,837	1,654
Wage and salary employment	15,443	16,617	16,761	18,153	1,392	18,513	19,209	19,939	1,786
Proprietors employment	3,152	3,712	3,052	4,030	978	3,706	3,792	3,898	(132)
Farm proprietors employment	1,037	737	557	654	97	762	770	761	107
Nonfarm proprietors employment	2,115	2,975	2,495	3,376	881	2,944	3,022	3,137	(239)
Farm employment	1,385	1,136	810	1,036	226	1,135	1,137	1,128	92
Nonfarm employment	17,210	19,193	19,003	21,147	2,144	21,084	21,864	22,709	1,562
Private employment	9,199	12,612	11,957	14,400	2,443	14,238	14,814	15,383	983
Forestry, fishing, & related activities	198	142	233	(D)	(D)	(D)	(D)	(D)	(D)
Mining	46	31	49	(D)	(D)	(D)	(D)	(D)	(D)
Utilities					-	86	84	87	87
Construction	597	778	890	897	7	990	1,077	1,212	315
Manufacturing	675	998	775	413	(362)	390	386	411	(2)
Retail & wholesale trade	3,287	4,400	4,130	5,020	890	3,136	3,134	3,240	(1,780)
Transportation, Warehsing, Information	1,291	1,603	1,083	1,388	305	1,277	1,239	1,275	(113)
Finance, insurance and real estate	937	1,106	1,159	1,103	(56)	1,070	1,128	1,163	60
Services	2,168	3,554	3,638	5,081	1,443	6,213	3,700	3,818	1,263
Government & gov't enterprises	8,011	6,581	7,046	6,747	(299)	6,846	7,050	7,326	579
Federal, civilian	850	849	989	954	(35)	891	861	849	(105)
Military	5,633	4,132	4,173	3,230	(943)	3,334	3,584	3,846	616
State and local	1,528	1,600	1,884	2,563	679	2,621	2,605	2,631	68

Source: REIS, BEA

(D) – Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

## Major Employers

Major employers and their industrial classification include:

- Cannon AFB (military and Federal civilian employment)
- Clovis Plains Regional Medical Center (Services)
- Clovis Municipal Schools, serving Clovis, Melrose and Texico (State and local government)
- Burlington Northern Santa Fe Railroad (Transportation, warehousing and information)
- Wal-Mart (Retail Trade)
- Community Homecare (Services)
- City of Clovis (State and local government)
- Eastern New Mexico Rehabilitation Service (Services)
- ENMR/Plateau Telecommunications (Transportation, warehousing and information)
- State of New Mexico (State and local government)

## **New Economic Activity**

The largest municipality in Curry County is Clovis, with an estimated population of 32,815 in 2003. Clovis' estimated economic base is \$450 million annually. Major new enterprises in the County are manufacturing related to the dairy industry, services, and utilities, primarily wind power generation.

### **Cannon Air Force Base**

With the establishment of a new mission at Cannon Air Force Base, there will be a net gain in personnel. The 27<sup>th</sup> Fighter Wing will be replaced by the 16<sup>th</sup> Special Operations Wing over the next few years. Based on Air Force and local news reports, the net gain could be as many as 1,500 jobs by 2010. A very temporary slow down may occur during the transition, but the long term change is positive.

### **Southwest Cheese**

This facility is a joint venture, with Glanbia Foods owning 50 percent and the balance primarily owned by the Dairy Farmers of America and Select Cheese. The groundbreaking for this facility took place in February 2005. The facility is projected to be commissioned in October 2005 and will have significant impact on the economy. The plant will convert up to 65 million gallons of local milk daily. It is estimated that this plant will process 2.4 billion pounds of milk and will produce 250 million pounds of cheese annually. Sales are projected to be \$350 million, and the company will be adding 220 jobs to the local economy.

### **Westway Feed Products**

Westway has signed an agreement to buy about half of the whey byproduct from the Southwest Cheese factory and will build a \$1 million terminal for preliminary processing near the plant. Construction will begin mid-June and add \$750,000 annually to the local economy and 6 to 7 new jobs.



### **Mesa Ingredients Corporation**

This firm is a whey by-product processing facility that will produce animal feed ingredients. The facility will bring 30 new jobs and an additional 75 to 100 construction jobs while being completed and scheduled for opening in November 2005. Community impact over the next 20 years is estimated to be \$44 million in direct and indirect salaries and \$4 million in new tax revenues.

### **SEI Customer Support Center**

SEI is a bilingual service facility with help desk services, sales support programs, and retail support services. They plan to occupy vacant the building that formerly housed ClientLogic and employ 75 people.

### **Alternative Energy - Llano Estacado Wind Ranch™ in Texico**

This wind-based power plant produces 2 megawatts of power using 3 Vesta V47 660 kW wind turbines. Phase 1 began operating in June 1999, and Phase 2 began operating in December 2003. Llano Estacado provides energy for Southwestern Public Service Company and produces enough energy to power about 700 households per year.

## **Potential Economic Development**

### **Business Retention, Expansion and Recruitment**

Clovis Industrial Development Corporation markets the region, helps develop business opportunities and recruits new businesses to the area.

### **Retail Trade**

Retail and restaurant business is increasing, with national corporations establishing stores in Clovis. A factor in this growth is the Census designation of the Clovis - Portales vicinity as a Microplex or Micropolitan Statistical Area in 2003, with a customer base of 50,000. New retail enterprises include Lowe's Home Improvement, Payless Shoes, Applebee's, Chili's Bar & Grill, All About Sports, Hobby Lobby and Hastings Book Store.

### **Dairy Industry and Value Added Products**

The established dairy industry in the region has led to an increasing number of value added businesses like the cheese plants. Future businesses could include more related companies.

### **Revitalization**

Clovis' local Main Street organization is actively promoting downtown revitalization. The City of Clovis owns strategic properties that can serve as catalysts for new development in the downtown. Streetscape improvements have been funded, and the City has designated the downtown as a Metropolitan Redevelopment Area, which enables the City to provide financial and other incentives for private investment in the downtown.

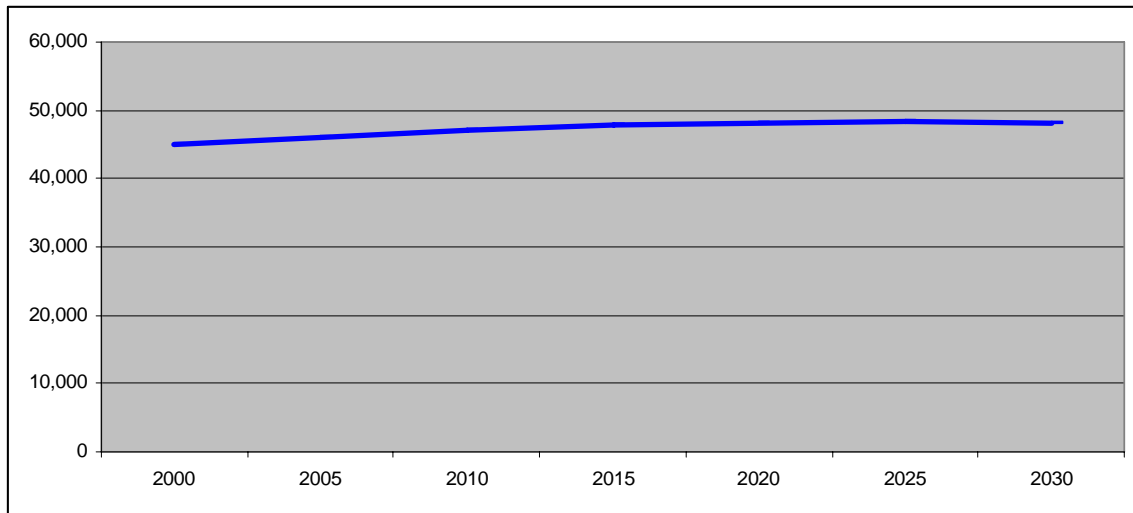
## ***Historical Population Trends***

The population of Curry County has been increasing since 1920. From a population of 11,236 in 1920, the County population grew to 45,085 by 2000. 2004 estimated population is 45,662.

## ***BBER Population Projections***

The BBER projections shown in Figure 3 indicate modest growth, a population increase of 6.8 percent, from 45,085 in 2000 to 48,168 by 2030.

**Figure 3. BBER Population Projections for Curry County, 2000 to 2030**



Source: UNM, Bureau of Business and Economic Research

## ***Public Meeting Comments***

Clovis Industrial Development Corporation has been successful in attracting new industry to Curry County. CIDC's efforts will result in continued economic growth through business retention, expansion and recruitment. The new mission at Cannon AFB is likely to have a positive impact on the local economy.

## ***Revised Population Projections***

BBER projections are not consistent with the recent employment increases in the County and new business that will open over the next year. The transition of the Cannon AFB mission will be accomplished by 2010, and during this transition, the County could add

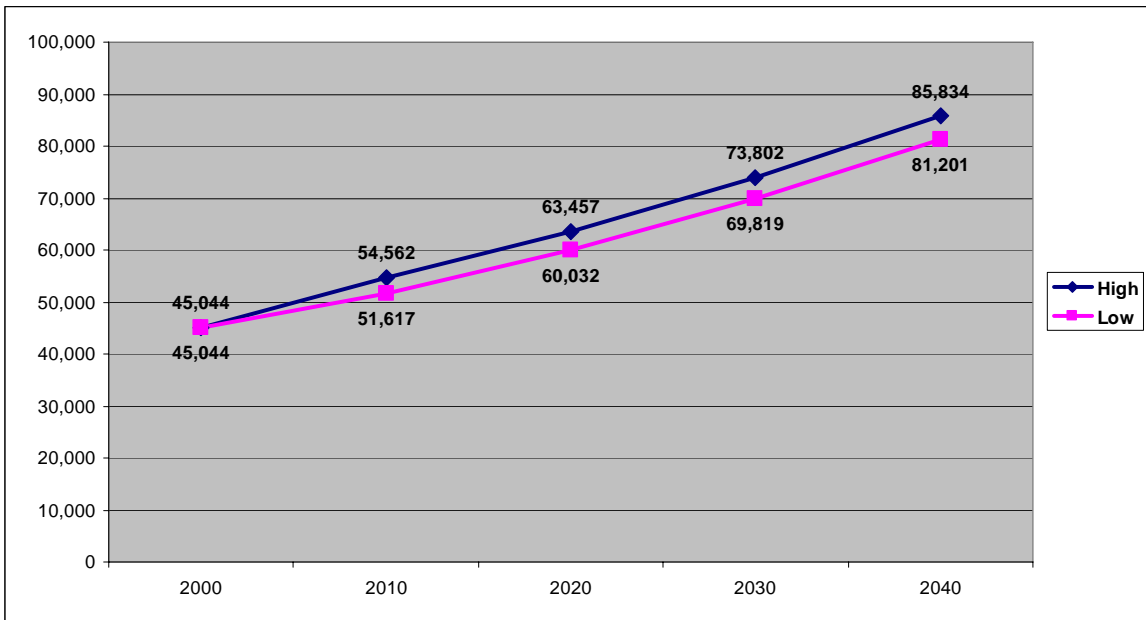
private sector jobs at a rate comparable to the recent past (approximately 330 jobs in the major new enterprises described previously).

New economic base jobs coming into the community are not dependent upon the military presence, or on the military population. Short term fluctuations in AFB population will have minimal effect on the County's economic growth.

Both the high series and low series revised projections take into account anticipated changes at Cannon Air Force Base. The high scenario assumes that new jobs creation continues, although growth after 2010 is at a slower rate than the exceptional successes in attracting businesses to the County since 2000. The low scenario assumes new job creation at a rate comparable to the long term (1990 to 2004) rate of employment growth. In both scenarios, the ratio of population to jobs is assumed to be the same as in the 2004 estimates throughout the projection period. This assumes that recent declines in the population per job will not be sustained and bases population growth on a stabilized population per job.

Revised projections for Curry County are shown in Figure 4. The high scenario indicates population growth from 45,000 in 2000 to over 85,000 by 2040. The low scenario indicates growth from 45,000 in 2000 to 81,201 in 2040.

**Figure 4. Revised Population Projections for Curry County, 2000 - 2040**



# Harding County

## **Local Economy**

Harding County had a population of 774 in 2004. The two incorporated municipalities in the County – Mosquero and Roy – comprise almost half of the total county population.

Harding County land use is primarily agricultural. Of the county's 1,368,320 acres, 348,600 acres is checkerboard State land through the county.

## **Economic Base**

Agriculture, particularly ranching, dominates the County's economic base in sales. Agriculture employs 6 people out of 175 jobs in the County. There are 1.2 million acres of ranch and farm lands that comprise 99.5 percent of all county lands. However, less than 5,000 acres are irrigated. The ranching sector raises over 50,000 head of cattle, primarily beef cows. Hay is the major crop grown on the farms. The total agricultural product market is \$16.8 million – 99 percent is livestock sales, and the remaining 1 percent is crop sales.

Public administration is the major employer, with 110 out of 175 total county jobs.

Carbon dioxide production is a significant part of the economy. The largest proven carbon dioxide reserve in the United States consisting of over 1,000,000 acres is located at the Bueyeros Field, better known as the Bravo Dome. This vast carbon dioxide field is located under portions of Harding, Union and Quay counties. Total 2002 production was 100 billion cubic feet with a value of nearly \$61 million. Virtually all carbon dioxide is transported to the New Mexico and Texas oilfields, where it is used to inject oilfields to aid in oil well production.

## **Employment Trends**

County employment trends are shown in Table 9. BEA data indicate that self employment is common in Harding County, with over 63 percent of all employment being individual proprietors rather than wage and salary jobs. Job growth has been in self employment as well, with over 80 percent of jobs created since 2000. Almost half of self employed residents are the County's farmers and ranchers. Agriculture is the major economic sector in the County, followed by state and local government.



**Table 9. Harding County Employment, 1970 to 2003**

Employment Type	1970	1980	1990	2000	90-2000 change	2001	2002	2003	00-03 change
Total employment	662	568	530	617	87	685	709	727	110
Wage and salary employment	357	341	248	234	(14)	225	245	255	21
Proprietors employment	305	227	282	383	101	460	464	472	89
Farm proprietors employment	246	180	180	180	-	210	212	209	29
Nonfarm proprietors employment	59	47	102	203	101	250	252	263	60
Farm employment	352	296	242	242	-	271	271	268	26
Nonfarm employment	310	272	288	375	87	414	438	459	84
Private employment	184	179	177	259	82	300	321	345	86
Forestry, fishing, & related activities	(L)	(L)	14	(D)	(D)	(D)	(D)	(D)	(D)
Mining	(D)	(D)	(L)	(L)	(D)	(L)	(L)	(L)	(D)
Utilities					-	-	-	-	-
Construction	(L)	28	(L)	36	(L)	(D)	(D)	(D)	(D)
Manufacturing	51	55	(D)	(D)	(D)	(D)	(L)	(D)	(D)
Retail & wholesale trade	57	41	52	83	31	50	67	65	(18)
Transportation, Warehsing, Informatn	-	-	16	-	(16)	-	-	-	-
Finance, insurance and real estate	-	-	-	-	-	44	32	33	33
Services	49	23	48	(D)	(D)	61	34	16	(D)
Government & gov't enterprises	126	93	111	116	5	114	117	114	(2)
Federal, civilian	16	18	16	18	2	15	16	17	(1)
Military	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)	(L)
State and local	103	70	90	95	5	96	99	95	-

Source: REIS, BEA

(D) – Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

## Major Employers

The largest employers in Harding County are government employers:

- Harding County Government (State and local government)
- Roy Municipal School District (State and local government)

## Potential Economic Development

### Business Retention, Expansion and Recruitment

According to a 2001 study, there is no organized program to work on economic development for the area. However, local economic development efforts by community business people continue to attract industry to improve the County's economy.

The County is exploring the development of Solano Business Park. A developed industrial park has the potential to attract business that will employ youth and retain community members.

Potential new business activities in the County, as determined by public input from public brainstorming sessions conducted in 2002, are described in the following sections.

### **Metal Products Manufacturing**

A metal products manufacturing facility to be owned by the County is planned for development. It will be leased to a private company. It will be built with \$270,000 of capital outlay funds and \$170,000 from the USDA. It will be a welding shop and begin with production of road side shelters that are used in picnic shelters. Future business might include cattle guard and road side signs if contracts with the State can be secured.

### **Travel and Tourism**

Transportation improvements are proposed over five years to draw more traffic into and through the County.

The County is working on a scenic by-way design for La Frontera del Llano along NM 39 through northeastern New Mexico between Logan and Abbott to connect old US 66 and the Santa Fe Trail. Proposed improvements are intended to attract more traffic through the County.

### **Museum & Gift Shop (“Home on the Range” Heritage Museum)**

Consistent with the effort to build the County’s tourism industry, a heritage museum and gift shop is proposed along the scenic byway.

### **Vocational School**

Vocational education and a quality education system from pre-school on are critical to the creation of a well qualified work force. The County has proposed to enhance vocational education and to provide a Head Start program.

### **Wind and/or Solar energy**

As with other communities in the region, production of alternative energy is a potential area of economic development.

### **Harding County Airport**

The County has purchased five acres of land to build an airport near Solano. Construction is due to begin in 2006.

### **MainStreet**

Local residents have pursued the designation of Roy, Mosquero and Solano as New Mexico’s first Main Street satellite communities, a designation aimed at encouraging smaller and more rural communities to implement the programs and economic development Principals of the National Main Street Program. This program emphasizes organization, economic repositioning, marketing and promotion, and design. The State of

New Mexico Main Street Program actually supports local Main Street communities and builds local capacity through training and technical assistance.

### **Housing Development**

Housing development: EPCOG/REG IV efforts on strategic housing initiatives include the new MFA “Village Saver” program in Harding County. This program is intended to help rural communities provide affordable housing opportunities, including new construction and rehabilitation.

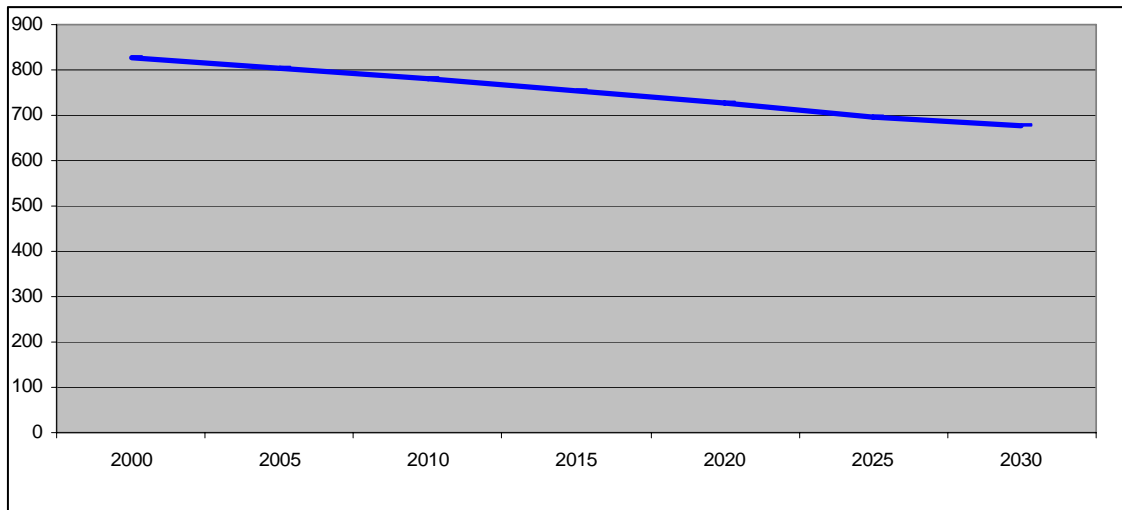
### **Historical Population Trends**

In 1970 the population in Harding County was 1,348, and by 2000 the population had decreased to 810. Current 2004 population estimates for the County are 774.

### **BBER Population Projections**

The population in the County is projected by the BBER to be 676 by 2030, as shown in Figure 5. This reflects a population decrease of 134 from 2000 to 2030.

**Figure 5. BBER Population Projections for Harding County, 2000 to 2030**



Source: UNM, Bureau of Business and Economic Research

### **Public Meeting Comments**

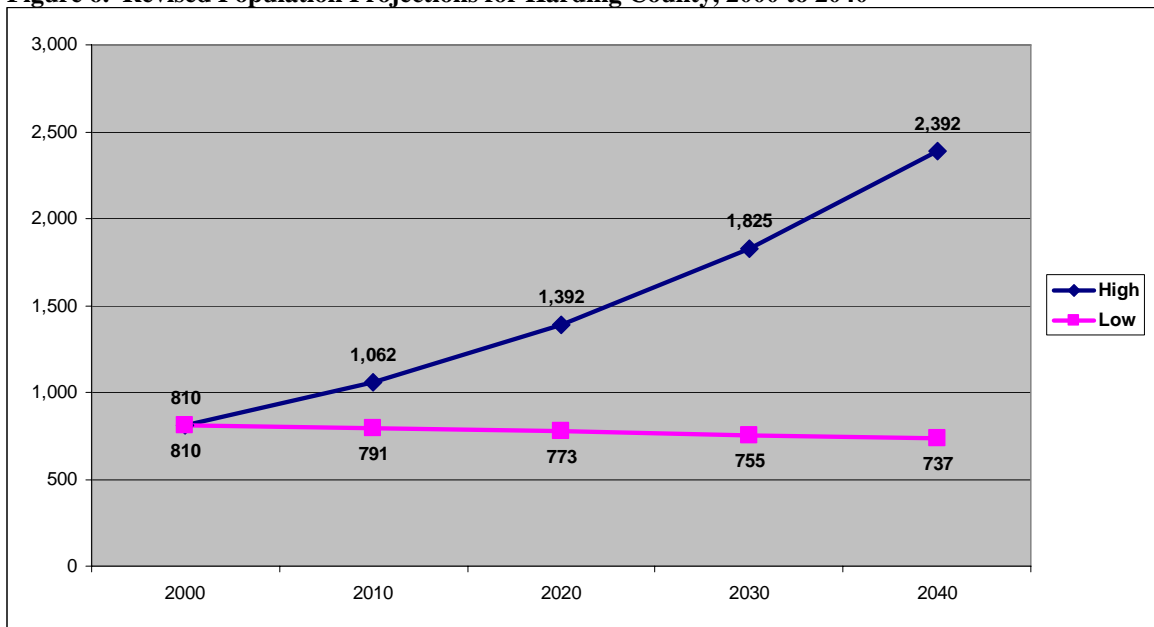
County leaders are taking steps to reverse the County’s historic population decline through concerted economic development efforts. The proposed public-private partnerships between the County and entrepreneurs will help create jobs in metal

fabrication and others. Preliminary work is being done on water supply from the Canadian River to assure an adequate water supply.

### **Revised Population Projections**

Revised population projections for Harding County are shown in Table 9. The high series assumes that the County achieves its goal of creating jobs to retain its population over the next forty years and achieves economic growth similar to recent years. The low series assumes that the current trend of population decline continues, although the rate of population decline slows in the future.

**Figure 6. Revised Population Projections for Harding County, 2000 to 2040**





# Quay County

## Quay County Economy

Tucumcari is the county seat for Quay County. The total county population was estimated at 9,483, with a decline of 672 since 2004. In 2004 the estimated population of Tucumcari was 5,476, which was a decline from 5,989 in 2000. The County population has significant seasonal fluctuations due to recreation and visitors in the Logan/Ute Lake area.

This part of New Mexico is primarily agricultural, and the County is sparsely populated. Of the 1,844,480 acres within the county, 1,651,616, or 90 percent are in use for agricultural purposes.



## Economic Base

Agriculture is the largest economic sector in Quay County. There are nearly 1.8 million acres in ranch and farm lands. Nearly 30,000 acres are irrigated. The total agricultural market product value from ranches, farms and crops is \$23.1 million, of which livestock sales are \$20.4 million and crop sales total \$2.7 million. There are approximately 60,000 head of cattle that are processed within the County.

Crop market products include \$10 million in hay and silage, along with another \$5.6 million in grain sorghum. Major crops include silage, wheat, sorghum and cotton. There are 852 employed in agriculture, forestry, fishing and hunting.

Total farm employment in 2003 was 942, including both farmers and ranchers and wage earners. Nearly 80 percent of farm employment is self employed farmers and ranchers.

Tourism is a significant portion of the economy, with over 500 jobs in accommodation and food services. Tourist oriented services make up the majority of service jobs in the County. The Ute Lake State Park and dam located near Logan along the Canadian River are an important part of the local economy. Visitors come to the area primarily for boating and fishing.

Over 300 healthcare and social service jobs make up most of the rest of the County's service sector jobs.

## Employment Trends

Employment trends by industrial classification in Quay County are shown in Table 10. Overall, employment declined in the thirty years from 1970 through 2000 and has continued to decline since 2000. The area that has experienced an increase is farm proprietors. The greatest loss of jobs has occurred in retail and wholesale trade and services, although these industries remain among the largest employers in the County.

The largest single employment type is state and local government, followed by farm employment, services and wholesale and retail trade.

**Table 10. Quay County Employment, 1970 to 2003**

Employment Type	1970	1980	1990	2000	90-2000 change	2001	2002	2003	00-03 change
Total employment	4,834	5,032	5,185	5,006	(179)	4,788	4,756	4,646	(360)
Wage and salary employment	3,288	3,537	3,864	3,695	(169)	3,451	3,400	3,277	(418)
Proprietors employment	1,546	1,495	1,321	1,311	(10)	1,337	1,356	1,369	58
Farm proprietors employment	905	655	568	637	69	743	750	742	105
Nonfarm proprietors employment	641	840	753	674	(79)	594	606	627	(47)
Farm employment	1,085	871	694	846	152	947	950	942	96
Nonfarm employment	3,749	4,161	4,491	4,160	(331)	3,841	3,806	3,704	(456)
Private employment	2,780	3,362	3,529	3,004	(525)	2,750	2,752	2,657	(347)
Forestry, fishing, & related activities	29	32	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Mining	19	23	24	(L)	(D)	(L)	(L)	(L)	(D)
Utilities					-	18	21	(D)	(D)
Construction	180	448	175	219	44	196	191	187	(32)
Manufacturing	191	133	93	62	(31)	56	60	(D)	(D)
Retail & wholesale trade	1,102	1,257	1,198	1,022	(176)	636	586	541	(481)
Transportation, warehs & information	224	200	499	289	(210)	293	278	259	(30)
Finance, insurance and real estate	166	194	200	196	(4)	206	228	227	31
Services	869	1,075	1,175	977	(198)	668	688	735	(242)
Government & gov't enterprises	969	799	962	1,156	194	1,091	1,054	1,047	(109)
Federal, civilian	56	108	82	82	-	64	64	66	(16)
Military	61	48	55	33	(22)	32	31	30	(3)
State and local	852	643	825	1,041	216	995	959	951	(90)

Source: REIS, BEA

(D) – Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

## Major Employers

In 2003 the total number of non-agricultural jobs in the County totaled 3,704. Major employers include:

- **Presbyterian Healthcare Services** – (Services). The Dr. Dan Trigg Memorial Hospital is a 25-bed acute care critical access hospital offering a full range of inpatient and outpatient services.
- **Tucumcari Municipal Schools** – (State and local government). The school system served 1,143 students during the 2003-2004 school year.
- **Mesalands Community College** - (State and local government). The community college, which offers a variety of programs, had a student population of over 560 in 2004.

## **Proposed Business Development**

### **Recreation**

Ute Lake State Park is a major recreational area for eastern New Mexico, with boating and fishing opportunities. Conchas Lake State Park, although located in San Miguel County, positively impacts Quay County as many visitors stay in or start their visit in or near Tucumcari. Much of the water used for irrigation and domestic purposes for the area comes from Ute and Conchas Lakes. Water oriented recreation has the potential to increase, particularly with stable, guaranteed recreational pools at these lakes.

Ute Lake Ranch is a major resort community currently being developed on the south shore of Ute Reservoir. The initial phases of this project include 1,200 homes. Occupancy during the warm season of June, July, August and September is anticipated to be 40%, with higher occupancy on weekends. An estimated 5% to 10% of the owners will reside at Ute Lake Ranch for at least six months of the year. Ute Lake Ranch will play a significant role in employment and population growth in the Logan area.

### **Downtown Revitalization**

The City of Tucumcari is making efforts to revitalize the area as outlined in the City of Tucumcari Comprehensive Plan. This effort includes downtown redevelopment, reinforcing Main Street concepts and design guidelines, and redeveloping the train station area as a major activity center with retail and entertainment.

### **Alternative Energy - Wind Power**

Approximately 60% of all wind towers in New Mexico are located in Quay County near House. Wind farms currently contain large 200 foot towers with turbines and are capable of generating over 267 megawatts of power. They now sell their power to Excel Energy for use within their utility system. The wind farm industry is growing in this part of New Mexico and currently generates enough power to supply over 26,000 homes. There is a large amount of available land to use for additional wind farms. This industry typically employs one technician for every 8 turbines during operation.

### **Airport Land Industrial Park**

The Tucumcari Industrial Park has 300 acres for use as a truck stop and/or manufacturing and warehouse/distribution businesses.

### **Trailer Building**

This existing 11,200 square foot building can be used as a trucking facility for warehousing and distribution.

### **Food Processing**

The Tucumcari Mountain Cheese Factory currently produces over 10,000 pounds of cheese weekly. The existing cheese plant is going to expand. Ancillary industries related to cheese or dairy could be attracted, capitalizing on the cluster of such businesses developing in Quay and Curry Counties.

### **Transportation**

Shipping enterprises could be attracted by the location of good roads and being adjacent to food processing enterprises needing to distribute their products. I-40, which traverses the county, provides access to markets.

### **Railway**

A railway truck terminal is proposed. An interstate distributor is committed to a large working truck terminal in Tucumcari.

### **Tucumcari Industrial Park**

The 22-acre Tucumcari Industrial Park has the potential to attract food processors, agricultural product manufacturers and other warehouse/distribution enterprises.

### **Worley Mills**

This 35 acre park has existing grain elevators and a 25,000 square foot building. Uses include agricultural product manufacturing and warehouse/distribution.

### **Ethanol Production**

The ethanol plant has capacity to produce 8,200 gallons of ethanol daily and can produce 25 tons of DDGS per day. It has a new lease and will be put back into production after renovation.

### **Mesalands Community College**

Mesalands Community College, located in Tucumcari, is developing North American Wind Research and Training Center (NAWRTC) that will serve the wind power generation facilities in the region as well as offer training nationally. The center is being designed to train wind energy technicians and wind farm managers, highlight the potential for wind power as a source of renewable, non-polluting energy, and provide a location for applied research.

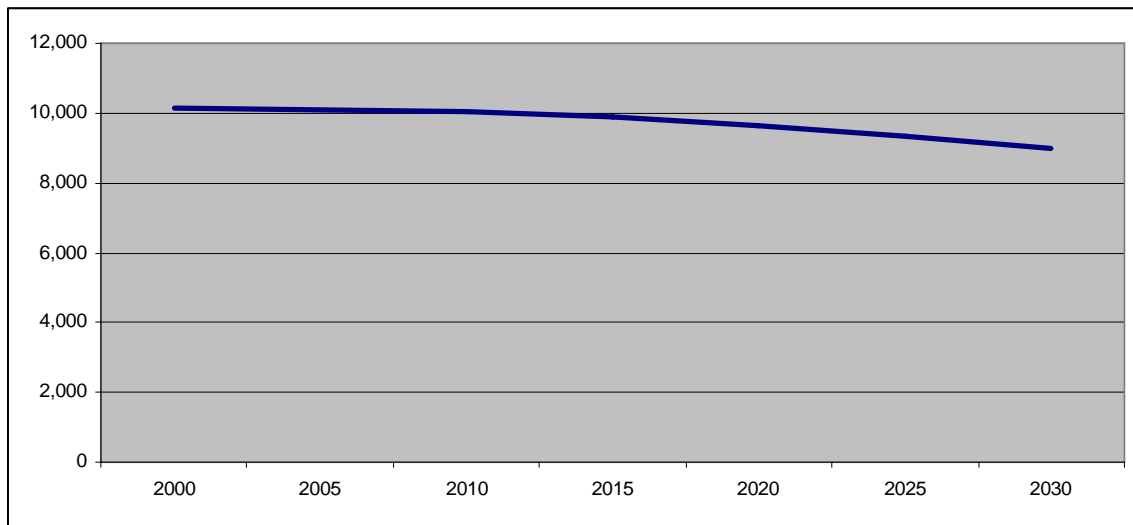
## ***Historical Trends***

In 1970 Quay County had a population of 10,903, which declined slightly to 10,155 by 2000. Population estimates for 2004 indicate a continuation of this trend.

## ***BBER Projections***

As shown in Figure 7, the BBER projects Quay County's population to decrease from 10,155 in 2000 to 8,986 by 2030.

**Figure 7. BBER Population Projections for Quay County, 2000 to 2030**



Source: UNM, Bureau of Business and Economic Research

## ***Other Projections***

The County has prepared a 40 year Water Plan that contains alternate population projects for the county. These projections include the BBER projections for reference. Slow, medium and fast growth projections in the water plan are all higher than projections produced by the BBER.

Projections for 2030 from the Quay County Forty Year Water Plan are as follows:

Census Estimates (BBER)	8,986
Slow Growth Estimate	10,780
Medium Growth Estimate	13,609
Fast Growth Estimate	17,990

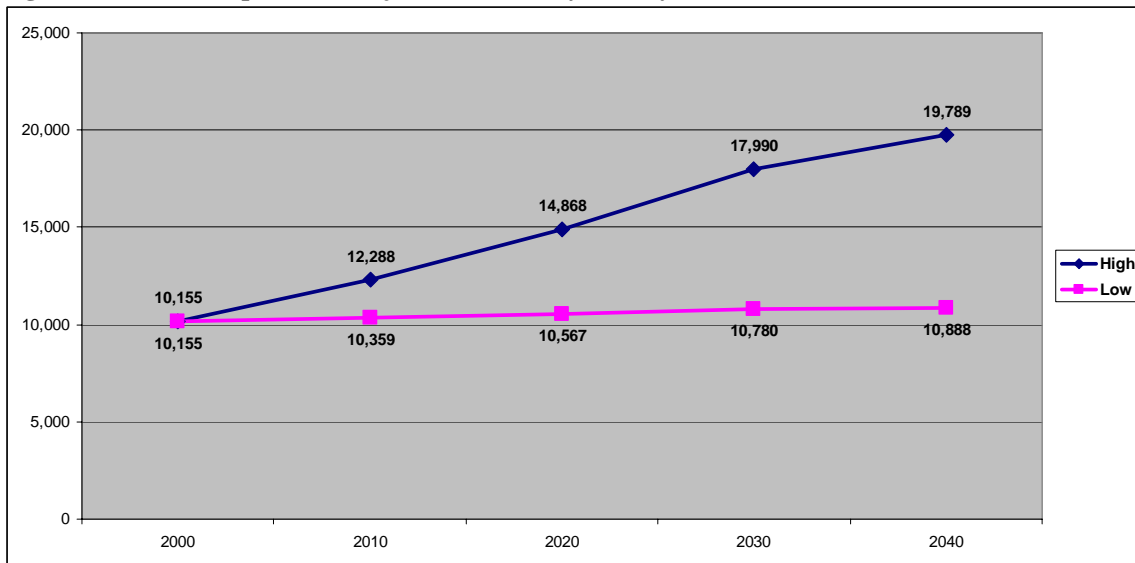
## Public Meeting Comments

Logan is growing due to Ute Lake State Park. Job generators include assisted living, schools, a trucking company, a Super Stop and the lake. San Jon has water and is seeking to attract development.

## Revised Projections

The Quay County Regional Water Plan contains population projections from 2000 to 2040. These projections are shown in Figure 8. The high series corresponds to the fast growth scenario in the water plan, and the low series corresponds to the slow growth scenario. Population remains static in the low series. The high series assumes that the local economy is reinvigorated, with a relatively slower rate of growth to 2010, increasing after 2010 and slowing somewhat after 2030.

**Figure 8. Revised Population Projections for Quay County, 2000 to 2040**

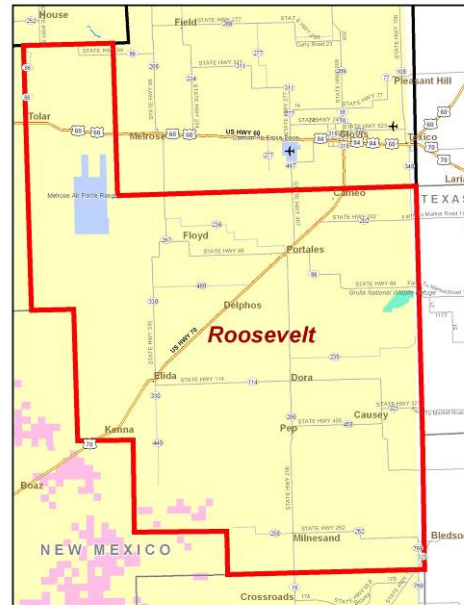


Source: Quay County 40-Year Water Plan, Draft, July 2004.

# Roosevelt County

## ***Roosevelt County Economy***

Portales is the county seat and the primary local retail center within Roosevelt County. 2004 population was estimated at 11,214, or 62 percent of county population, totaling 18,165. This area contains numerous historic and local economic centers – Eastern New Mexico University (ENMU), the Portales School System, the Bank of Portales, the Portales Main Post Office and the Roosevelt County Courthouse. Other towns within the County include Elida, Floyd, Dora and Causey.



## **Economic Base**

Agricultural production is a key component of the economy and currently generates about 875 jobs. There are 1,572,840 acres in the County. Over 1,082,000 acres are range land, and 454,000 acres are farmed for crops. Roosevelt County is a top New Mexico producer of wheat, corn, milo, alfalfa, peanuts and potatoes. At present the total agricultural product market value generated is \$128 million. Roosevelt County is ranked third in New Mexico in milk production, with 31 dairy producers. Dairy products generate \$61.2 million in revenues, cattle and calves \$26.2 million, hay and silage \$10.3 million, other crops \$10.2 million and grain sorghum \$5.6 million.

Retail is a large sector of the economy, with over \$147.1 million in sales and generating 787 jobs.

Industrial sector firms include two peanut processing plants, grain storage and shipping, and trucking.

Eastern New Mexico University is a significant part of the local economy, employing 525 faculty and staff.

Services with 1,780 jobs in 2004, and government with 1,871 jobs, are the largest employment categories.

Cannon Air Force Base is located immediately north of Roosevelt County, and economic activity associated with the base has an impact on economic and population growth in Roosevelt County as well as on Curry County.

## Employment Trends

Employment by industrial classification is shown in Table 11. Total employment in 2003 was 9,291, of which just over 75 percent was wage and salary employment. Major categories of employment are government, services, farm employment and retail and wholesale trade.

The economic sectors that have experienced growth during the past three years are farming; construction; manufacturing; transportation, warehousing and information; services and state and local government.

Total employment has increased over ten percent since 2000, compared to eighteen percent growth in the prior thirty years.

**Table 11. Roosevelt County Employment, 1970 to 2003**

Employment Type	1970	1980	1990	2000	90-2000 change	2001	2002	2003	00-03 change
Total employment	6,243	6,442	6,680	7,800	1,120	8,400	8,959	9,291	1,491
Wage and salary employment	3,762	4,507	5,032	5,641	609	6,225	6,740	7,039	1,398
Proprietors employment	2,481	1,935	1,648	2,159	511	2,175	2,219	2,252	93
Farm proprietors employment	1,401	931	747	810	63	944	954	943	133
Nonfarm proprietors employment	1,080	1,004	901	1,349	448	1,231	1,265	1,309	(40)
Farm employment	1,745	1,337	1,068	1,263	195	1,385	1,390	1,378	115
Nonfarm employment	4,498	5,105	5,612	6,537	925	7,015	7,569	7,913	1,376
Private employment	3,023	3,470	3,872	4,476	604	4,923	5,382	5,658	1,182
Forestry, fishing, & related activities	106	116	133	185	52	(D)	(D)	(D)	(D)
Mining	69	87	35	49	14	(D)	(D)	(D)	(D)
Utilities					-	(D)	41	44	(D)
Construction	147	227	303	422	119	487	542	524	102
Manufacturing	282	269	333	262	(71)	274	305	307	45
Retail & wholesale trade	1,078	1,263	1,276	1,586	310	917	1,177	1,130	(456)
Transportation, warehs & information	244	267	332	467	135	542	631	671	204
Finance, insurance and real estate	367	338	329	352	23	306	335	362	10
Services	730	903	1,131	1,153	22	1,933	2,187	1,712	559
Government & gov't enterprises	1,475	1,635	1,740	2,061	321	2,092	2,187	2,255	194
Federal, civilian	53	75	71	72	1	62	62	61	(11)
Military	97	82	92	59	(33)	59	57	56	(3)
State and local	1,325	1,478	1,577	1,930	353	1,971	2,068	2,138	208

Source: REIS, BEA

(D) – Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.



## **Major Employers**

In 2004 the County employed 5,846 in non-agricultural jobs. The largest employers are public sector education.

- Eastern New Mexico University (Public Administration)
- Portales Public Schools (Public Administration)

## **Recent Economic Development**

The County purchased 126 acres in Portales for an industrial park in 1962. The Portales Industrial Park currently contains four large enterprises: Southwest Cannery, High Plains Ethanol, Dairy Farmers of America and Milk Transport Services.

### **Southwest Cannery, Inc.**

This beverage canning enterprise built a 165,000 square foot building and added 100,000 square feet in 1984. The annual payroll is over \$1.6 million. They ship 17 million cases of product to seven states.

### **Ethanol Plant**

Energy Fuels/High Plains Ethanol, an ethanol producer, came to the industrial park in 1985 and invested \$40 million in the project. The plant produces approximately 13 billion gallons of ethanol annually, or about 40 thousand gallons of ethanol daily.

### **Dairy Farmers of America**

In 1992 community leaders donated 477 acres of the park for what is now the Dairy Farmers of America milk marketing cooperative. The DFA has an annual payroll over \$1.2 million. A \$7 million milk processing plant was built, which condenses skim milk for transport to cheese plants.

### **Milk Transportation**

Milk Transport Services is also located in the Portales Industrial Park. Current employment is about 250.

### **Healthcare**

Heartland Continuing Care Center is an 80-bed skilled nursing facility in Portales.

### **Alternative Energy - Wind Power**

Padoma Wind Power project is set to begin generating power on the 120 megawatt San Juan Mesa wind ranch located outside Elida by the end of this year. Xcel Energy is going to purchase power for its 106,000 customers in northeastern New Mexico.

### **Redevelopment**

Downtown is being revitalized through the efforts of the City of Portales and the Portales Main Street Program.

## **Potential Economic Development**

### **Industrial Park Expansion**

Only 28 acres remain in the existing Portales industrial park, so the County is working on creating a second park with 200 more acres for additional development.

### **Alternative Energy**

Additional capacity with new and/or expanded facilities is a potential source of jobs. The area is one of New Mexico's prime resource areas.

### **Manufacturing**

Dairy and cheese related enterprises are continuing to locate in the area as economies of scale develop in this cluster of businesses.

Additional transport firms to distribute food and agricultural products. This will result in an increase in transportation, warehousing and wholesale trade jobs.

## ***Historical Trends***

The population of Roosevelt County rose from 16,479 in 1970 to 18,018 in 2000, an increase of 9.3 percent. 2004 estimated county population was 18,165. Portales, the largest town within the County had a population of 10,554 in 1970, which increased 5.5 percent to 11,131 in 2000. The estimated 2004 population for Portales was 11,214. Portales currently comprises 62 percent of the County population.

## ***BBER Population Projections***

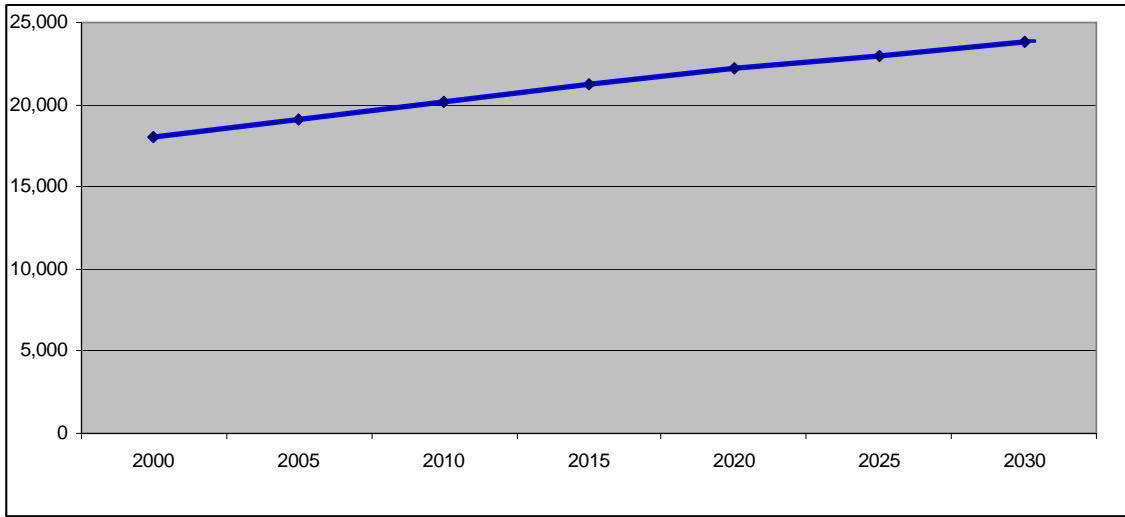
As shown in

Figure 9, the BBER has projected that Roosevelt County growth will continue through 2030. From 18,018 in 2000 the population is estimated at 18,165 in 2004; 20,197 by 2010; 22,159 by 2020; and 23,773 by 2030. This increase of 5,755 people from 2000 to 2030 represents an overall population increase of 31.9 percent.

## ***Public Meeting Comments***

Portales has a 3 percent annual increase in water utility connections, which indicates that the Census numbers may be low.

**Figure 9. BBER Population Projections for Roosevelt County, 2000 to 2030**

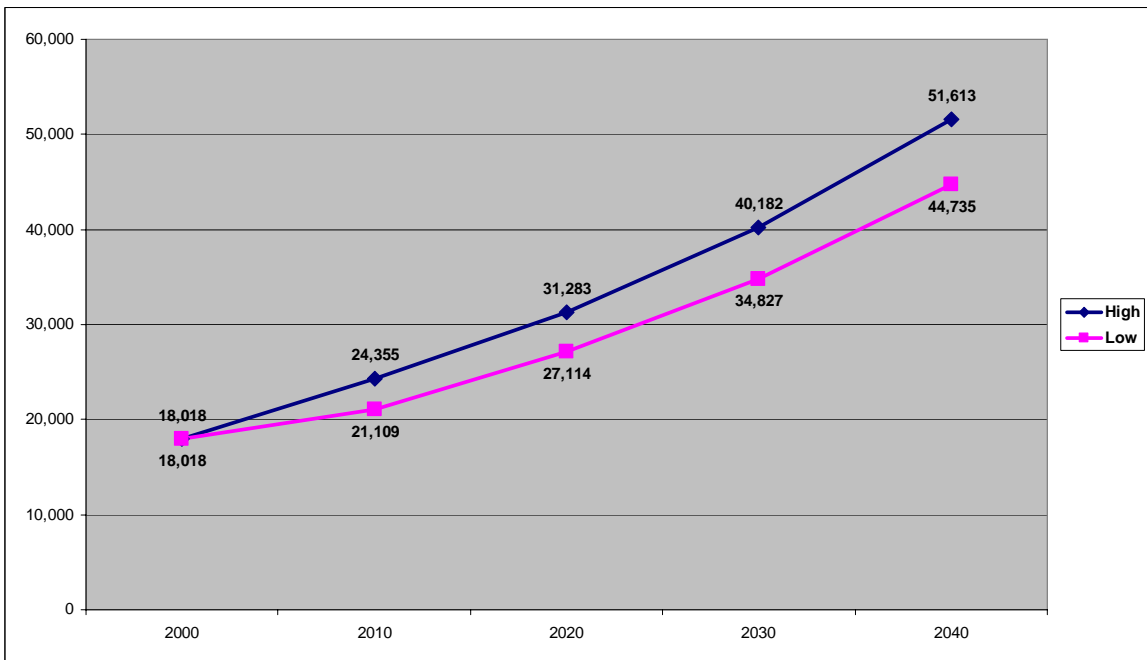


Source: UNM, Bureau of Business and Economic Research

### **Revised Projections**

Revised population projections for Roosevelt County are shown in Figure 10. The high series projections assume that future economic growth is similar to recent trends until 2010, with growth after 2010 slowing to the longer term (1990 to 2004) trend. The low series projections assume a slower growing economy, reflective of the 1990 to 2004 trend over the projection period. In both scenarios the ratio of population to jobs remains the same as in 2004.

**Figure 10. Revised Population Projections for Roosevelt County, 2000 to 2040**



# Union County

## *Union County Economy*

Union County is the northeastern most county in New Mexico. The county is 2,451,200 acres. Approximately 2,330,000 acres is rangeland and reflects the agricultural impact upon this region. Clayton, population 2,191 in 2004, is the county seat. Clayton was founded in 1988 and served as a railroad shipping point for large cattle drives. Other relatively sizable towns in Union County include Des Moines, Folsom and Grenville.

Clayton has recently purchased 1,760 acres of land with 12 wells capable of producing 3.5 million gallons per day. This water system capacity increase will support 14,000 additional people.



## **Economic Base**

Agriculture is the major local industry and employs 113 people. In addition to the 2.3 million acres in rangeland, there are 69,000 acres planted with crops and 5,000 acres of irrigated pastureland. Major crops include corn, wheat, hay and sorghum. 180,000 head of cattle are raised and processed on private ranches and on 5 feedlots. Agriculture generates \$143.4 million in agricultural products. Cow and calf sales comprise 89 percent of all agricultural revenues.

Retail is a strong component of the economy, employing 103, with annual sales of \$20.3 million.

Health care and social services is a significant employment sector, with 186 jobs and \$8.3 million in sales. The Union County General Hospital in Clayton is one of the County's major employers.

Accommodation and food services employs 213 and generates \$5.8 million in revenue.

The largest employment sector is the government, with 365 jobs.

## Major Employers

Governments, including local, state and Federal agencies, are the majority of the County's largest employers. The remaining large employers are in mining and services.

- Clayton Municipal Schools (State and local government)
- City of Clayton (State and local government)
- Union County General Hospital (Services)
- Union County Government (State and local government)
- USDA (State and local government)
- OXY Carbon Dioxide Plant (Mining)
- New Mexico Department of Transportation (State and local government)
- Ekland Hotel (Services)
- Clayton Lake State Park (Recreation, State and local government)
- Twin Mountain Rock Company (Mining)
- Capulin Volcano National Monument (Recreation, State and local government)

**Table X. Union County Historic and Current Employment, 1970 to 2003**

Employment Type	1970	1980	1990	2000	90-2000		2001	2002	2003	00-03	
					change					change	
<b>Total employment</b>	<b>2,341</b>	<b>2,411</b>	<b>2,216</b>	<b>2,586</b>	<b>370</b>		2,631	2,685	2,705	<b>119</b>	
<b>Wage and salary employment</b>	<b>1,301</b>	<b>1,425</b>	<b>1,414</b>	<b>1,598</b>	<b>184</b>		<b>1,602</b>	<b>1,637</b>	<b>1,647</b>	<b>49</b>	
<b>Proprietors employment</b>	<b>1,040</b>	<b>986</b>	<b>802</b>	<b>988</b>	<b>186</b>		<b>1,029</b>	<b>1,048</b>	<b>1,058</b>	<b>70</b>	
Farm proprietors employment	619	461	438	489	<b>51</b>		570	576	569	<b>80</b>	
Nonfarm proprietors employment	421	525	364	499	<b>135</b>		459	472	489	<b>(10)</b>	
<b>Farm employment</b>	<b>796</b>	<b>747</b>	<b>623</b>	<b>727</b>	<b>104</b>		803	805	798	<b>71</b>	
<b>Nonfarm employment</b>	<b>1,545</b>	<b>1,664</b>	<b>1,593</b>	<b>1,859</b>	<b>266</b>		1,828	1,880	1,907	<b>48</b>	
Private employment	1,108	1,279	1,230	1,454	<b>224</b>		1,442	1,486	1,519	<b>65</b>	
Forestry, fishing, & related activities	107	35	71	(D)	<b>(D)</b>		(D)	(D)	(D)	<b>(D)</b>	
Mining	(L)	28	54	(D)	<b>(D)</b>		(D)	(D)	(D)	<b>(D)</b>	
Utilities					-		(D)	(D)	(D)	<b>(D)</b>	
Construction	29	71	84	94	<b>10</b>		115	106	109	<b>15</b>	
Manufacturing	28	26	35	(D)	<b>(D)</b>		19	19	19	<b>(D)</b>	
Retail & wholesale trade	374	384	394	464	<b>70</b>		262	262	257	<b>(207)</b>	
Transportation, warehs & information	55	82	87	107	<b>20</b>		52	51	52	<b>(55)</b>	
Finance, insurance and real estate	135	122	109	178	<b>69</b>		-	-	-	<b>(178)</b>	
Services	372	531	396	453	<b>57</b>		128	440	186	<b>(267)</b>	
<b>Government &amp; gov't enterprises</b>	<b>437</b>	<b>385</b>	<b>363</b>	<b>405</b>	<b>42</b>		<b>386</b>	<b>394</b>	<b>388</b>	<b>(17)</b>	
Federal, civilian	59	62	54	62	<b>8</b>		59	64	64	<b>2</b>	
Military	26	22	21	14	<b>(7)</b>		13	13	12	<b>(2)</b>	
State and local	352	301	288	329	<b>41</b>		314	317	312	<b>(17)</b>	

Source: REIS, BEA

(D) – Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

## **Economic Development**

The Town of Clayton recently purchased 1,760 acres of land on US Highway 87 and adjacent to the Clayton Municipal Airport to acquire the water rights associated with the property. This purchase will increase the area's water supply to support economic development and population growth.

## **Proposed Business Development**

### **Travel and Tourism**

The County has submitted applications for two Scenic Byways, the Dry Cimarron and Santa Fe Trail Scenic Byways. The purpose of the funding is to develop a Corridor Management Plan for the Dry Cimarron Scenic Byway and to provide signage, promotional materials and interpretive site at the Herztein Museum to promote the Santa Fe Trail Scenic Byway through Union County. A regional self-guided tour through Roosevelt, Quay, Union and Harding counties is being developed. The County is looking at the potential to increase the lodgers' tax to provide funds for tourism promotion and related economic development.

### **Federal Prison**

The City of Clayton is currently seeking funding for a 600-bed Federal prison that will be located within the city limits on land purchased for its water resources. Funds to increase infrastructure necessary to support this increased population is also being sought.

### **Meat Processing**

The expansion of a local meat packing plant has been one of the economic development projects proposed for the County. This project is currently on hold. However, the County has received assistance from the New Mexico Manufacturing Extension Partnership and the Sandia National Laboratory small business assistance program, which are talking with a national meat processing company about locating in Union County.

### **Ice and Bottled Water Production**

A bagged ice company relocated from Texline to Clayton and is now occupying a once-vacant building owned by the City of Clayton. The firm desires to expand into bottled water production and sales in the near future.

### **Alternative Energy – Wind Power**

The county is interested in alternative energy and potentially in attracting wind farms similar to those in other parts of the region.

### **Redevelopment**

Revitalization of Downtown Clayton is moving forward with the creation of a Main Street program. An inventory of buildings is finished. The properties now need to be inspected and assessed for condition, rehabilitation costs and best use.

## Housing

Senior housing (assisted/independent living) and services have been proposed to serve the aging population of the County.

## Historical Trends

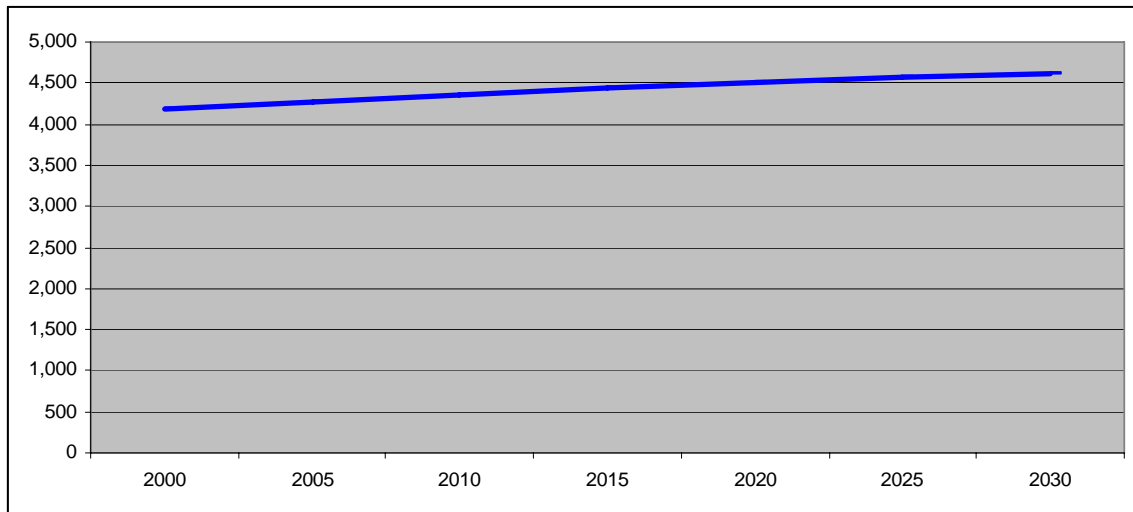
In 1970 the population of Union County was 4,925, which declined 15.2 percent to 4,174 by 2000. It is interesting to note that from 1990 to 2000 the county grew 1.2 percent, from 4,124 to 4,174.

However, the growth trend changed from the 1990-2000 decade, since the 2004 estimated county population was 3,827, reflecting a decline of 21.2 percent or 887 people since 2000.

## BBER Projections

According to the BBER, Union County population is projected to increase 10.7 percent from 4,174 in 2000 to 4,507 in 2030. The projected population for Union County is shown in Figure 11.

**Figure 11. BBER Population Projections for Union County, 2000 to 2030**



Source: UNM, Bureau of Business and Economic Research

## Public Meeting Comments

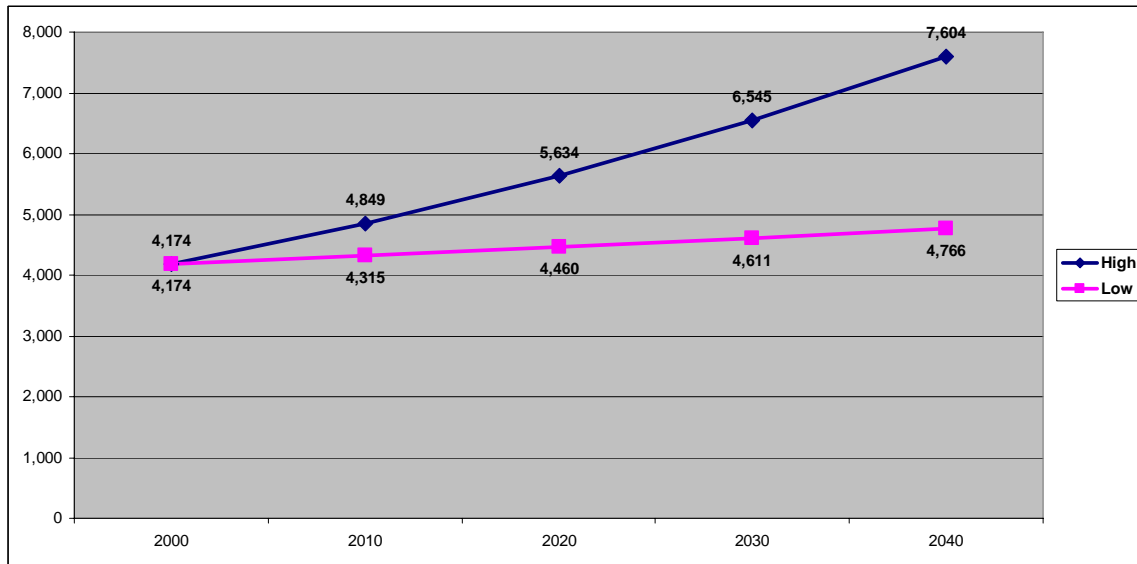
There were no public meeting comments about the BBER projections.

## Revised Population Projections

The revised population projections for Union County are shown in Figure 12. The high series projections assume that economic growth, as reflected in the County's job growth, continues as it has since 2000. The low series projections assume that economic growth is at the slower rate that occurred from 1970 to 2000. In both series, the ratio between jobs and population is assumed to remain constant.

The high series projection is from 4,174 in 2000 to 7,600 in 2040. The low series projection is from 4,174 in 2000 to 4,766 in 2040. The low series projection is similar to the BBER's projections for Union County, 4,611 people in 2030 in the regional water plan low series, compared to 4,619 in 2030 in the BBER projections.

Figure 12. Revised Population Projections for Union County, 2000 to 2040





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