

Water Resources Planning Department

**Projection Analysis Work Sheets
for
Palos Verdes District**

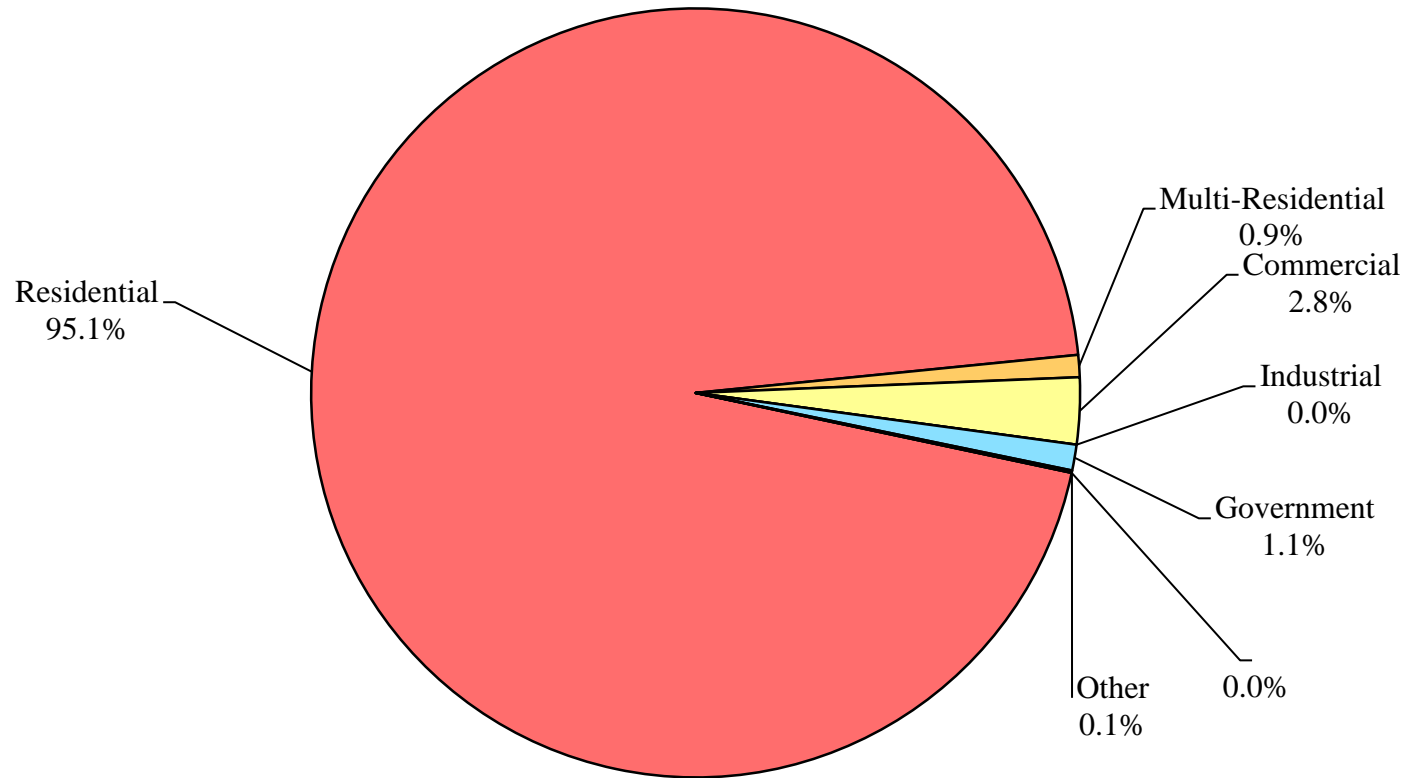
2015



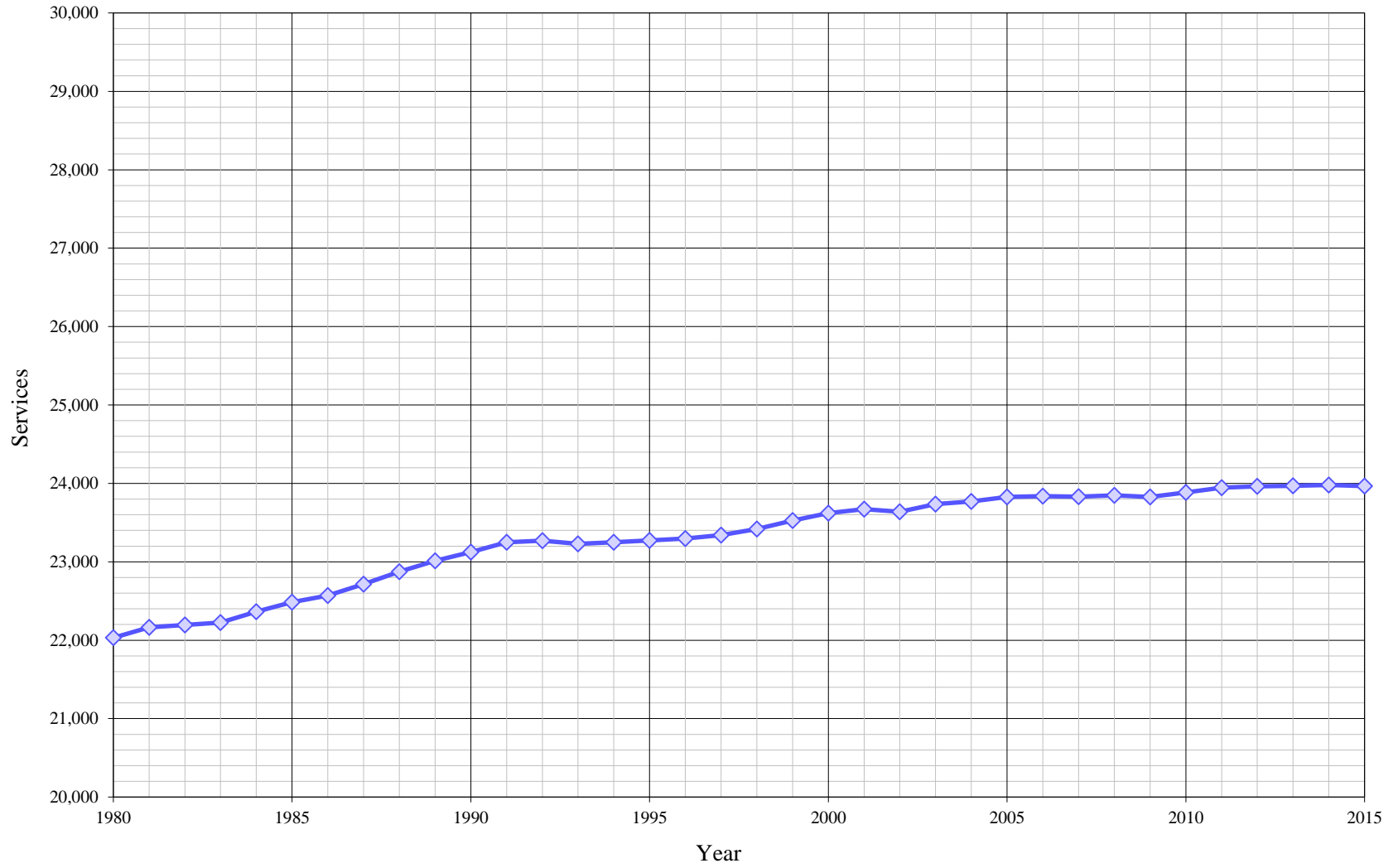
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Distribution of Services (2015)



Historical Services



California Water Service Company - Palos Verdes District
Water Supply and Demand Analysis and Projections
Average Annual Services

Worksheet 1

Year	Single Family (SFR)	Multi Family (MFR)	Commercial (COM)	Industrial (IND)	Government (GOV)	Other (OTH)	Irrigation (IRR)	Total	Annual Change
1980	21,187	144	466	12	196	27	0	22,031	
1981	21,316	146	477	12	193	20	0	22,163	132
1982	21,333	146	479	13	205	19	0	22,196	32
1983	21,356	146	486	14	205	20	0	22,226	30
1984	21,495	146	486	13	208	16	0	22,365	139
1985	21,616	148	487	12	207	16	0	22,485	121
1986	21,702	149	485	13	206	16	0	22,569	84
1987	21,841	148	485	14	208	19	0	22,714	145
1988	21,992	148	492	12	202	27	0	22,873	159
1989	22,132	148	497	12	201	22	0	23,011	138
1990	22,249	148	487	12	206	22	0	23,124	112
1991	22,377	148	486	12	206	19	0	23,248	124
1992	22,412	148	483	12	201	13	0	23,269	21
1993	22,384	148	474	11	198	13	0	23,228	-41
1994	22,399	148	479	11	199	12	0	23,248	20
1995	22,416	148	487	11	199	14	0	23,274	26
1996	22,435	148	488	11	199	14	0	23,296	22
1997	22,481	148	483	11	200	18	0	23,341	45
1998	22,554	148	480	12	199	25	0	23,418	77
1999	22,661	148	480	12	201	28	0	23,528	110
2000	22,748	146	487	11	204	25	0	23,620	92
2001	22,789	143	491	11	206	34	0	23,673	53
2002	22,758	144	495	12	210	20	0	23,639	-35
2003	22,850	143	497	11	211	24	0	23,736	97
2004	22,890	143	491	10	210	24	0	23,769	33
2005	22,943	143	495	10	212	24	0	23,826	58
2006	22,952	143	497	10	217	20	0	23,839	12
2007	22,942	142	497	10	218	23	0	23,832	-7
2008	22,810	182	578	4	244	28	0	23,846	15
2009	22,656	217	670	0	263	21	0	23,827	-19
2010	22,703	218	677	0	267	18	1	23,884	57
2011	22,764	220	679	0	267	17	1	23,947	63
2012	22,779	221	677	0	267	16	1	23,961	14
2013	22,782	223	676	0	268	20	1	23,970	9
2014	22,789	222	678	0	269	20	1	23,980	10
2015	22,789	223	672	0	260	23	1	23,967	-13
5 Yr Avg.	22,781	222	676		266	19	1	23,965	31
10 Yr Avg.	22,797	201	630	8	254	21	1	23,905	30
15 Yr Avg.	22,813	182	585	10	239	22	1	23,846	43
20 Yr Avg.	22,754	173	559	10	230	22	1	23,745	47

Note: Reclassification occurred between categories from 2007 to 2009

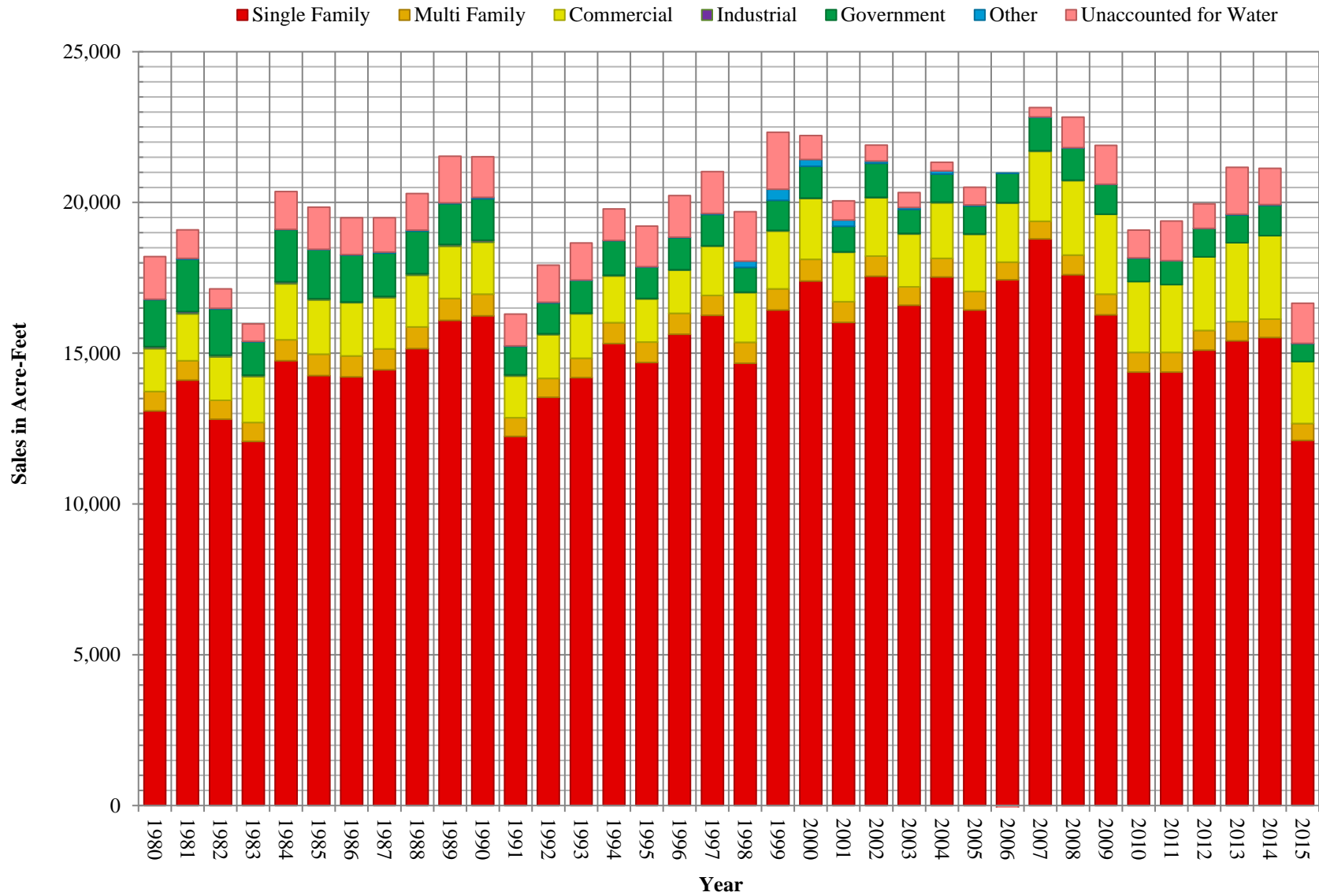
California Water Service Company - Palos Verdes District
Water Supply and Demand Analysis and Projections
Service Growth Percentage

Worksheet 2

Year	Single Family (SFR)	Multi Family (MFR)	Commercial (COM)	Industrial (IND)	Government (GOV)	Other (OTH)	Recycled (REC)	Total
1981	0.61%	1.28%	2.40%	-3.42%	-1.82%	-24.84%		0.60%
1982	0.08%	0.17%	0.45%	14.18%	6.35%	-3.77%		0.15%
1983	0.11%	0.23%	1.39%	0.62%	-0.12%	1.74%		0.14%
1984	0.65%	0.11%	0.03%	-4.32%	1.30%	-15.81%		0.62%
1985	0.56%	1.08%	0.10%	-9.03%	-0.36%	-1.52%		0.54%
1986	0.40%	0.39%	-0.39%	7.80%	-0.52%	0.00%		0.37%
1987	0.64%	-0.34%	0.05%	7.89%	1.09%	15.98%		0.64%
1988	0.69%	0.00%	1.55%	-12.20%	-3.05%	43.11%		0.70%
1989	0.64%	0.00%	0.83%	0.00%	-0.54%			0.60%
1990	0.53%	0.00%	-1.88%	0.00%	2.54%			0.49%
1991	0.58%	0.00%	-0.31%	-2.78%	0.28%			0.54%
1992	0.16%	0.00%	-0.53%	0.71%	-2.71%	-31.11%		0.09%
1993	-0.13%	0.00%	-1.90%	-6.38%	-1.41%	3.23%		-0.17%
1994	0.07%	0.00%	1.14%	-0.76%	0.38%	-9.38%		0.09%
1995	0.07%	-0.06%	1.62%	0.00%	0.00%	13.10%		0.11%
1996	0.09%	0.06%	0.22%	3.05%	0.13%	3.05%		0.09%
1997	0.21%	0.00%	-1.16%	-5.19%	0.63%	30.18%		0.19%
1998	0.32%	0.00%	-0.47%	10.94%	-0.46%	36.36%		0.33%
1999	0.47%	-0.06%	-0.14%	-1.41%	0.71%	10.33%		0.47%
2000	0.38%	-1.52%	1.49%	-5.71%	1.54%	-8.76%		0.39%
2001	0.18%	-1.66%	0.82%	0.00%	1.11%	34.44%		0.23%
2002	-0.13%	0.41%	0.93%	6.06%	1.86%	-40.89%		-0.15%
2003	0.40%	-0.64%	0.25%	-5.71%	0.52%	21.25%		0.41%
2004	0.17%	0.06%	-1.06%	-6.82%	-0.24%	-2.41%		0.14%
2005	0.23%	0.00%	0.75%	-2.44%	0.79%	0.35%		0.24%
2006	0.04%	-0.35%	0.34%	0.00%	2.36%	-14.04%		0.05%
2007	-0.05%	-0.35%	-0.02%	0.00%	0.61%	14.29%		-0.03%
2008	-0.57%		16.33%	-57.50%	11.80%	20.00%		0.06%
2009	-0.67%		16.00%	-100.00%	7.82%	-25.60%		-0.08%
2010	0.21%	0.23%	1.03%		1.43%	-13.20%		0.24%
2011	0.27%	1.03%	0.23%		0.06%	-8.29%		0.26%
2012	0.07%	0.30%	-0.20%		0.00%	-4.02%		0.06%
2013	0.01%	0.94%	-0.18%		0.53%	25.13%		0.04%
2014	0.03%	-0.30%	0.33%		0.28%	0.84%		0.04%
2015	0.00%	0.30%	-0.97%		-3.41%	15.77%		-0.05%
5 Yr. Avg.	0.08%	0.30%	6.71%		4.34%	-2.56%		0.09%
10 Yr. Avg.	-0.07%	0.05%	3.48%		2.70%	-4.85%		0.11%
15 Yr. Avg.	0.01%	-0.22%	2.35%		2.04%	3.60%		0.18%
20 Yr. Avg.	0.08%	-0.16%	1.79%		1.35%	1.65%		0.15%

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Historical Sales

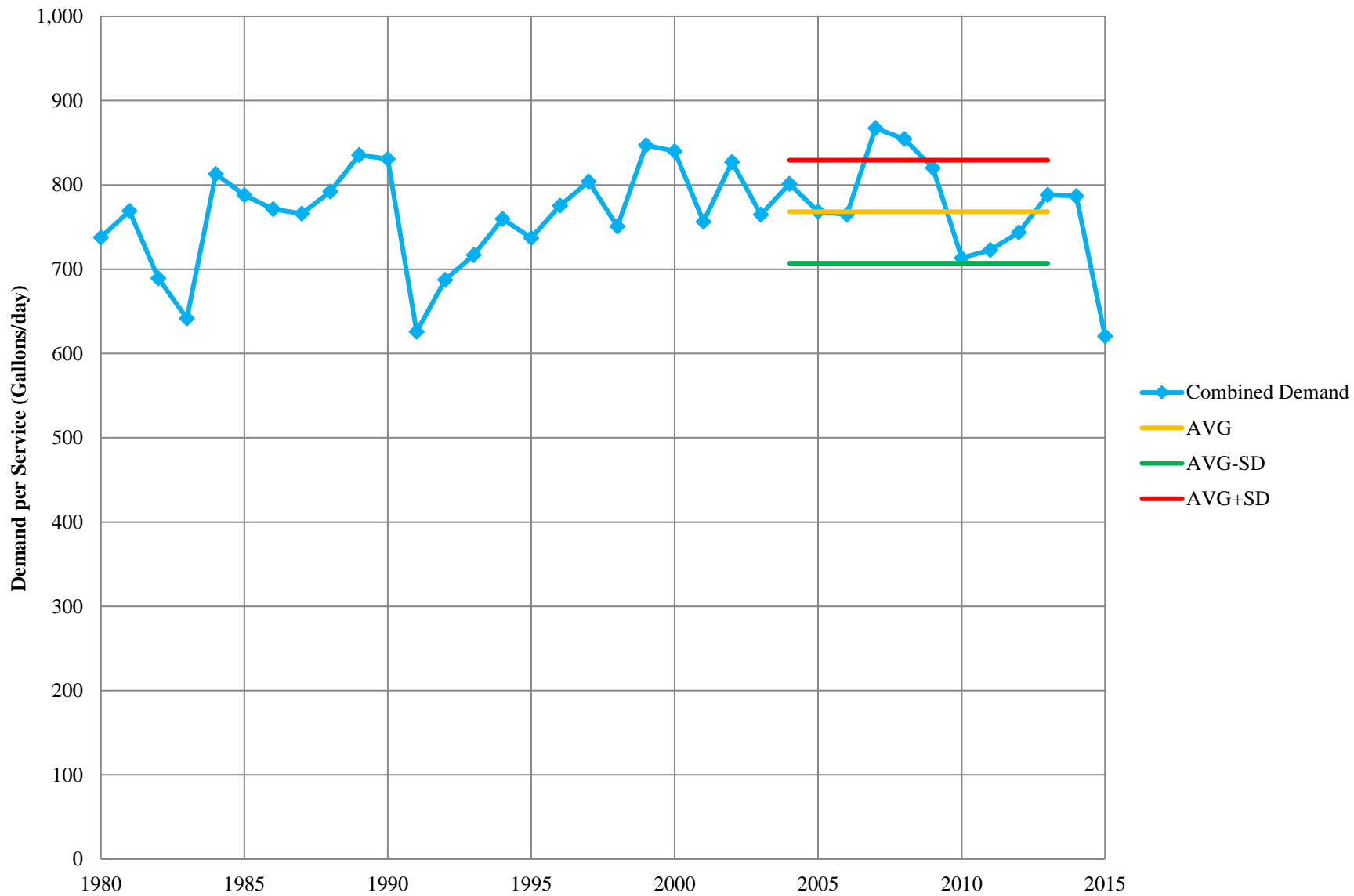


California Water Service Company - Palos Verdes District
Water Supply and Demand Analysis and Projections
Sales (AF)

Worksheet 3

Year	Single Family (SFR)	Multi Family (MFR)	Commercial (COM)	Industrial (IND)	Government (GOV)	Other (OTH)	Irrigation (IRR)	Unaccounted for Water (UAFW)	Total Sales (AF)	Total Demand (AF)	Total Demand (MGal)
1980	13,087	648	1,418	63	1,561	19	0	1,412	16,796	18,208	5,933
1981	14,110	643	1,552	75	1,733	33	0	948	18,146	19,095	6,222
1982	12,812	630	1,435	59	1,532	21	0	650	16,488	17,138	5,584
1983	12,072	632	1,522	45	1,105	17	0	580	15,394	15,974	5,205
1984	14,754	693	1,859	65	1,729	10	0	1,257	19,110	20,367	6,637
1985	14,262	706	1,803	39	1,631	8	0	1,396	18,448	19,844	6,466
1986	14,221	693	1,758	33	1,549	16	0	1,229	18,269	19,497	6,353
1987	14,453	691	1,695	47	1,437	36	0	1,130	18,360	19,490	6,351
1988	15,152	721	1,711	53	1,413	32	0	1,211	19,083	20,295	6,613
1989	16,089	728	1,736	54	1,355	29	0	1,547	19,990	21,537	7,018
1990	16,242	715	1,725	65	1,373	49	0	1,351	20,170	21,521	7,013
1991	12,241	623	1,376	44	948	12	0	1,057	15,245	16,301	5,312
1992	13,537	631	1,445	30	1,026	22	0	1,227	16,690	17,918	5,838
1993	14,190	644	1,475	25	1,080	11	0	1,229	17,424	18,653	6,078
1994	15,318	693	1,549	23	1,146	9	0	1,050	18,738	19,788	6,448
1995	14,692	679	1,429	17	1,039	14	0	1,351	17,869	19,220	6,263
1996	15,632	690	1,432	18	1,060	15	0	1,385	18,847	20,232	6,593
1997	16,254	664	1,628	19	1,038	34	0	1,383	19,638	21,021	6,850
1998	14,667	697	1,649	14	817	212	0	1,636	18,056	19,692	6,417
1999	16,434	699	1,920	21	995	370	0	1,884	20,440	22,324	7,274
2000	17,397	716	2,013	21	1,055	227	0	793	21,429	22,222	7,241
2001	16,019	691	1,641	16	846	202	0	642	19,415	20,057	6,536
2002	17,552	674	1,926	21	1,123	83	0	527	21,379	21,906	7,138
2003	16,590	611	1,750	22	798	66	0	496	19,837	20,332	6,625
2004	17,526	623	1,840	20	928	112	0	285	21,049	21,334	6,952
2005	16,436	616	1,891	16	928	32	0	588	19,918	20,507	6,682
2006	17,438	582	1,959	20	965	9	0	-550	20,972	20,422	6,655
2007	18,790	587	2,316	28	1,105	15	0	311	22,841	23,151	7,544
2008	17,601	656	2,470	11	1,062	16	0	1,011	21,816	22,826	7,438
2009	16,278	679	2,650	0	992	8	0	1,283	20,606	21,889	7,133
2010	14,376	651	2,354	0	772	10	4	916	18,167	19,084	6,218
2011	14,373	653	2,249	0	790	11	3	1,309	18,079	19,388	6,317
2012	15,102	650	2,448	0	931	8	3	817	19,143	19,960	6,504
2013	15,410	641	2,618	0	917	22	2	1,555	19,610	21,165	6,897
2014	15,520	615	2,761	0	1,010	25	2	1,204	19,933	21,138	6,888
2015	12,112	555	2,058	0.0	587	15	2	1,331	15,328	16,659	5,428

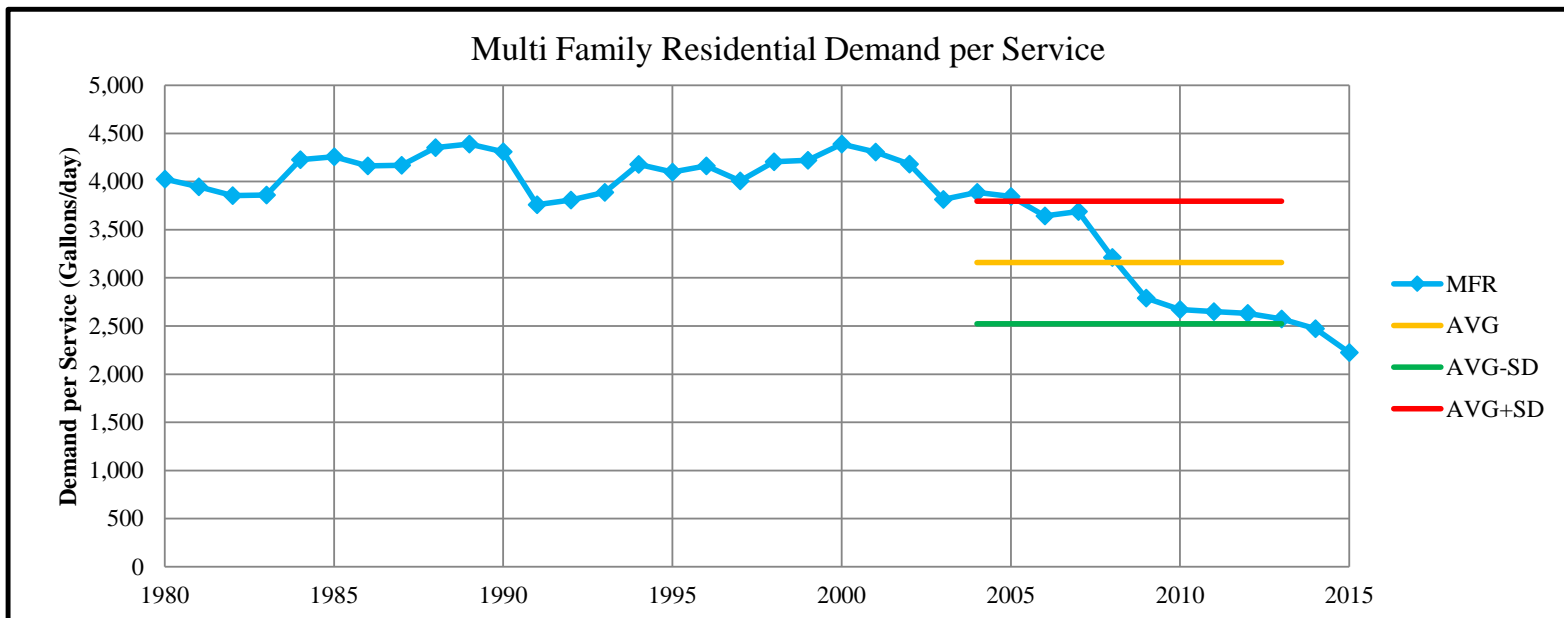
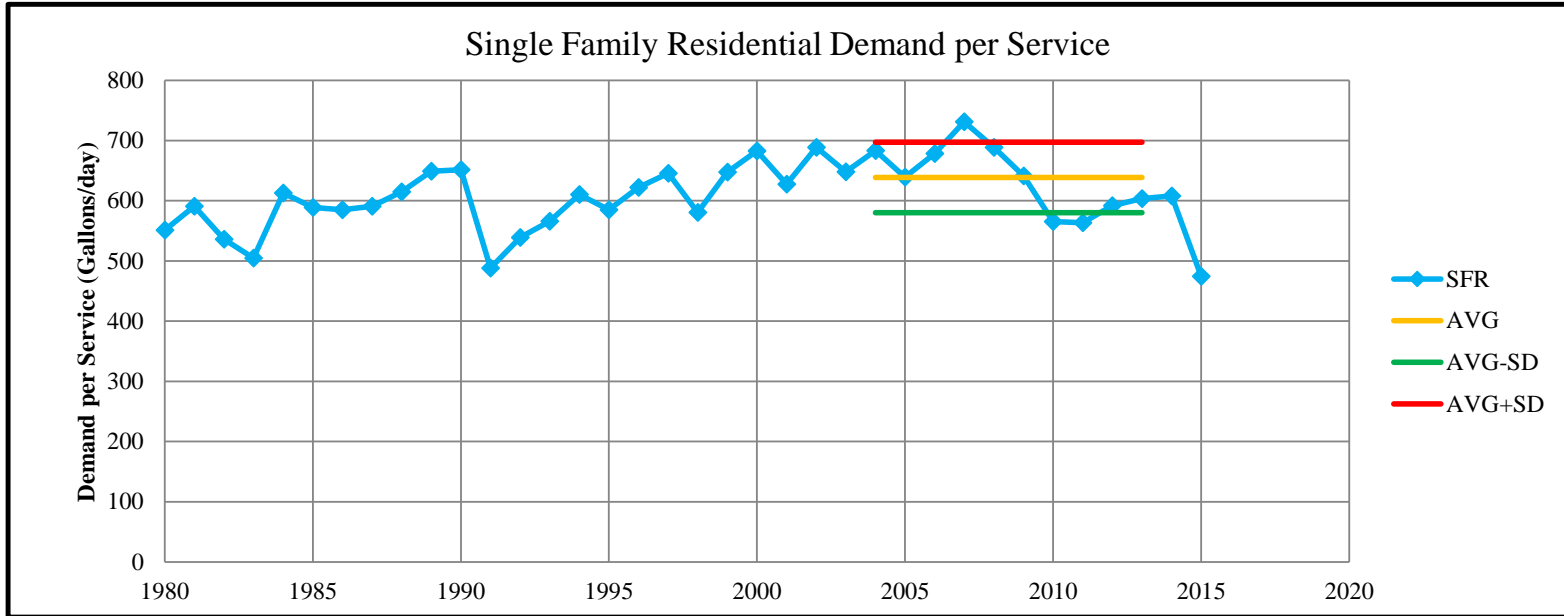
Combined Demand per Service

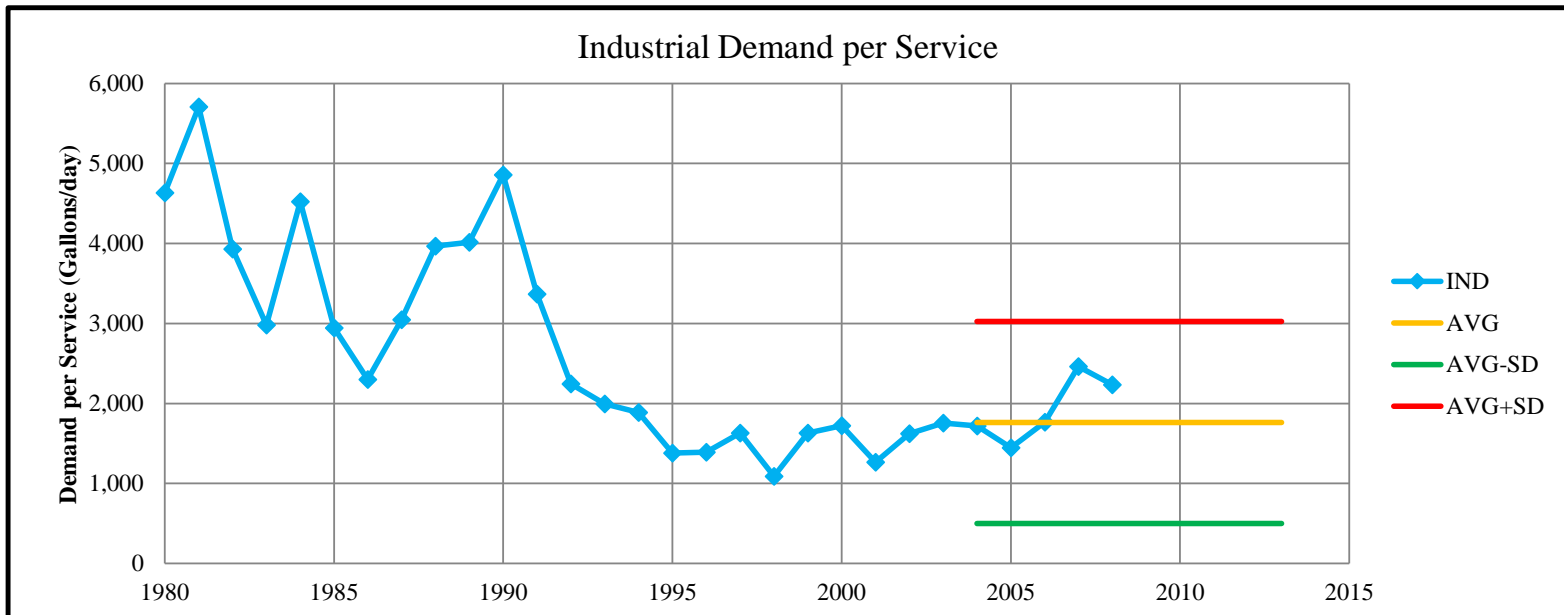
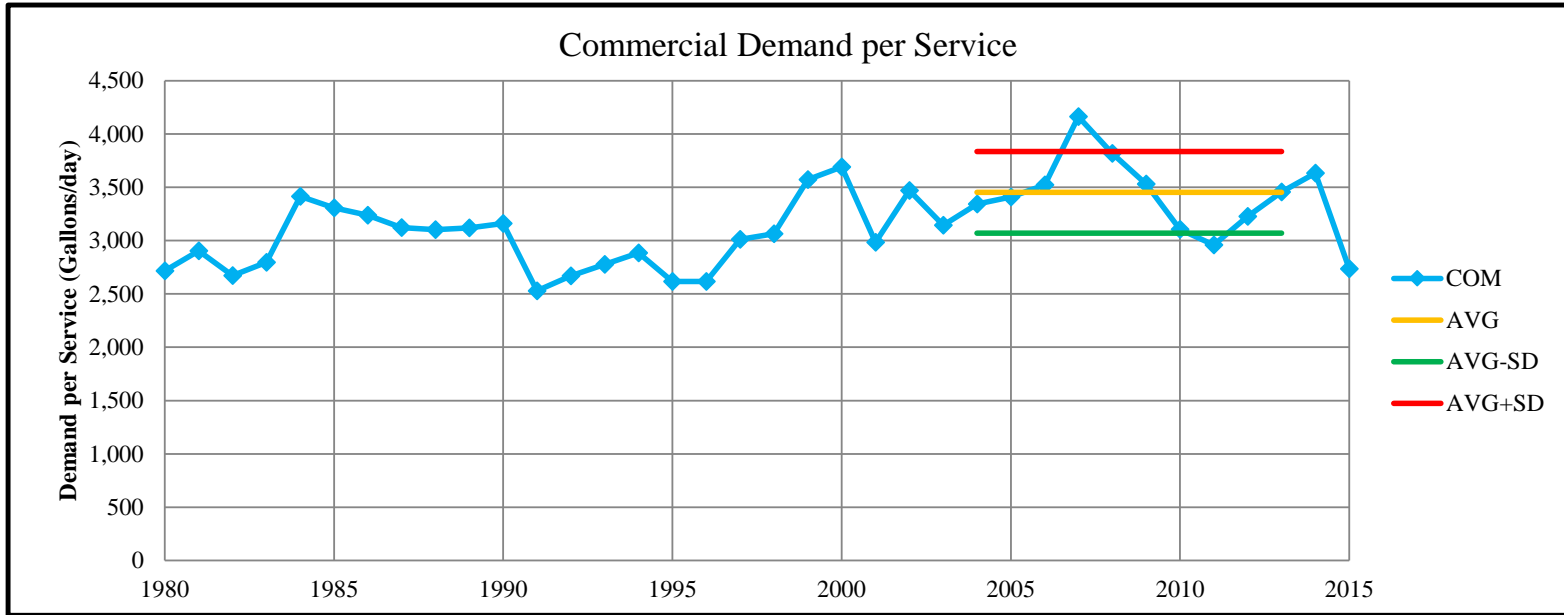


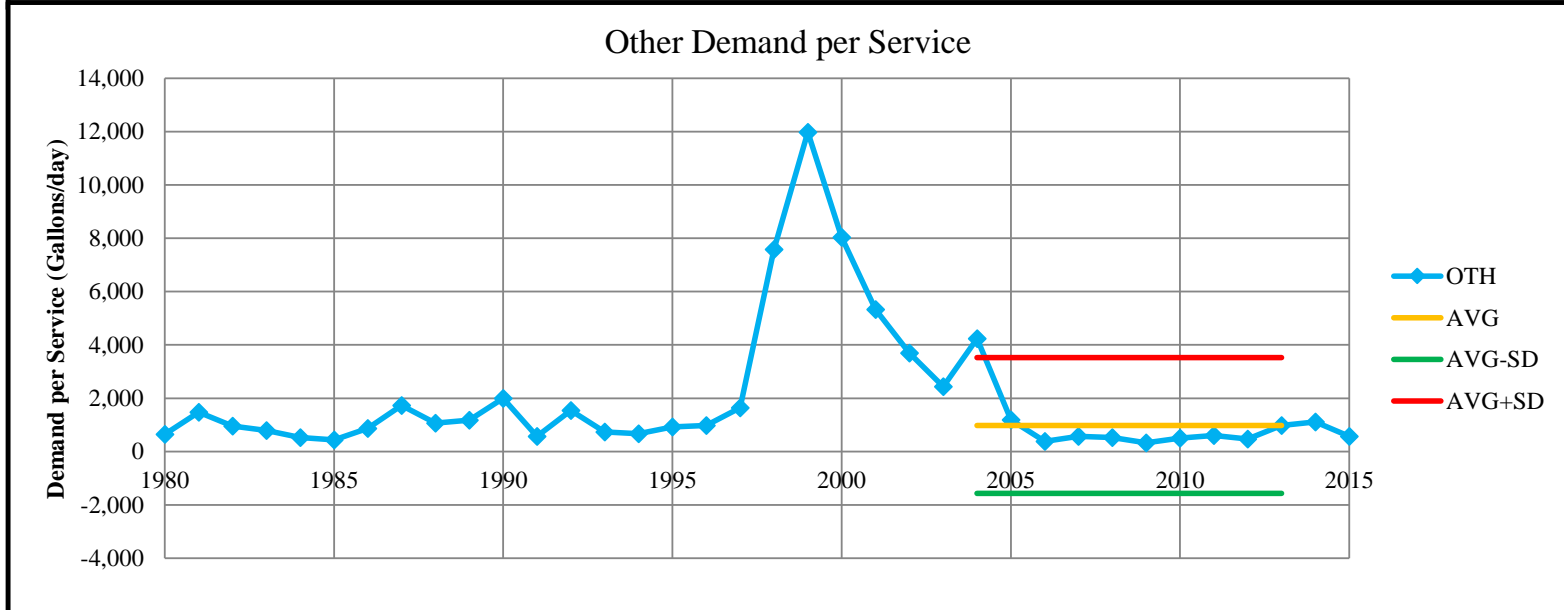
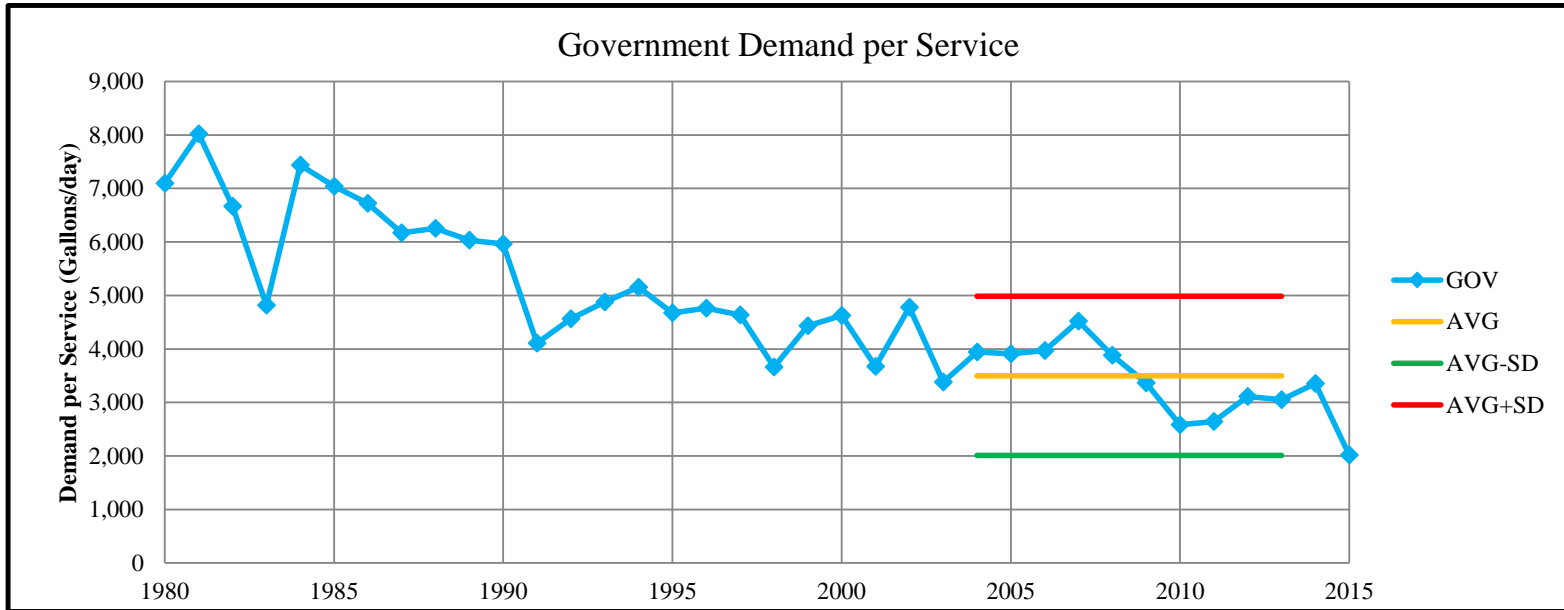
California Water Service Company - Palos Verdes District
Water Supply and Demand Analysis and Projections
Demand per Service (Gallons per Day)

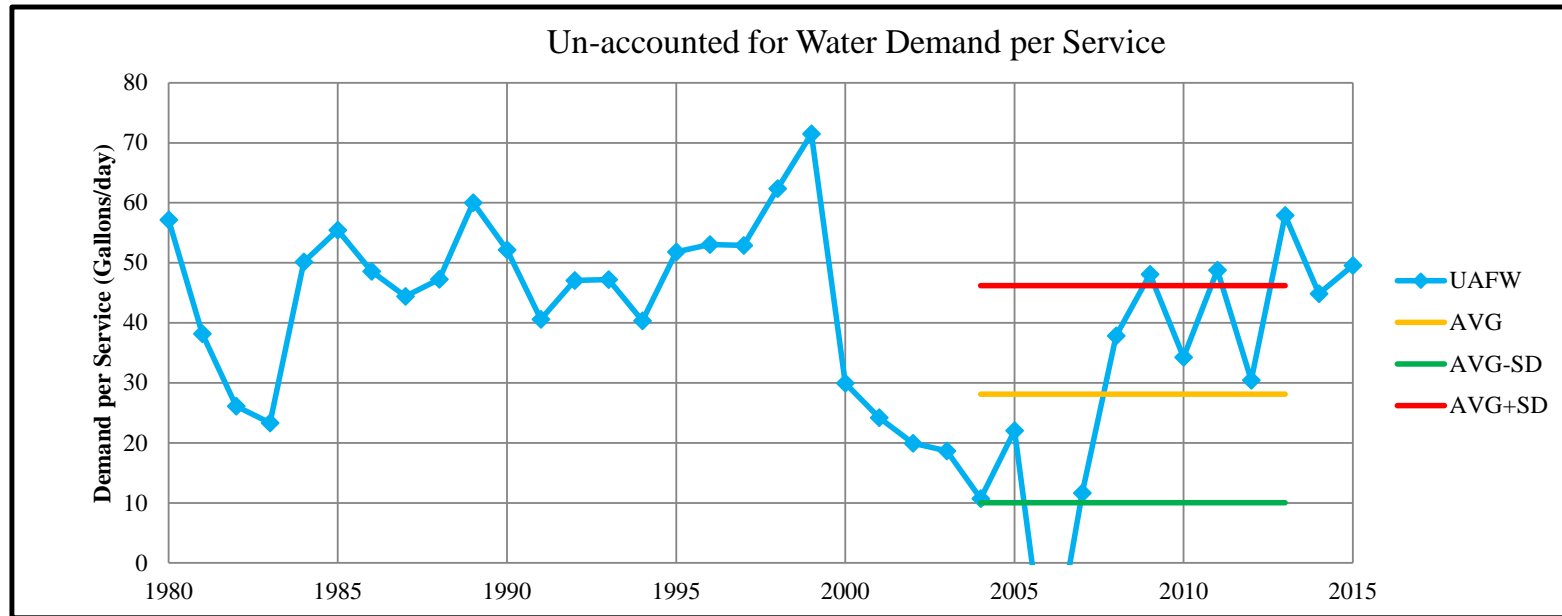
Worksheet 4

Year	SFR	MFR	COM	IND	GOV	OTH	REC	UAFW	Combined Demand/Serv
1980	551	4,027	2,716	4,634	7,095	643		57	738
1981	591	3,946	2,904	5,707	8,022	1,479		38	769
1982	536	3,854	2,673	3,932	6,668	962		26	689
1983	505	3,860	2,797	2,981	4,817	797		23	642
1984	613	4,227	3,415	4,522	7,438	530		50	813
1985	589	4,258	3,307	2,943	7,043	434		55	788
1986	585	4,164	3,239	2,302	6,723	870		49	771
1987	591	4,169	3,121	3,047	6,172	1,730		44	766
1988	615	4,352	3,103	3,967	6,257	1,069		47	792
1989	649	4,390	3,121	4,015	6,035	1,175		60	836
1990	652	4,312	3,161	4,858	5,964	1,992		52	831
1991	488	3,761	2,530	3,368	4,105	572		41	626
1992	539	3,808	2,670	2,245	4,564	1,538		47	687
1993	566	3,887	2,778	1,993	4,876	733		47	717
1994	611	4,180	2,885	1,890	5,153	671		40	760
1995	585	4,099	2,618	1,378	4,672	920		52	737
1996	622	4,164	2,618	1,391	4,761	982		53	775
1997	645	4,008	3,012	1,631	4,633	1,645		53	804
1998	581	4,205	3,065	1,090	3,663	7,578		62	751
1999	647	4,222	3,574	1,628	4,432	11,982		71	847
2000	683	4,389	3,692	1,721	4,627	8,038		30	840
2001	628	4,308	2,984	1,266	3,671	5,333		24	756
2002	689	4,183	3,471	1,622	4,781	3,696		20	827
2003	648	3,815	3,146	1,757	3,381	2,441		19	765
2004	684	3,887	3,344	1,719	3,940	4,233		11	801
2005	640	3,846	3,410	1,446	3,909	1,192		22	768
2006	678	3,645	3,522	1,767	3,971	380		-21	765
2007	731	3,691	4,163	2,463	4,521	566		12	867
2008	689	3,212	3,818	2,233	3,884	523		38	855
2009	641	2,792	3,531		3,365	328		48	820
2010	565	2,671	3,105		2,582	509		34	713
2011	564	2,649	2,959		2,642	606		49	723
2012	592	2,632	3,227		3,113	467		30	744
2013	604	2,572	3,457		3,049	981		58	788
2014	608	2,473	3,634		3,351	1,115		45	787
2015	474	2,224	2,735		2,015	568		50	621
AVG	639	3,160	3,453	1,762	3,498	979		28	768
SD	59	637	383	1,263	1,488	2,547		18	61









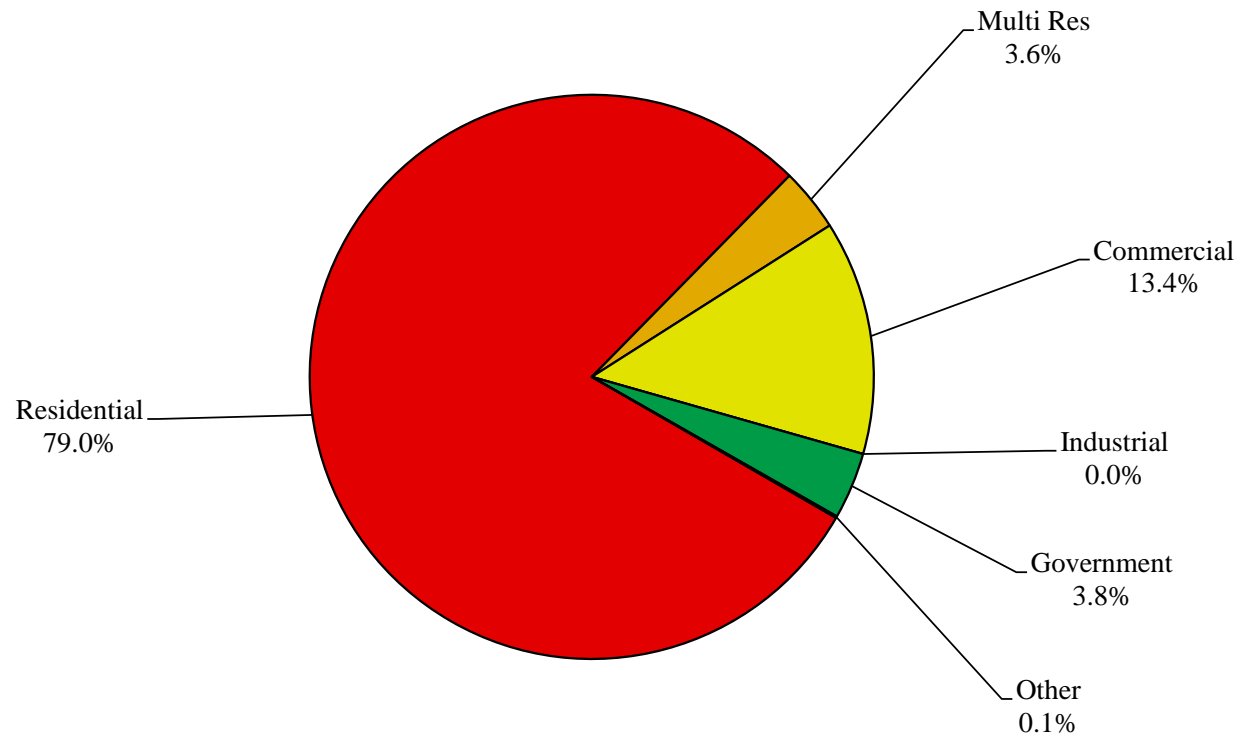
California Water Service Company - Palos Verdes District
Water Supply and Demand Analysis and Projections
Percentage Change in Annual Demand

Worksheet 5

Year	Residential	Multi Res	Commercial	Industrial	Government	Other	Unaccounted	Total
1981	7.81%	-0.76%	9.48%	18.95%	11.01%	72.76%	-32.81%	8.04%
1982	-9.20%	-2.16%	-7.53%	-21.33%	-11.60%	-37.44%	-31.49%	-9.14%
1983	-5.78%	0.40%	6.06%	-23.73%	-27.85%	-15.70%	-10.67%	-6.64%
1984	22.22%	9.61%	22.16%	45.15%	56.42%	-44.02%	116.54%	24.14%
1985	-3.33%	1.84%	-3.06%	-40.79%	-5.66%	-19.27%	11.10%	-3.47%
1986	-0.29%	-1.83%	-2.47%	-15.69%	-5.05%	100.26%	-12.01%	-0.97%
1987	1.63%	-0.22%	-3.57%	42.82%	-7.19%	130.62%	-8.03%	0.50%
1988	4.84%	4.39%	0.94%	14.31%	-1.71%	-11.56%	7.20%	3.94%
1989	6.18%	0.88%	1.41%	1.21%	-4.06%	-9.54%	27.70%	4.75%
1990	0.96%	-1.79%	-0.62%	21.01%	1.33%	69.56%	-12.64%	0.90%
1991	-24.64%	-12.78%	-20.21%	-32.61%	-30.98%	-75.61%	-21.81%	-24.42%
1992	10.59%	1.25%	5.00%	-32.86%	8.18%	85.12%	16.15%	9.48%
1993	4.82%	2.08%	2.05%	-16.88%	5.33%	-50.79%	0.11%	4.40%
1994	7.95%	7.54%	5.05%	-5.93%	6.08%	-17.03%	-14.53%	7.54%
1995	-4.09%	-2.00%	-7.78%	-27.05%	-9.33%	55.04%	28.62%	-4.64%
1996	6.40%	1.66%	0.22%	4.02%	2.02%	9.94%	2.53%	5.47%
1997	3.98%	-3.76%	13.70%	11.14%	-2.06%	118.21%	-0.15%	4.19%
1998	-9.77%	4.93%	1.28%	-25.88%	-21.32%	528.09%	18.31%	-8.05%
1999	12.05%	0.33%	16.44%	47.35%	21.86%	74.44%	15.18%	13.20%
2000	5.86%	2.39%	4.86%	-0.37%	6.01%	-38.79%	-57.92%	4.84%
2001	-7.92%	-3.49%	-18.51%	-26.45%	-19.78%	-10.81%	-19.08%	-9.40%
2002	9.57%	-2.50%	17.40%	35.95%	32.65%	-59.03%	-17.80%	10.11%
2003	-5.48%	-9.39%	-9.15%	2.10%	-28.92%	-19.94%	-6.03%	-7.21%
2004	5.64%	1.97%	5.17%	-8.82%	16.27%	69.28%	-42.43%	6.11%
2005	-6.22%	-1.06%	2.73%	-17.95%	0.01%	-71.73%	106.23%	-5.37%
2006	6.10%	-5.57%	3.64%	22.26%	3.96%	-72.59%	-193.50%	5.29%
2007	7.75%	0.91%	18.18%	39.34%	14.57%	70.12%	-156.51%	8.91%
2008	-6.33%	11.74%	6.69%	-61.47%	-3.96%	10.99%	225.13%	-4.49%
2009	-7.51%	3.52%	7.27%	-100.00%	-6.59%	-53.31%	26.96%	-5.54%
2010	-11.69%	-4.10%	-11.15%		-22.16%	34.59%	-28.58%	-11.84%
2011	-0.02%	0.22%	-4.48%		2.36%	9.10%	42.83%	-0.49%
2012	5.07%	-0.35%	8.87%		17.86%	-26.07%	-37.60%	5.89%
2013	2.04%	-1.37%	6.93%		-1.55%	163.03%	90.36%	2.44%
2014	0.71%	-4.14%	5.46%		10.23%	14.63%	-22.54%	1.65%
2015	-21.96%	-9.78%	-25.46%		-41.92%	-41.08%	10.50%	-23.10%

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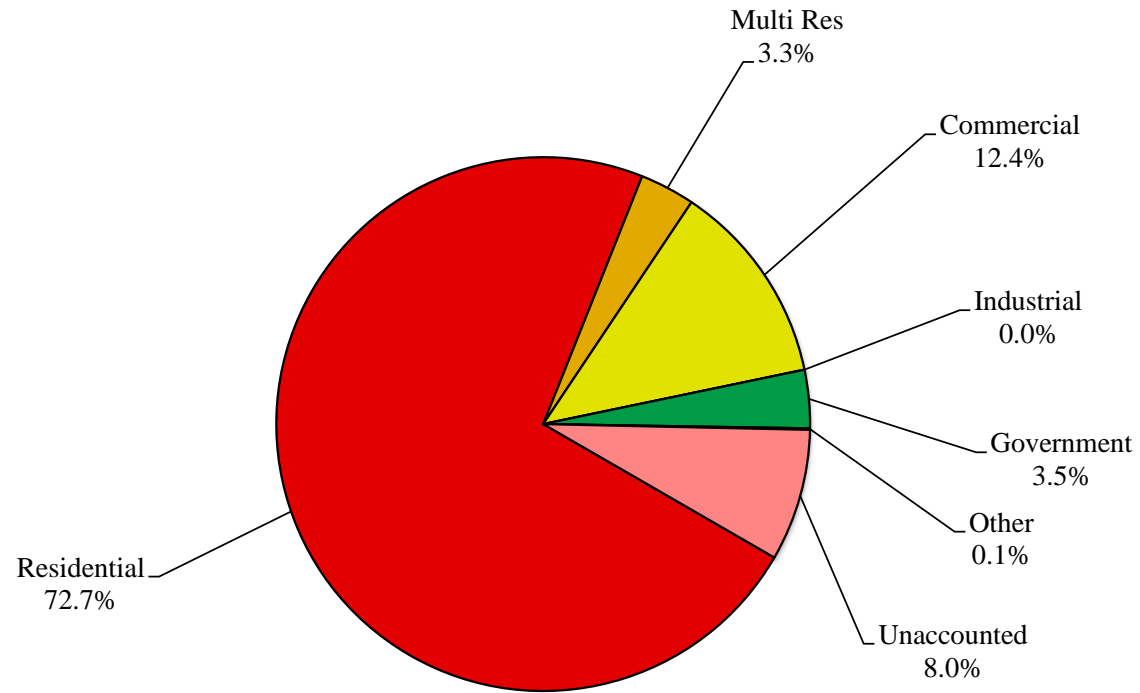
Percent of Total Sales by Type of Use (2015)



California Water Service Company - Palos Verdes District
Water Supply and Demand Analysis and Projections
Percentage of Total Sales

Year	Residential	Multi Res	Commercial	Industrial	Government	Other	Percent Total
1980	77.92%	3.86%	8.44%	0.38%	9.29%	0.11%	100.00%
1981	77.76%	3.55%	8.55%	0.41%	9.55%	0.18%	100.00%
1982	77.70%	3.82%	8.70%	0.36%	9.29%	0.13%	100.00%
1983	78.42%	4.11%	9.89%	0.29%	7.18%	0.11%	100.00%
1984	77.20%	3.63%	9.73%	0.34%	9.05%	0.05%	100.00%
1985	77.31%	3.82%	9.77%	0.21%	8.84%	0.04%	100.00%
1986	77.84%	3.79%	9.62%	0.18%	8.48%	0.09%	100.00%
1987	78.72%	3.76%	9.23%	0.25%	7.83%	0.20%	100.00%
1988	79.40%	3.78%	8.97%	0.28%	7.40%	0.17%	100.00%
1989	80.48%	3.64%	8.68%	0.27%	6.78%	0.15%	100.00%
1990	80.53%	3.54%	8.55%	0.32%	6.81%	0.24%	100.00%
1991	80.30%	4.09%	9.03%	0.29%	6.22%	0.08%	100.00%
1992	81.11%	3.78%	8.66%	0.18%	6.14%	0.13%	100.00%
1993	81.44%	3.70%	8.46%	0.14%	6.20%	0.06%	100.00%
1994	81.75%	3.70%	8.27%	0.12%	6.11%	0.05%	100.00%
1995	82.22%	3.80%	7.99%	0.09%	5.81%	0.08%	100.00%
1996	82.94%	3.66%	7.60%	0.09%	5.62%	0.08%	100.00%
1997	82.77%	3.38%	8.29%	0.10%	5.29%	0.17%	100.00%
1998	81.23%	3.86%	9.13%	0.08%	4.52%	1.18%	100.00%
1999	80.40%	3.42%	9.39%	0.10%	4.87%	1.81%	100.00%
2000	81.18%	3.34%	9.39%	0.10%	4.92%	1.06%	100.00%
2001	82.51%	3.56%	8.45%	0.08%	4.36%	1.04%	100.00%
2002	82.10%	3.15%	9.01%	0.10%	5.25%	0.39%	100.00%
2003	83.63%	3.08%	8.82%	0.11%	4.02%	0.33%	100.00%
2004	83.26%	2.96%	8.74%	0.09%	4.41%	0.53%	100.00%
2005	82.52%	3.09%	9.49%	0.08%	4.66%	0.16%	100.00%
2006	83.15%	2.77%	9.34%	0.09%	4.60%	0.04%	100.00%
2007	82.27%	2.57%	10.14%	0.12%	4.84%	0.06%	100.00%
2008	80.68%	3.01%	11.32%	0.05%	4.87%	0.08%	100.00%
2009	79.00%	3.30%	12.86%	0.00%	4.81%	0.04%	100.00%
2010	79.13%	3.58%	12.96%	0.00%	4.25%	0.06%	100.00%
2011	79.50%	3.61%	12.44%	0.00%	4.37%	0.06%	100.00%
2012	78.89%	3.40%	12.79%	0.00%	4.86%	0.04%	100.00%
2013	78.58%	3.27%	13.35%	0.00%	4.67%	0.11%	100.00%
2014	77.86%	3.08%	13.85%	0.00%	5.07%	0.13%	100.00%
2015	79.02%	3.62%	13.43%	0.00%	3.83%	0.10%	100.00%

Percent of Total Demand by Type of Use (2015)

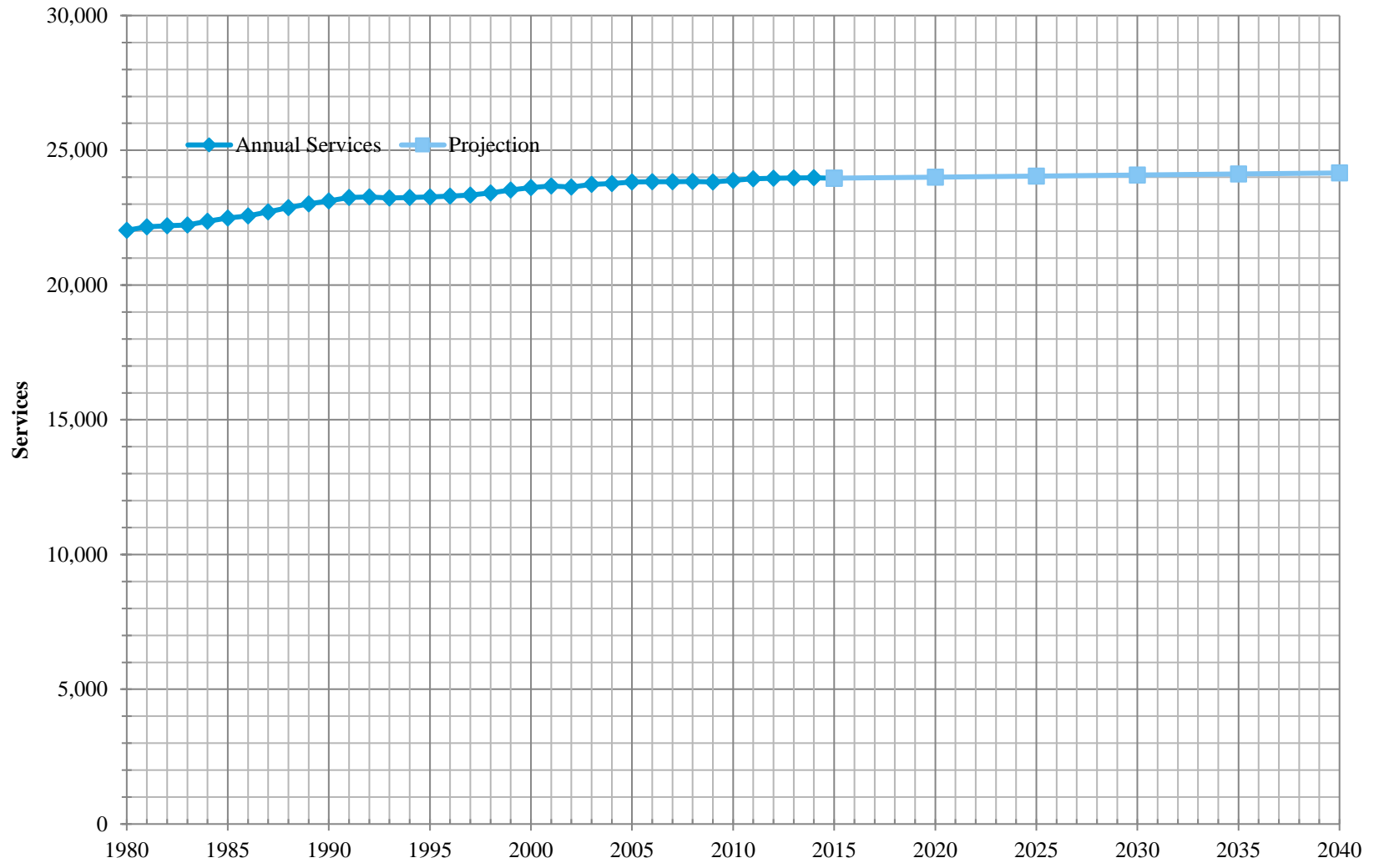


California Water Service Company - Palos Verdes District
Water Supply and Demand Analysis and Projections
Percentage of Total Demand

Worksheet 7

Year	Residential	Multi Res	Commercial	Industrial	Government	Other	Unaccounted	Percent Total
1980	71.88%	3.56%	7.79%	0.35%	8.57%	0.10%	7.75%	100.00%
1981	73.89%	3.37%	8.13%	0.39%	9.07%	0.17%	4.97%	100.00%
1982	74.76%	3.67%	8.37%	0.34%	8.94%	0.12%	3.79%	100.00%
1983	75.57%	3.96%	9.53%	0.28%	6.92%	0.11%	3.63%	100.00%
1984	72.44%	3.40%	9.13%	0.32%	8.49%	0.05%	6.17%	100.00%
1985	71.87%	3.56%	9.08%	0.20%	8.22%	0.04%	7.04%	100.00%
1986	72.94%	3.55%	9.02%	0.17%	7.94%	0.08%	6.30%	100.00%
1987	74.16%	3.55%	8.70%	0.24%	7.37%	0.19%	5.80%	100.00%
1988	74.66%	3.55%	8.43%	0.26%	6.96%	0.16%	5.97%	100.00%
1989	74.70%	3.38%	8.06%	0.25%	6.29%	0.13%	7.18%	100.00%
1990	75.47%	3.32%	8.01%	0.30%	6.38%	0.23%	6.28%	100.00%
1991	75.09%	3.82%	8.44%	0.27%	5.82%	0.07%	6.48%	100.00%
1992	75.55%	3.52%	8.07%	0.16%	5.72%	0.12%	6.85%	100.00%
1993	76.07%	3.45%	7.91%	0.13%	5.79%	0.06%	6.59%	100.00%
1994	77.41%	3.50%	7.83%	0.12%	5.79%	0.05%	5.31%	100.00%
1995	76.44%	3.53%	7.43%	0.09%	5.41%	0.07%	7.03%	100.00%
1996	77.27%	3.41%	7.08%	0.09%	5.24%	0.08%	6.84%	100.00%
1997	77.33%	3.16%	7.74%	0.09%	4.94%	0.16%	6.58%	100.00%
1998	74.48%	3.54%	8.37%	0.07%	4.15%	1.08%	8.31%	100.00%
1999	73.61%	3.13%	8.60%	0.10%	4.46%	1.66%	8.44%	100.00%
2000	78.29%	3.22%	9.06%	0.10%	4.75%	1.02%	3.57%	100.00%
2001	79.87%	3.45%	8.18%	0.08%	4.22%	1.01%	3.20%	100.00%
2002	80.12%	3.08%	8.79%	0.10%	5.13%	0.38%	2.41%	100.00%
2003	81.60%	3.00%	8.61%	0.11%	3.93%	0.33%	2.44%	100.00%
2004	82.15%	2.92%	8.63%	0.09%	4.35%	0.53%	1.34%	100.00%
2005	80.15%	3.00%	9.22%	0.08%	4.53%	0.15%	2.87%	100.00%
2006	85.39%	2.85%	9.59%	0.10%	4.72%	0.04%	-2.69%	100.00%
2007	81.16%	2.54%	10.00%	0.12%	4.77%	0.06%	1.34%	100.00%
2008	77.11%	2.87%	10.82%	0.05%	4.65%	0.07%	4.43%	100.00%
2009	74.36%	3.10%	12.11%	0.00%	4.53%	0.04%	5.86%	100.00%
2010	75.33%	3.41%	12.34%	0.00%	4.04%	0.05%	4.80%	100.00%
2011	74.13%	3.37%	11.60%	0.00%	4.07%	0.06%	6.75%	100.00%
2012	75.66%	3.26%	12.27%	0.00%	4.67%	0.04%	4.09%	100.00%
2013	72.81%	3.03%	12.37%	0.00%	4.33%	0.10%	7.35%	100.00%
2014	73.42%	2.91%	13.06%	0.00%	4.78%	0.12%	5.70%	100.00%
2015	72.71%	3.33%	12.35%	0.00%	3.52%	0.09%	7.99%	100.00%

Historical & Projected Services



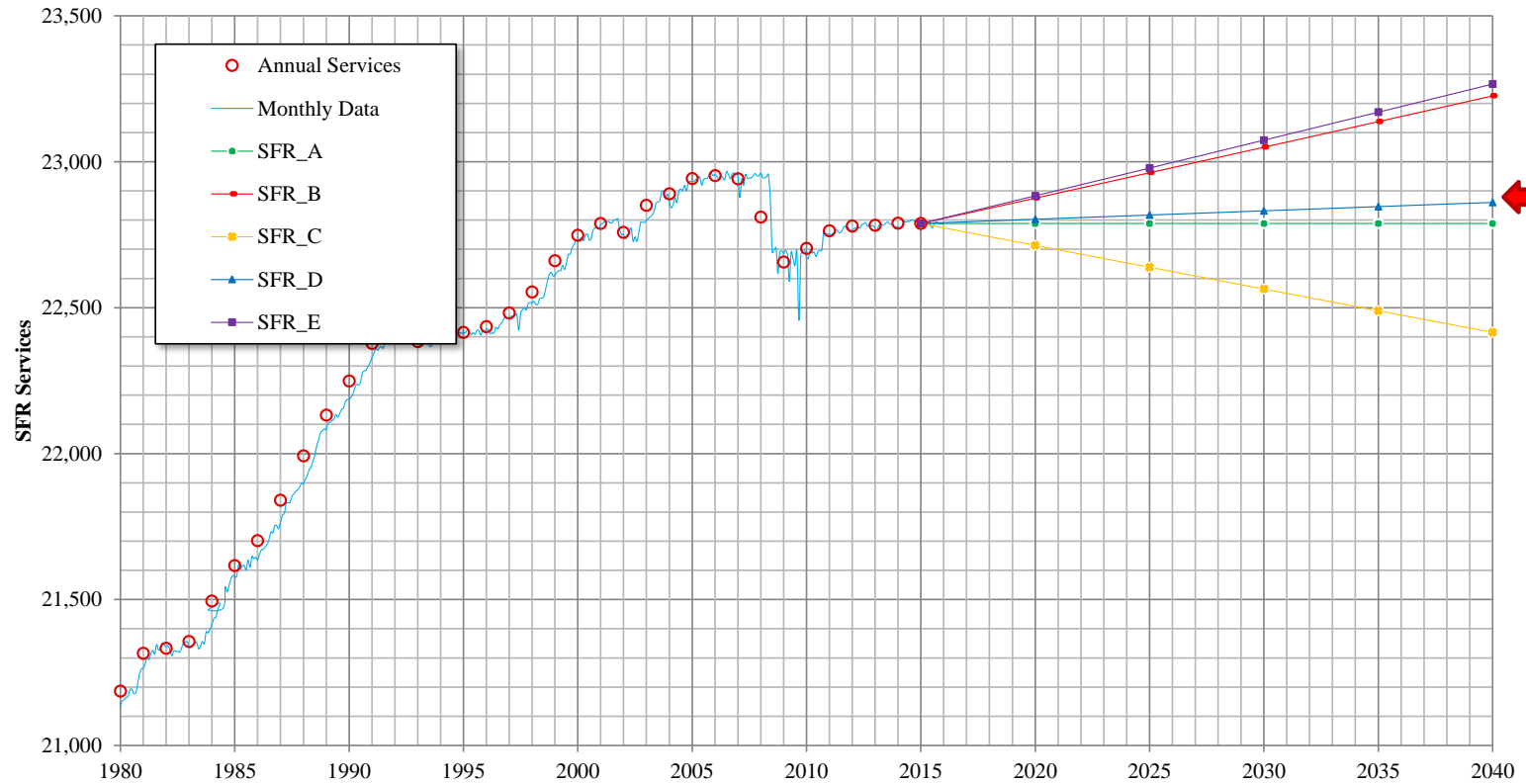
California Water Service Company - Palos Verdes District
Water Supply and Demand Analysis and Projections

Customer Category		Selected Trend	Growth Rate	Actual Services				Projected Services					
				2000	2005	2010	Base Year 2015	2015	2020	2025	2030	2035	2040
SFR	SFR_D	15 Yr. Avg.	0.01%	22,748	22,943	22,703	22,789	22,789	22,803	22,817	22,832	22,846	22,861
MFR	MFR_B	5 Yr. Avg.	0.30%	146	143	218	223	223	226	230	233	237	240
COM	COM_A	Zero Growth Rate	0.00%	487	495	677	672	672	672	672	672	672	672
IND	IND_A	Zero Growth Rate	0.00%	11	10	0	0	0	0	0	0	0	0
GOV	GOV_E	20 Yr. Avg.	1.35%	204	212	267	260	260	278	297	318	340	363
OTH	OTH_A	Zero Growth Rate	0.00%	25	24	18	23	23	23	23	23	23	23
TOTAL		Average growth rate 2011-2040	0.03%	23,620	23,826	23,883	23,966	23,966	24,002	24,039	24,078	24,118	24,159

California Water Service Company - Palos Verdes District

Water Supply and Demand Analysis and Projections

SFR Historical & Projected Services

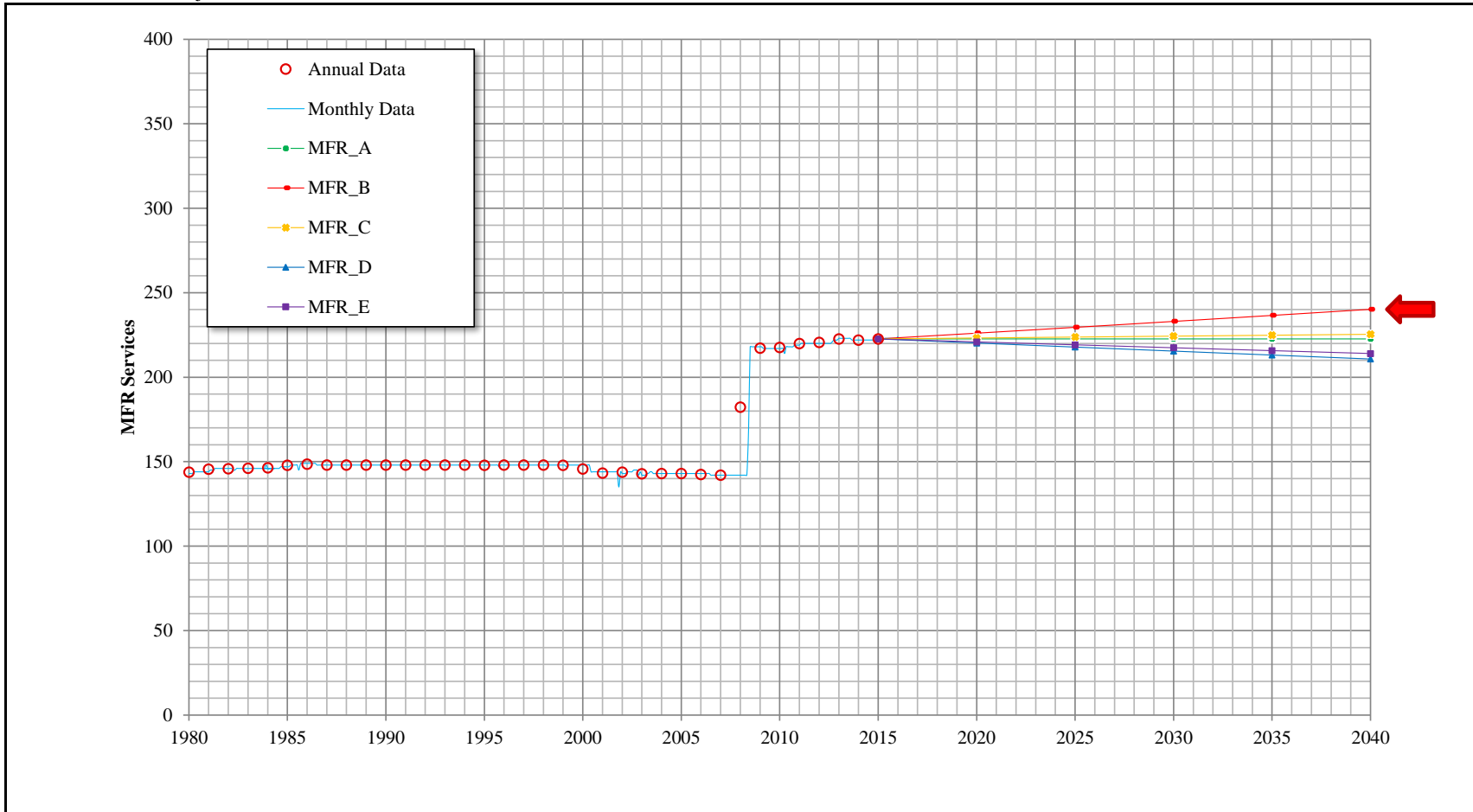


Customer Category	Trend	Growth Rate	Actual				Projected					
			2000	2005	2010	Base Year 2015	Services 2015	Services 2020	Services 2025	Services 2030	Services 2035	Services 2040
SFR			22,748	22,943	22,703	22,789	22,789	22,789	22,789	22,789	22,789	22,789
	SFR_A	Zero Growth Rate				22,789	22,789	22,789	22,789	22,789	22,789	22,789
	SFR_B	5 Yr. Avg.				22,789	22,789	22,875	22,962	23,050	23,137	23,225
	SFR_C	10 Yr. Avg.				22,789	22,789	22,713	22,639	22,564	22,490	22,415
	> SFR_D	15 Yr. Avg.				22,789	22,789	22,803	22,817	22,832	22,846	22,861
	SFR_E	20 Yr. Avg.				22,789	22,789	22,883	22,978	23,074	23,170	23,266

California Water Service Company - Palos Verdes District

Water Supply and Demand Analysis and Projections

MFR Historical & Projected Services

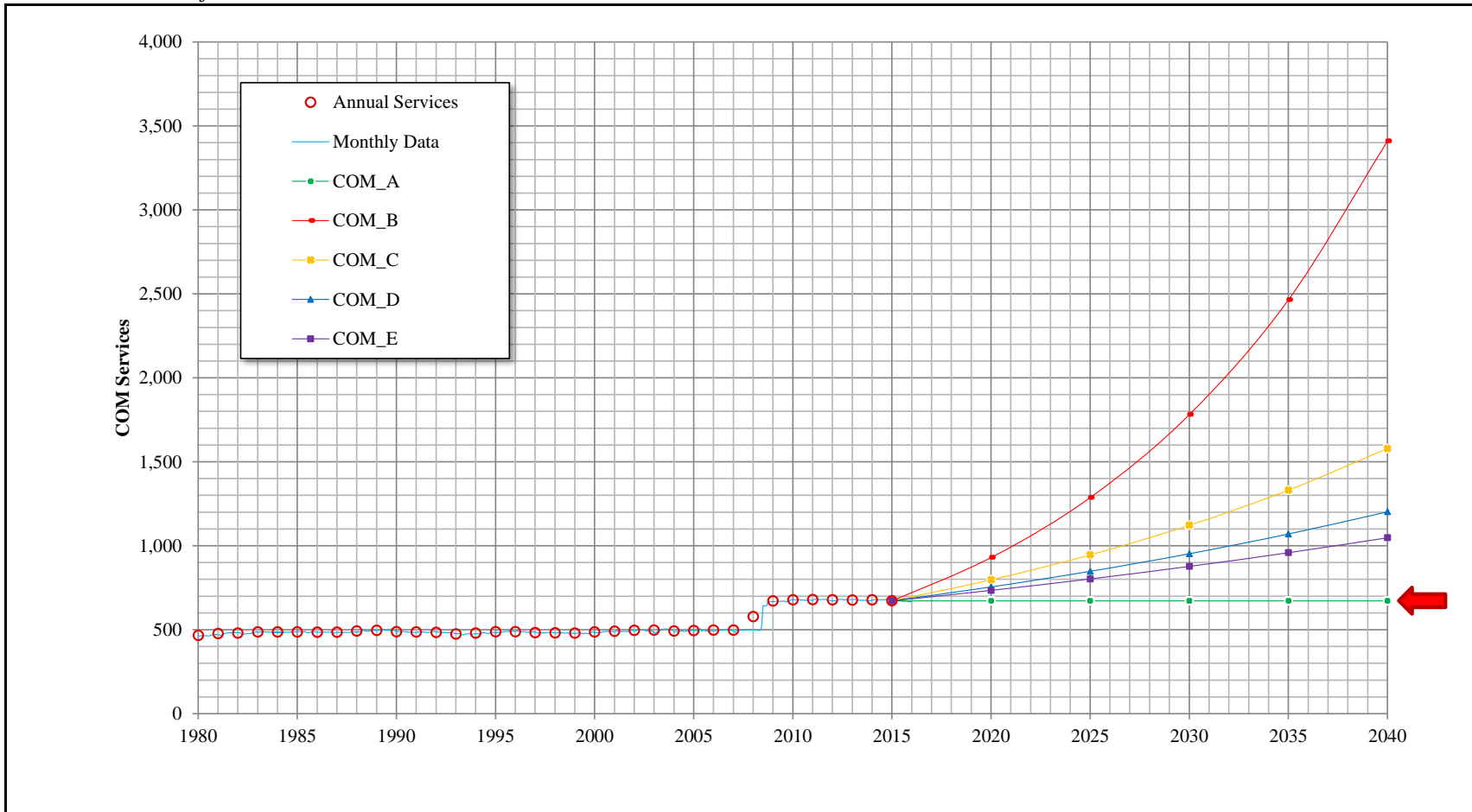


Customer Category	Trend	Growth Rate	Actual				Projected							
			2000	2005	2010	Base Year 2015	Services 2015	Services 2020	Services 2025	Services 2030	Services 2035	Services 2040		
MFR			146	143	218	223								
	MFR_A	Zero Growth Rate				223								
	> MFR_B	5 Yr. Avg.				223	223	226	230	233	237	240		
	MFR_C	10 Yr. Avg.				223	223	223	224	224	225	225		
	MFR_D	15 Yr. Avg.				223	223	220	218	215	213	211		
	MFR_E	20 Yr. Avg.				223	223	221	219	217	216	214		

California Water Service Company - Palos Verdes District

Water Supply and Demand Analysis and Projections

COM Historical & Projected Services

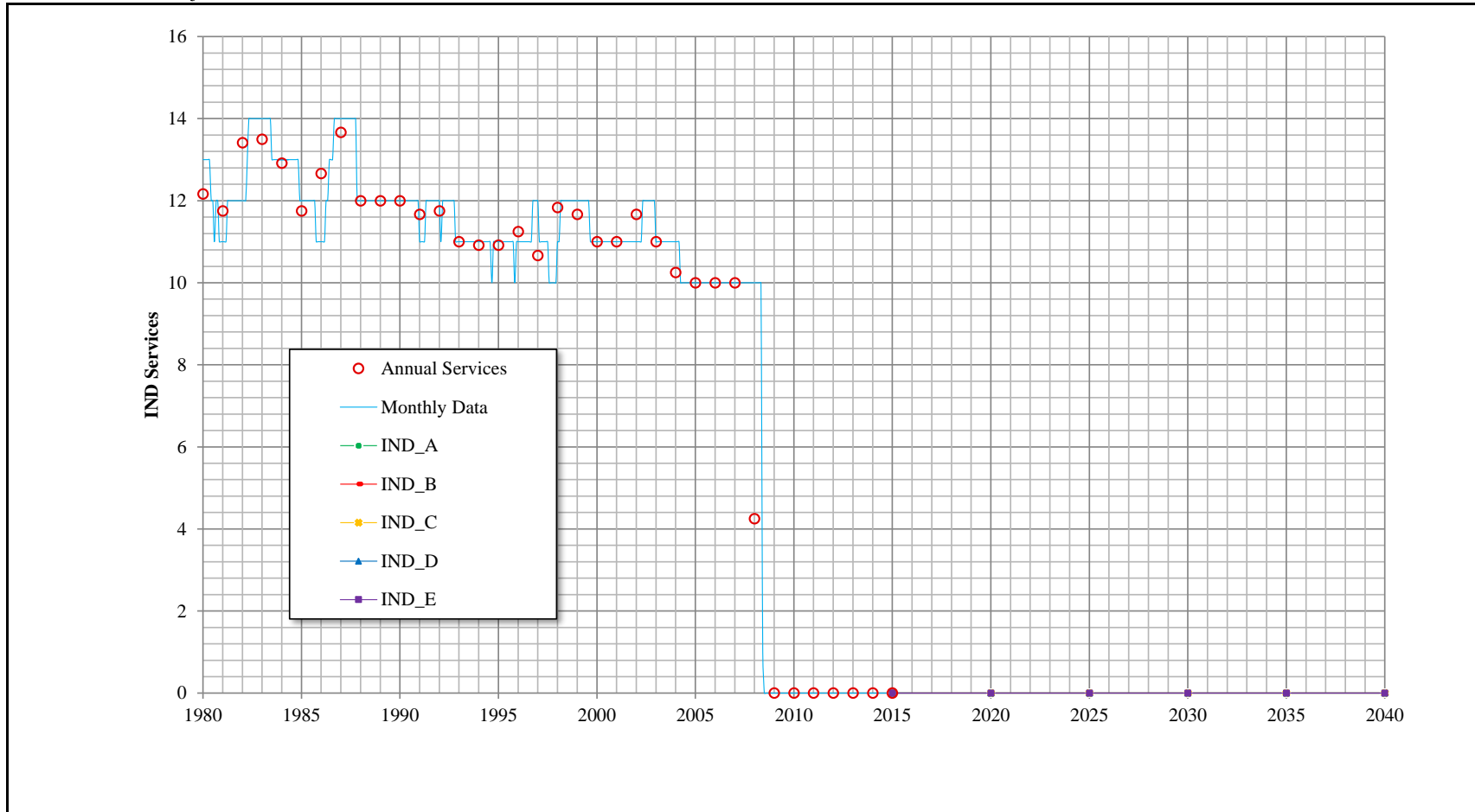


Customer Category	Trend	Growth Rate	Actual				Projected					
			2000	2005	2010	Base Year 2015	Services 2015	Services 2020	Services 2025	Services 2030	Services 2035	Services 2040
COM	>	COM_A	487	495	677	672	672	672	672	672	672	672
		COM_B				672	672	930	1,286	1,780	2,464	3,409
		COM_C				672	672	797	945	1,122	1,331	1,579
		COM_D				672	672	755	848	952	1,070	1,202
		COM_E				672	672	734	802	877	958	1,048

California Water Service Company - Palos Verdes District

Water Supply and Demand Analysis and Projections

IND Historical & Projected Services

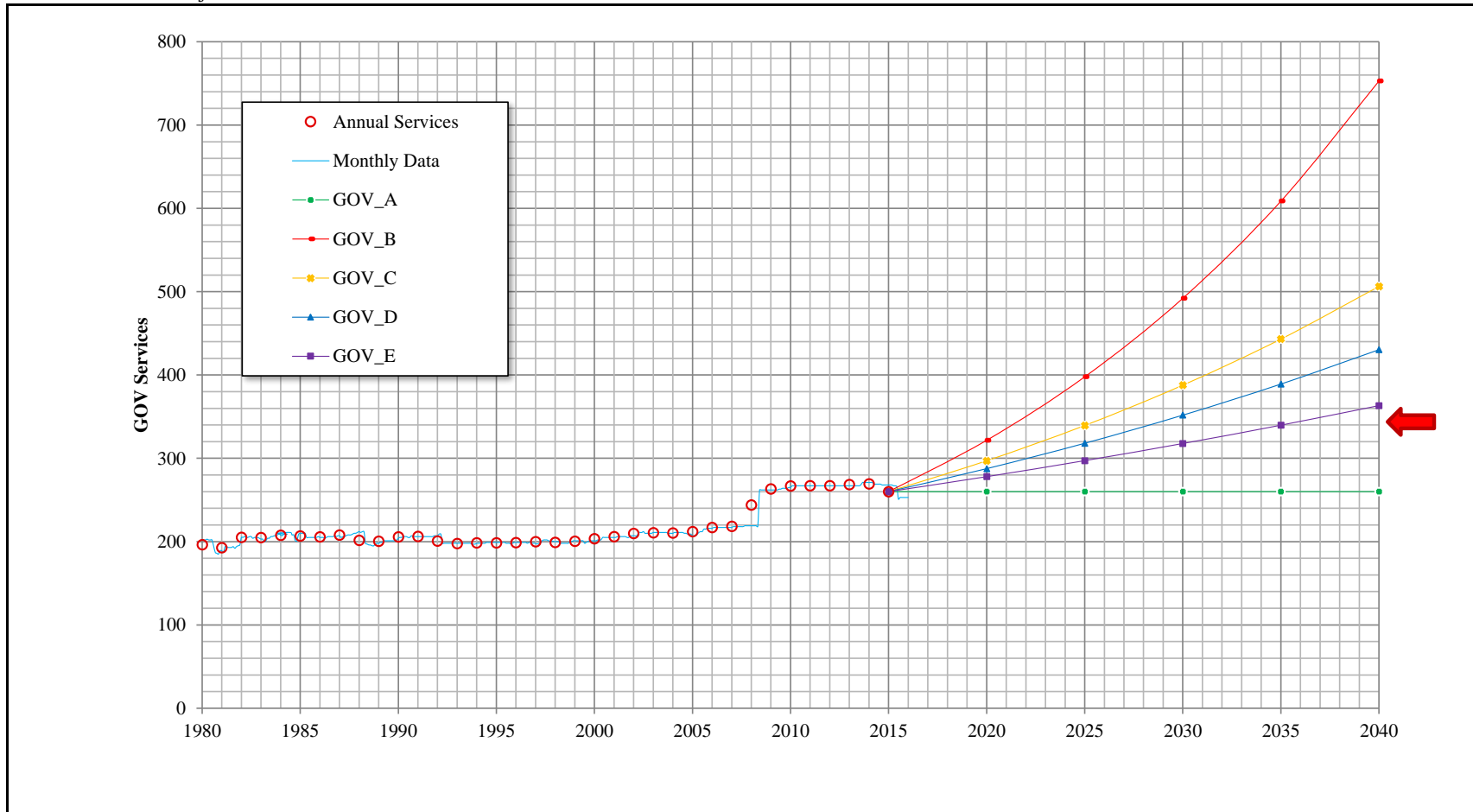


Customer Category	Trend	Growth Rate	Actual			Base Year	Projected							
			2000	2005	2010		2015	Services 2015	Services 2020	Services 2025	Services 2030	Services 2035	Services 2040	
IND	>	IND_A	Zero Growth Rate	0.00%	11	10	0	0	0	0	0	0	0	0
		IND_B	5 Yr. Avg.	0.00%				0	0	0	0	0	0	0
		IND_C	10 Yr. Avg.	0.00%				0	0	0	0	0	0	0
		IND_D	15 Yr. Avg.	0.00%				0	0	0	0	0	0	0
		IND_E	20 Yr. Avg.	0.00%				0	0	0	0	0	0	0

California Water Service Company - Palos Verdes District

Water Supply and Demand Analysis and Projections

GOV Historical & Projected Services

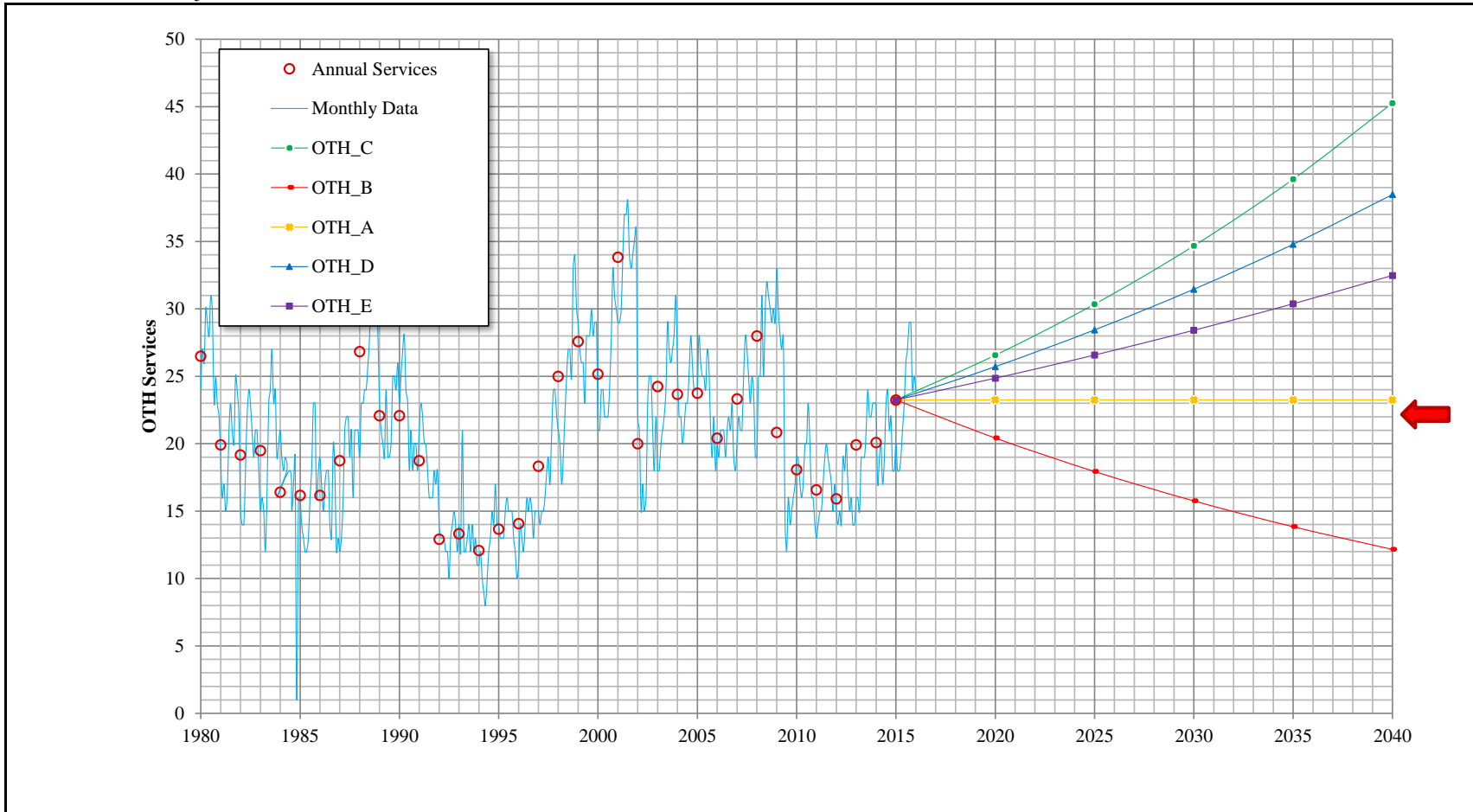


Customer Category	Trend	Growth Rate	Actual				Projected					
			2000	2005	2010	Base Year 2015	Services 2015	Services 2020	Services 2025	Services 2030	Services 2035	Services 2040
GOV			204	212	267	260	260	260	260	260	260	260
	GOV_A	Zero Growth Rate				260	260	260	260	260	260	260
	GOV_B	5 Yr. Avg.				260	260	322	398	492	609	753
	GOV_C	10 Yr. Avg.				260	260	297	339	388	443	506
	GOV_D	15 Yr. Avg.				260	260	288	318	352	389	430
	> GOV_E	20 Yr. Avg.				260	260	278	297	318	340	363

California Water Service Company - Palos Verdes District

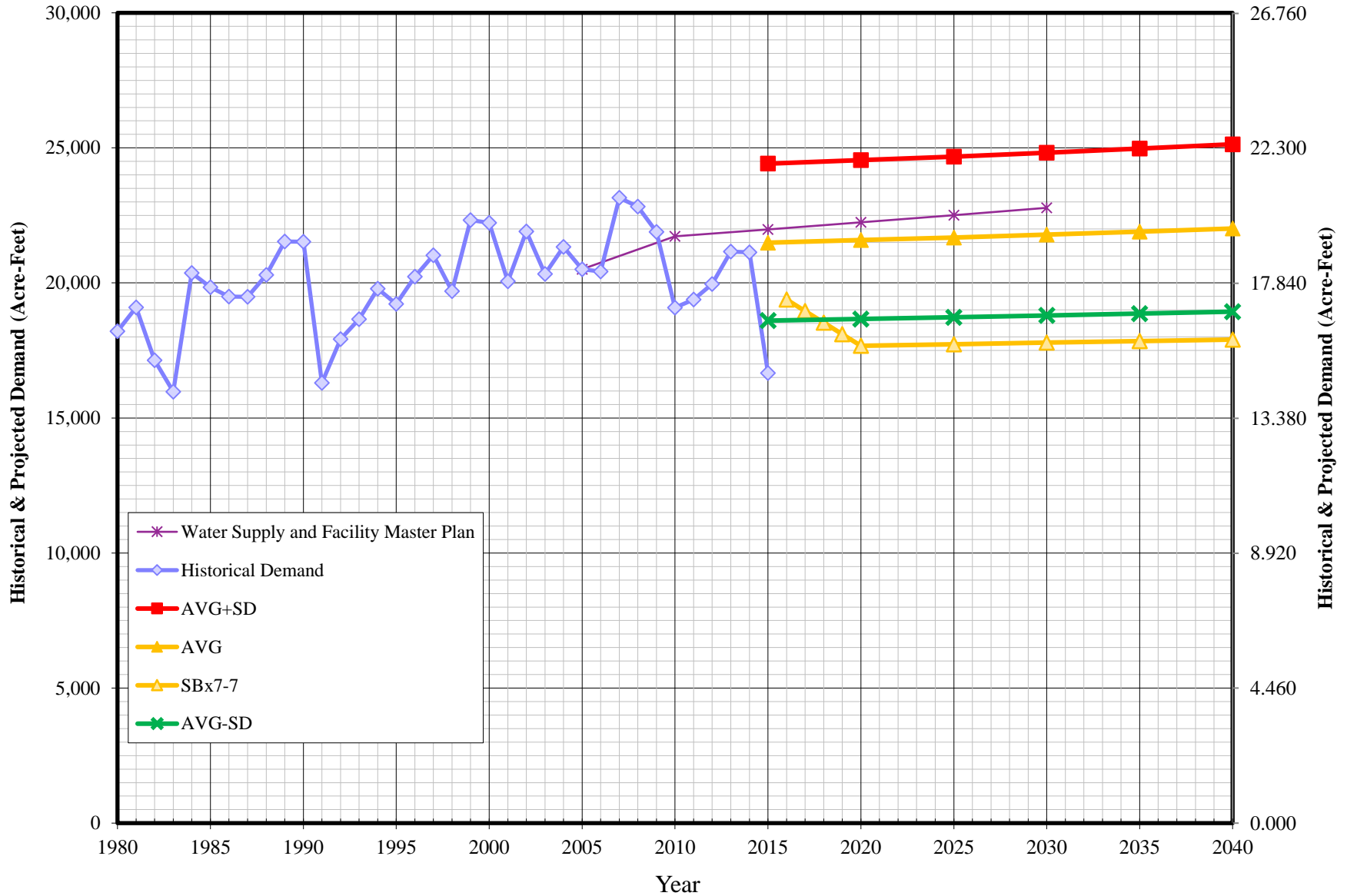
Water Supply and Demand Analysis and Projections

OTH Historical & Projected Services



Customer Category	Trend		Growth Rate	Actual				Projected						
				2000	2005	2010	Base Year	Services 2015	Services 2020	Services 2025	Services 2030	Services 2035	Services 2040	
				2000	2005	2010	2015	2015	2020	2025	2030	2035	2040	
OTH	>	OTH_A	Zero Growth Rate	0.00%	25	24	18	23	23	23	23	23	23	23
		OTH_B	5 Yr. Avg.	-2.56%				23	23	20	18	16	14	12
		OTH_C	10 Yr. Avg.	2.70%				23	23	27	30	35	40	45
		OTH_D	15 Yr. Avg.	2.04%				23	23	26	28	31	35	38
		OTH_E	20 Yr. Avg.	1.35%				23	23	25	27	28	30	32

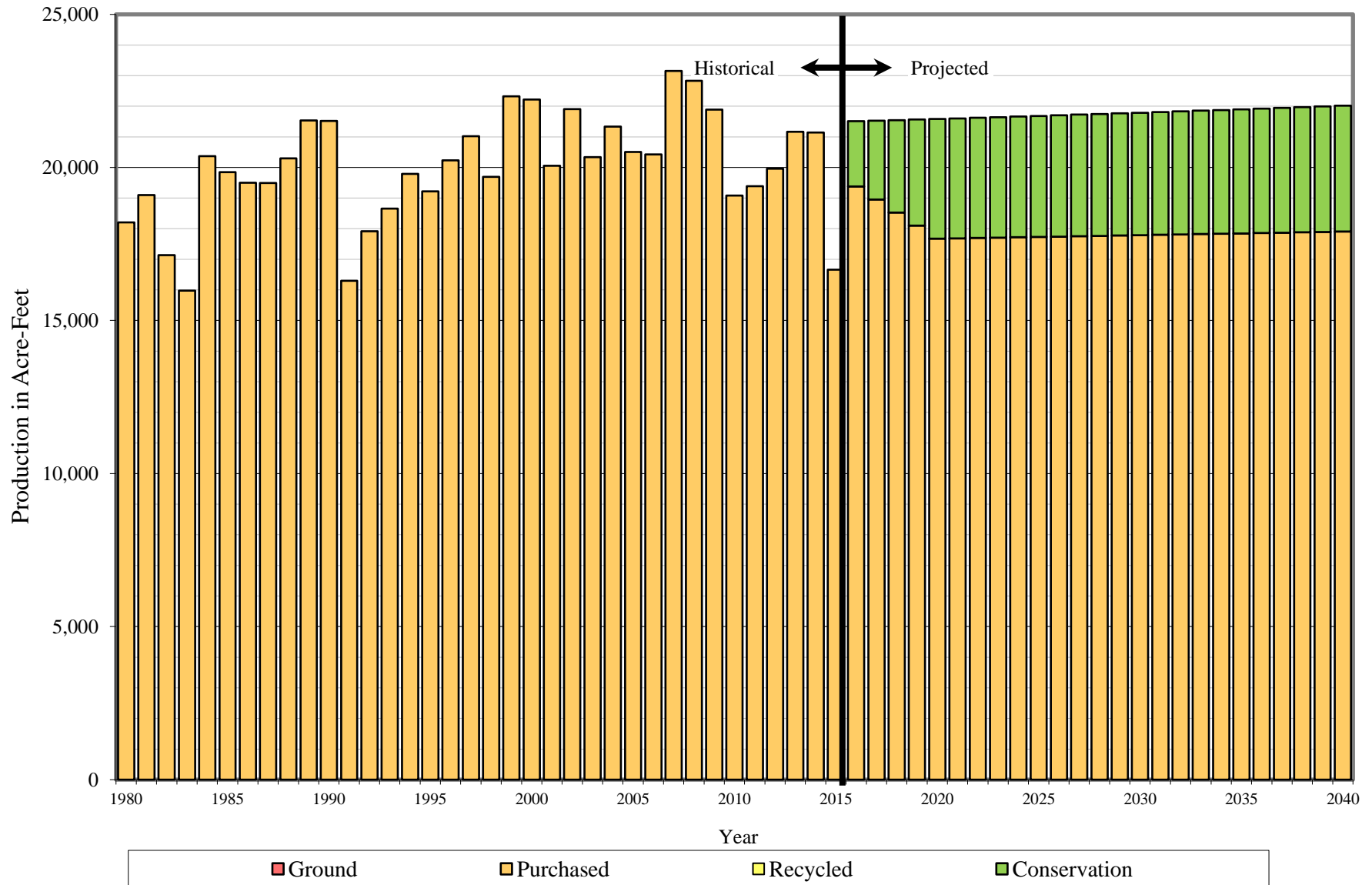
Historical & Projected Demand (PV)



California Water Service Company - Palos Verdes District
Water Supply and Demand Analysis and Projections

Customer Category	Actual Demand (AFY)								Projected Demand (AFY)					
	1980	1985	1990	1995	2000	2005	2010	2015	2015	2020	2025	2030	2035	2040
SFR	13,087	14,262	16,242	14,692	17,397	16,436	14,376	12,112	17,799	17,810	17,821	17,833	17,844	17,855
									16,305	16,315	16,326	16,336	16,346	16,357
									14,811	14,820	14,830	14,839	14,849	14,858
MFR	648	706	715	679	716	616	651	555	947	961	976	991	1,006	1,021
									788	800	812	825	837	850
									629	639	649	659	669	679
COM	1,418	1,803	1,725	1,429	2,013	1,891	2,354	2,058	2,886	2,886	2,886	2,886	2,886	2,886
									2,598	2,598	2,598	2,598	2,598	2,598
									2,310	2,310	2,310	2,310	2,310	2,310
IND	63	39	65	17	21	16	0	0	0	0	0	0	0	0
									0	0	0	0	0	0
									0	0	0	0	0	0
GOV	1,561	1,631	1,373	1,039	1,055	928	772	587	1,452	1,552	1,660	1,775	1,897	2,028
									1,019	1,089	1,164	1,245	1,331	1,423
									585	626	669	715	765	818
OTH	19	8	49	14	227	32	10	15	92	92	92	92	92	92
									25	25	25	25	25	25
									0	0	0	0	0	0
UAWF	1,412	1,396	1,351	1,351	793	588	916	1,331	1,240	1,242	1,244	1,246	1,248	1,250
									755	756	757	758	759	761
									269	270	270	270	271	271
TOTAL (AFY)	18,208	19,844	21,521	19,220	22,222	20,507	19,080	16,658	24,416	24,544	24,679	24,822	24,973	25,133
									21,490	21,584	21,683	21,788	21,898	22,014
									18,605	18,665	18,728	18,794	18,863	18,936
TOTAL (MGD)	16.255	17.716	19.213	17.158	19.838	18.307	17.033	14.871	21.797	21.912	22.032	22.160	22.295	22.438
									19.185	19.269	19.357	19.451	19.549	19.653
									16.609	16.663	16.719	16.778	16.840	16.905

Historical and Projected Distribution of Demand by Source



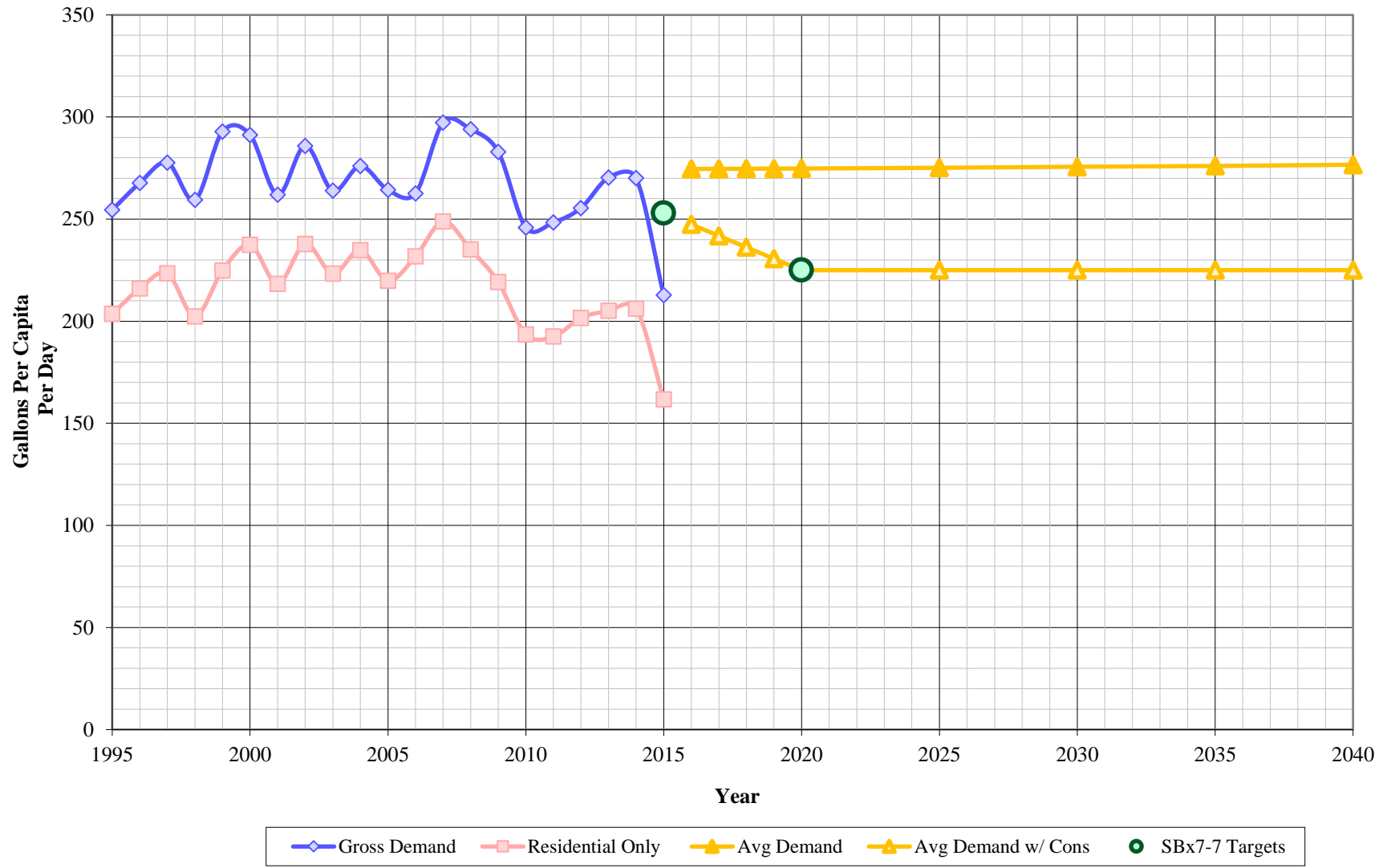
California Water Service Company - Palos Verdes District
Water Supply and Demand Analysis and Projections
Historical and Projected Distribution of Demand by Source

Year	Purchased Water		Ground Water		Recycled Water		Conservation		Total	
	MGD	AFY	MGD	AFY	MGD	AFY	MGD	AFY	MGD	AFY
1980	16.26	18,208	0.00	0	0.00	0			16.26	18,208
1981	17.05	19,095	0.00	0	0.00	0			17.05	19,095
1982	15.30	17,138	0.00	0	0.00	0			15.30	17,138
1983	14.26	15,974	0.00	0	0.00	0			14.26	15,974
1984	18.18	20,367	0.00	0	0.00	0			18.18	20,367
1985	17.72	19,844	0.00	0	0.00	0			17.72	19,844
1986	17.41	19,497	0.00	0	0.00	0			17.41	19,497
1987	17.40	19,490	0.00	0	0.00	0			17.40	19,490
1988	18.12	20,295	0.00	0	0.00	0			18.12	20,295
1989	19.23	21,537	0.00	0	0.00	0			19.23	21,537
1990	19.21	21,521	0.00	0	0.00	0			19.21	21,521
1991	14.55	16,301	0.00	0	0.00	0			14.55	16,301
1992	16.00	17,918	0.00	0	0.00	0			16.00	17,918
1993	16.65	18,653	0.00	0	0.00	0			16.65	18,653
1994	17.67	19,788	0.00	0	0.00	0			17.67	19,788
1995	17.16	19,220	0.00	0	0.00	0			17.16	19,220
1996	18.06	20,232	0.00	0	0.00	0			18.06	20,232
1997	18.77	21,021	0.00	0	0.00	0			18.77	21,021
1998	17.58	19,692	0.00	0	0.00	0			17.58	19,692
1999	19.93	22,324	0.00	0	0.00	0			19.93	22,324
2000	19.84	22,222	0.00	0	0.00	0			19.84	22,222
2001	17.91	20,057	0.00	0	0.00	0			17.91	20,057
2002	19.56	21,906	0.00	0	0.00	0			19.56	21,906
2003	18.15	20,332	0.00	0	0.00	0			18.15	20,332
2004	19.05	21,334	0.00	0	0.00	0			19.05	21,334
2005	18.31	20,507	0.00	0	0.00	0			18.31	20,507
2006	18.23	20,422	0.00	0	0.00	0			18.23	20,422
2007	20.67	23,151	0.00	0	0.00	0			20.67	23,151
2008	20.38	22,826	0.00	0	0.00	0			20.38	22,826
2009	19.54	21,889	0.00	0	0.00	0			19.54	21,889
2010	17.04	19,084	0.00	0	0.00	0			17.04	19,084

Year	Purchased Water		Ground Water		Recycled Water		Conservation		Total	
	MGD	AFY	MGD	AFY	MGD	AFY	MGD	AFY	MGD	AFY
2011	17.31	19,388	0.00	0	0.00	0	0.00	0	17.31	19,388
2012	17.82	19,960	0.00	0	0.00	0	0.00	0	17.82	19,960
2013	18.89	21,165	0.00	0	0.00	0	0.00	0	18.89	21,165
2014	18.87	21,138	0.00	0	0.00	0	0.00	0	18.87	21,138
2015	14.87	16,659	0.00	0	0.00	0	0.00	0	14.87	16,659
2016	17.30	19,383	0.00	0	0.00	0	1.90	2,125	19.20	21,508
2017	16.92	18,956	0.00	0	0.00	0	2.29	2,571	19.22	21,527
2018	16.54	18,529	0.00	0	0.00	0	2.69	3,017	19.23	21,546
2019	16.16	18,101	0.00	0	0.00	0	3.09	3,463	19.25	21,565
2020	15.78	17,673	0.00	0	0.00	0	3.49	3,911	19.27	21,584
2021	15.79	17,684	0.00	0	0.00	0	3.50	3,919	19.29	21,603
2022	15.80	17,696	0.00	0	0.00	0	3.51	3,927	19.30	21,623
2023	15.81	17,707	0.00	0	0.00	0	3.51	3,936	19.32	21,643
2024	15.82	17,719	0.00	0	0.00	0	3.52	3,944	19.34	21,663
2025	15.83	17,730	0.00	0	0.00	0	3.53	3,953	19.36	21,683
2026	15.84	17,741	0.00	0	0.00	0	3.54	3,962	19.38	21,704
2027	15.85	17,753	0.00	0	0.00	0	3.55	3,971	19.39	21,724
2028	15.86	17,764	0.00	0	0.00	0	3.55	3,981	19.41	21,745
2029	15.87	17,776	0.00	0	0.00	0	3.56	3,990	19.43	21,766
2030	15.88	17,788	0.00	0	0.00	0	3.57	4,000	19.45	21,788
2031	15.89	17,799	0.00	0	0.00	0	3.58	4,010	19.47	21,809
2032	15.90	17,811	0.00	0	0.00	0	3.59	4,020	19.49	21,831
2033	15.91	17,822	0.00	0	0.00	0	3.60	4,030	19.51	21,853
2034	15.92	17,834	0.00	0	0.00	0	3.61	4,041	19.53	21,875
2035	15.93	17,846	0.00	0	0.00	0	3.62	4,052	19.55	21,898
2036	15.94	17,858	0.00	0	0.00	0	3.63	4,063	19.57	21,921
2037	15.95	17,869	0.00	0	0.00	0	3.64	4,074	19.59	21,944
2038	15.96	17,881	0.00	0	0.00	0	3.65	4,086	19.61	21,967
2039	15.97	17,893	0.00	0	0.00	0	3.66	4,097	19.63	21,991
2040	15.98	17,905	0.00	0	0.00	0	3.67	4,109	19.65	22,014

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Gross Per Capita Consumption (PV)



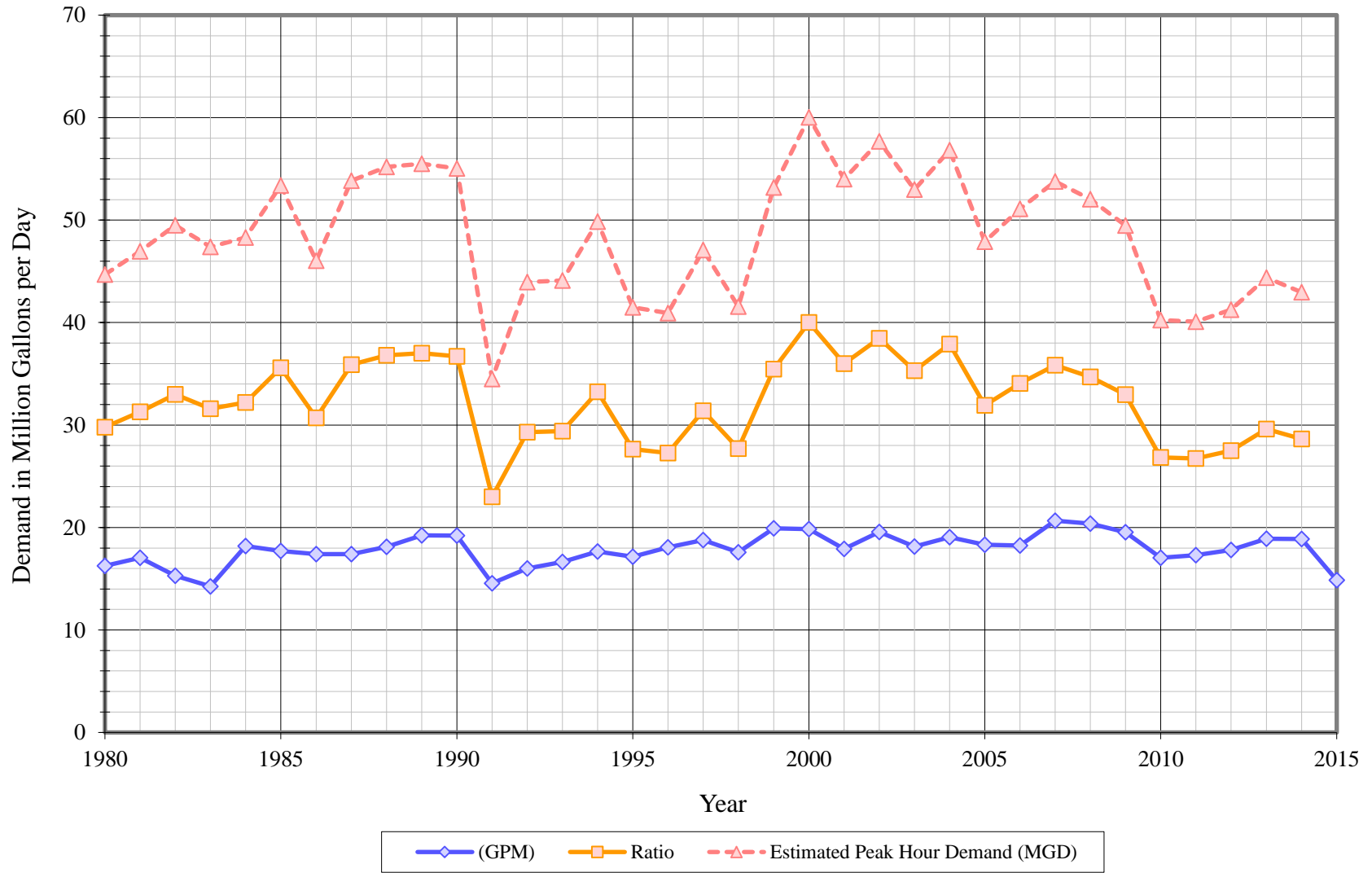
California Water Service Company - Palos Verdes Dist Worksheet 15
Water Supply and Demand Analysis and Projections
Per Capita Water Demand Calculation

Year	POP	Historical				Projected			
		Gross Demand		Residential Only		Avg Demand		Avg Demand w/ Cons	
		Usage (AFY)	Per Capita (GPCPD)	Usage (AFY)	Per Capita (GPCPD)	Demand (AFY)	Per Capita (GPCPD)	Demand (AFY)	Per Capita (GPCPD)
1995	67,408	19,220	255	15,371	204				
1996	67,464	20,232	268	16,323	216				
1997	67,583	21,021	278	16,919	223				
1998	67,769	19,692	259	15,364	202				
1999	68,038	22,324	293	17,133	225				
2000	68,113	22,222	291	18,113	237				
2001	68,351	20,057	262	16,710	218				
2002	68,405	21,906	286	18,226	238				
2003	68,773	20,332	264	17,201	223				
2004	69,006	21,334	276	18,149	235				
2005	69,269	20,507	264	17,052	220				
2006	69,422	20,422	263	18,020	232				
2007	69,523	23,151	297	19,377	249				
2008	69,317	22,826	294	18,257	235				
2009	69,054	21,889	283	16,957	219				
2010	69,301	19,084	246	15,027	194				
2011	69,686	19,388	248	15,025	192				
2012	69,762	19,960	255	15,752	202				
2013	69,883	21,165	270	16,052	205				
2014	69,865	21,138	270	16,135	206				
2015	69,899	16,659	213	12,667	162				
2016	69,944					21,508	275	19,383	247
2017	69,988					21,527	275	18,956	242
2018	70,033					21,546	275	18,529	236
2019	70,077					21,565	275	18,101	231
2020	70,122					21,584	275	17,673	225
2025	70,348					21,683	275	17,730	225
2030	70,577					21,788	276	17,788	225
2035	70,808					21,898	276	17,846	225
2040	71,043					22,014	277	17,905	225

SBx7-7 Targets

2015	253
2020	225

Average Day, Maximum Day, Peak Demand

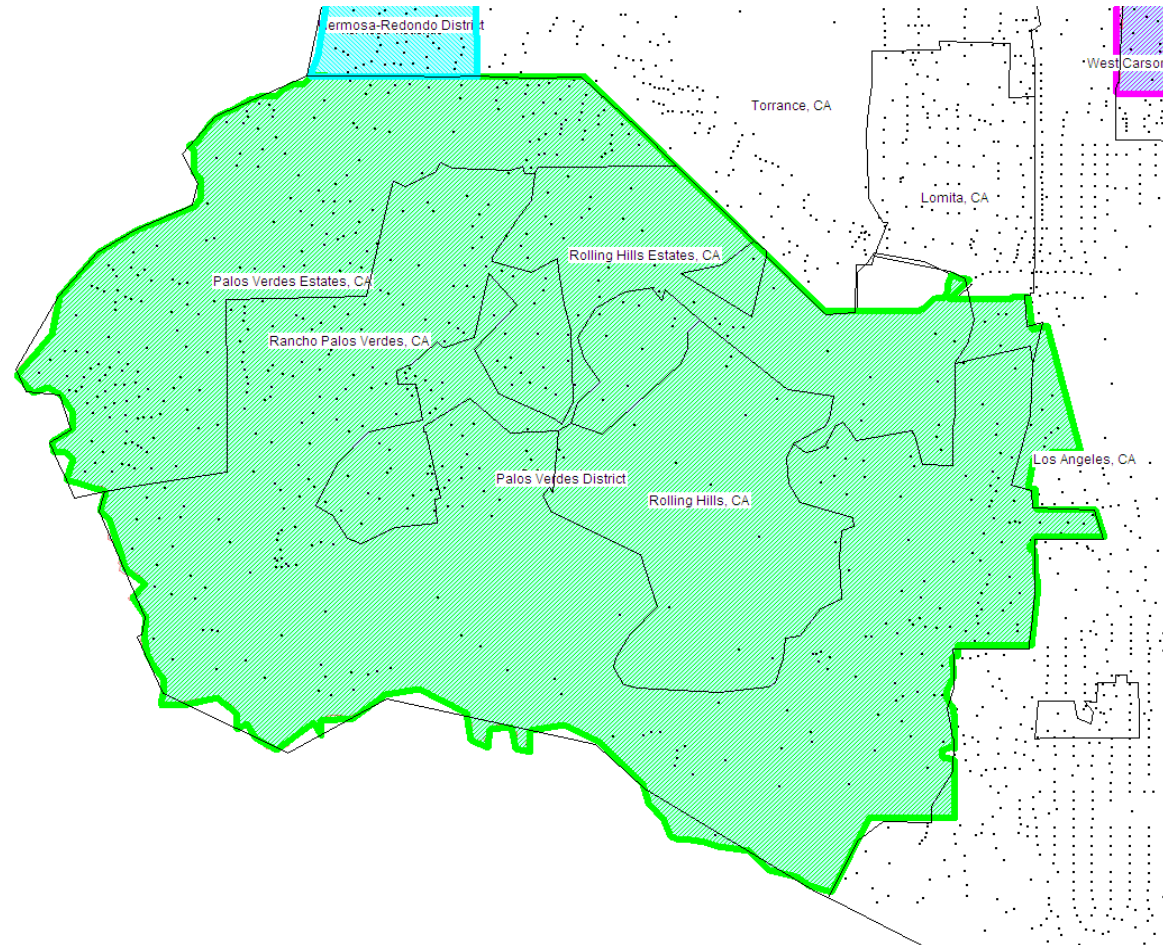


California Water Service Company - Palos Verdes District
Water Supply and Demand Analysis and Projections
Historical and Projected Average Day, Maximum Day, and Peak Demand

Worksheet 11

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)	(GPD)	(MGD)	(GPD)		(MGD)	(GPM)			(MGD)	(GPM)	
1980	18,208	5,933	16.26	738	29.80	1,353	1.83	44.70	31,042	1.50	2.75			
1981	19,095	6,222	17.05	769	31.30	1,412	1.84	46.95	32,604	1.50	2.75			
1982	17,138	5,584	15.30	689	33.00	1,487	2.16	49.50	34,375	1.50	3.24			
1983	15,974	5,205	14.26	642	31.60	1,422	2.22	47.40	32,917	1.50	3.32			
1984	20,367	6,637	18.18	813	32.20	1,440	1.77	48.30	33,542	1.50	2.66			
1985	19,844	6,466	17.72	788	35.60	1,583	2.01	53.40	37,083	1.50	3.01			
1986	19,497	6,353	17.41	771	30.70	1,360	1.76	46.05	31,979	1.50	2.65			
1987	19,490	6,351	17.40	766	35.90	1,581	2.06	53.85	37,396	1.50	3.09			
1988	20,295	6,613	18.12	792	36.80	1,609	2.03	55.20	38,333	1.50	3.05			
1989	21,537	7,018	19.23	836	37.00	1,608	1.92	55.50	38,542	1.50	2.89			
1990	21,521	7,013	19.21	831	36.70	1,587	1.91	55.05	38,229	1.50	2.87			
1991	16,301	5,312	14.55	626	23.00	989	1.58	34.50	23,958	1.50	2.37			
1992	17,918	5,838	16.00	687	29.30	1,259	1.83	43.95	30,521	1.50	2.75			
1993	18,653	6,078	16.65	717	29.40	1,266	1.77	44.10	30,625	1.50	2.65			
1994	19,788	6,448	17.67	760	33.24	1,430	1.88	49.86	34,625	1.50	2.82			
1995	19,220	6,263	17.16	737	27.66	1,188	1.61	41.49	28,811	1.50	2.42			
1996	20,232	6,593	18.06	775	27.28	1,171	1.51	40.92	28,415	1.50	2.27			
1997	21,021	6,850	18.77	804	31.38	1,344	1.67	47.07	32,689	1.50	2.51			
1998	19,692	6,417	17.58	751	27.71	1,183	1.58	41.56	28,864	1.50	2.36			
1999	22,324	7,274	19.93	847	35.46	1,507	1.78	53.19	36,936	1.50	2.67			
2000	22,222	7,241	19.84	840	40.02	1,694	2.02	60.02	41,683	1.50	3.03			
2001	20,057	6,536	17.91	756	36.00	1,521	2.01	54.00	37,498	1.50	3.02			
2002	21,906	7,138	19.56	827	38.45	1,627	1.97	57.68	40,054	1.50	2.95			
2003	20,332	6,625	18.15	765	35.32	1,488	1.95	52.98	36,791	1.50	2.92			
2004	21,334	6,952	19.05	801	37.89	1,594	1.99	56.83	39,468	1.50	2.98			
2005	20,507	6,682	18.31	768	31.94	1,340	1.74	47.90	33,267	1.50	2.62			
2006	20,422	6,655	18.23	765	34.07	1,429	1.87	51.11	35,492	1.50	2.80			
2007	23,151	7,544	20.67	867	35.85	1,504	1.73	53.77	37,343	1.50	2.60			
2008	22,826	7,438	20.38	855	34.69	1,455	1.70	52.03	36,134	1.50	2.55			
2009	21,889	7,133	19.54	820	32.98	1,384	1.69	49.47	34,352	1.50	2.53			
2010	19,084	6,218	17.04	713	26.83	1,123	1.57	40.24	27,946	1.50	2.36			
2011	19,388	6,317	17.31	723	26.73	1,116	1.54	40.09	27,840	1.50	2.32			
2012	19,960	6,504	17.82	744	27.51	1,148	1.54	41.26	28,655	1.50	2.32			
2013	21,165	6,897	18.89	788	29.60	1,235	1.57	44.40	30,832	1.50	2.35			
2014	21,138	6,888	18.87	787	28.65	1,195	1.52	42.97	29,839	1.50	2.28			
2015	16,659	5,428	14.87	621										
10 year Average			18.36	768	30.88	1,293	1.65	46.32	32,170	1.50	2.47			
5 year Average			17.55	732	27.86	1,163	1.55	41.79	29,022	1.50	2.32			

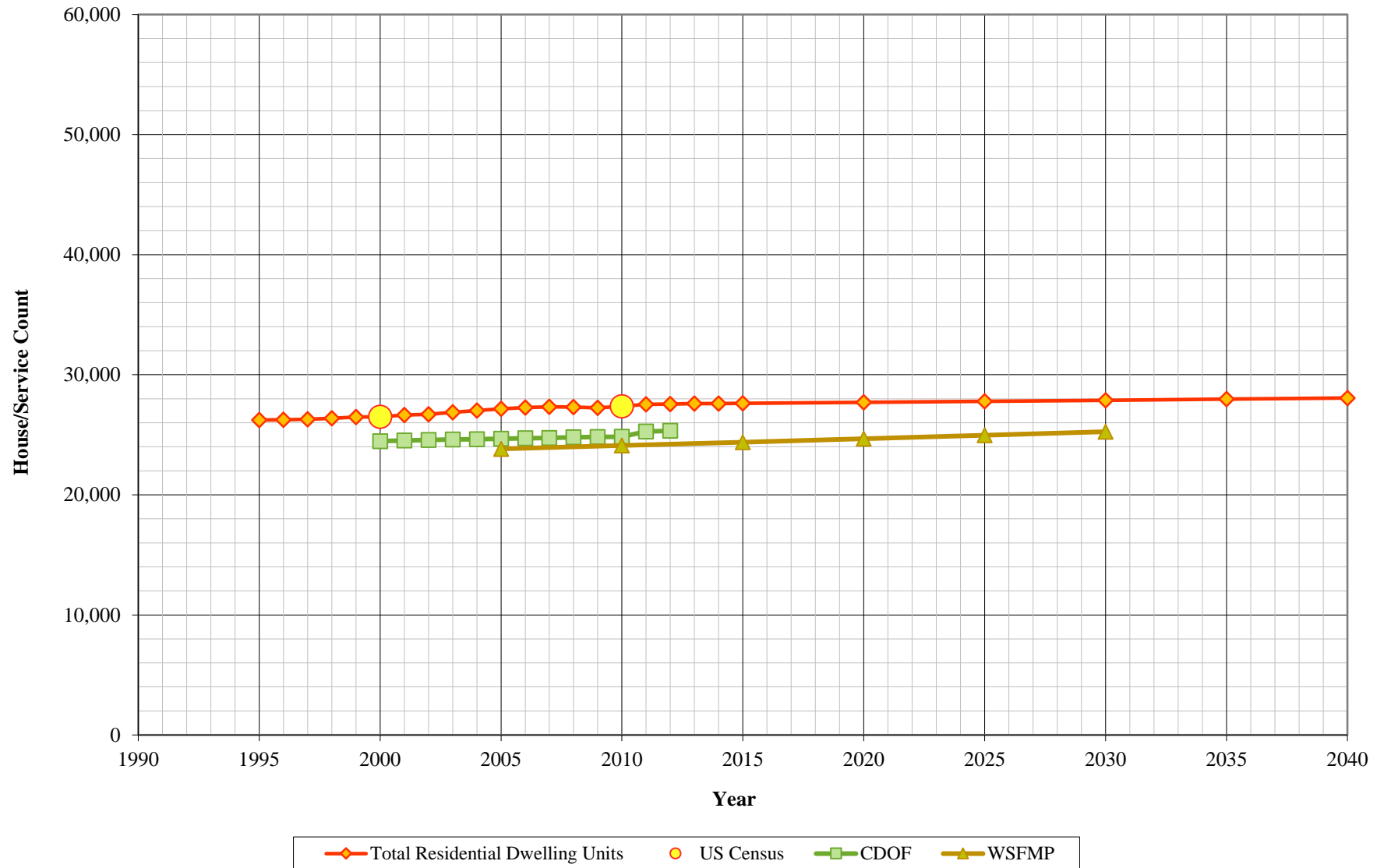
California Water Service Company - Palos Verdes District
Water Supply and Demand Analysis and Projections
MarPlot Summary



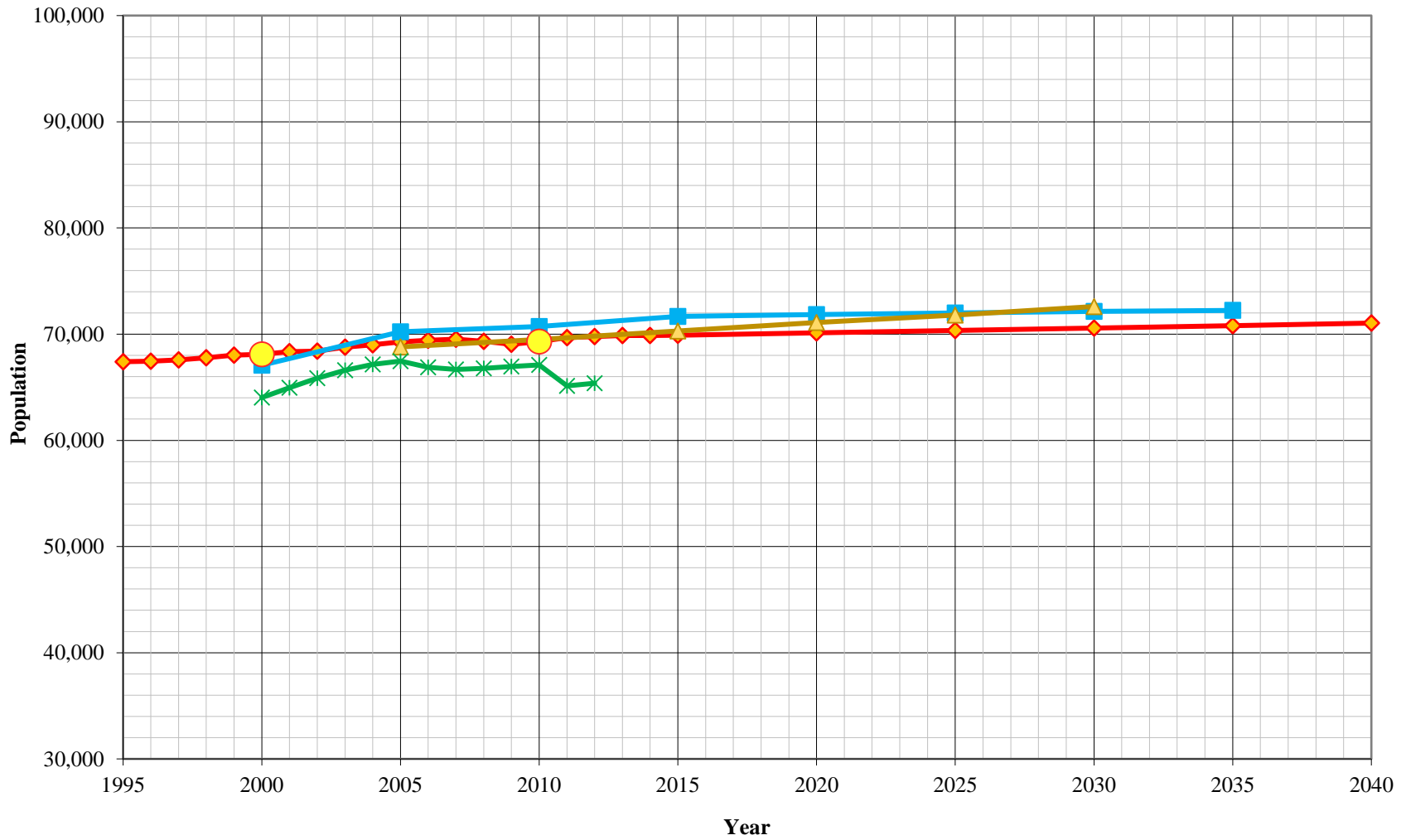
System	US Census 2000 Summary				US Census 2010 Summary				2000-2010 Change		
	Census Tract Blocks	Population	Housing Units (HU)	Density	Census Tract Blocks	Population	Housing Units (HU)	Density	Percentage Population Change	Percentage HU Change	Density Change
Palos Verdes	628	68,113	26,504	2.57	642	69,301	27,375	2.53	1.7%	3.3%	-1.5%
	628	68,113	26,504	2.57	642	69,301	27,375	2.53	1.7%	3.3%	-1.5%

MARPLOT disclaimer: The population and housing number given above are only rough estimates. They are based on the US Census Blocks. Although Census Blocks are polygons, MARPLOT uses the centroid, or center point, rather than the entire polygon. If a Census Block centroid is within any of the MARPLOT selected objects, the population and housing numbers for that block are tallied, even if only part of the block is within the selected object. It is possible for a block not be counted if its centroid is not within selected objects, even though part of the block is within the selected objects.

Housing Projections



Population Projections



California Water Service Company - Palos Verdes District
Water Supply and Demand Analysis and Projections
Population Estimate

Year	US Census		Persons per Housing Unit	Single Family Residential	Multi Family Residential			Flat Rate Residential
	Population	Housing Units		Services (DU)	Services	Units (DU)	Unit Density	Services (DU)
2000	68,113	26,504	2.570	22,748	146	3,756	25.8	0
2010	69,301	27,375	2.532	22,703	218	4,672	21.5	0
	1.7%	3.3%	-1.5%	-0.2%	49.4%	24.4%	-16.8%	0.0%

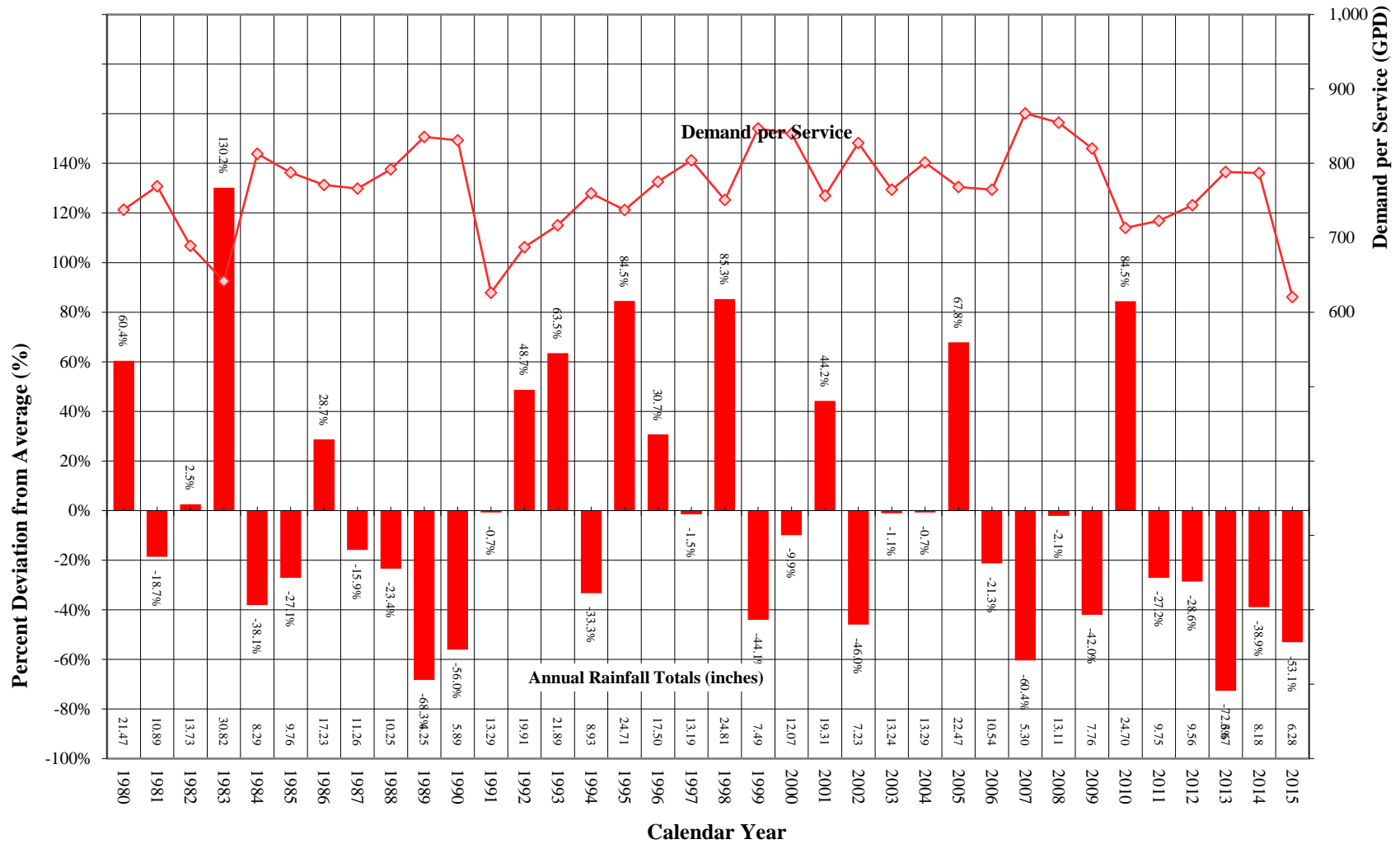
Year	Single Family Residential Services (DU)	Multi Family Residential			Flat Rate Residential Services (DU)	Total Residential Dwelling Units	Persons per Housing Unit	Estimated District Population
		Services	Residential Units (DU)	Unit Density				
1995	22,416	148	3,814	25.8	0	26,230	2.570	67,408
1996	22,435	148	3,816	25.8	0	26,251	2.570	67,464
1997	22,481	148	3,816	25.8	0	26,298	2.570	67,583
1998	22,554	148	3,816	25.8	0	26,370	2.570	67,769
1999	22,661	148	3,814	25.8	0	26,475	2.570	68,038
2000	22,748	146	3,756	25.8	0	26,504	2.570	68,113
2001	22,789	143	3,848	26.9	0	26,636	2.566	68,351
2002	22,758	144	3,939	27.4	0	26,697	2.562	68,405
2003	22,850	143	4,031	28.2	0	26,881	2.558	68,773
2004	22,890	143	4,122	28.8	0	27,013	2.555	69,006
2005	22,943	143	4,214	29.5	0	27,157	2.551	69,269
2006	22,952	143	4,305	30.2	0	27,258	2.547	69,422
2007	22,942	142	4,397	31.0	0	27,339	2.543	69,523
2008	22,810	182	4,489	24.6	0	27,299	2.539	69,317
2009	22,656	217	4,580	21.1	0	27,236	2.535	69,054
2010	22,703	218	4,672	21.5	0	27,375	2.532	69,301
2011	22,764	220	4,763	21.7	0	27,527	2.532	69,686
2012	22,779	221	4,778	21.7	0	27,557	2.532	69,762
2013	22,782	223	4,823	21.7	0	27,605	2.532	69,883
2014	22,789	222	4,808	21.7	0	27,598	2.532	69,865
2015	22,789	223	4,823	21.7	0	27,611	2.532	69,899
2020	22,803	226	4,896	21.7	0	27,699	2.532	70,122
2025	22,817	230	4,971	21.7	0	27,789	2.532	70,348
2030	22,832	233	5,047	21.7	0	27,879	2.532	70,577
2035	22,846	237	5,124	21.7	0	27,970	2.532	70,808
2040	22,861	240	5,202	21.7	0	28,063	2.532	71,043

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Notes: linear extrapolation used to estimated MFR-DU from 2000. Estimate extend until 2011 due to reclassification, afterwards a constant MFR Unit Density is used.

Comparison of Annual Rainfall to Historical Average



**California Water Service Company - Palos Verdes District
Water Supply and Demand Analysis and Projections**

Temperature & Rainfall History

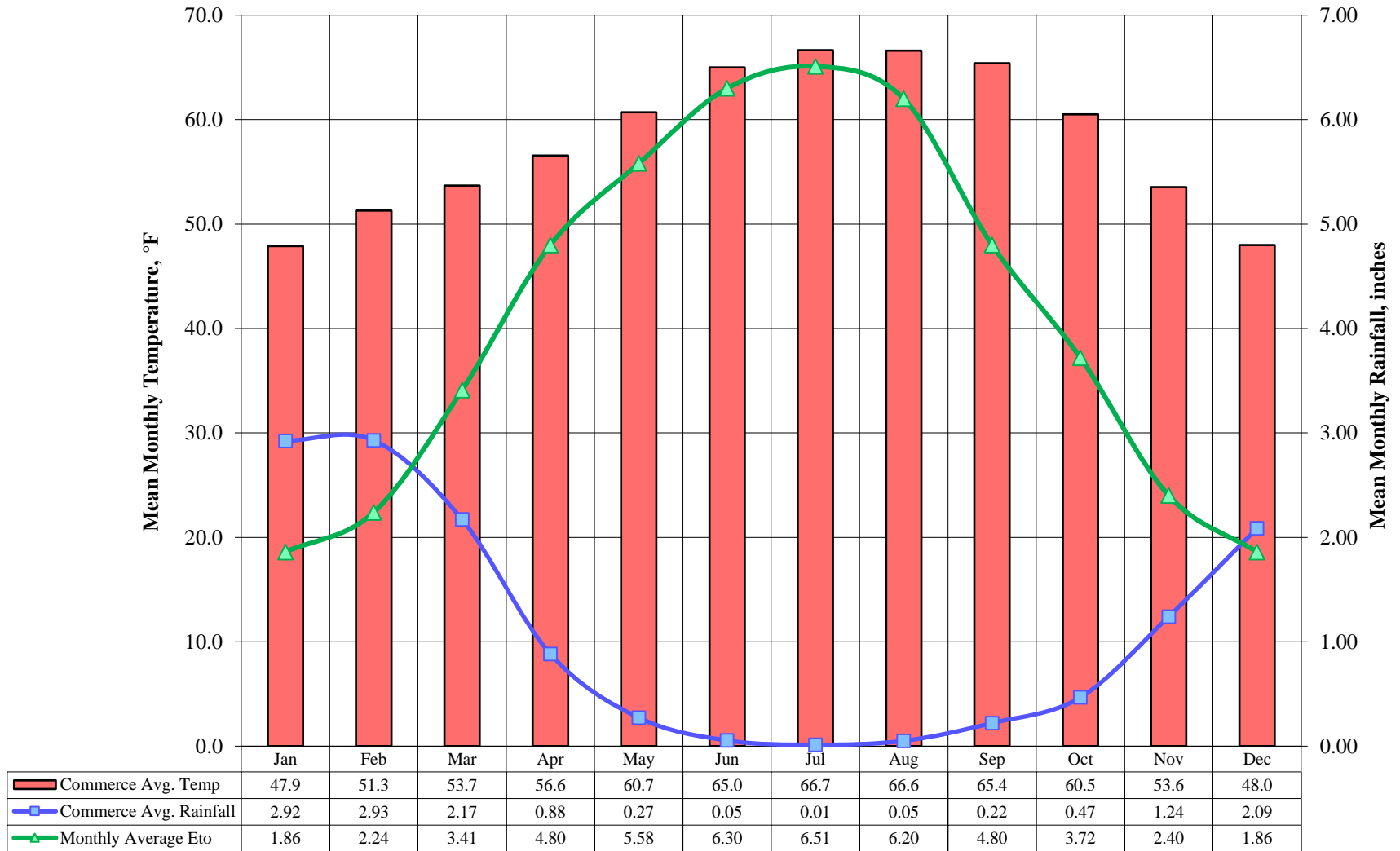
Year	Precipitation		Temperature			Demand per Service (gpd)	Percent of Average Demand
	Annual (in)	Percent Variation	Tmax (°F)	Tmin (°F)	Mean (°F)		
1980	21.47	60.4%	80.20	47.90	64.1	738	-3.7%
1981	10.89	-18.7%	81.30	49.40	65.4	769	0.4%
1982	13.73	2.5%	80.10	46.40	63.3	689	-10.0%
1983	30.82	130.2%	84.10	49.10	66.6	642	-16.2%
1984	8.29	-38.1%	86.20	46.70	66.5	813	6.1%
1985	9.76	-27.1%	83.30	46.20	64.8	788	2.8%
1986	17.23	28.7%	78.80	48.10	63.5	771	0.7%
1987	11.26	-15.9%	78.70	45.40	62.1	766	0.0%
1988	10.25	-23.4%	77.90	46.50	62.2	792	3.4%
1989	4.25	-68.3%	78.80	45.00	61.9	836	9.1%
1990	5.89	-56.0%	81.00	44.50	62.8	831	8.5%
1991	13.29	-0.7%	77.10	45.30	61.2	626	-18.3%
1992	19.91	48.7%	81.70	46.60	64.2	687	-10.3%
1993	21.89	63.5%	77.00	47.80	62.4	717	-6.4%
1994	8.93	-33.3%	82.60	46.60	64.6	760	-0.8%
1995	24.71	84.5%	78.70	49.90	64.3	737	-3.8%
1996	17.50	30.7%	81.00	49.20	65.1	775	1.2%
1997	13.19	-1.5%	82.80	48.90	65.9	804	4.9%
1998	24.81	85.3%	80.80	47.20	64.0	751	-2.0%
1999	7.49	-44.1%	80.10	46.80	63.5	847	10.6%
2000	12.07	-9.9%	79.10	49.10	64.1	840	9.6%
2001	19.31	44.2%	75.80	46.30	61.1	756	-1.3%
2002	7.23	-46.0%	77.40	48.10	62.8	827	8.0%
2003	13.24	-1.1%	79.60	49.60	64.6	765	-0.2%
2004	13.29	-0.7%	80.70	47.20	64.0	801	4.6%
2005	22.47	67.8%	76.50	50.50	63.5	768	0.3%
2006	10.54	-21.3%	82.90	46.60	64.8	765	-0.2%
2007	5.30	-60.4%	78.80	45.70	62.3	867	13.2%
2008	13.11	-2.1%	79.70	46.90	63.3	855	11.5%
2009	7.76	-42.0%	81.10	49.20	65.2	820	7.1%
2010	24.70	84.5%	75.10	49.70	62.4	713	-6.9%
2011	9.75	-27.2%	76.80	46.40	61.6	723	-5.7%
2012	9.56	-28.6%	81.20	47.90	64.6	744	-2.9%
2013	3.67	-72.6%	79.20	46.50	62.9	788	2.9%
2014	8.18	-38.9%	82.20	51.20	66.7	787	2.7%
2015	6.28	-53.1%	83.00	48.20	65.6	621	-19.0%
2016							
2017							
2018							
2019							
2020							

Precipitation (1895 - present)						Monthly Average Eto
	Mean	High	Year	Low	Year	
	in.	in.	-	in.	-	
Jan	2.92	14.20	1995	0.00	1945	1.86
Feb	2.93	12.54	1998	0.00	1896	2.24
Mar	2.17	8.58	1983	0.00	1931	3.41
Apr	0.88	5.63	1926	0.00	1897	4.80
May	0.27	3.31	1921	0.00	1899	5.58
Jun	0.05	0.83	1993	0.00	1906	6.30
Jul	0.01	0.64	2015	0.00	1968	6.51
Aug	0.05	3.27	1977	0.00	1960	6.20
Sep	0.22	4.88	1939	0.00	1896	4.80
Oct	0.47	2.91	2004	0.00	1903	3.72
Nov	1.24	9.12	1965	0.00	1898	2.40
Dec	2.09	9.32	2010	0.00	1900	1.86
Annual	13.31	30.82	1983	3.67	2013	49.68

Temperature (1895 - present)			
	Tmax	Tmin	Mean
	°F	°F	°F
Jan	57.3	38.5	47.9
Feb	61.2	41.4	51.3
Mar	64.3	43.1	53.7
Apr	68.4	44.7	56.6
May	72.9	48.5	60.7
Jun	77.4	52.6	65.0
Jul	78.4	54.9	66.7
Aug	78.5	54.7	66.6
Sep	78.2	52.6	65.4
Oct	73.0	48.0	60.5
Nov	64.4	42.7	53.6
Dec	57.8	38.2	48.0
Annual	69.3	46.7	58.0

- 1) Eto values based on California Irrigation Management Information System (CIMIS), <http://www.cimis.water.ca.gov/cimis/welcome.jsp>, EvapoTranspiration (Eto) Zones Map, Zone 6
- 2) PPT, Tmax, Tmin obtained from PRISM where, PPT is total monthly rainfall, Tmax is average of maximum temperatures for given month, and Tmin is average of minimum temperatures for given month
- 3) Percent variation based on average of 1980 to present values

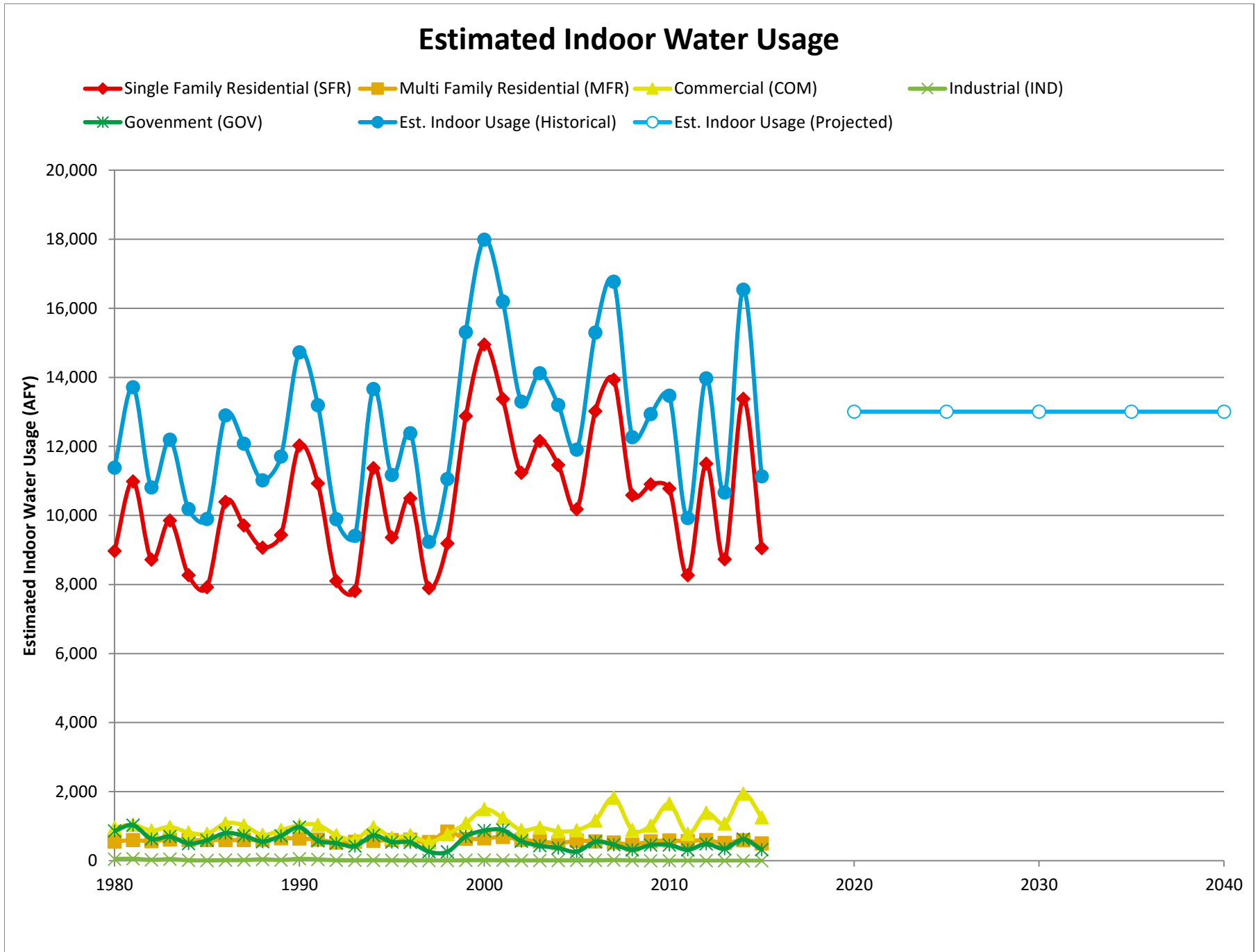
Average Monthly Temperature, Rainfall, and Monthly Eto



**California Water Service Company - Palos Verdes District
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Groundwater Production Facilities

District does not have groundwater production facilities



**California Water Service Company - Palos Verdes District
Water Supply and Demand Analysis and Projections**

Estimated Indoor/Outdoor Water Usage

Year	Single Family Residential (SFR)								Multi Family Residential (MFR)				Commercial (COM)			
	SFR Jan Usage	Metered SFR Indoor Use (Annualized 90% of January Total)		Indoor Flat Rate Usage (AFY)	Total SFR Indoor Usage			MFR Jan Usage	MFR Indoor Use (Annualized 90% of January Total)			COM Jan Usage	COM Indoor Use (Annualized 90% of January Total)			
		JAN (CCF)	AFY		AF/Serv	AFY	GPD/Serv		%	(CCF)	AFY		GPD/Serv	%	(CCF)	AFY
1980	361,753	8,969	0.423	0	8,969	378	69%	22,286	553	3,432	85%	38,519	955	1,830	67%	
1981	443,151	10,987	0.515	0	10,987	460	78%	24,105	598	3,665	93%	42,132	1,045	1,955	67%	
1982	351,572	8,717	0.409	0	8,717	365	68%	22,719	563	3,448	89%	35,173	872	1,624	61%	
1983	397,356	9,852	0.461	0	9,852	412	82%	25,012	620	3,788	98%	39,495	979	1,799	64%	
1984	333,430	8,267	0.385	0	8,267	343	56%	23,999	595	3,630	86%	32,964	817	1,501	44%	
1985	319,491	7,921	0.366	0	7,921	327	56%	24,216	600	3,624	85%	31,353	777	1,426	43%	
1986	419,309	10,396	0.479	0	10,396	428	73%	24,227	601	3,611	87%	43,676	1,083	1,995	62%	
1987	391,753	9,713	0.445	0	9,713	397	67%	24,176	599	3,616	87%	41,238	1,022	1,882	60%	
1988	365,795	9,069	0.412	0	9,069	368	60%	24,404	605	3,650	84%	30,078	746	1,352	44%	
1989	380,445	9,433	0.426	0	9,433	380	59%	26,123	648	3,907	89%	35,720	886	1,592	51%	
1990	485,053	12,026	0.541	0	12,026	483	74%	25,943	643	3,880	90%	41,565	1,031	1,888	60%	
1991	440,641	10,925	0.488	0	10,925	436	89%	24,658	611	3,688	98%	41,885	1,038	1,909	75%	
1992	326,871	8,104	0.362	0	8,104	323	60%	21,296	528	3,185	84%	29,772	738	1,364	51%	
1993	315,200	7,815	0.349	0	7,815	312	55%	22,079	547	3,302	85%	24,595	610	1,149	41%	
1994	458,749	11,374	0.508	0	11,374	453	74%	23,324	578	3,488	83%	38,812	962	1,792	62%	
1995	377,525	9,360	0.418	0	9,360	373	64%	24,037	596	3,597	88%	26,753	663	1,216	46%	
1996	423,423	10,498	0.468	0	10,498	418	67%	24,659	611	3,688	89%	29,762	738	1,349	52%	
1997	318,453	7,896	0.351	0	7,896	314	49%	21,672	537	3,241	81%	21,489	533	986	33%	
1998	370,663	9,190	0.407	0	9,190	364	63%	33,930	841	5,074	121%	30,807	764	1,420	46%	
1999	519,259	12,874	0.568	0	12,874	507	78%	25,783	639	3,858	91%	43,739	1,084	2,019	56%	
2000	602,965	14,950	0.657	0	14,950	587	86%	26,235	650	3,986	91%	60,269	1,494	2,741	74%	
2001	539,258	13,370	0.587	0	13,370	524	83%	27,732	688	4,285	99%	50,123	1,243	2,261	76%	
2002	453,130	11,235	0.494	0	11,235	441	64%	24,489	607	3,769	90%	35,707	885	1,596	46%	
2003	490,300	12,156	0.532	0	12,156	475	73%	22,618	561	3,503	92%	38,607	957	1,721	55%	
2004	462,348	11,463	0.501	0	11,463	447	65%	20,595	511	3,188	82%	34,393	853	1,549	46%	
2005	410,548	10,179	0.444	0	10,179	396	62%	23,231	576	3,596	93%	35,648	884	1,594	47%	
2006	525,120	13,020	0.567	0	13,020	506	75%	22,512	558	3,497	96%	46,825	1,161	2,087	59%	
2007	562,066	13,936	0.607	0	13,936	542	74%	21,136	524	3,295	89%	73,803	1,830	3,290	79%	
2008	426,926	10,585	0.464	0	10,585	414	60%	18,774	465	2,279	71%	35,856	889	1,374	36%	
2009	439,773	10,903	0.481	0	10,903	430	67%	22,550	559	2,298	82%	41,071	1,018	1,357	38%	
2010	434,667	10,777	0.475	0	10,777	424	75%	23,510	583	2,391	90%	66,677	1,653	2,180	70%	
2011	333,395	8,266	0.363	0	8,266	324	58%	22,819	566	2,297	87%	31,383	778	1,024	35%	
2012	463,761	11,498	0.505	0	11,498	451	76%	24,064	597	2,415	92%	55,935	1,387	1,828	57%	
2013	352,150	8,731	0.383	0	8,731	342	57%	20,703	513	2,058	80%	43,416	1,076	1,422	41%	
2014	539,696	13,381	0.587	0	13,381	524	86%	23,813	590	2,374	96%	78,457	1,945	2,560	70%	
2015	365,300	9,057	13.484	0	9,057			20,330	504			50,622	1,255			
2016					10,506	410			615	2,286		1,285		1,708		
2017					10,506	410			615	2,286		1,285		1,708		
2018					10,506	410			615	2,286		1,285		1,708		
2019					10,506	410			615	2,286		1,285		1,708		
2020					10,506	410			615	2,286		1,285		1,708		
2025					10,506	410			615	2,286		1,285		1,708		
2030					10,506	410			615	2,286		1,285		1,708		
2035					10,506	410			615	2,286		1,285		1,708		
2040					10,506	410			615	2,286		1,285		1,708		

Note: GPD/Service is estimated as the average of the last 5 years for given customer class.

California Water Service Company - Palos Verdes District
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Estimated Indoor/Outdoor Water Usage

Year	Industrial (IND)				Government (GOV)			
	IND Jan Usage	IND Indoor Use (Annualized 90% of January Total)			GOV Jan Usage	GOV Indoor Use (Annualized 90% of January Total)		
	(CCF)	AFY	GPD/Serv	%	(CCF)	AFY	GPD/Serv	%
1980	1,904	47	3,464	75%	34,708	861	3,911	55%
1981	2,312	57	4,355	76%	41,542	1,030	4,768	59%
1982	997	25	1,645	42%	25,516	633	2,754	41%
1983	1,846	46	3,027	102%	28,177	699	3,045	63%
1984	508	13	871	19%	20,014	496	2,135	29%
1985	305	8	575	20%	23,907	593	2,559	36%
1986	684	17	1,195	52%	32,308	801	3,477	52%
1987	741	18	1,200	39%	29,285	726	3,118	51%
1988	1,625	40	2,997	76%	22,395	555	2,459	39%
1989	803	20	1,481	37%	29,009	719	3,202	53%
1990	2,218	55	4,091	84%	39,158	971	4,216	71%
1991	1,495	37	2,836	84%	23,440	581	2,517	61%
1992	519	13	978	44%	20,531	509	2,266	50%
1993	428	11	861	43%	17,075	423	1,911	39%
1994	619	15	1,255	66%	29,483	731	3,288	64%
1995	448	11	908	66%	21,799	540	2,431	52%
1996	220	5	433	31%	21,436	531	2,387	50%
1997	278	7	577	35%	10,568	262	1,170	25%
1998	137	3	256	24%	10,350	257	1,151	31%
1999	456	11	865	53%	28,391	704	3,134	71%
2000	738	18	1,485	86%	35,187	872	3,826	83%
2001	400	10	805	64%	35,817	888	3,852	105%
2002	227	6	431	27%	22,792	565	2,406	50%
2003	350	9	704	40%	17,496	434	1,838	54%
2004	332	8	717	42%	14,780	366	1,556	39%
2005	386	10	854	59%	10,499	260	1,097	28%
2006	400	10	885	50%	22,050	547	2,250	57%
2007	767	19	1,698	69%	18,657	463	1,892	42%
2008	317	8	1,651	74%	12,758	316	1,157	30%
2009	0	0			18,289	453	1,539	46%
2010	0	0			18,488	458	1,534	59%
2011	0	0			12,711	315	1,054	40%
2012	0	0			19,678	488	1,631	52%
2013	0	0			13,901	345	1,146	38%
2014	0	0			25,059	621	2,061	61%
2015	0	0			12,892	320		
2016						599	1,473	
2017						599	1,473	
2018						599	1,473	
2019						599	1,473	
2020						599	1,473	
2025						599	1,473	
2030						599	1,473	
2035						599	1,473	
2040						599	1,473	

Estimated Indoor/Outdoor Usage			
Est. Indoor Usage	Est. Outdoor Usage	Est. Indoor Usage	Est. Outdoor Usage
AFY	AFY	%	%
11,384	6,824	63%	37%
13,717	5,378	72%	28%
10,809	6,329	63%	37%
12,196	3,779	76%	24%
10,188	10,179	50%	50%
9,899	9,945	50%	50%
12,898	6,600	66%	34%
12,079	7,411	62%	38%
11,016	9,279	54%	46%
11,705	9,832	54%	46%
14,726	6,796	68%	32%
13,193	3,108	81%	19%
9,892	8,025	55%	45%
9,406	9,247	50%	50%
13,661	6,127	69%	31%
11,171	8,049	58%	42%
12,384	7,848	61%	39%
9,235	11,786	44%	56%
11,055	8,637	56%	44%
15,313	7,011	69%	31%
17,985	4,237	81%	19%
16,198	3,858	81%	19%
13,298	8,608	61%	39%
14,117	6,216	69%	31%
13,201	8,133	62%	38%
11,909	8,598	58%	42%
15,295	5,127	75%	25%
16,771	6,380	72%	28%
12,264	10,563	54%	46%
12,934	8,955	59%	41%
13,471	5,612	71%	29%
9,925	9,463	51%	49%
13,970	5,990	70%	30%
10,665	10,500	50%	50%
16,538	4,600	78%	22%
11,136	5,523	67%	33%
13,006	8,503	60%	40%
13,006	8,521	60%	40%
13,006	8,540	60%	40%
13,006	8,559	60%	40%
13,006	8,578	60%	40%
13,006	8,677	60%	40%
13,006	8,782	60%	40%
13,006	8,892	59%	41%
13,006	9,008	59%	41%

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