

Water Resources Planning Department

Water Supply / Demand Analysis and Projections
for
Kern River Valley District

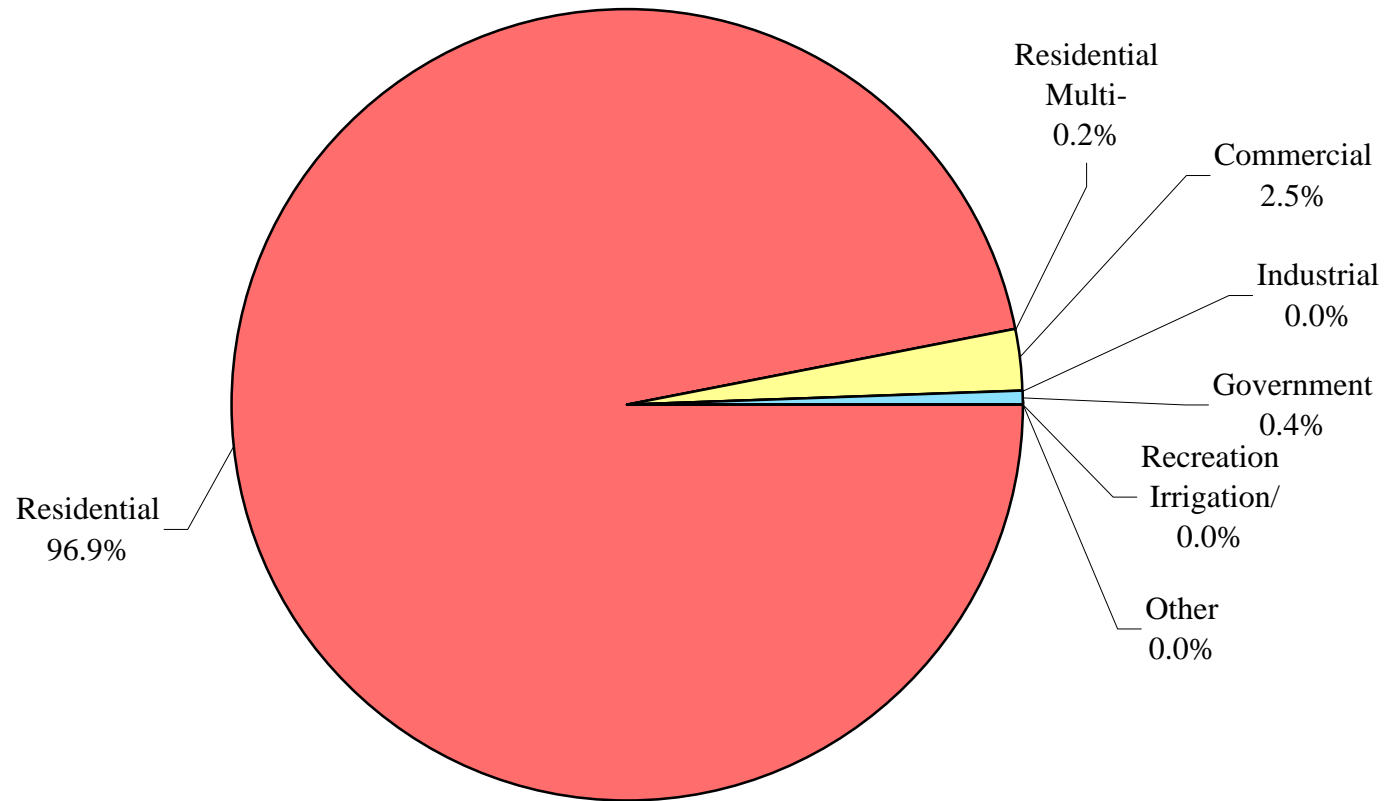
2010



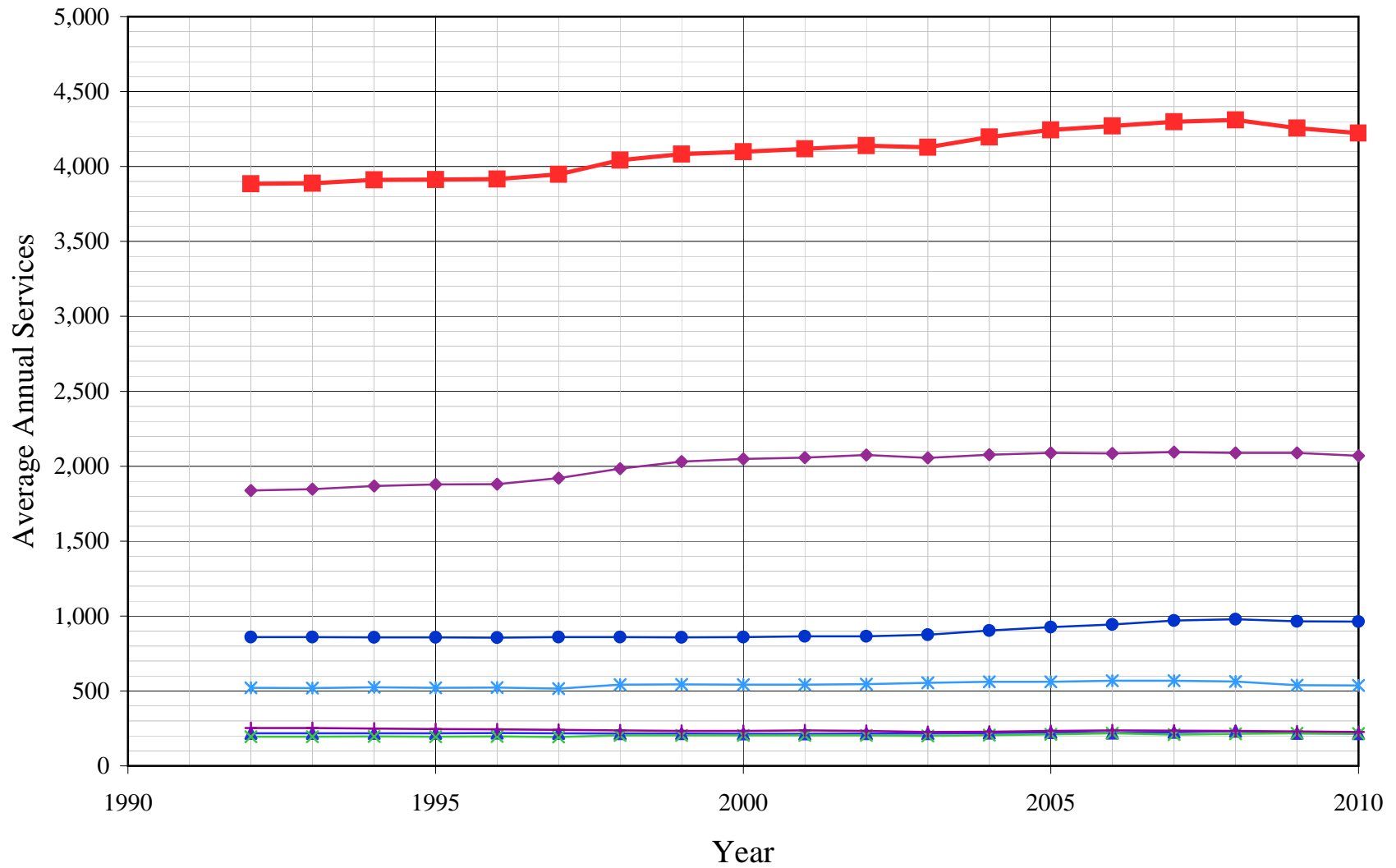
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Kern River Valley District Distribution of Services (2010)



Kern River Valley District Historical Annual Services



California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections
Annual Services

Worksheet 1

Year	Residential	Multi-Residential	Multi-Res. units	Commercial	Industrial	Government	Irrigation/Recreation	Other	Total	Annual Change
1990										
1991										
1992	3,786	7		70	0	11	9	2	3,885	
1993	3,786	7		72	0	11	9	3	3,888	3
1994	3,808	7		73	0	11	9	4	3,912	23
1995	3,809	7		74	0	11	9	3	3,913	1
1996	3,814	7		73	0	11	9	3	3,917	4
1997	3,842	8		73	0	12	9	4	3,948	32
1998	3,936	8		74	0	12	9	4	4,042	94
1999	3,977	8		74	0	12	9	3	4,083	41
2000	3,995	8		72	0	12	9	3	4,099	16
2001	4,014	8		72	0	12	9	2	4,118	19
2002	4,028	8	10	77	0	12	9	4	4,138	21
2003	3,997	5	0	108	0	17	0	1	4,128	-10
2004	4,062	6	0	111	0	17	0	1	4,197	69
2005	4,113	5	0	109	0	17	0	1	4,245	48
2006	4,138	5	0	109	0	17	0	1	4,270	25
2007	4,161	6	0	113	0	18	0	1	4,299	29
2008	4,178	5	0	108	0	18	0	1	4,310	11
2009	4,124	7	0	107	0	18	0	1	4,257	-53
2010	4,091	7	0	107	0	17	0	1	4,223	-34
5 Yr Avg.	4,143	6	0	109	0	18	0	1	4,276	12
10 Yr Avg.	4,081	6	1	99	0	16	3	2	4,206	17

Five year average is from years 2005 through 2009.

Ten year average is from years 2000 through 2009.

California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections
Service Growth Percentage

Worksheet 2

Year	Residential	Multi-Residential	Multi-Res. units	Commercial	Industrial	Government	Irrigation/Recreation	Other	Total
1991									
1992									
1993	0.01%	0.00%		3.09%		0.00%		0.00%	0.08%
1994	0.58%	0.00%	0.00%	0.92%		-0.76%		0.00%	0.60%
1995	0.02%	0.00%	0.00%	1.60%		0.76%		0.00%	0.03%
1996	0.14%	0.00%	0.00%	-1.46%		0.00%		0.00%	0.10%
1997	0.73%	14.29%	0.00%	0.57%		9.09%		0.00%	0.81%
1998	2.44%	0.00%	0.00%	0.79%		0.00%		0.00%	2.38%
1999	1.06%	0.00%	0.00%	-0.68%		0.00%		0.00%	1.00%
2000	0.43%	-1.04%	0.00%	-1.70%		0.00%		0.00%	0.39%
2001	0.49%	1.05%	0.00%	0.12%		0.00%		0.00%	0.46%
2002	0.34%	0.00%	0.00%	7.03%		0.00%		0.00%	0.50%
2003	-0.77%	-37.50%	-100.00%	39.50%		41.67%		0.00%	-0.25%
2004	1.63%	20.00%		2.78%		0.00%		0.00%	1.67%
2005	1.26%	-16.67%		-1.80%		0.00%		0.00%	1.14%
2006	0.61%	0.00%		0.00%		0.00%		0.00%	0.59%
2007	0.56%	20.00%		3.67%		5.88%		0.00%	0.68%
2008	0.41%	-16.67%		-4.42%		0.00%		0.00%	0.26%
2009	-1.29%	40.00%		-0.93%		0.00%		0.00%	-1.23%
2010	-0.80%	0.00%		0.00%		-5.56%		0.00%	-0.80%
5 Yr Avg.	0.31%	5.33%		-0.70%		1.18%		0.00%	0.29%
10 Yr Avg.	0.36%	1.13%		5.11%		5.28%		0.00%	0.42%

Five year average is from years 2005 through 2009.

Ten year average is from years 2000 through 2009.

California Water Service Company - Kern River Valley District

Worksheet 3

Water Supply and Demand Analysis and Projections

Sales (ccf)

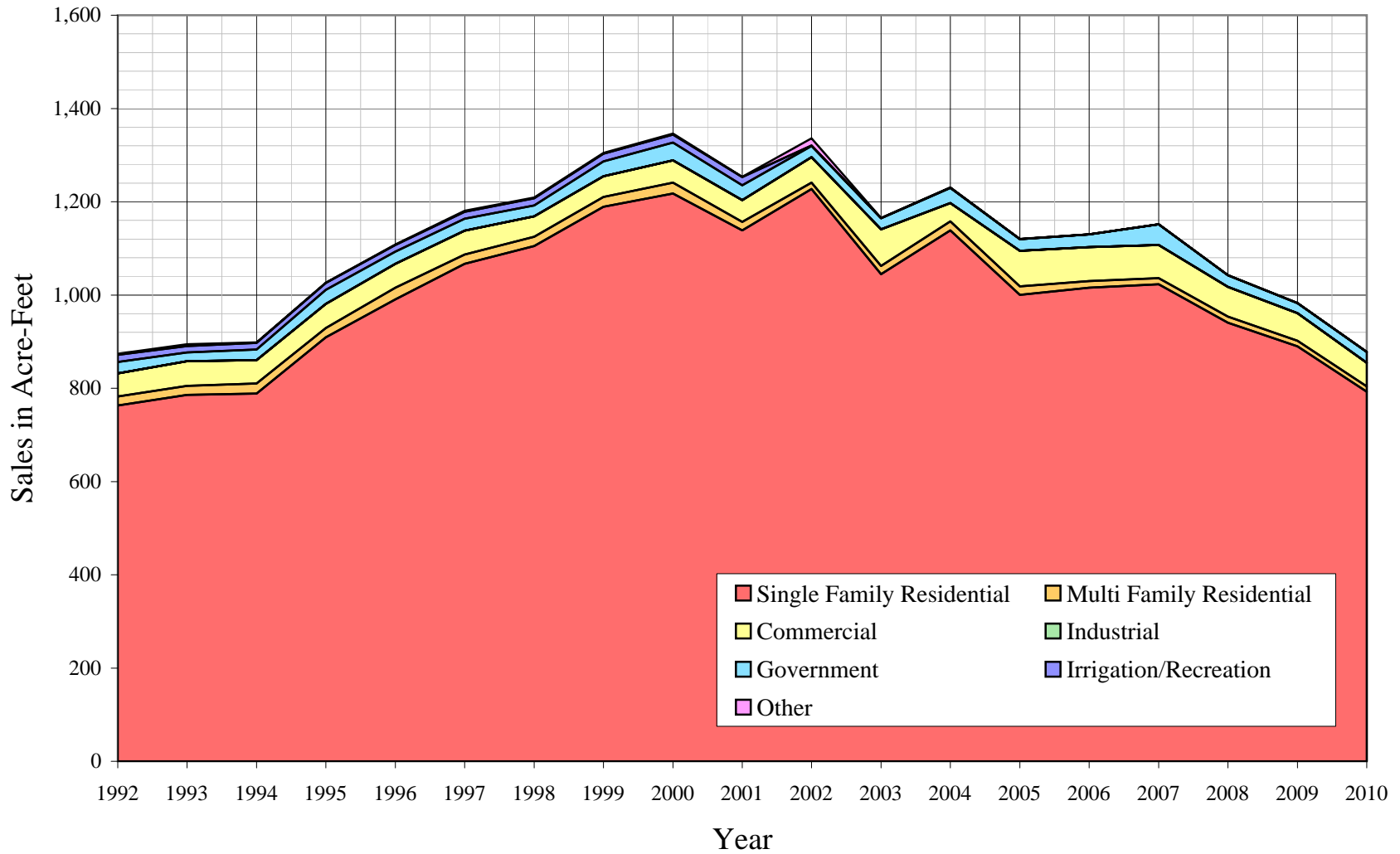
Year	Residential	Multi-Residential	Commercial	Industrial	Government	Irrigation/ Recreation	Other	Unaccounted Water	Total(ccf) Sales	Total(ccf) Demand	Total(kgal) Demand
1990											
1991											
1992	332,289	8,532	21,477		10,711	6,584	1,098		380,691		
1993	342,329	8,447	23,082		8,072	6,071	1,563		389,564		
1994	343,636	9,210	21,859		9,987	6,222	446		391,360		
1995	395,989	8,832	22,536		13,169	6,346	255		447,127		
1996	431,503	10,837	22,364		11,409	6,290	496		482,899		
1997	464,645	8,654	22,301		11,189	6,617	978	-1,063	514,384	513,321	383,991
1998	481,420	8,469	19,237		10,133	6,628	865	13,943	526,752	540,695	404,468
1999	517,937	9,185	19,318		13,837	7,309	706	99,170	568,292	667,462	499,297
2000	530,488	10,051	20,958		16,424	7,625	762	91,492	586,308	677,800	507,029
2001	495,862	8,051	20,313		13,887	7,615	358	97,074	546,086	643,160	481,117
2002	534,560	5,896	23,990		10,268	466	6667	60,418	581,847	642,265	480,447
2003	454,985	7,770	34,101		10,536	60	197	81,422	507,649	589,071	440,656
2004	495,844	8,432	17,082		14,223	355	50	63,183	535,986	599,169	448,210
2005	435,836	7,873	33,054		11,123	0	200	55,273	488,086	543,359	406,461
2006	442,514	6,074	31,635		11,974	0	0	105,294	492,197	597,491	446,955
2007	445,604	5,614	31,156		19,342	0	0	114,744	501,716	616,460	461,144
2008	409,619	5,667	27,856		10,882	0	0	125,685	454,024	579,709	433,652
2009	387,583	5,376	25,615		9,428	0	0	81,947	428,002	509,949	381,468
2010	345,154	5,080	22,109		10,005	0	200	99,006	382,548	481,554	360,227
5 Yr. Avg.	424,231	6,121	29,863		12,550	0	40	96,589	472,805	569,394	425,936
10 Yr. Avg.	463,290	7,080	26,576		12,809	1,612	823	87,653	512,190	599,843	448,714

Five year average is from years 2005 through 2009.

Ten year average is from years 2000 through 2009.

Note: Data for 2000-2002 is based on District total, 2003-present data is based on individual system subtotals

Kern River Valley District Historical Sales



California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections
Sales (AF)

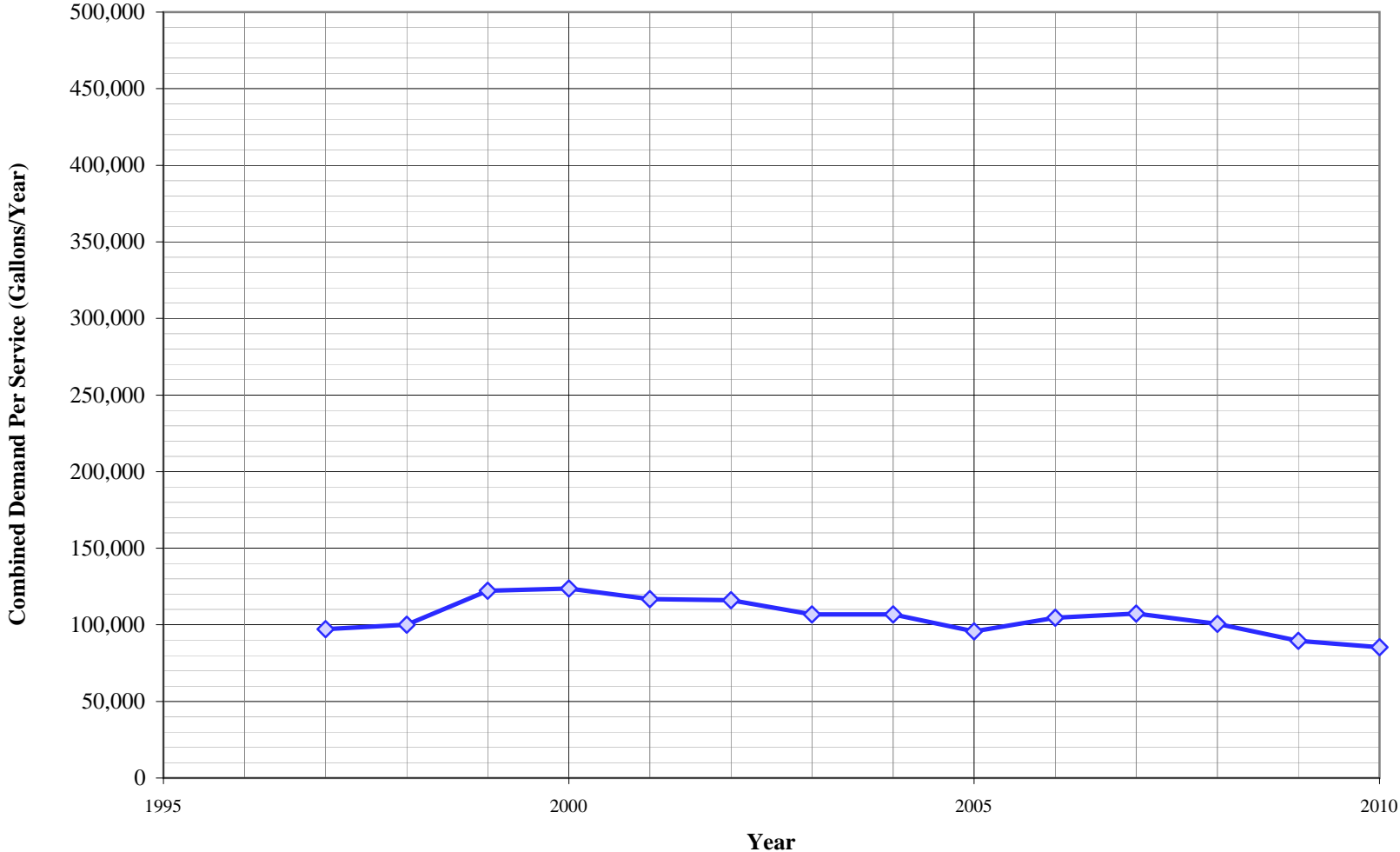
Worksheet 4

Year	Residential	Multi-Residential	Commercial	Industrial	Government	Irrigation/ Recreation	Other	Unaccounted Water	Total(AF) Sales	Total(AF) Demand	Total(Mgal) Demand
1990											
1991											
1992	762.8	19.6	49.3	0.0	24.6	15.1	2.5	0.0	873.9	0.0	0.0
1993	785.9	19.4	53.0	0.0	18.5	13.9	3.6	0.0	894.3	0.0	0.0
1994	788.9	21.1	50.2	0.0	22.9	14.3	1.0	0.0	898.4	0.0	0.0
1995	909.1	20.3	51.7	0.0	30.2	14.6	0.6	0.0	1,026.5	0.0	0.0
1996	990.6	24.9	51.3	0.0	26.2	14.4	1.1	0.0	1,108.6	0.0	0.0
1997	1,066.7	19.9	51.2	0.0	25.7	15.2	2.2	-2.4	1,180.9	1,178.4	384.0
1998	1,105.2	19.4	44.2	0.0	23.3	15.2	2.0	32.0	1,209.3	1,241.3	404.5
1999	1,189.0	21.1	44.3	0.0	31.8	16.8	1.6	227.7	1,304.6	1,532.3	499.3
2000	1,217.8	23.1	48.1	0.0	37.7	17.5	1.7	210.0	1,346.0	1,556.0	507.0
2001	1,138.3	18.5	46.6	0.0	31.9	17.5	0.8	222.9	1,253.6	1,476.5	481.1
2002	1,227.2	13.5	55.1	0.0	23.6	1.1	15.3	138.7	1,335.7	1,474.4	480.4
2003	1,044.5	17.8	78.3	0.0	24.2	0.1	0.5	186.9	1,165.4	1,352.3	440.7
2004	1,138.3	19.4	39.2	0.0	32.7	0.8	0.1	145.0	1,230.5	1,375.5	448.2
2005	1,000.5	18.1	75.9	0.0	25.5	0.0	0.5	126.9	1,120.5	1,247.4	406.5
2006	1,015.9	13.9	72.6	0.0	27.5	0.0	0.0	241.7	1,129.9	1,371.7	447.0
2007	1,023.0	12.9	71.5	0.0	44.4	0.0	0.0	263.4	1,151.8	1,415.2	461.1
2008	940.4	13.0	63.9	0.0	25.0	0.0	0.0	288.5	1,042.3	1,330.8	433.7
2009	889.8	12.3	58.8	0.0	21.6	0.0	0.0	188.1	982.6	1,170.7	381.5
2010	792.4	11.7	50.8	0.0	23.0	0.0	0.5	227.3	878.2	1,105.5	360.2
5 Yr. Avg.	973.9	14.1	68.6	0.0	28.8	0.0	0.1	221.7	1,085.4	1,307.1	425.9
10 Yr. Avg.	1,063.6	16.3	61.0	0.0	29.4	3.7	1.9	201.2	1,175.8	1,377.1	448.7

Five year average is from years 2005 through 2009.

Ten year average is from years 2000 through 2009.

Kern River Valley District Historical Demand Per Service



California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections
Demand per Service (Gallons per Year)

Year	Residential	Multi-Residential (Service)	(Unit)	Commercial	Industrial	Government	Irrigation/ Recreation	Total Other	Unaccounted/ Total Services	Combined Demand/Service
1990										
1991										
1992	65,661	911,769	945,054	229,240		0	728,399	547,242	339,874	0
1993	67,637	902,685	1,015,679	238,983		0	548,934	504,603	389,735	0
1994	67,505	984,223	961,863	224,251		0	684,348	517,153	88,968	0
1995	77,775	943,828	991,653	227,556		0	895,554	527,460	63,584	0
1996	84,632	1,158,091	984,084	229,170		0	775,866	522,805	148,414	0
1997	90,468	809,205	981,312	227,228		0	697,496	549,984	182,899	-201
1998	91,500	791,907	846,487	194,463		0	631,668	556,047	180,576	2,580
1999	97,411	858,857	850,051	196,610		0	862,566	607,501	176,042	18,170
2000	99,341	949,727	922,216	216,992		0	1,023,834	633,766	190,005	16,698
2001	92,400	752,821	893,834	210,072		0	865,683	638,850	133,901	17,635
2002	99,275	551,314	1,055,633	231,808		0	640,083	38,732	1,246,816	10,921
2003	85,152	1,162,473		236,197		0	463,616	0	147,366	14,755
2004	91,314	1,051,262		115,119		0	625,856	0	37,403	11,261
2005	79,268	1,177,883		226,845		0	489,446	0	149,610	9,740
2006	79,996	908,734		217,107		0	526,893	0	0	18,446
2007	80,109	699,927		206,251		0	803,823	0	0	19,966
2008	73,340	847,842		192,942		0	452,239	0	0	21,814
2009	70,304	574,504		179,078		0	391,813	0	0	14,400
2010	63,112	542,872		154,567		0	440,251	0	149,610	17,538
5 Yr. Avg.	76,603	841,778		204,444		0	532,843	0	29,922	16,873
10 Yr. Avg.	85,050	867,649		203,241		0	628,329	131,135	190,510	15,564

Five year average is from years 2005 through 2009.

Ten year average is from years 2000 through 2009.

California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections
Demand per Service (Gallons per Day)

Worksheet 6

Year	Multi-Residential					Irrigation/ Recreation	Total Other	Unaccounted/ Total Services	Combined Demand/Serv
	Residential	(Service)	(Unit)	Commercial	Industrial				
1990									
1991									
1992	180	2,498		628	0	1,996	1,499	931	0
1993	185	2,473	2,783	655	0	1,504	1,382	1,068	0
1994	185	2,697	2,635	614	0	1,875	1,417	244	0
1995	213	2,586	2,717	623	0	2,454	1,445	174	0
1996	232	3,173	2,696	628	0	2,126	1,432	407	0
1997	248	2,217	2,689	623	0	1,911	1,507	501	-1
1998	251	2,170	2,319	533	0	1,731	1,523	495	7
1999	267	2,353	2,329	539	0	2,363	1,664	482	50
2000	272	2,602	2,527	594	0	2,805	1,736	521	46
2001	253	2,063	2,449	576	0	2,372	1,750	367	48
2002	272	1,510	2,892	635	0	1,754	106	3,416	30
2003	233	3,185	0	647	0	1,270	0	404	40
2004	250	2,880	0	315	0	1,715	0	102	31
2005	217	3,227	0	621	0	1,341	0	410	27
2006	219	2,490	0	595	0	1,444	0	0	51
2007	219	1,918	0	565	0	2,202	0	0	55
2008	201	2,323	0	529	0	1,239	0	0	60
2009	193	1,574	0	491	0	1,073	0	0	39
2010	173	1,487	0	423	0	1,206	0	410	48
5 Yr. Avg.	210	2,306	0	560	0	1,460	0	82	46
10 Yr. Avg.	233	2,377	787	557	0	1,721	359	522	43

Five year average is from years 2005 through 2009.

Ten year average is from years 2000 through 2009.

California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections
Percentage Change in Annual Demand

Worksheet 7

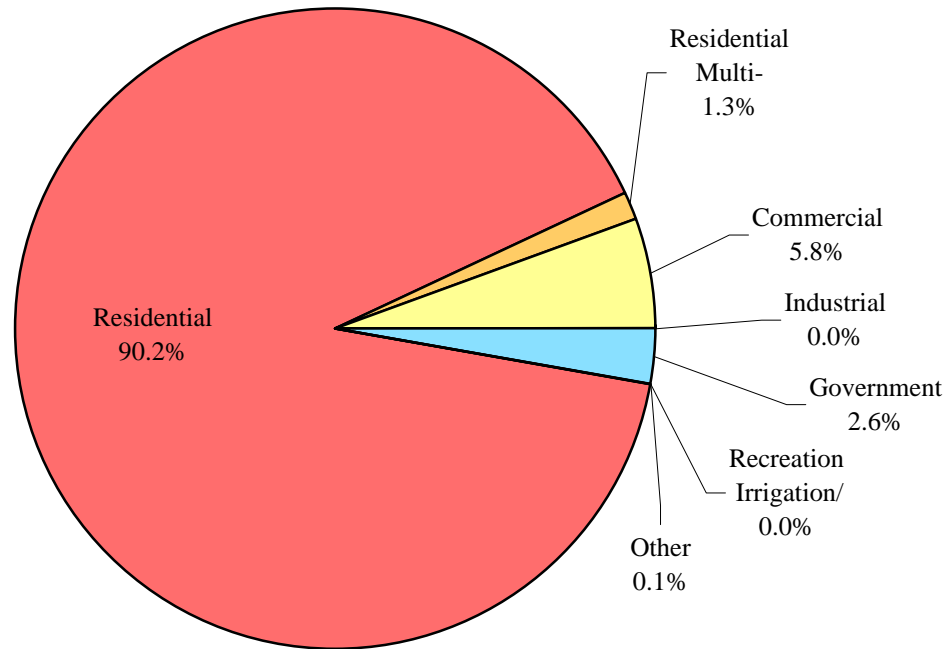
Year	Residential	Multi-Residential	Commercial	Industrial	Government	Irrigation/ Recreation	Other	Unaccounted Water	Total
1990									
1991									
1992									
1993	3.02%	-1.00%	7.47%	0.00%	-24.64%	-7.79%	42.35%		
1994	0.38%	9.03%	-5.30%	0.00%	23.72%	2.49%	-71.47%		
1995	15.24%	-4.10%	3.10%	0.00%	31.86%	1.99%	-42.83%		
1996	8.97%	22.70%	-0.76%	0.00%	-13.36%	-0.88%	94.51%		
1997	7.68%	-20.14%	-0.28%	0.00%	-1.93%	5.20%	97.18%		
1998	3.61%	-2.14%	-13.74%	0.00%	-9.44%	0.17%	-11.55%	-1411.89%	5.33%
1999	7.59%	8.45%	0.42%	0.00%	36.55%	10.27%	-18.38%	611.27%	23.45%
2000	2.42%	9.43%	8.49%	0.00%	18.70%	4.32%	7.93%	-7.74%	1.55%
2001	-6.53%	-19.90%	-3.08%	0.00%	-15.45%	-0.13%	-53.02%	6.10%	-5.11%
2002	7.80%	-26.77%	18.10%	0.00%	-26.06%	-93.88%	1762.29%	-37.76%	-0.14%
2003	-14.89%	31.78%	42.15%	0.00%	2.61%	-87.12%	-97.05%	34.77%	-8.28%
2004	8.98%	8.52%	-49.91%	0.00%	34.99%	491.67%	-74.62%	-22.40%	1.71%
2005	-12.10%	-6.63%	93.50%	0.00%	-21.80%	-100.00%	300.00%	-12.52%	-9.31%
2006	1.53%	-22.85%	-4.29%	0.00%	7.65%	0.00%	-100.00%	90.50%	9.96%
2007	0.70%	-7.57%	-1.51%	0.00%	61.53%	0.00%	0.00%	8.97%	3.17%
2008	-8.08%	0.94%	-10.59%	0.00%	-43.74%	0.00%	0.00%	9.53%	-5.96%
2009	-5.38%	-5.13%	-8.04%	0.00%	-13.36%	0.00%	0.00%	-34.80%	-12.03%
2010	-10.95%	-5.51%	-13.69%	0.00%	6.12%	0.00%	0.00%	20.82%	-5.57%
5 Yr. Avg.	-1.79%	-5.52%	5.44%	0.00%	7.73%	78.33%		14.82%	-0.09%
10 Yr. Avg.	-2.24%	-3.67%	10.32%	0.00%	2.05%	23.87%		79.55%	-1.38%

Five year average is from years 2004 through 2008.

Ten year average is from years 1999 through 2008.

Kern River Valley District

Percent of Total Sales by Type of Use (2010)



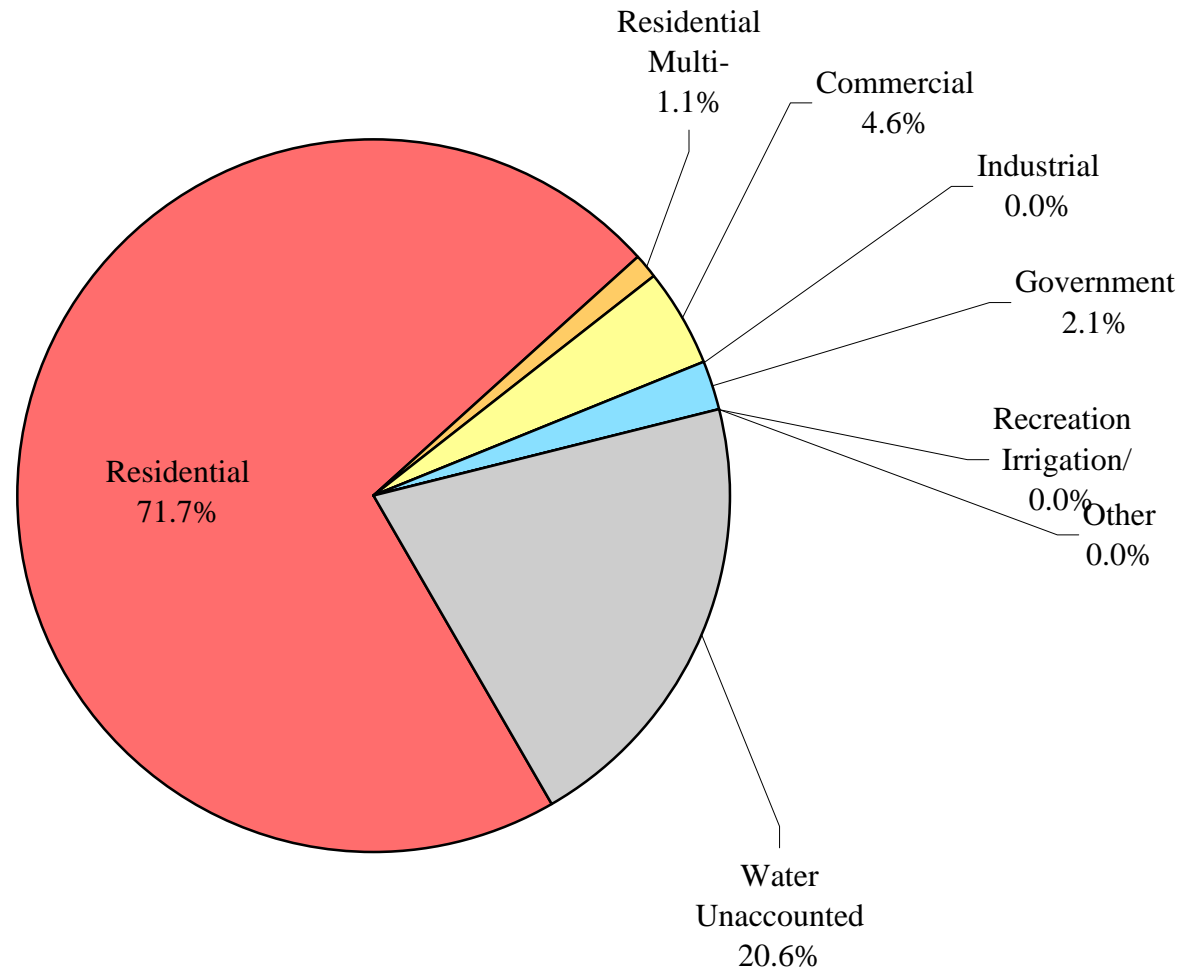
California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections
Percentage of Total Sales

Year	Residential	Multi-Residential	Commercial	Industrial	Government	Irrigation/Recreation	Other	Percent Total
1992	87.29%	2.24%	5.64%	0.00%	2.81%	1.73%	0.29%	100.00%
1993	87.87%	2.17%	5.93%	0.00%	2.07%	1.56%	0.40%	100.00%
1994	87.81%	2.35%	5.59%	0.00%	2.55%	1.59%	0.11%	100.00%
1995	88.56%	1.98%	5.04%	0.00%	2.95%	1.42%	0.06%	100.00%
1996	89.36%	2.24%	4.63%	0.00%	2.36%	1.30%	0.10%	100.00%
1997	90.33%	1.68%	4.34%	0.00%	2.18%	1.29%	0.19%	100.00%
1998	91.39%	1.61%	3.65%	0.00%	1.92%	1.26%	0.16%	100.00%
1999	91.14%	1.62%	3.40%	0.00%	2.43%	1.29%	0.12%	100.00%
2000	90.48%	1.71%	3.57%	0.00%	2.80%	1.30%	0.13%	100.00%
2001	90.80%	1.47%	3.72%	0.00%	2.54%	1.39%	0.07%	100.00%
2002	91.87%	1.01%	4.12%	0.00%	1.76%	0.08%	1.15%	100.00%
2003	89.63%	1.53%	6.72%	0.00%	2.08%	0.01%	0.04%	100.00%
2004	92.51%	1.57%	3.19%	0.00%	2.65%	0.07%	0.01%	100.00%
2005	89.29%	1.61%	6.77%	0.00%	2.28%	0.00%	0.04%	100.00%
2006	89.91%	1.23%	6.43%	0.00%	2.43%	0.00%	0.00%	100.00%
2007	88.82%	1.12%	6.21%	0.00%	3.86%	0.00%	0.00%	100.00%
2008	90.22%	1.25%	6.14%	0.00%	2.40%	0.00%	0.00%	100.00%
2009	90.56%	1.26%	5.98%	0.00%	2.20%	0.00%	0.00%	100.00%
2010	90.23%	1.33%	5.78%	0.00%	2.62%	0.00%	0.05%	100.00%
5 Yr. Avg.	90.15%	1.36%	5.75%	0.00%	2.72%	0.01%	0.01%	100.00%
10 Yr. Avg.	90.47%	1.41%	5.03%	0.00%	2.52%	0.41%	0.16%	100.00%

Five year average is from years 2004 through 2008.

Ten year average is from years 1999 through 2008.

Kern River Valley District Percent of Total Demand by Type of Use (2010)



California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections
Percentage of Total Demand

Year	Residential	Multi-Residential	Commercial	Industrial	Government	Irrigation/Recreation	Other	Unaccounted Water	Percent Total
1992									
1993									
1994									
1995									
1996									
1997	90.52%	1.69%	4.34%	0.00%	2.18%	1.29%	0.19%	-0.21%	100.00%
1998	89.04%	1.57%	3.56%	0.00%	1.87%	1.23%	0.16%	2.58%	100.00%
1999	77.60%	1.38%	2.89%	0.00%	2.07%	1.10%	0.11%	14.86%	100.00%
2000	78.27%	1.48%	3.09%	0.00%	2.42%	1.12%	0.11%	13.50%	100.00%
2001	77.10%	1.25%	3.16%	0.00%	2.16%	1.18%	0.06%	15.09%	100.00%
2002	83.23%	0.92%	3.74%	0.00%	1.60%	0.07%	1.04%	9.41%	100.00%
2003	77.24%	1.32%	5.79%	0.00%	1.79%	0.01%	0.03%	13.82%	100.00%
2004	82.76%	1.41%	2.85%	0.00%	2.37%	0.06%	0.01%	10.55%	100.00%
2005	80.21%	1.45%	6.08%	0.00%	2.05%	0.00%	0.04%	10.17%	100.00%
2006	74.06%	1.02%	5.29%	0.00%	2.00%	0.00%	0.00%	17.62%	100.00%
2007	72.28%	0.91%	5.05%	0.00%	3.14%	0.00%	0.00%	18.61%	100.00%
2008	70.66%	0.98%	4.81%	0.00%	1.88%	0.00%	0.00%	21.68%	100.00%
2009	76.00%	1.05%	5.02%	0.00%	1.85%	0.00%	0.00%	16.07%	100.00%
2010	71.68%	1.05%	4.59%	0.00%	2.08%	0.00%	0.04%	20.56%	100.00%
5 Yr. Avg.	75.99%	1.15%	4.82%	0.00%	2.29%	0.01%	0.01%	15.73%	100.00%
10 Yr. Avg.	77.34%	1.21%	4.28%	0.00%	2.15%	0.35%	0.14%	14.53%	100.00%

Five year average is from years 2004 through 2008.

Ten year average is from years 1999 through 2008.

California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections

2000's Projections

Scenario #1: Based on Maintaining Growth at the

- Selected
 Alternative

Average Annual Growth and

- Low
 Average
 High

Demand per Service for each Customer Class.

Summary of Historical Growth Rate from Worksheet 2			
Customer Type	5 Yr Avg. Historical Growth Rate	Estimated Growth Rate Selected	Notes
Single Family Residential	0.31%	0.42%	
Multi Family Residential	5.33%	1.33%	
Commercial	-0.70%	0.38%	
Industrial			
Government	1.18%	1.31%	
Irrigation/Recreation			
Other	0.00%		
Overall	0.29%	0.43%	

Summary of Lowest Demand per Service from Worksheets 5 and 6										
Demand/Serv. Units	Multi-Residential						Total Other	Unaccounted Total Serv.	Combined Demand/Serv.	
	Residential	(service)	(unit)	Commercial	Industrial	Government				Reclaimed
Gal/Service/Yr	70,304	551,314		115,119	0	391,813	0	0	-201	89,610
AF/Service/Yr	0.216	1.692		0.353	0.000	1.202	0.000	0.000	-0.001	0.275
Gal/Service/Day	193	1,510		315	0	1,073	0	0	-1	246

California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections

30-year projection Summary

Scenario #1: Based on Maintaining Growth at the Low High Average Annual Growth and Low Average High Demand per Service for each Customer Class.

Customer Type	Projected Services 2010	Projected Services 2015	Projected Services 2020	Projected Services 2025	Projected Services 2030	Projected Services 2035	Projected Services 2040	Services projected to be added from 2010 - 2040
Single Family Residential	4,141	4,229	4,318	4,410	4,504	4,599	4,697	556
Multi Family Residential	7	8	8	9	9	10	11	3
Commercial	107	109	111	114	116	118	120	13
Industrial	0	0	0	0	0	0	0	0
Government	18	19	21	22	24	25	27	9
Irrigation/Recreation	0	0	0	0	0	0	0	0
Other	1	1	1	1	1	1	1	0
Total	4,275	4,366	4,460	4,555	4,653	4,754	4,856	581

Customer Type	Projected Demand 2010 (ccf)	Projected Demand 2015 (ccf)	Projected Demand 2020 (ccf)	Projected Demand 2025 (ccf)	Projected Demand 2030 (ccf)	Projected Demand 2035 (ccf)	Projected Demand 2040 (ccf)	Projected demand to be added from 2010 - 2040 (ccf)
Single Family Residential	388,572	396,913	405,448	414,181	423,118	432,263	441,622	53,049
Multi Family Residential	5,448	5,820	6,218	6,644	7,098	7,583	8,102	2,655
Commercial	25,591	26,024	26,464	26,913	27,370	27,836	28,311	2,720
Industrial	0	0	0	0	0	0	0	0
Government	9,365	10,001	10,684	11,420	12,210	13,061	13,977	4,612
Irrigation/Recreation	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Unaccounted	7,487	7,662	7,842	8,026	8,215	8,409	8,608	1,121
Total	436,463	446,420	456,657	467,184	478,012	489,153	500,620	64,157

Customer Type	Projected Demand 2010 (AF)	Projected Demand 2015 (AF)	Projected Demand 2020 (AF)	Projected Demand 2025 (AF)	Projected Demand 2030 (AF)	Projected Demand 2035 (AF)	Projected Demand 2040 (AF)	Projected demand to be added from 2010 - 2040 (AF)
Single Family Residential	892	911	931	951	971	992	1,014	122
Multi Family Residential	13	13	14	15	16	17	19	6
Commercial	59	60	61	62	63	64	65	6
Industrial	0	0	0	0	0	0	0	0
Government	21	23	25	26	28	30	32	11
Irrigation/Recreation	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Unaccounted	17	18	18	18	19	19	20	3
Total	1,002	1,025	1,048	1,073	1,097	1,123	1,149	147

California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections

2000's Projections

Scenario #1: Based on Maintaining Growth at the

- Low
- High

Average Annual Growth and

- Low
- Average
- High

Demand per Service for each Customer Class.

Customer Type	Actual Services 2001	Actual Services 2002	Actual Services 2003	Actual Services 2004	Actual Services 2005	Actual Services 2005	Actual Services 2005	Actual Services 2005	Actual Services 2005	Projected Services 2010
Resident	4,014	4,028	3,997	4,062	4,113	4,138	4,161	4,178	4,124	4,141
Multi- Residential	8	8	5	6	5	5	6	5	7	7
Commercial	72	77	108	111	109	109	113	108	107	107
Industrial	0	0	0	0	0	0	0	0	0	0
Government	12	12	17	17	17	17	18	18	18	18
Irrigation/Recreation	9	9	0	0	0	0	0	0	0	0
Other	2	4	1	1	1	1	1	1	1	1
Total	4,118	4,138	4,128	4,197	4,245	4,270	4,299	4,310	4,257	4,275

Customer Type	Demand 2001 (ccf)	Demand 2002 (ccf)	Demand 2003 (ccf)	Demand 2004 (ccf)	Demand 2005 (ccf)	Demand 2005 (ccf)	Demand 2005 (ccf)	Demand 2005 (ccf)	Demand 2005 (ccf)	Demand 2010 (ccf)
Resident	374,686	375,835	372,892	379,303	384,492	387,167	389,857	391,549	386,927	388,572
Multi- Residential	5,376	5,376	3,840	4,608	3,840	3,840	4,608	3,840	5,376	5,448
Commercial	18,653	19,706	25,952	26,725	26,210	26,210	27,053	25,764	25,506	25,591
Industrial	0	0	0	0	0	0	0	0	0	0
Government	5,959	5,959	8,730	8,730	8,730	8,730	9,243	9,243	9,243	9,365
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	7,140	7,188	7,146	7,311	7,419	7,584	7,385	7,489	7,452	7,487
Total	411,814	414,064	418,560	426,678	430,690	433,530	438,146	437,885	434,504	436,463

Customer Type	Demand 2001 (AF)	Demand 2002 (AF)	Demand 2003 (AF)	Demand 2004 (AF)	Demand 2005 (AF)	Demand 2005 (AF)	Demand 2005 (AF)	Demand 2005 (AF)	Demand 2005 (AF)	Demand 2010 (AF)
Resident	860	863	856	871	883	889	895	899	888	892
Multi- Residential	12	12	9	11	9	9	11	9	12	13
Commercial	43	45	60	61	60	60	62	59	59	59
Industrial	0	0	0	0	0	0	0	0	0	0
Government	14	14	20	20	20	20	21	21	21	21
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	16	17	16	17	17	17	17	17	17	17
Total	945	951	961	980	989	995	1,006	1,005	997	1,002

California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections

2010's Projections

Scenario #1: Based on Maintaining Growth at the

- Low
- High

Average Annual Growth and

- Low
- Average
- High

Demand per Service for each Customer Class.

Customer Type	Projected Services 2011	Projected Services 2012	Projected Services 2013	Projected Services 2014	Projected Services 2015	Projected Services 2016	Projected Services 2017	Projected Services 2018	Projected Services 2019	Projected Services 2020
Resident	4,159	4,176	4,194	4,211	4,229	4,247	4,264	4,282	4,300	4,318
Multi- Residential	7	7	7	7	8	8	8	8	8	8
Commercial	108	108	109	109	109	110	110	111	111	111
Industrial	0	0	0	0	0	0	0	0	0	0
Government	18	19	19	19	19	20	20	20	20	21
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	1	1	1	1	1	1	1	1	1	1
Total	4,293	4,311	4,329	4,348	4,366	4,385	4,403	4,422	4,441	4,460

Customer Type	Demand 2011 (ccf)	Demand 2012 (ccf)	Demand 2013 (ccf)	Demand 2014 (ccf)	Demand 2015 (ccf)	Demand 2016 (ccf)	Demand 2017 (ccf)	Demand 2018 (ccf)	Demand 2019 (ccf)	Demand 2020 (ccf)
Resident	390,225	391,886	393,554	395,230	396,913	398,605	400,304	402,011	403,725	405,448
Multi- Residential	5,520	5,594	5,668	5,744	5,820	5,898	5,976	6,056	6,137	6,218
Commercial	25,677	25,763	25,850	25,937	26,024	26,111	26,199	26,287	26,376	26,464
Industrial	0	0	0	0	0	0	0	0	0	0
Government	9,488	9,613	9,741	9,870	10,001	10,133	10,268	10,405	10,543	10,684
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	7,522	7,556	7,591	7,627	7,662	7,698	7,734	7,769	7,806	7,842
Total	438,432	440,413	442,404	444,407	446,420	448,445	450,481	452,528	454,587	456,657

Customer Type	Demand 2011 (AF)	Demand 2012 (AF)	Demand 2013 (AF)	Demand 2014 (AF)	Demand 2015 (AF)	Demand 2016 (AF)	Demand 2017 (AF)	Demand 2018 (AF)	Demand 2019 (AF)	Demand 2020 (AF)
Resident	896	900	903	907	911	915	919	923	927	931
Multi- Residential	13	13	13	13	13	14	14	14	14	14
Commercial	59	59	59	60	60	60	60	60	61	61
Industrial	0	0	0	0	0	0	0	0	0	0
Government	22	22	22	23	23	23	24	24	24	25
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	17	17	17	18	18	18	18	18	18	18
Total	1,007	1,011	1,016	1,020	1,025	1,029	1,034	1,039	1,044	1,048

California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections

2020's Projections

Scenario #1: Based on Maintaining Growth at the Low Average Annual Growth and Low Demand per Service for each Customer Class.
 High Average High

Customer Type	Projected Services 2021	Projected Services 2022	Projected Services 2023	Projected Services 2024	Projected Services 2025	Projected Services 2026	Projected Services 2027	Projected Services 2028	Projected Services 2029	Projected Services 2030
Resident	4,336	4,355	4,373	4,391	4,410	4,428	4,447	4,466	4,485	4,504
Multi- Residential	8	8	8	9	9	9	9	9	9	9
Commercial	112	112	113	113	114	114	114	115	115	116
Industrial	0	0	0	0	0	0	0	0	0	0
Government	21	21	22	22	22	22	23	23	23	24
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	1	1	1	1	1	1	1	1	1	1
Total	4,479	4,498	4,517	4,536	4,555	4,575	4,594	4,614	4,633	4,653

Customer Type	Demand 2021 (ccf)	Demand 2022 (ccf)	Demand 2023 (ccf)	Demand 2024 (ccf)	Demand 2025 (ccf)	Demand 2026 (ccf)	Demand 2027 (ccf)	Demand 2028 (ccf)	Demand 2029 (ccf)	Demand 2030 (ccf)
Resident	407,179	408,917	410,664	412,418	414,181	415,952	417,731	419,518	421,314	423,118
Multi- Residential	6,301	6,385	6,470	6,556	6,644	6,732	6,822	6,913	7,005	7,098
Commercial	26,553	26,643	26,732	26,823	26,913	27,004	27,095	27,186	27,278	27,370
Industrial	0	0	0	0	0	0	0	0	0	0
Government	10,827	10,972	11,119	11,268	11,420	11,573	11,729	11,887	12,048	12,210
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	7,878	7,915	7,952	7,989	8,026	8,064	8,101	8,139	8,177	8,215
Total	458,739	460,832	462,937	465,054	467,184	469,325	471,478	473,644	475,821	478,012

Customer Type	Demand 2021 (AF)	Demand 2022 (AF)	Demand 2023 (AF)	Demand 2024 (AF)	Demand 2025 (AF)	Demand 2026 (AF)	Demand 2027 (AF)	Demand 2028 (AF)	Demand 2029 (AF)	Demand 2030 (AF)
Resident	935	939	943	947	951	955	959	963	967	971
Multi- Residential	14	15	15	15	15	15	16	16	16	16
Commercial	61	61	61	62	62	62	62	62	63	63
Industrial	0	0	0	0	0	0	0	0	0	0
Government	25	25	26	26	26	27	27	27	28	28
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	18	18	18	18	18	19	19	19	19	19
Total	1,053	1,058	1,063	1,068	1,073	1,077	1,082	1,087	1,092	1,097

California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections

2030's Projections

Scenario #1: Based on Maintaining Growth at the

- Low
- High

Average Annual Growth and

- Low
- Average
- High

Demand per Service for each Customer Class.

Customer Type	Projected Services 2031	Projected Services 2032	Projected Services 2033	Projected Services 2034	Projected Services 2035	Projected Services 2036	Projected Services 2037	Projected Services 2038	Projected Services 2039	Projected Services 2040
Resident	4,523	4,542	4,561	4,580	4,599	4,619	4,638	4,658	4,678	4,697
Multi- Residential	9	9	10	10	10	10	10	10	10	11
Commercial	116	117	117	118	118	118	119	119	120	120
Industrial	0	0	0	0	0	0	0	0	0	0
Government	24	24	25	25	25	26	26	26	27	27
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	1	1	1	1	1	1	1	1	1	1
Total	4,673	4,693	4,713	4,733	4,754	4,774	4,794	4,815	4,836	4,856

Customer Type	Demand 2031 (ccf)	Demand 2032 (ccf)	Demand 2033 (ccf)	Demand 2034 (ccf)	Demand 2035 (ccf)	Demand 2036 (ccf)	Demand 2037 (ccf)	Demand 2038 (ccf)	Demand 2039 (ccf)	Demand 2040 (ccf)
Resident	424,930	426,750	428,579	430,417	432,263	434,117	435,980	437,852	439,733	441,622
Multi- Residential	7,193	7,288	7,385	7,484	7,583	7,685	7,787	7,891	7,996	8,102
Commercial	27,463	27,556	27,649	27,742	27,836	27,930	28,025	28,120	28,215	28,311
Industrial	0	0	0	0	0	0	0	0	0	0
Government	12,376	12,543	12,714	12,886	13,061	13,239	13,420	13,603	13,788	13,977
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	8,254	8,292	8,331	8,370	8,409	8,448	8,488	8,528	8,568	8,608
Total	480,214	482,430	484,658	486,899	489,153	491,420	493,700	495,993	498,300	500,620

Customer Type	Demand 2031 (AF)	Demand 2032 (AF)	Demand 2033 (AF)	Demand 2034 (AF)	Demand 2035 (AF)	Demand 2036 (AF)	Demand 2037 (AF)	Demand 2038 (AF)	Demand 2039 (AF)	Demand 2040 (AF)
Resident	976	980	984	988	992	997	1,001	1,005	1,009	1,014
Multi- Residential	17	17	17	17	17	18	18	18	18	19
Commercial	63	63	63	64	64	64	64	65	65	65
Industrial	0	0	0	0	0	0	0	0	0	0
Government	28	29	29	30	30	30	31	31	32	32
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	19	19	19	19	19	19	19	20	20	20
Total	1,102	1,108	1,113	1,118	1,123	1,128	1,133	1,139	1,144	1,149

**California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections**

2000's Projections

Scenario #2: Based on Maintaining Growth at the Selected Average Annual Growth and Average Demand per Service for each Customer Class.
 Alternative Low
 High

Summary of Historical Growth Rate from Worksheet 2			
Customer Type	10 Yr Avg. Historical Growth Rate	Estimated Growth Rate Selected	Notes
Single Family Residential	0.36%	0.42%	
Multi Family Residential	1.13%	1.33%	
Commercial	5.11%	0.38%	
Industrial			
Government	5.28%	1.31%	
Irrigation/Recreation			
Other			
Overall	0.42%	-0.72%	

Summary of Lowest Demand per Service from Worksheets 5 and 6										
Demand/Serv. Units	Multi-Residential						Total Reclaimed	Total Other	Unaccounted Total Serv.	Combined Demand/Serv.
	Residential	(service)	(unit)	Commercial	Industrial	Government				
Gal/Service/Yr	86,914	856,650	924,922	203,901	0	651,924	232,683	13,553	106,746	
AF/Service/Yr	0.267	2.629	2.838	0.626	0.000	2.001	0.714	0.042	0.328	
Gal/Service/Day	238	2,347	2,534	559	0	1,786	637	37	292	

California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections

30-year projection Summary

Scenario #2: Based on Maintaining Growth at the Selected Alternative Average Annual Growth and Low Average High Demand per Service for each Customer Class.

Customer Type	Projected Services 2010	Projected Services 2015	Projected Services 2020	Projected Services 2025	Projected Services 2030	Projected Services 2035	Projected Services 2040	Services projected to be added from 2010 - 2040
Single Family Residential	4,141	4,229	4,318	4,410	4,504	4,599	4,697	556
Multi Family Residential	7	8	8	9	9	10	11	3
Commercial	107	109	111	114	116	118	120	13
Industrial	0	0	0	0	0	0	0	0
Government	18	19	21	22	24	25	27	9
Irrigation/Recreation	0	0	0	0	0	0	0	0
Other	1	1	1	1	1	1	1	0
Total	4,275	3,133	3,193	3,254	3,316	3,380	3,445	-830

Customer Type	Projected Demand 2010 (ccf)	Projected Demand 2015 (ccf)	Projected Demand 2020 (ccf)	Projected Demand 2025 (ccf)	Projected Demand 2030 (ccf)	Projected Demand 2035 (ccf)	Projected Demand 2040 (ccf)	Projected demand to be added from 2010 - 2040 (ccf)
Single Family Residential	473,363	483,566	494,007	504,693	515,629	526,823	538,280	64,918
Multi Family Residential	8,463	9,042	9,660	10,321	11,027	11,781	12,587	4,124
Commercial	29,271	29,740	30,216	30,701	31,193	31,692	32,200	2,929
Industrial	0	0	0	0	0	0	0	0
Government	11,302	12,192	13,151	14,187	15,306	16,512	17,815	6,513
Irrigation/Recreation	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Unaccounted	96,747	98,895	101,098	103,355	105,670	108,043	110,476	13,730
Total	426,076	435,086	444,357	453,902	463,732	473,862	484,304	58,228

Customer Type	Projected Demand 2010 (AF)	Projected Demand 2015 (AF)	Projected Demand 2020 (AF)	Projected Demand 2025 (AF)	Projected Demand 2030 (AF)	Projected Demand 2035 (AF)	Projected Demand 2040 (AF)	Projected demand to be added from 2010 - 2040 (AF)
Single Family Residential	1,087	1,110	1,134	1,159	1,184	1,209	1,236	149
Multi Family Residential	19	21	22	24	25	27	29	9
Commercial	67	68	69	70	72	73	74	7
Industrial	0	0	0	0	0	0	0	0
Government	26	28	30	33	35	38	41	15
Irrigation/Recreation	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Unaccounted	222	227	232	237	243	248	254	32
Total	1,421	1,454	1,488	1,523	1,558	1,595	1,633	212

California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections

2000's Projections

Scenario #2: Based on Maintaining Growth at the Selected Average Annual Growth and Average Demand per Service for each Customer Class.
 Alternative Low High

Customer Type	Actual Services 2001	Actual Services 2002	Actual Services 2003	Actual Services 2004	Actual Services 2005	Actual Services 2005	Actual Services 2005	Actual Services 2005	Actual Services 2005	Projected Services 2010
Resident	4,014	4,028	3,997	4,062	4,113	4,138	4,161	4,178	4,124	4,141
Multi- Residential	8	8	5	6	5	5	6	5	7	7
Commercial	72	77	108	111	109	109	113	108	107	107
Industrial	0	0	0	0	0	0	0	0	0	0
Government	12	12	17	17	17	17	18	18	18	18
Irrigation/Recreation	9	9	0	0	0	0	0	0	0	0
Other	2	4	1	1	1	1	1	1	1	1
Total	4,118	4,138	4,128	4,197	4,245	4,270	4,299	4,310	4,257	4,275

Customer Type	Demand 2001(ccf)	Demand 2002(ccf)	Demand 2003(ccf)	Demand 2004(ccf)	Demand 2005(ccf)	Demand 2006(ccf)	Demand 2007(ccf)	Demand 2008(ccf)	Demand 2009(ccf)	Demand 2010(ccf)
Resident	457,086	458,428	454,665	462,350	468,657	471,740	474,961	477,003	471,350	473,363
Multi- Residential	8,352	8,352	5,966	7,159	5,966	5,966	7,159	5,966	8,352	8,463
Commercial	21,873	23,108	29,783	30,690	30,085	30,085	30,992	29,480	29,178	29,271
Industrial	0	0	0	0	0	0	0	0	0	0
Government	7,977	7,977	10,343	10,343	10,343	10,343	11,132	11,132	11,132	11,302
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	93,325	93,711	93,429	95,040	96,229	97,032	97,397	97,676	96,323	96,747
Total	409,864	413,255	416,650	423,260	424,404	425,243	427,764	426,136	424,304	426,076

Customer Type	Demand 2001(AF)	Demand 2002(AF)	Demand 2003(AF)	Demand 2004(AF)	Demand 2005(AF)	Demand 2006(AF)	Demand 2007(AF)	Demand 2008(AF)	Demand 2009(AF)	Demand 2010(AF)
Resident	1,049	1,052	1,044	1,061	1,076	1,083	1,090	1,095	1,082	1,087
Multi- Residential	19	19	14	16	14	14	16	14	19	19
Commercial	50	53	68	70	69	69	71	68	67	67
Industrial	0	0	0	0	0	0	0	0	0	0
Government	18	18	24	24	24	24	26	26	26	26
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	214	215	214	218	221	223	224	224	221	222
Total	1,351	1,358	1,364	1,390	1,403	1,412	1,427	1,426	1,415	1,421

California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections

2010's Projections

Scenario #2: Based on Maintaining Growth at the Selected Average Annual Growth and Average Demand per Service for each Customer Class.
 Alternative Low High

Customer Type	Projected Services 2011	Projected Services 2012	Projected Services 2013	Projected Services 2014	Projected Services 2015	Projected Services 2016	Projected Services 2017	Projected Services 2018	Projected Services 2019	Projected Services 2020
Resident	4,159	4,176	4,194	4,211	4,229	4,247	4,264	4,282	4,300	4,318
Multi- Residential	7	7	7	7	8	8	8	8	8	8
Commercial	108	108	109	109	109	110	110	111	111	111
Industrial	0	0	0	0	0	0	0	0	0	0
Government	18	19	19	19	19	20	20	20	20	21
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	1	1	1	1	1	1	1	1	1	1
Total	3,086	3,098	3,109	3,121	3,133	3,145	3,157	3,169	3,181	3,193

Customer Type	Demand 2011 (ccf)	Demand 2012 (ccf)	Demand 2013 (ccf)	Demand 2014 (ccf)	Demand 2015 (ccf)	Demand 2016 (ccf)	Demand 2017 (ccf)	Demand 2018 (ccf)	Demand 2019 (ccf)	Demand 2020 (ccf)
Resident	475,385	477,416	479,456	481,506	483,566	485,635	487,713	489,801	491,899	494,007
Multi- Residential	8,576	8,690	8,806	8,923	9,042	9,162	9,284	9,408	9,533	9,660
Commercial	29,364	29,458	29,551	29,646	29,740	29,835	29,930	30,025	30,121	30,216
Industrial	0	0	0	0	0	0	0	0	0	0
Government	11,475	11,650	11,828	12,008	12,192	12,378	12,567	12,759	12,954	13,151
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	97,172	97,600	98,029	98,461	98,895	99,331	99,770	100,210	100,653	101,098
Total	427,857	429,649	431,451	433,263	435,086	436,919	438,762	440,617	442,481	444,357

Customer Type	Demand 2011 (AF)	Demand 2012 (AF)	Demand 2013 (AF)	Demand 2014 (AF)	Demand 2015 (AF)	Demand 2016 (AF)	Demand 2017 (AF)	Demand 2018 (AF)	Demand 2019 (AF)	Demand 2020 (AF)
Resident	1,091	1,096	1,101	1,105	1,110	1,115	1,120	1,124	1,129	1,134
Multi- Residential	20	20	20	20	21	21	21	22	22	22
Commercial	67	68	68	68	68	68	69	69	69	69
Industrial	0	0	0	0	0	0	0	0	0	0
Government	26	27	27	28	28	28	29	29	30	30
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	223	224	225	226	227	228	229	230	231	232
Total	1,428	1,434	1,441	1,448	1,454	1,461	1,468	1,474	1,481	1,488

California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections

2020's Projections

Scenario #2: Based on Maintaining Growth at the Selected Average Annual Growth and Average Demand per Service for each Customer Class.
 Alternative Low High

Customer Type	Projected Services 2021	Projected Services 2022	Projected Services 2023	Projected Services 2024	Projected Services 2025	Projected Services 2026	Projected Services 2027	Projected Services 2028	Projected Services 2029	Projected Services 2030
Resident	4,336	4,355	4,373	4,391	4,410	4,428	4,447	4,466	4,485	4,504
Multi- Residential	8	8	8	9	9	9	9	9	9	9
Commercial	112	112	113	113	114	114	114	115	115	116
Industrial	0	0	0	0	0	0	0	0	0	0
Government	21	21	22	22	22	22	23	23	23	24
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	1	1	1	1	1	1	1	1	1	1
Total	3,205	3,217	3,229	3,242	3,254	3,266	3,279	3,291	3,304	3,316

Customer Type	Demand 2021 (ccf)	Demand 2022 (ccf)	Demand 2023 (ccf)	Demand 2024 (ccf)	Demand 2025 (ccf)	Demand 2026 (ccf)	Demand 2027 (ccf)	Demand 2028 (ccf)	Demand 2029 (ccf)	Demand 2030 (ccf)
Resident	496,124	498,252	500,389	502,536	504,693	506,860	509,037	511,224	513,422	515,629
Multi- Residential	9,789	9,919	10,051	10,185	10,321	10,459	10,598	10,739	10,882	11,027
Commercial	30,313	30,409	30,506	30,603	30,701	30,798	30,896	30,995	31,094	31,193
Industrial	0	0	0	0	0	0	0	0	0	0
Government	13,352	13,556	13,764	13,974	14,187	14,404	14,625	14,848	15,075	15,306
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	101,545	101,994	102,446	102,899	103,355	103,814	104,274	104,737	105,202	105,670
Total	446,244	448,142	450,050	451,971	453,902	455,845	457,799	459,765	461,743	463,732

Customer Type	Demand 2021 (AF)	Demand 2022 (AF)	Demand 2023 (AF)	Demand 2024 (AF)	Demand 2025 (AF)	Demand 2026 (AF)	Demand 2027 (AF)	Demand 2028 (AF)	Demand 2029 (AF)	Demand 2030 (AF)
Resident	1,139	1,144	1,149	1,154	1,159	1,164	1,169	1,174	1,179	1,184
Multi- Residential	22	23	23	23	24	24	24	25	25	25
Commercial	70	70	70	70	70	71	71	71	71	72
Industrial	0	0	0	0	0	0	0	0	0	0
Government	31	31	32	32	33	33	34	34	35	35
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	233	234	235	236	237	238	239	240	242	243
Total	1,495	1,502	1,509	1,516	1,523	1,530	1,537	1,544	1,551	1,558

California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections

2030's Projections

Scenario #2: Based on Maintaining Growth at the Low Average Annual Growth and Average Demand per Service for each Customer Class.
 High High

Customer Type	Projected Services 2031	Projected Services 2032	Projected Services 2033	Projected Services 2034	Projected Services 2035	Projected Services 2036	Projected Services 2037	Projected Services 2038	Projected Services 2039	Projected Services 2040
Resident	4,523	4,542	4,561	4,580	4,599	4,619	4,638	4,658	4,678	4,697
Multi- Residential	9	9	10	10	10	10	10	10	10	11
Commercial	116	117	117	118	118	118	119	119	120	120
Industrial	0	0	0	0	0	0	0	0	0	0
Government	24	24	25	25	25	26	26	26	27	27
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	1	1	1	1	1	1	1	1	1	1
Total	3,329	3,342	3,354	3,367	3,380	3,393	3,406	3,419	3,432	3,445

Customer Type	Demand 2031 (ccf)	Demand 2032 (ccf)	Demand 2033 (ccf)	Demand 2034 (ccf)	Demand 2035 (ccf)	Demand 2036 (ccf)	Demand 2037 (ccf)	Demand 2038 (ccf)	Demand 2039 (ccf)	Demand 2040 (ccf)
Resident	517,847	520,076	522,314	524,563	526,823	529,093	531,374	533,665	535,967	538,280
Multi- Residential	11,174	11,323	11,474	11,626	11,781	11,938	12,097	12,258	12,422	12,587
Commercial	31,292	31,392	31,492	31,592	31,692	31,793	31,895	31,996	32,098	32,200
Industrial	0	0	0	0	0	0	0	0	0	0
Government	15,540	15,777	16,019	16,264	16,512	16,765	17,022	17,282	17,547	17,815
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	106,140	106,612	107,087	107,564	108,043	108,525	109,009	109,496	109,985	110,476
Total	465,734	467,747	469,773	471,811	473,862	475,925	478,000	480,088	482,190	484,304

Customer Type	Demand 2031 (AF)	Demand 2032 (AF)	Demand 2033 (AF)	Demand 2034 (AF)	Demand 2035 (AF)	Demand 2036 (AF)	Demand 2037 (AF)	Demand 2038 (AF)	Demand 2039 (AF)	Demand 2040 (AF)
Resident	1,189	1,194	1,199	1,204	1,209	1,215	1,220	1,225	1,230	1,236
Multi- Residential	26	26	26	27	27	27	28	28	29	29
Commercial	72	72	72	73	73	73	73	73	74	74
Industrial	0	0	0	0	0	0	0	0	0	0
Government	36	36	37	37	38	38	39	40	40	41
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	244	245	246	247	248	249	250	251	252	254
Total	1,566	1,573	1,580	1,588	1,595	1,603	1,610	1,618	1,625	1,633

California Water Service Company - Kern River Valley District

Water Supply and Demand Analysis and Projections

Worksheet 12

2000's Projections

Scenario #3: Based on Maintaining Growth at the

- Selected
 Alternative

Average Annual Growth and

- Low
 Average
 High

Demand per Service for each Customer Class.

Summary of Historical Growth Rate from Worksheet 2			
Customer Type	10 Yr Avg. Historical Growth Rate	Estimated Growth Rate Selected	Notes
Single Family Residential	0.36%	0.42%	
Multi Family Residential	1.13%	1.33%	
Commercial	5.11%	0.38%	
Industrial			
Government	5.28%	1.31%	
Irrigation/Recreation			
Other	0.00%		
Overall	0.42%	-0.72%	

Summary of Lowest Demand per Service from Worksheets 5 and 6										
Demand/Serv. Units	Multi-Residential						Total Reclaimed	Total Other	Unaccounted Total Serv.	Combined Demand/Serv.
	Residential	(service)	(unit)	Commercial	Industrial	Government				
Gal/Service/Yr	99,341	1,177,883	1,055,633	236,197	0	1,023,834	638,850	1,246,816	21,814	123,701
AF/Service/Yr	0.305	3.615	3.240	0.725	0.000	3.142	1.961	3.826	0.067	0.380
Gal/Service/Day	272	3,227	2,892	647	0	2,805	1,750	3,416	60	339

California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections

30-year projection Summary

Scenario #3: Based on Maintaining Growth at the Low High Average Annual Growth and Low Average High Demand per Service for each Customer Class.

Customer Type	Projected Services 2010	Projected Services 2015	Projected Services 2020	Projected Services 2025	Projected Services 2030	Projected Services 2035	Projected Services 2040	Services projected to be added from 2010 - 2040
Single Family Residential	4,141	4,229	4,318	4,410	4,504	4,599	4,697	556
Multi Family Residential	7	8	8	9	9	10	11	3
Commercial	107	109	111	114	116	118	120	13
Industrial	0	0	0	0	0	0	0	0
Government	18	19	21	22	24	25	27	9
Irrigation/Recreation	0	0	0	0	0	0	0	0
Other	1	1	1	1	1	1	1	0
Total	4,275	3,133	3,193	3,254	3,316	3,380	3,445	-830

Customer Type	Projected Demand 2010 (ccf)	Projected Demand 2015 (ccf)	Projected Demand 2020 (ccf)	Projected Demand 2025 (ccf)	Projected Demand 2030 (ccf)	Projected Demand 2035 (ccf)	Projected Demand 2040 (ccf)	Projected demand to be added from 2010 - 2040 (ccf)
Single Family Residential	598,362	611,305	624,551	638,109	651,987	666,192	680,733	82,371
Multi Family Residential	11,108	11,868	12,679	13,547	14,473	15,463	16,521	5,413
Commercial	33,141	33,672	34,212	34,760	35,317	35,883	36,458	3,317
Industrial	0	0	0	0	0	0	0	0
Government	26,349	28,078	29,931	31,919	34,051	36,338	38,793	12,444
Irrigation/Recreation	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Unaccounted	189,998	194,181	198,468	202,862	207,367	211,984	216,719	26,721
Total	593,893	606,687	619,864	633,442	647,440	661,877	676,775	82,882

Customer Type	Projected Demand 2010 (AF)	Projected Demand 2015 (AF)	Projected Demand 2020 (AF)	Projected Demand 2025 (AF)	Projected Demand 2030 (AF)	Projected Demand 2035 (AF)	Projected Demand 2040 (AF)	Projected demand to be added from 2010 - 2040 (AF)
Single Family Residential	1,374	1,403	1,434	1,465	1,497	1,529	1,563	189
Multi Family Residential	26	27	29	31	33	35	38	12
Commercial	76	77	79	80	81	82	84	8
Industrial	0	0	0	0	0	0	0	0
Government	60	64	69	73	78	83	89	29
Irrigation/Recreation	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Unaccounted	436	446	456	466	476	487	498	61
Total	1,972	2,018	2,066	2,115	2,165	2,217	2,271	299

California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections

2000's Projections

Scenario #3: Based on Maintaining Growth at the

- Low
- High

Average Annual Growth and

- Low
- Average
- High

Demand per Service for each Customer Class.

Customer Type	Actual Services 2001	Actual Services 2002	Actual Services 2003	Actual Services 2004	Actual Services 2005	Actual Services 2005	Actual Services 2005	Actual Services 2005	Actual Services 2005	Actual Services 2005	Projected Services 2010
Resident	4,014	4,028	3,997	4,062	4,113	4,138	4,161	4,178	4,124	4,124	4,141
Multi- Residential	8	8	5	6	5	5	6	5	7	7	7
Commercial	72	77	108	111	109	109	113	108	107	107	107
Industrial	0	0	0	0	0	0	0	0	0	0	0
Government	12	12	17	17	17	17	18	18	18	18	18
Irrigation/Recreation	9	9	0	0	0	0	0	0	0	0	0
Other	2	4	1	1	1	1	1	1	1	1	1
Total	4,118	4,138	4,128	4,197	4,245	4,270	4,299	4,310	4,257	4,257	4,275

Customer Type	Demand 2001(ccf)	Demand 2002(ccf)	Demand 2003(ccf)	Demand 2004(ccf)	Demand 2005(ccf)	Demand 2006(ccf)	Demand 2007(ccf)	Demand 2008(ccf)	Demand 2009(ccf)	Demand 2010(ccf)
Resident	578,141	579,845	575,013	584,677	592,610	596,200	600,390	603,142	595,809	598,362
Multi- Residential	10,962	10,962	7,830	9,396	7,830	7,830	9,396	7,830	10,962	11,108
Commercial	24,765	26,163	33,721	34,748	34,063	34,063	35,090	33,378	33,036	33,141
Industrial	0	0	0	0	0	0	0	0	0	0
Government	16,912	16,912	24,736	24,736	24,736	24,736	26,017	26,017	26,017	26,349
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	183,717	184,490	183,938	187,027	189,280	190,802	191,465	191,929	189,173	189,998
Total	572,239	576,709	580,678	589,724	591,587	592,676	596,234	594,562	591,379	593,893

Customer Type	Demand 2001(AF)	Demand 2002(AF)	Demand 2003(AF)	Demand 2004(AF)	Demand 2005(AF)	Demand 2006(AF)	Demand 2007(AF)	Demand 2008(AF)	Demand 2009(AF)	Demand 2010(AF)
Resident	1,327	1,331	1,320	1,342	1,360	1,369	1,378	1,385	1,368	1,374
Multi- Residential	25	25	18	22	18	18	22	18	25	26
Commercial	57	60	77	80	78	78	81	77	76	76
Industrial	0	0	0	0	0	0	0	0	0	0
Government	39	39	57	57	57	57	60	60	60	60
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	422	424	422	429	435	438	440	441	434	436
Total	1,870	1,879	1,894	1,930	1,948	1,960	1,980	1,980	1,963	1,972

California Water Service Company - Kern River Valley District

Water Supply and Demand Analysis and Projections

Worksheet 12

2010's Projections

Scenario #3: Based on Maintaining Growth at the

 Low
 High

Average Annual Growth and

 Low
 Average
 High

Demand per Service for each Customer Class.

Customer Type	Projected Services 2011	Projected Services 2012	Projected Services 2013	Projected Services 2014	Projected Services 2015	Projected Services 2016	Projected Services 2017	Projected Services 2018	Projected Services 2019	Projected Services 2020
Resident	4,159	4,176	4,194	4,211	4,229	4,247	4,264	4,282	4,300	4,318
Multi- Residential	7	7	7	7	8	8	8	8	8	8
Commercial	108	108	109	109	109	110	110	111	111	111
Industrial	0	0	0	0	0	0	0	0	0	0
Government	18	19	19	19	19	20	20	20	20	21
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	1	1	1	1	1	1	1	1	1	1
Total	3,086	3,098	3,109	3,121	3,133	3,145	3,157	3,169	3,181	3,193

Customer Type	Demand 2011 (ccf)	Demand 2012 (ccf)	Demand 2013 (ccf)	Demand 2014 (ccf)	Demand 2015 (ccf)	Demand 2016 (ccf)	Demand 2017 (ccf)	Demand 2018 (ccf)	Demand 2019 (ccf)	Demand 2020 (ccf)
Resident	600,927	603,503	606,092	608,692	611,305	613,929	616,566	619,216	621,877	624,551
Multi- Residential	11,256	11,406	11,558	11,712	11,868	12,026	12,186	12,348	12,513	12,679
Commercial	33,247	33,353	33,459	33,565	33,672	33,779	33,887	33,995	34,103	34,212
Industrial	0	0	0	0	0	0	0	0	0	0
Government	26,685	27,026	27,372	27,722	28,078	28,438	28,804	29,174	29,550	29,931
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	190,826	191,659	192,495	193,336	194,181	195,030	195,883	196,740	197,602	198,468
Total	596,422	598,966	601,524	604,098	606,687	609,291	611,911	614,546	617,197	619,864

Customer Type	Demand 2011 (AF)	Demand 2012 (AF)	Demand 2013 (AF)	Demand 2014 (AF)	Demand 2015 (AF)	Demand 2016 (AF)	Demand 2017 (AF)	Demand 2018 (AF)	Demand 2019 (AF)	Demand 2020 (AF)
Resident	1,380	1,385	1,391	1,397	1,403	1,409	1,415	1,422	1,428	1,434
Multi- Residential	26	26	27	27	27	28	28	28	29	29
Commercial	76	77	77	77	77	78	78	78	78	79
Industrial	0	0	0	0	0	0	0	0	0	0
Government	61	62	63	64	64	65	66	67	68	69
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	438	440	442	444	446	448	450	452	454	456
Total	1,981	1,990	1,999	2,009	2,018	2,028	2,037	2,047	2,056	2,066

California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections

2020's Projections

Scenario #3: Based on Maintaining Growth at the

- Low
- High

Average Annual Growth and

- Low
- Average
- High

Demand per Service for each Customer Class.

Customer Type	Projected Services 2021	Projected Services 2022	Projected Services 2023	Projected Services 2024	Projected Services 2025	Projected Services 2026	Projected Services 2027	Projected Services 2028	Projected Services 2029	Projected Services 2030
Resident	4,336	4,355	4,373	4,391	4,410	4,428	4,447	4,466	4,485	4,504
Multi- Residential	8	8	8	9	9	9	9	9	9	9
Commercial	112	112	113	113	114	114	114	115	115	116 #
Industrial	0	0	0	0	0	0	0	0	0	0
Government	21	21	22	22	22	22	23	23	23	24
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	1	1	1	1	1	1	1	1	1	1
Total	3,205	3,217	3,229	3,242	3,254	3,266	3,279	3,291	3,304	3,316

Customer Type	Demand 2021 (ccf)	Demand 2022 (ccf)	Demand 2023 (ccf)	Demand 2024 (ccf)	Demand 2025 (ccf)	Demand 2026 (ccf)	Demand 2027 (ccf)	Demand 2028 (ccf)	Demand 2029 (ccf)	Demand 2030 (ccf)
Resident	627,237	629,936	632,648	635,372	638,109	640,859	643,621	646,397	649,185	651,987
Multi- Residential	12,848	13,019	13,193	13,369	13,547	13,727	13,910	14,095	14,283	14,473
Commercial	34,321	34,430	34,539	34,649	34,760	34,871	34,982	35,093	35,205	35,317
Industrial	0	0	0	0	0	0	0	0	0	0
Government	30,318	30,710	31,107	31,510	31,919	32,334	32,754	33,180	33,613	34,051
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	199,338	200,213	201,091	201,975	202,862	203,754	204,651	205,551	206,457	207,367
Total	622,547	625,246	627,962	630,694	633,442	636,208	638,990	641,789	644,606	647,440

Customer Type	Demand 2021 (AF)	Demand 2022 (AF)	Demand 2023 (AF)	Demand 2024 (AF)	Demand 2025 (AF)	Demand 2026 (AF)	Demand 2027 (AF)	Demand 2028 (AF)	Demand 2029 (AF)	Demand 2030 (AF)
Resident	1,440	1,446	1,452	1,459	1,465	1,471	1,478	1,484	1,490	1,497
Multi- Residential	29	30	30	31	31	32	32	32	33	33
Commercial	79	79	79	80	80	80	80	81	81	81
Industrial	0	0	0	0	0	0	0	0	0	0
Government	70	71	71	72	73	74	75	76	77	78
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	458	460	462	464	466	468	470	472	474	476
Total	2,075	2,085	2,095	2,105	2,115	2,125	2,135	2,145	2,155	2,165

California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections

2030's Projections

Scenario #3: Based on Maintaining Growth at the

- Low
- High

Average Annual Growth and

- Low
- Average
- High

Demand per Service for each Customer Class.

Customer Type	Projected Services 2031	Projected Services 2032	Projected Services 2033	Projected Services 2034	Projected Services 2035	Projected Services 2036	Projected Services 2037	Projected Services 2038	Projected Services 2039	Projected Services 2040
Resident	4,523	4,542	4,561	4,580	4,599	4,619	4,638	4,658	4,678	4,697
Multi- Residential	9	9	10	10	10	10	10	10	10	11
Commercial	116	117	117	118	118	118	119	119	120	120
Industrial	0	0	0	0	0	0	0	0	0	0
Government	24	24	25	25	25	26	26	26	27	27
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	1	1	1	1	1	1	1	1	1	1
Total	3,329	3,342	3,354	3,367	3,380	3,393	3,406	3,419	3,432	3,445

Customer Type	Demand 2031 (ccf)	Demand 2032 (ccf)	Demand 2033 (ccf)	Demand 2034 (ccf)	Demand 2035 (ccf)	Demand 2036 (ccf)	Demand 2037 (ccf)	Demand 2038 (ccf)	Demand 2039 (ccf)	Demand 2040 (ccf)
Resident	654,801	657,629	660,470	663,324	666,192	669,073	671,968	674,876	677,798	680,733
Multi- Residential	14,666	14,861	15,059	15,260	15,463	15,669	15,878	16,089	16,304	16,521
Commercial	35,429	35,542	35,655	35,769	35,883	35,997	36,112	36,227	36,342	36,458
Industrial	0	0	0	0	0	0	0	0	0	0
Government	34,496	34,947	35,404	35,868	36,338	36,815	37,299	37,790	38,288	38,793
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	208,281	209,200	210,123	211,052	211,984	212,922	213,864	214,811	215,763	216,719
Total	650,291	653,161	656,048	658,953	661,877	664,819	667,780	670,759	673,757	676,775

Customer Type	Demand 2031 (AF)	Demand 2032 (AF)	Demand 2033 (AF)	Demand 2034 (AF)	Demand 2035 (AF)	Demand 2036 (AF)	Demand 2037 (AF)	Demand 2038 (AF)	Demand 2039 (AF)	Demand 2040 (AF)
Resident	1,503	1,510	1,516	1,523	1,529	1,536	1,543	1,549	1,556	1,563
Multi- Residential	34	34	35	35	35	36	36	37	37	38
Commercial	81	82	82	82	82	83	83	83	83	84
Industrial	0	0	0	0	0	0	0	0	0	0
Government	79	80	81	82	83	85	86	87	88	89
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Unaccounted	478	480	482	485	487	489	491	493	495	498
Total	2,176	2,186	2,196	2,207	2,217	2,228	2,239	2,249	2,260	2,271

California Water Service Company -Kern River Valley District
Water Supply and Demand Analysis and Projections

Worksheet 13

2000's Projections

Scenario #4: Based on Maintaining Growth at the Selected Average Annual Growth
 Alternative

Summary of Historical Growth Rate from Worksheet 2			
Customer Type	5 Yr Avg. Historical Growth Rate	Estimated Growth Rate Selected	Notes
Single Family Residential	0.31%	0.68%	
Multi Family Residential	5.33%	0.52%	
Commercial	-0.70%	0.73%	
Industrial	0.00%		
Government	1.18%	0.45%	
Irrigation/Recreation	0.00%		
Other	0.00%		
Overall	0.29%	0.68%	

California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections

Worksheet 13

30-year projection Summary

Scenario #4: Based on Maintaining Growth at the Selected Average Annual Growth
 Alternative

Customer Type	Projected Services 2010	Projected Services 2015	Projected Services 2020	Projected Services 2025	Projected Services 2030	Projected Services 2035	Projected Services 2040	Services projected to be added from 2010 - 2040
Single Family Residential	4,124	4,262	4,407	4,558	4,717	4,882	5,056	932
Multi Family Residential	7	7	7	8	8	8	8	1
Commercial	107	111	115	119	124	129	134	26
Industrial	0	0	0	0	0	0	0	0
Government	18	18	19	19	20	20	21	3
Irrigation/Recreation	0	0	0	0	0	0	0	0
Other	1	1	1	1	1	1	1	0
Total	4,258	4,400	4,550	4,706	4,869	5,040	5,219	962

California Water Service Company - Kern River Valley District

Water Supply and Demand Analysis and Projections

Worksheet 13

2000's Projections

Scenario #4: Based on Maintaining Growth at the Selected Average Annual Growth
 Alternative

Customer Type	Actual Services 2001	Actual Services 2002	Actual Services 2003	Actual Services 2004	Actual Services 2005	Actual Services 2005	Actual Services 2005	Actual Services 2005	Actual Services 2005	Actual Services 2005	Projected Services 2010
Resident	4,014	4,028	3,997	4,062	4,113	4,138	4,161	4,178	4,124	4,124	4,124
Multi- Residential	8	8	5	6	5	5	6	5	7	7	7
Commercial	72	77	108	111	109	109	113	108	107	107	107
Industrial	0	0	0	0	0	0	0	0	0	0	0
Government	12	12	17	17	17	17	18	18	18	18	18
Irrigation/Recreation	9	9	0	0	0	0	0	0	0	0	0
Other	2	4	1	1	1	1	1	1	1	1	1
Total	4,118	4,138	4,128	4,197	4,245	4,270	4,299	4,310	4,257	4,258	4,258

2010's Projections

Customer Type	Projected Services 2011	Projected Services 2012	Projected Services 2013	Projected Services 2014	Projected Services 2015	Projected Services 2016	Projected Services 2017	Projected Services 2018	Projected Services 2019	Projected Services 2020
Resident	4,151	4,179	4,206	4,234	4,262	4,291	4,320	4,348	4,378	4,407
Multi- Residential	7	7	7	7	7	7	7	7	7	7
Commercial	108	109	110	110	111	112	113	114	114	115
Industrial	0	0	0	0	0	0	0	0	0	0
Government	18	18	18	18	18	18	19	19	19	19
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	1	1	1	1	1	1	1	1	1	1
Total	4,286	4,314	4,342	4,371	4,400	4,430	4,459	4,489	4,519	4,550

California Water Service Company - Kern River Valley District

Water Supply and Demand Analysis and Projections

Worksheet 13

2020's Projections

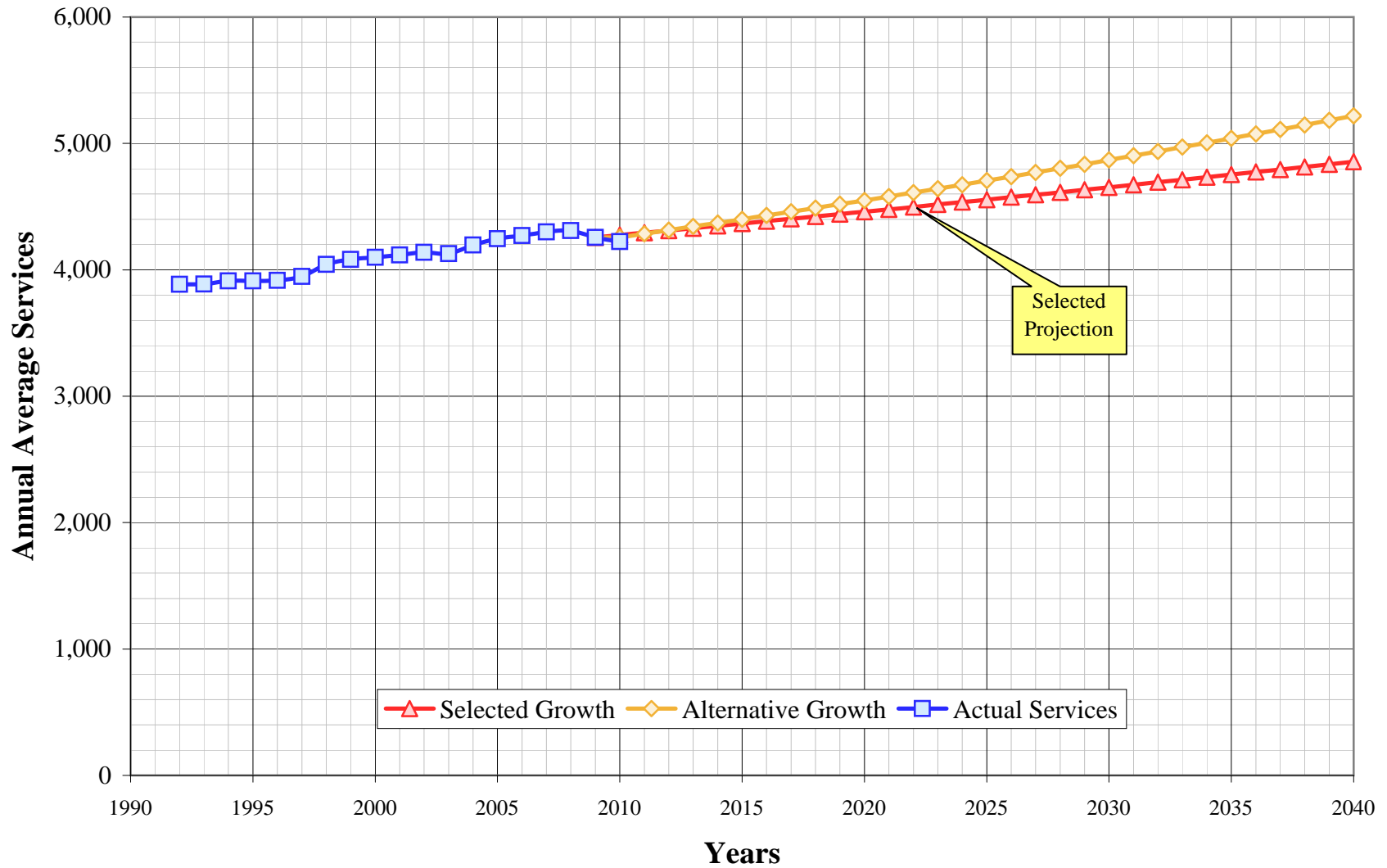
Scenario #4: Based on Maintaining Growth at the Selected Average Annual Growth
 Alternative

Customer Type	Projected Services 2021	Projected Services 2022	Projected Services 2023	Projected Services 2024	Projected Services 2025	Projected Services 2026	Projected Services 2027	Projected Services 2028	Projected Services 2029	Projected Services 2030
Resident	4,437	4,467	4,497	4,528	4,558	4,590	4,621	4,653	4,684	4,717
Multi- Residential	7	7	8	8	8	8	8	8	8	8
Commercial	116	117	118	118	119	120	121	122	123	124
Industrial	0	0	0	0	0	0	0	0	0	0
Government	19	19	19	19	19	19	19	20	20	20
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	1	1	1	1	1	1	1	1	1	1
Total	4,580	4,611	4,642	4,674	4,706	4,738	4,770	4,803	4,836	4,869

2030's Projections

Customer Type	Projected Services 2031	Projected Services 2032	Projected Services 2033	Projected Services 2034	Projected Services 2035	Projected Services 2036	Projected Services 2037	Projected Services 2038	Projected Services 2039	Projected Services 2040
Resident	4,749	4,782	4,815	4,849	4,882	4,916	4,951	4,985	5,020	5,056
Multi- Residential	8	8	8	8	8	8	8	8	8	8
Commercial	125	126	127	128	129	130	131	132	133	134
Industrial	0	0	0	0	0	0	0	0	0	0
Government	20	20	20	20	20	20	20	20	20	21
Irrigation/Recreation	0	0	0	0	0	0	0	0	0	0
Other	1	1	1	1	1	1	1	1	1	1
Total	4,903	4,937	4,971	5,005	5,040	5,075	5,111	5,147	5,183	5,219

Kern River Valley District Historical & Projected Services

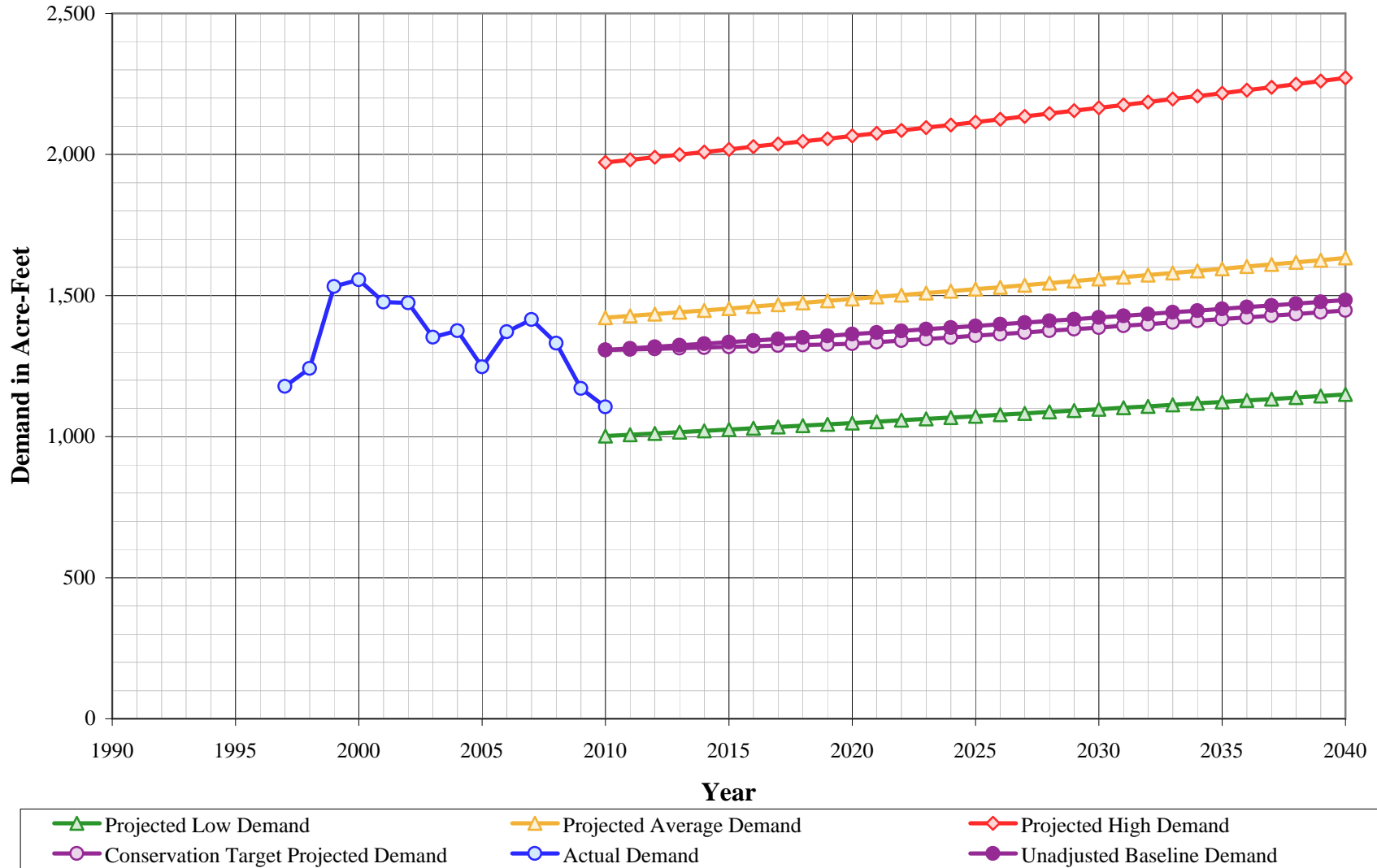


California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections
Projected Annual Average Services

Year	Actual Services	Projected Services	
		Selected Growth	Alternative Growth
1990			
1991			
1992	3,885		
1993	3,888		
1994	3,912		
1995	3,913		
1996	3,917		
1997	3,948		
1998	4,042		
1999	4,083		
2000	4,099		
2001	4,118		
2002	4,138		
2003	4,128		
2004	4,197		
2005	4,245		
2006	4,270		
2007	4,299		
2008	4,310		
2009	4,257	4,257	4,257
2010	4,223	4,275	4,258
2011		4,293	4,286
2012		4,311	4,314
2013		4,329	4,342
2014		4,348	4,371
2015		4,366	4,400

Year	Actual Services	Projected Services	
		Selected Growth	Alternative Growth
2016		4385	4430
2017		4,403	4,459
2018		4,422	4,489
2019		4,441	4,519
2020		4,460	4,550
2021		4,479	4,580
2022		4,498	4,611
2023		4,517	4,642
2024		4,536	4,674
2025		4,555	4,706
2026		4,575	4,738
2027		4,594	4,770
2028		4,614	4,803
2029		4,633	4,836
2030		4,653	4,869
2031		4,673	4,903
2032		4,693	4,937
2033		4,713	4,971
2034		4,733	5,005
2035		4,754	5,040
2036		4,774	5,075
2037		4,794	5,111
2038		4,815	5,147
2039		4,836	5,183
2040		4,856	5,219

Kern River Valley District Historical & Projected Demand



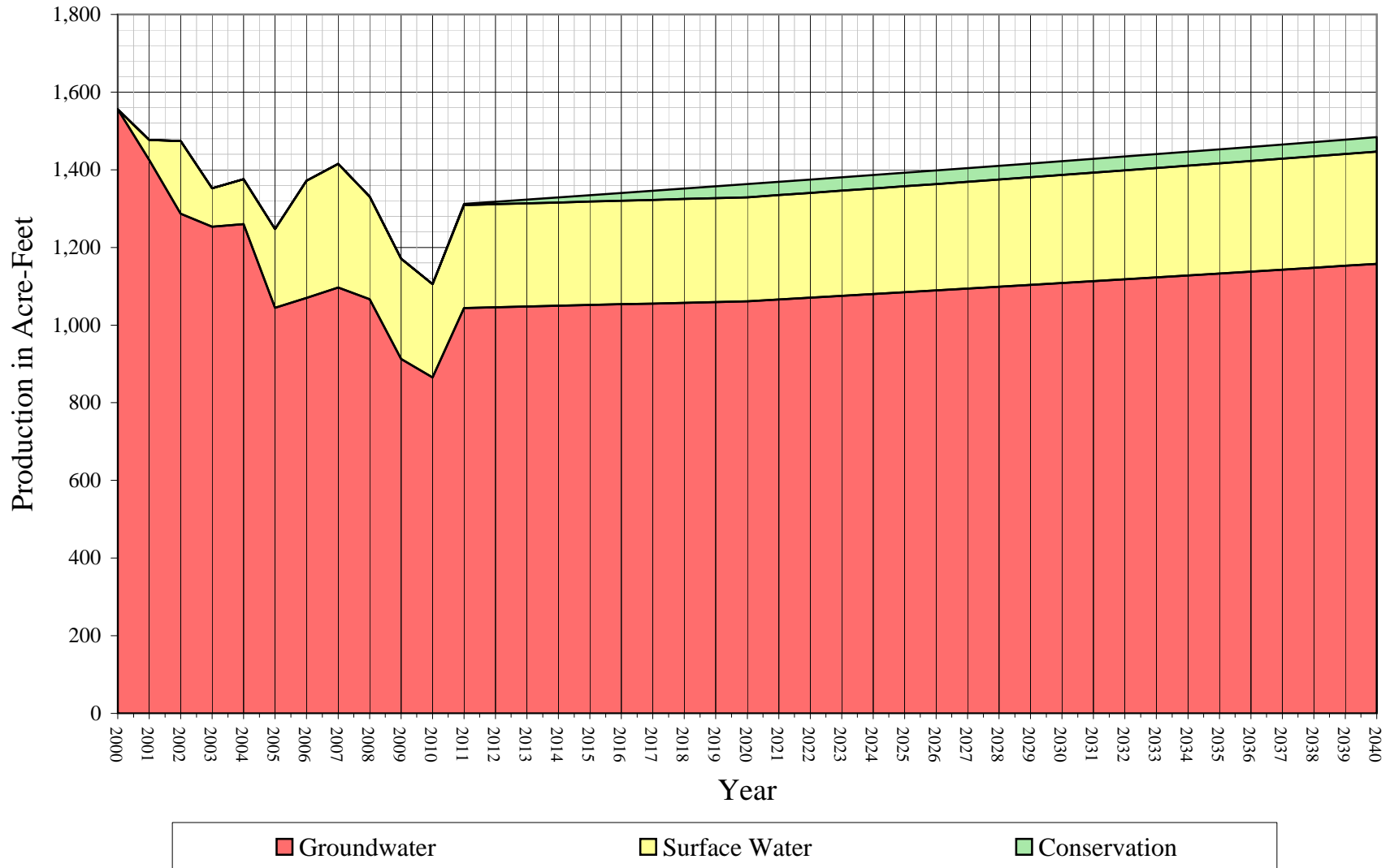
California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections
Projected Demand in Acre-Feet

	Actual Demand	Projection			Unadjusted Baseline Demand	Target Demand
		Low	Average	High		
1990						
1991						
1992						
1993						
1994						
1995						
1996						
1997	1,178					
1998	1,241					
1999	1,532					
2000	1,556					
2001	1,476					
2002	1,474					
2003	1,352					
2004	1,375					
2005	1,247					
2006	1,372					
2007	1,415					
2008	1,331					
2009	1,171					
2010	1,105	1,002	1,421	1,972	1,307	1,307
2011		1,007	1,428	1,981	1,312	1,309
2012		1,011	1,434	1,990	1,318	1,311
2013		1,016	1,441	1,999	1,323	1,314
2014		1,020	1,448	2,009	1,329	1,316
2015		1,025	1,454	2,018	1,335	1,318

	Actual Demand	Projection			Unadjusted Baseline Demand	Target Demand
		Low	Average	High		
2016		1,029	1,461	2,028	1,340	1,320
2017		1,034	1,468	2,037	1,346	1,322
2018		1,039	1,474	2,047	1,352	1,325
2019		1,044	1,481	2,056	1,357	1,327
2020		1,048	1,488	2,066	1,363	1,329
2021		1,053	1,495	2,075	1,369	1,335
2022		1,058	1,502	2,085	1,375	1,340
2023		1,063	1,509	2,095	1,381	1,346
2024		1,068	1,516	2,105	1,386	1,352
2025		1,073	1,523	2,115	1,392	1,358
2026		1,077	1,530	2,125	1,398	1,363
2027		1,082	1,537	2,135	1,404	1,369
2028		1,087	1,544	2,145	1,410	1,375
2029		1,092	1,551	2,155	1,416	1,381
2030		1,097	1,558	2,165	1,422	1,387
2031		1,102	1,566	2,176	1,428	1,393
2032		1,108	1,573	2,186	1,434	1,399
2033		1,113	1,580	2,196	1,440	1,405
2034		1,118	1,588	2,207	1,447	1,410
2035		1,123	1,595	2,217	1,453	1,417
2036		1,128	1,603	2,228	1,459	1,423
2037		1,133	1,610	2,239	1,465	1,429
2038		1,139	1,618	2,249	1,471	1,435
2039		1,144	1,625	2,260	1,478	1,441
2040		1,149	1,633	2,271	1,484	1,447

Kern River Valley District

Historical and Projected Distribution of Demand by Source



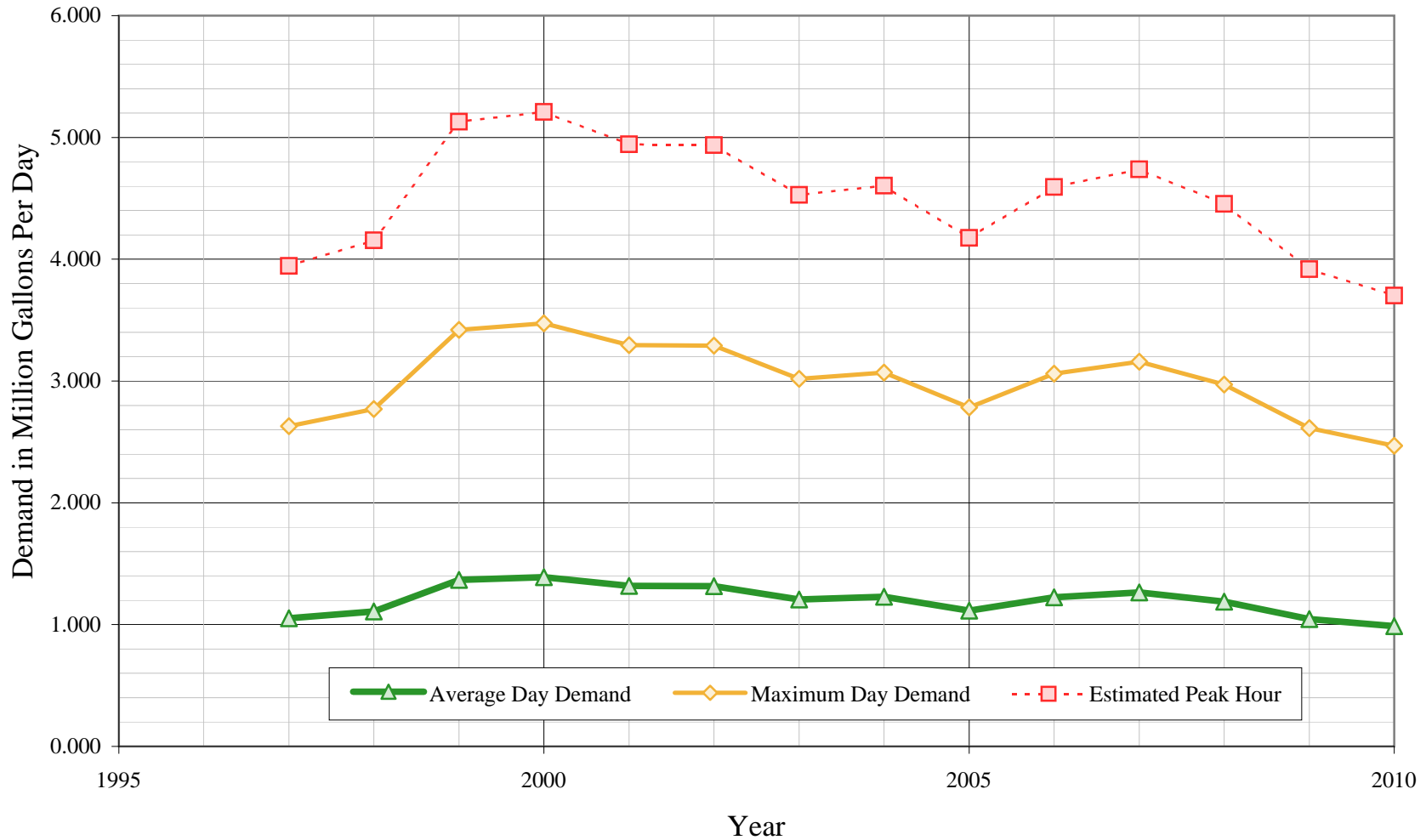
California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections
Historical and Projected Distribution of Demand by Source

Worksheet 17

Year	Groundwater		Surface Water		Conservation		Total Supply		Year	Groundwater		Surface Water		Conservation		Total Supply	
	kGal	AFY	kGal	AFY	kGal	AFY	kGal	AFY		kGal	AFY	kGal	AFY	kGal	AFY	kGal	AFY
1990																	
1991																	
1992																	
1993																	
1994																	
1995	0	0	0	0			0	0	2016	343,343	1,054	86,866	267	6,528	20	476,027	1,340
1996	0	0	0	0			0	0	2017	343,963	1,056	86,974	267	7,649	23	478,214	1,346
1997	383,991	1,178	0	0			383,991	1,178	2018	344,581	1,057	87,083	267	8,778	27	480,413	1,352
1998	404,468	1,241	0	0			404,468	1,241	2019	345,198	1,059	87,192	268	9,918	30	482,625	1,357
1999	499,297	1,532	0	0			499,297	1,532	2020	345,815	1,061	87,301	268	11,066	34	484,849	1,363
2000	507,029	1,556	0	0			507,029	1,556	2021	347,319	1,066	87,633	269	11,113	34	487,086	1,369
2001	464,426	1,425	16,691	51			481,117	1,476	2022	348,829	1,070	87,968	270	11,160	34	489,336	1,375
2002	419,278	1,287	61,169	188			480,447	1,474	2023	350,346	1,075	88,304	271	11,208	34	491,598	1,381
2003	408,321	1,253	32,335	99			440,656	1,352	2024	351,870	1,080	88,641	272	11,255	35	493,874	1,386
2004	410,647	1,260	37,563	115			448,210	1,375	2025	353,401	1,085	88,981	273	11,303	35	496,163	1,392
2005	340,465	1,045	65,996	203			406,461	1,247	2026	354,940	1,089	89,322	274	11,351	35	498,465	1,398
2006	348,676	1,070	98,279	302			446,955	1,372	2027	356,485	1,094	89,665	275	11,399	35	500,781	1,404
2007	357,459	1,097	103,685	318			461,144	1,415	2028	358,037	1,099	90,010	276	11,448	35	503,110	1,410
2008	347,454	1,066	86,198	265			433,652	1,331	2029	359,596	1,104	90,357	277	11,496	35	505,452	1,416
2009	297,399	913	84,069	258			381,468	1,171	2030	361,163	1,108	90,706	278	11,545	35	507,808	1,422
2010	281,989	865	78,238	240			360,227	1,105	2031	362,736	1,113	91,056	279	11,595	36	510,178	1,428
2011	340,237	1,044	86,322	265	1,065	3	465,278	1,312	2032	364,317	1,118	91,408	281	11,644	36	512,562	1,434
2012	340,860	1,046	86,431	265	2,140	7	467,404	1,318	2033	365,905	1,123	91,762	282	11,694	36	514,960	1,440
2013	341,482	1,048	86,539	266	3,223	10	469,542	1,323	2034	367,501	1,128	92,118	283	11,743	36	517,372	1,447
2014	342,103	1,050	86,648	266	4,316	13	471,691	1,329	2035	369,103	1,133	92,476	284	11,794	36	519,798	1,453
2015	342,724	1,052	86,757	266	5,417	17	473,853	1,335	2036	370,713	1,138	92,836	285	11,844	36	522,239	1,459
									2037	372,331	1,143	93,198	286	11,894	37	524,694	1,465
									2038	373,955	1,148	93,562	287	11,945	37	527,163	1,471
									2039	375,587	1,153	93,928	288	11,996	37	529,647	1,478
									2040	377,227	1,158	94,295	289	12,048	37	532,146	1,484

Kern River Valley District

Average Day, Maximum Day, & Peak Hour Demand

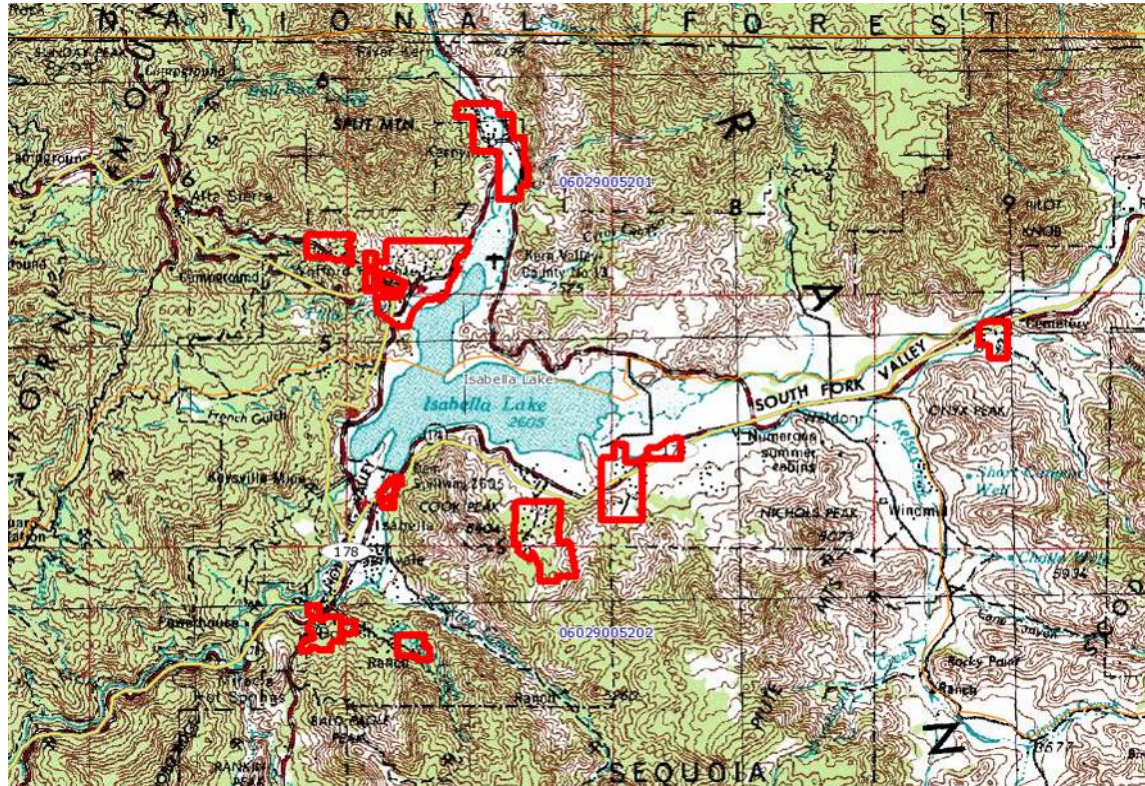


California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections
Historical and Projected Average Day, Maximum Day, and Peak Demand

Year	Historical Annual Demand		Average Day Demand		Maximum Day Demand		MDD ADD Ratio	Estimated Peak Hour Demand		PHD MDD Ratio	PHD ADD Ratio	Measured Peak Hour Demand		PHD MDD Ratio
	(AFY)	(MGY)	(MGD)	Per Service (GPD)	(MGD)	Per Service (GPD)		(MGD)	(GPM)			(MGD)	(GPM)	
1990														
1991														
1992														
1993														
1994														
1995														
1996														
1997	1,178	384	1.052	266	2.630	666	2.50	3.945	2,740	1.50	3.75			
1998	1,241	404	1.108	274	2.770	685	2.50	4.155	2,886	1.50	3.75			
1999	1,532	499	1.368	335	3.420	838	2.50	5.130	3,562	1.50	3.75			
2000	1,556	507	1.389	339	3.473	847	2.50	5.209	3,617	1.50	3.75			
2001	1,476	481	1.318	320	3.295	800	2.50	4.943	3,433	1.50	3.75			
2002	1,474	480	1.316	318	3.291	795	2.50	4.936	3,428	1.50	3.75			
2003	1,352	441	1.207	292	3.018	731	2.50	4.527	3,144	1.50	3.75			
2004	1,375	448	1.228	293	3.070	731	2.50	4.605	3,198	1.50	3.75			
2005	1,247	406	1.114	262	2.784	656	2.50	4.176	2,900	1.50	3.75			
2006	1,372	447	1.225	287	3.061	717	2.50	4.592	3,189	1.50	3.75			
2007	1,415	461	1.263	294	3.159	735	2.50	4.738	3,290	1.50	3.75			
2008	1,331	434	1.188	276	2.970	689	2.50	4.455	3,094	1.50	3.75			
2009	1,171	381	1.045	246	2.613	614	2.50	3.919	2,722	1.50	3.75			
2010	1,105	360	0.987	234	2.467	584	2.50	3.701	2,570	1.50	3.75			
5 year Average (2006-2010)			1.142	267	2.854	668	2.50	4.281	2,973	1.50	3.75			
10 year Average (2001-2010)			1.189	282	2.973	705	2.50	4.459	3,097	1.50	3.75			

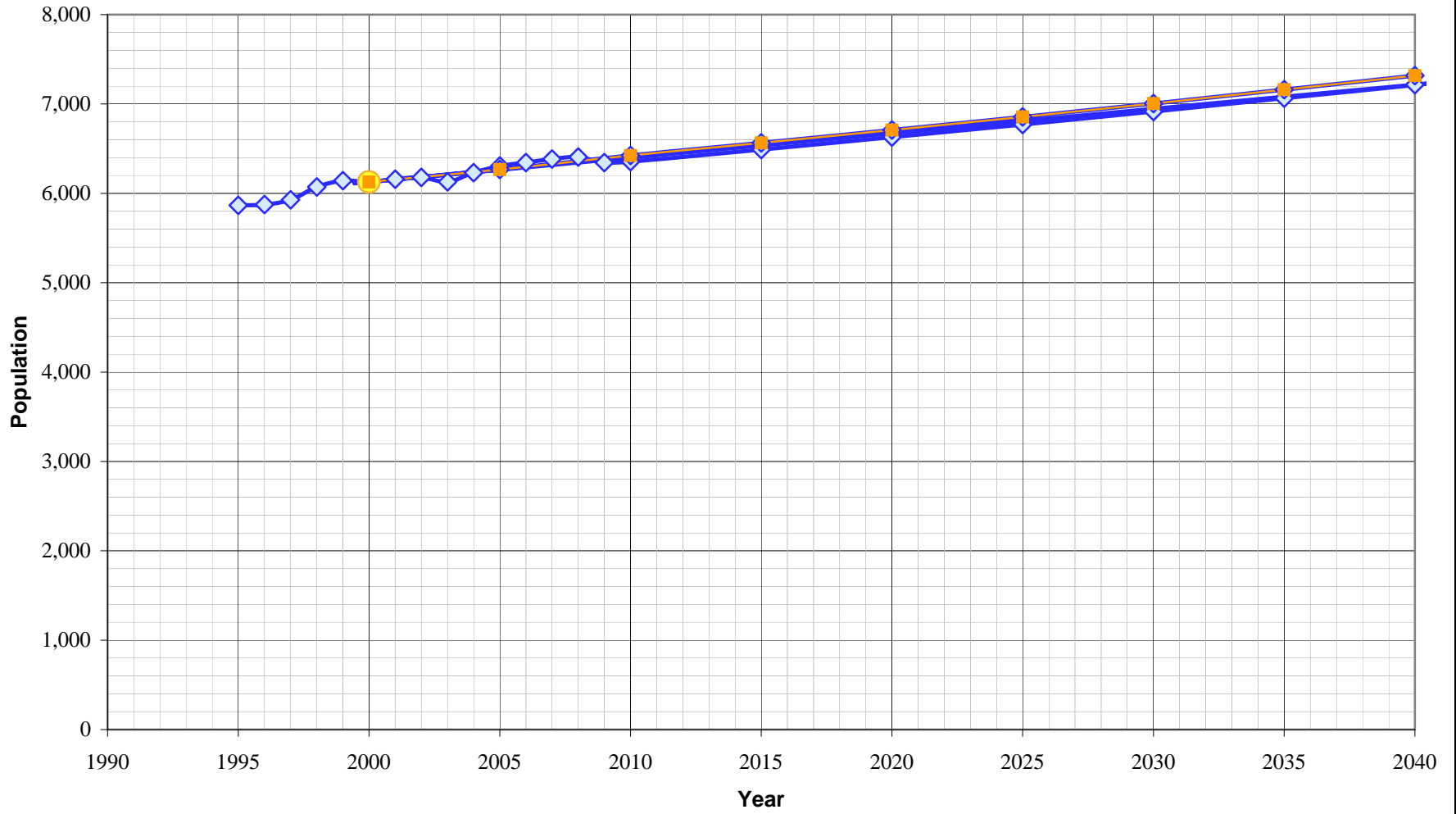
California Water Service Company - Kern River Valley District
 Water Supply and Demand Analysis and Projections

US Census 2000 Tract Map Summary



US Census 2000 Summary						
System	Census Tract Blocks	Population	Housing Units	Density	POP Percentages Distribution	HOU Percentages Distribution
Arden	61	1,772	1,540	1.15	28.9%	35.4%
Kernville	34	1,120	796	1.41	18.3%	18.3%
Mountain Shadows	1	22	10	2.20	0.4%	0.2%
Ponderosa Pine	6	127	94	1.35	2.1%	2.2%
Split Mountain	15	153	136	1.13	2.5%	3.1%
Northwest Region	117	3,194	2,576	1.24	52.1%	59.3%
Lakeland	11	257	195	1.32	4.2%	4.5%
Lakeland Region	11	257	195	1.32	4.2%	4.5%
Upper Bodfish	4	340	203	1.67	5.5%	4.7%
Upper Bodfish Region	4	340	203	1.67	5.5%	4.7%
Lower Bodfish	17	647	409	1.58	10.6%	9.4%
Juniper Hills	1	10	5	2.00	0.2%	0.1%
Lower Bodfish Region	18	657	414	1.59	10.7%	9.5%
Southlake	36	754	480	1.57	12.3%	11.0%
Squirrel Mountain	33	570	274	2.08	9.3%	6.3%
East Region	69	1,324	754	1.76	21.6%	17.4%
Onyx	20	355	203	1.75	5.8%	4.7%
Onyx Region	20	355	203	1.75	5.8%	4.7%
District Total	239	6,127	4,345	1.41	100.0%	100.0%

Kern River Valley District Population Projections



California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections

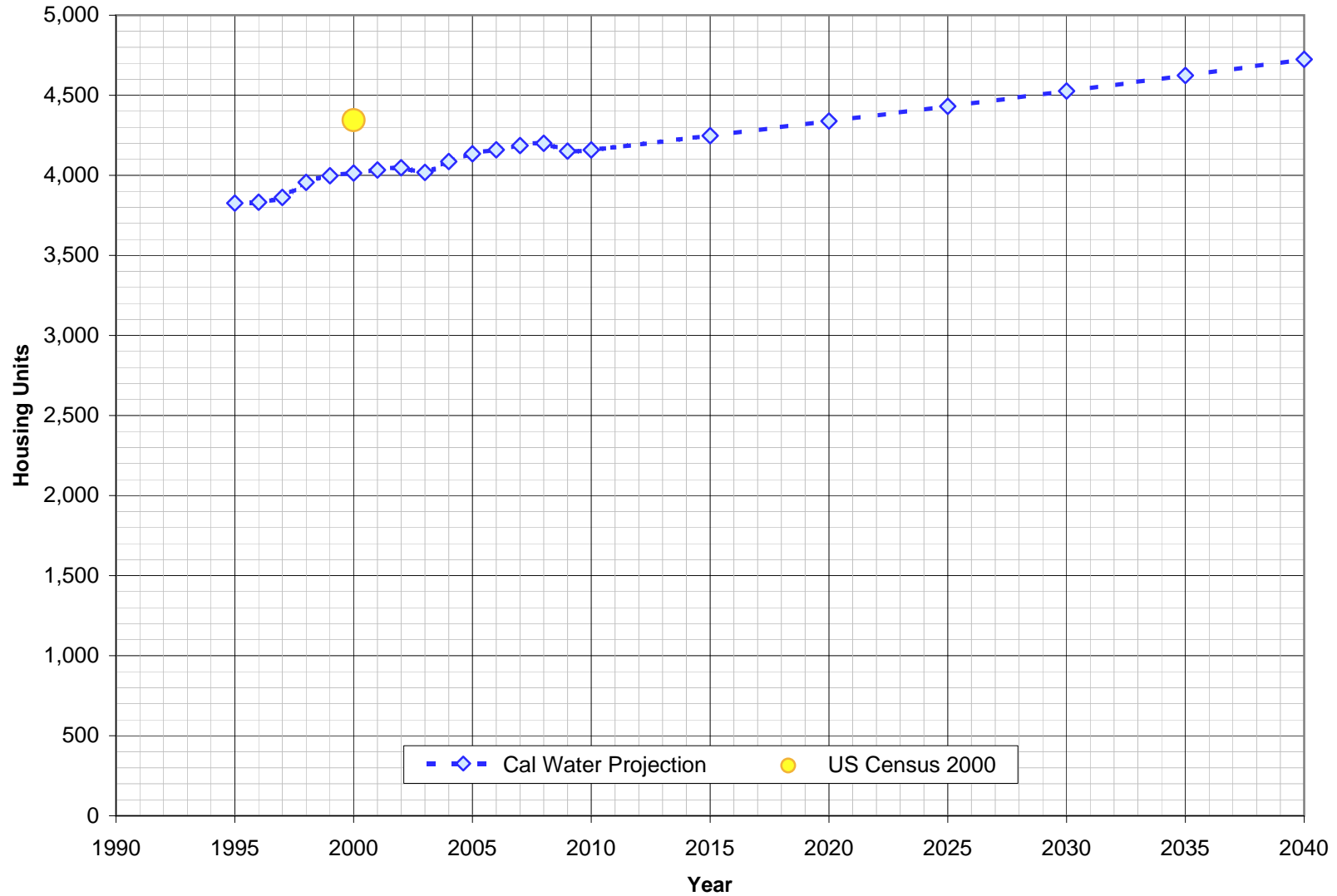
Population as of the 2000 Average Annual Services
 Estimated District Population based on 2000 U.S. Census Data & Annual Service Count

District Communities Served:
 Kern River Valley, Upper Bodfish, Lakeland, Upper Bodfish

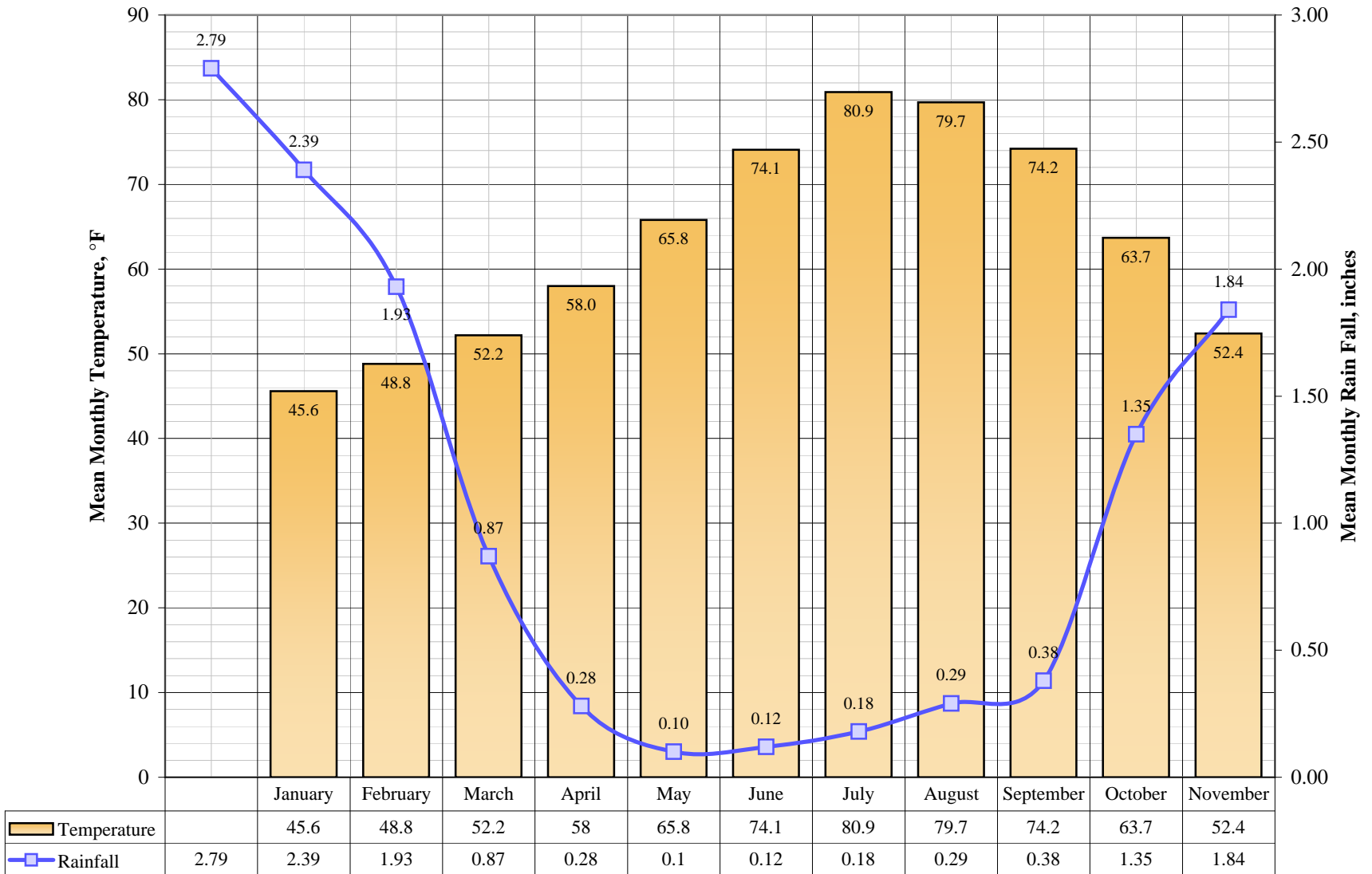
Year	Metered Single Family Residential Services (DU)	Multi Family Residential			Flat Rate Residential Services (DU)	Total Residential Services (DU)	Estimated District Population
		Services	Residential Units (DU)	Unit Density			
1995	3,810	7	17	4.5	0	3,827	5,867
1996	3,815	7	17	4.5	0	3,832	5,874
1997	3,845	7	17	4.5	0	3,862	5,928
1998	3,939	7	17	4.5	0	3,956	6,072
1999	3,980	7	17	4.5	0	3,997	6,142
2000	3,995	8	19	4.6	0	4,014	6,127
2001	4,014	8	19	4.5	0	4,034	6,158
2002	4,028	8	19	4.5	0	4,047	6,178
2003	4,006	5	13	2.5	0	4,019	6,129
2004	4,071	6	15	2.5	0	4,086	6,231
2005	4,122	5	13	2.5	0	4,135	6,307
2006	4,147	5	13	2.5	0	4,160	6,344
2007	4,171	6	15	2.5	0	4,186	6,383
2008	4,188	5	13	2.5	0	4,201	6,406
2009	4,134	7	18	2.5	0	4,152	6,344
2010	4,141	7	18	2.5	0	4,159	6,355
2015	4,229	8	19	2.5	0	4,248	6,490
2020	4,318	8	20	2.5	0	4,339	6,629
2025	4,410	9	22	2.5	0	4,431	6,771
2030	4,504	9	23	2.5	0	4,527	6,916
2035	4,599	10	25	2.5	0	4,624	7,065
2040	4,697	11	26	2.5	0	4,724	7,217

US Census 2000		Calculated Persons per CWS DU	Calculated Persons per US Census Housing Unit
Population	Housing Units		
6,127	4,345	1,526	1,410

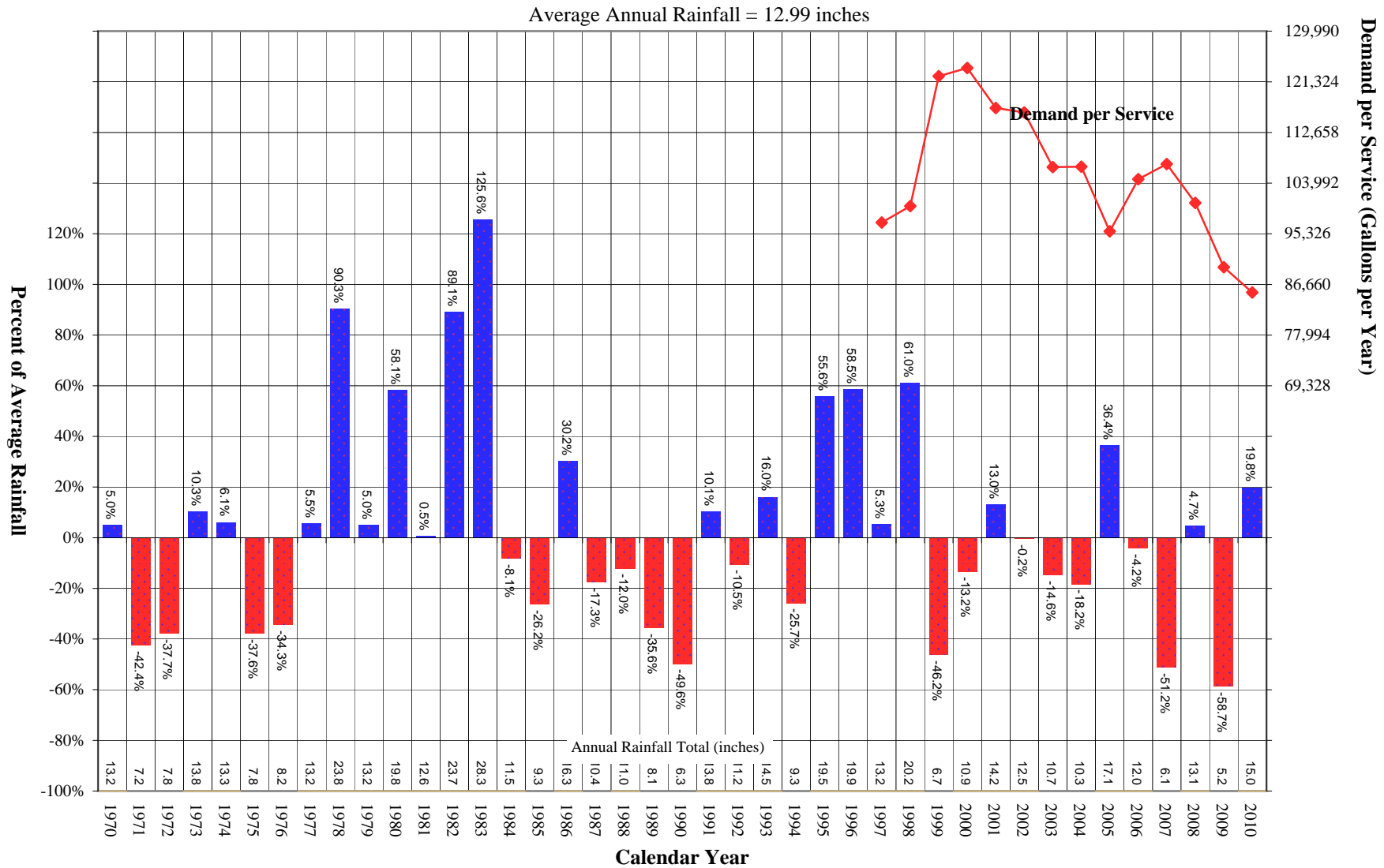
Kern River Valley District Housing Units



Kern River Valley District Average Monthly Temperature and Rainfall



Kern River Valley District Comparison of Annual Rainfall to Historic Average



California Water Service Company - Kern River Valley District

Water Supply and Demand Analysis and Projections

Worksheet 20

Temperature & Rainfall History (Fahrenheit, Inches)

Year	Annual Average Temp.	Annual Average Rainfall	Rainfall Percent Variation	Demand per Service (Gal / Yr)	Percent of Average Demand
1970	62.5	13.16	5.0%		
1971	60.3	7.22	-42.4%		
1972	62.0	7.80	-37.7%		
1973	61.4	13.82	10.3%		
1974	61.7	13.29	6.1%		
1975	60.9	7.82	-37.6%		
1976	62.2	8.23	-34.3%		
1977	62.2	13.22	5.5%		
1978	61.8	23.84	90.3%		
1979	61.8	13.16	5.0%		
1980	62.1	19.81	58.1%		
1981	63.7	12.59	0.5%		
1982	60.0	23.70	89.1%		
1983	61.4	28.27	125.6%		
1984	63.1	11.51	-8.1%		
1985	62.5	9.25	-26.2%		
1986	64.0	16.31	30.2%		
1987	63.3	10.36	-17.3%		
1988	64.7	11.03	-12.0%		
1989	63.7	8.07	-35.6%		
1990	62.6	6.31	-49.6%		
1991	62.9	13.80	10.1%		
1992	64.2	11.22	-10.5%		
1993	62.6	14.54	16.0%		
1994	62.9	9.31	-25.7%		

Year	Annual Average Temp.	Annual Average Rainfall	Rainfall Percent Variation	Demand per Service (Gal / Yr)	Percent of Average Demand
1995	64.1	19.50	55.6%		
1996	n/a	19.86	58.5%		
1997	62.5	13.20	5.3%	97,252	91.1%
1998	58.2	20.17	61.0%	100,058	93.7%
1999	60.4	6.74	-46.2%	122,289	114.6%
2000	61.5	10.87	-13.2%	123,701	115.9%
2001	64.4	14.16	13.0%	116,842	109.5%
2002	60.8	12.51	-0.2%	116,095	108.8%
2003	60.5	10.70	-14.6%	106,748	100.0%
2004	61.3	10.25	-18.2%	106,793	100.0%
2005	60.8	17.09	36.4%	95,751	89.7%
2006	62.1	12.01	-4.2%	104,673	98.1%
2007	60.2	6.12	-51.2%	107,268	100.5%
2008	---	13.12	4.7%	100,615	94.3%
2009	---	5.18	-58.7%	89,610	83.9%
2010	---	15.01	19.8%	85,301	79.9%
2011					
2012					
2013					
2014					
2015					
2016					
2017					
2018					
2019					

Source: Western Regional Climate Center:

<http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca4523>

Calendar Year	Average Water Year	Normal Water Year	Single-Dry Water Year	Multiple-Dry Water Years			
				1	2	3	4
2002	-	2002	1999	2006	2007	2008	2009
Demand per Service (gal/yr)	105,214	116,095	122,289	104,673	107,268	100,615	89,610
Difference from Average	100.0%	100%	105%	90%	92%	87%	77%

California Water Service Company - Kern River Valley District Water Supply and Demand Analysis and Projections

Worksheet 20

Temperature Data

Station:(044523) KERN RIVER PH 3															
From Year=1946 To Year=2009															
	Monthly Averages			Daily Extremes				Monthly Extremes				Max. Temp.		Min. Temp.	
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F	<= 32 F	<= 0 F
	F	F	F	F	dd/yyyy or yyyymmdd	F	dd/yyyy or yyyymmdd	F	-	F	-	# Days	# Days	# Days	# Days
January	59.1	32.2	45.6	80	16/1976	11	5/1950	54.2	1986	35	1949	0	0	17.4	0
February	62.7	35	48.8	86	26/1986	14	6/1989	56.2	1995	40.9	1949	0	0	11.3	0
March	66.4	38	52.2	91	22/2004	21	12/1950	59.1	1972	44.9	2006	0.1	0	6.6	0
April	72.8	43.1	58	100	27/2004	26	2/1997	66.2	1987	49.9	1975	1	0	1.4	0
May	81	50.5	65.8	104	29/2003	29	22/2002	73	1992	56.6	1998	6	0	0.1	0
June	90.2	57.9	74.1	109	14/1949	39	1/1971	80	1960	66.3	1998	17.4	0	0	0
July	97.6	64.3	80.9	112	19/1998	42	4/1955	85.1	1990	76.5	1983	29.1	0	0	0
August	96.7	62.7	79.7	109	5/1947	44	23/1947	84	1986	75.2	1976	27.6	0	0	0
September	91.1	57.3	74.2	108	2/1950	35	20/2007	79	1984	68.7	1986	19.6	0	0	0
October	80.1	47.4	63.7	102	1/1980	23	30/1971	70	1987	57.1	1946	5.2	0	0.5	0
November	67.3	37.5	52.4	89	1/1966	18	13/1947	57.9	1976	45.5	1947	0	0	8.4	0
December	60	32.3	46.2	84	15/1980	10	22/1990	52	1950	39.6	1948	0	0	17.4	0
Annual	77.1	46.5	61.8	112	19980719	10	19901222	64.6	1988	58.2	1998	105.9	0	63.1	0

Monthly Average ETo Report	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
	1.24	2.24	3.72	5.70	7.44	8.10	8.68	7.75	5.70	4.03	2.10	1.24	57.90

1) California Irrigation Management Information System (CIMIS), <http://www.cimis.water.ca.gov/cimis/welcome.jsp>, EvapoTranspiration (Eto) Zones Map, Zone 15

California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections

Worksheet 20

Precipitation Data

Station:(044523) KERN RIVER PH 3														
From Year=1946 To Year=2009														
	Precipitation										Total Snowfall			
	Mean	High	Year	Low	Year	1 Day Max.	>= 0.01 in.	>= 0.10 in.	>= 0.50 in.	>= 1.00 in.	Mean	High	Year	
	in.	in.	-	in.	-	in.	dd/yyyy or yyyymmdd	# Days	# Days	# Days	# Days	in.	in.	-
January	2.79	11.67	1969	0	1976	3.28	31/1963	7	5	2	1	0.7	13	1949
February	2.39	10.55	1998	0	1961	2.93	9/1978	6	4	2	1	0.2	4.5	1949
March	1.93	8.81	1991	0	1956	2.29	4/1978	7	4	1	0	0.2	5	1954
April	0.87	4.21	1958	0	1962	1.9	6/1986	4	2	0	0	0.2	7	1958
May	0.28	1.35	1998	0	1952	1.02	16/2000	2	1	0	0	0	0	1947
June	0.1	1.18	1977	0	1947	1.01	8/1977	1	0	0	0	0	0	1947
July	0.12	2.31	1984	0	1947	0.9	30/1984	1	0	0	0	0	0	1947
August	0.18	2.5	1961	0	1948	1.26	22/1961	1	0	0	0	0	0	1947
September	0.29	3.72	1976	0	1947	1.86	29/1976	2	1	0	0	0	0	1947
October	0.38	2.13	2004	0	1948	1.17	20/2004	2	1	0	0	0	0	1946
November	1.35	6.55	2002	0	1948	3.37	19/1950	4	3	1	0	0.1	4	1952
December	1.84	7.23	1951	0	1962	2.26	11/1996	6	4	1	0	0.3	13	1967
Annual	12.53	28.27	1983	3.39	1947	3.37	19501119	42	26	8	3	1.7	17.5	1949

California Water Service Company - Kern River Valley District Water Supply and Demand Analysis and Projections

Groundwater Production Facilities

System	Well No.	Design Capacity (gpm)	
		Active	Standby
Arden	1-01	125	
Arden	1-02	100	
Arden	1-03	190	
Arden	3-01	115	
Countrywood	10-01	20	
Mountain Shadow	1-01	25	
Mountain Shadow	2-01	15	
Ponderosa Pine	5-01	40	
Kernville	1-02		110
Kernville	1-03		45
Kernville	1-05		115
Kernville	1-07		30
Kernville	1-08		40
Kernville	2-01	25	
Kernville	4-01	30	
Split Mountain	1-02	80	
Split Mountain	2-01	50	
Split Mountain	3-01	45	
Southlake	5-01	482	
Southlake	5-02	150	
Southlake	6-01	175	
Southlake	7-01	250	
Southlake	8-01	unk	

System	Well No.	Design Capacity (gpm)	
		Active	Standby
Squirrel Mountain	3-01	90	
Squirrel Mountain	5-02	unk	
Squirrel Mountain	6-01		25
Squirrel Mountain	10-01		80
Squirrel Mountain	11-01	unk	
Upper Bodfish	104-01	150	
Upper Bodfish	104-02	150	
Lower Bodfish	5-01		30
Lower Bodfish	5-02		15
Lower Bodfish	8-01	60	
Lower Bodfish	8-02	200	
Lower Bodfish	13-01	250	
Lakeland	4-01	25	
Lakeland	5-01	35	
Lakeland	6-01	75	
Onyx	4-01		125
Onyx	4-02		300
Total Wells	40	29	11

Design Capacity (GPM)	3,867	2,952	915
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Design Capacity (MGD)	5.6	4.3	1.3
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Design Capacity (AFY)	6,237	4,762	1,476
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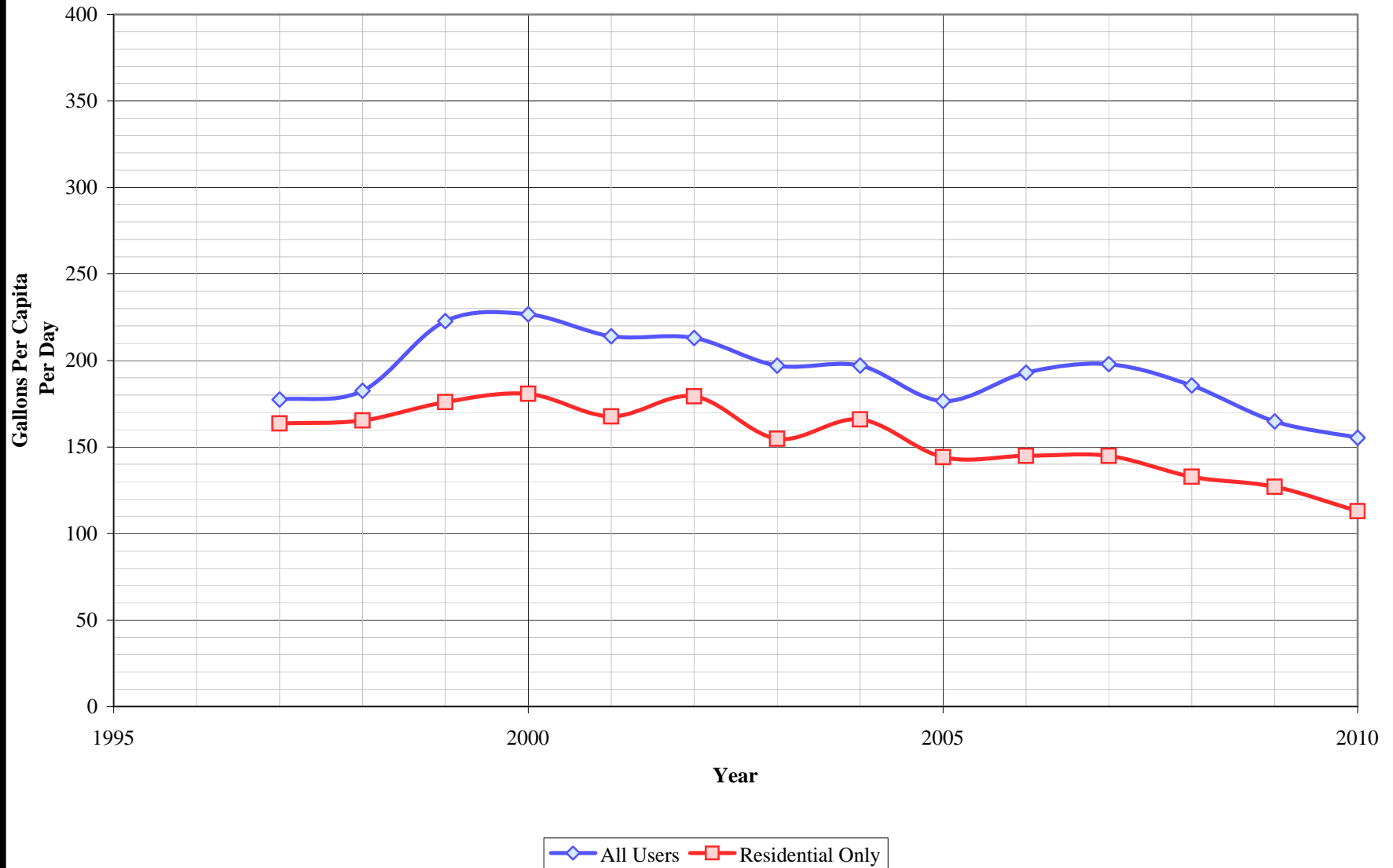
Notes:

1) Listed pump capacities on this worksheet represent design flowrates, actual flowrates are highly dependent on local system pressures, well characteristics, and other design criteria

2) Values in bold are estimated

Updated 1/1/2011

Kern River Valley District Per Capita Consumption



California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections

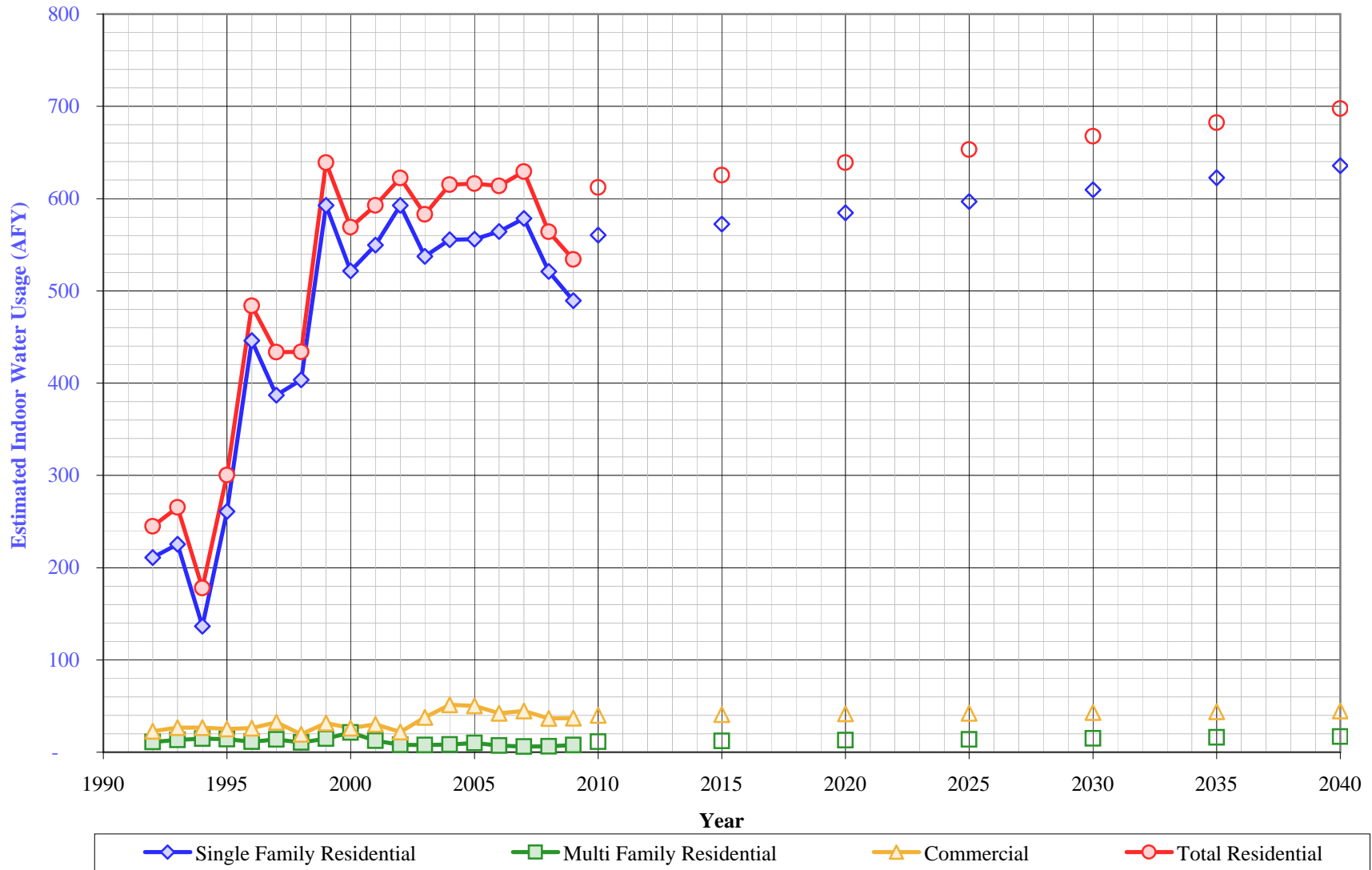
Per Capita Water Demand

Year	Usage - All Users			Usage - Residential Only		
	AFY	MGY	Gallons Per Capita Per Day	AFY	MGY	Gallons Per Capita Per Day
1995						
1996						
1997	1,178	384	177.5	1,087	354	163.6
1998	1,241	404	182.5	1,125	366	165.3
1999	1,532	499	222.7	1,210	394	175.9
2000	1,556	507	226.7	1,241	404	180.8
2001	1,476	481	214.1	1,157	377	167.7
2002	1,474	480	213.0	1,241	404	179.3
2003	1,352	441	197.0	1,062	346	154.7
2004	1,376	448	197.1	1,158	377	165.9
2005	1,247	406	176.6	1,019	332	144.2
2006	1,372	447	193.0	1,030	336	144.9
2007	1,415	461	197.9	1,036	338	144.9
2008	1,331	434	185.5	953	311	132.9
2009	1,171	381	164.7	902	294	127.0
2010	1,105	360	155.3	804	262	112.9
5 Yr. Avg.	1,279	417	179.3	945	308	132.5
10 Yr. Avg.	1,332	434	189.4	1,036	338	147.4

Five year average is from years 2006 through 2010.

Ten year average is from years 2001 through 2010.

Kern River Valley District Estimated Indoor Water Usage



California Water Service Company - Kern River Valley District
Water Supply and Demand Analysis and Projections

Estimated Indoor/Outdoor Water Usage

Year	Single Family Residential (SFR)							Multi Family Residential (MFR)				Commercial (COM)				Est. Indoor Usage
	Metered Single Family Residential Indoor Use (Annualized 90% of January Total)			Indoor Flat Rate Usage (AFY)	Total SFR Indoor Usage			Multi Family Residential January Usage (CCF)	Multi Family Residential Indoor Use (Annualized 90% of January Total)			Commercial (CCF)	Commercial Indoor Use (Annualized 90% of January Total)			
	JAN (CCF)	AFY	AFY/Service		AFY	GPD/Service	%		AFY	GPD/Service	%		AFY	GPD/Service	%	
1990																
1991																
1992	8,504	211	0.06	0	211	50	28%	447	11.08	1,413	57%	920	23	291	46%	245
1993	9,091	225	0.06	0	225	53	29%	542	13.44	1,714	69%	1,073	27	329	50%	265
1994	5,506	137	0.04	0	137	32	17%	588	14.58	1,859	69%	1,078	27	327	53%	178
1995	10,523	261	0.07	0	261	61	29%	566	14.03	1,790	69%	1,020	25	305	49%	300
1996	17,996	446	0.12	0	446	104	45%	457	11.33	1,445	46%	1,056	26	320	51%	484
1997	15,611	387	0.10	0	387	90	36%	559	13.86	1,547	70%	1,315	33	396	64%	434
1998	16,282	404	0.10	0	404	92	37%	430	10.66	1,190	55%	789	20	236	44%	434
1999	23,902	593	0.15	0	593	133	50%	597	14.80	1,652	70%	1,275	32	384	71%	639
2000	21,040	522	0.13	0	522	117	43%	858	21.27	2,399	92%	1,054	26	323	54%	569
2001	22,172	550	0.14	0	550	122	48%	508	12.60	1,406	68%	1,218	30	373	65%	593
2002	23,898	593	0.15	0	593	131	48%	323	8.01	894	59%	880	22	252	40%	622
2003	21,676	537	0.13	0	537	120	51%	309	7.66	1,368	43%	1,525	38	313	48%	583
2004	22,401	555	0.14	0	555	122	49%	334	8.28	1,232	43%	2,075	51	414	131%	615
2005	22,426	556	0.14	0	556	121	56%	401	9.94	1,775	55%	2,032	50	413	66%	616
2006	22,761	564	0.14	0	564	122	56%	286	7.09	1,266	51%	1,707	42	347	58%	614
2007	23,334	579	0.14	0	579	124	57%	246	6.10	907	47%	1,802	45	353	62%	629
2008	21,017	521	0.12	0	521	111	55%	260	6.45	1,151	50%	1,475	37	302	57%	564
2009	19,743	489	0.12	0	489	106	55%	314	7.79	993	63%	1,486	37	307	63%	534
2010	-	-	-	-	561	121	52%	-	11.48	1,444	60%	-	40	332	60%	612
2015	-	-	-	-	572	121	52%	-	12.26	1,444	60%	-	41	332	60%	625
2020	-	-	-	-	584	121	52%	-	13.10	1,444	60%	-	42	332	60%	639
2025	-	-	-	-	597	121	52%	-	14.00	1,444	60%	-	42	332	60%	653
2030	-	-	-	-	610	121	52%	-	14.95	1,444	60%	-	43	332	60%	668
2035	-	-	-	-	623	121	52%	-	15.98	1,444	60%	-	44	332	60%	682
2040	-	-	-	-	636	121	52%	-	17.07	1,444	60%	-	45	332	60%	698

California Water Service Company - Kern River Valley District

Water Supply and Demand Analysis and Projections

Comparison of Projected Demand and Conservation Savings Between SBx7-7 Compliance Targets and Actual Proposed Programs

Year	SBx7-7 Compliance Target (gpcd)	Anticipated GPCD with Proposed Programs*	Estimated Population	Undadjusted Baseline Demand (AFY)	SBx7-7 Compliance Target Demand (AFY)	Anticipated Demand with Proposed Programs (AFY)	Compliance Target Savings Requirement (AFY)	Savings Due to Proposed Programs (AFY)
2005-2009								
Average	184	184	6,357	1,307	1,307	1,307	0	0
2010	184	184	6,355	1,307	1,307	1,307	0	0
2011	183	182	6,382	1,312	1,309	1,301	3	11
2012	183	178	6,409	1,318	1,311	1,278	7	40
2013	182	174	6,436	1,323	1,314	1,254	10	69
2014	182	172	6,463	1,329	1,316	1,245	13	84
2015	181	170	6,490	1,335	1,318	1,236	17	99
2016	181	170	6,518	1,340	1,320	1,241	20	99
2017	180	170	6,546	1,346	1,322	1,246	23	100
2018	180	170	6,573	1,352	1,325	1,252	27	100
2019	179	170	6,601	1,357	1,327	1,257	30	100
2020	179	170	6,629	1,363	1,329	1,262	34	101
2021	179	170	6,657	1,369	1,335	1,268	34	101
2022	179	170	6,685	1,375	1,340	1,273	34	102
2023	179	170	6,714	1,381	1,346	1,278	34	102
2024	179	170	6,742	1,386	1,352	1,284	35	103
2025	179	170	6,771	1,392	1,358	1,289	35	103
2026	179	170	6,800	1,398	1,363	1,295	35	103
2027	179	170	6,829	1,404	1,369	1,300	35	104
2028	179	170	6,858	1,410	1,375	1,306	35	104
2029	179	170	6,887	1,416	1,381	1,311	35	105
2030	179	170	6,916	1,422	1,387	1,317	35	105
2031	179	170	6,945	1,428	1,393	1,323	36	106
2032	179	170	6,975	1,434	1,399	1,328	36	106
2033	179	170	7,005	1,440	1,405	1,334	36	107
2034	179	170	7,035	1,447	1,410	1,340	36	107
2035	179	170	7,065	1,453	1,417	1,345	36	107
2036	179	170	7,095	1,459	1,423	1,351	36	108
2037	179	170	7,125	1,465	1,429	1,357	37	108
2038	179	170	7,156	1,471	1,435	1,363	37	109
2039	179	170	7,186	1,478	1,441	1,368	37	109
2040	179	170	7,217	1,484	1,447	1,374	37	110

*Note: The district is projected to achieve its district-specific 2015 and 2020 SBx7-7 compliance target in 2015 through a combination of passive and active savings. For the purpose of this analysis it is assumed that GPCD will remain flat from 2015 through 2040.