

Table _____
 Family Residences
 Water Conservation Tiers with Proposed Rates

Current Conservation Tier Structure

FY 10-11 Base Rate

Tiers	Use Range in hcf per Bi-Monthly Billing	# of Users in Tier	% of Total Users	Annual Use Per Tier in hcf	% of Total Use	Annual Use Per User by Tier in hcf	Difference from Average Use	Updated Rates per hcf	% Variance from Base Rate	Volume Revenues by Tier	%				
1	0 to 9	378	30%	9,910	8%	26.2	25%	\$ 3.65	-25%	\$ 36,203	7%	48,270	12,068		
2	9 to 15	284	23%	20,365	16%	71.7	70%	\$ 4.38	-10%	78,071	14%	99,195	21,124		
3 Base	15 to 51	548	44%	82,275	64%	150.1	146%	\$ 4.87	0%	355,106	64%	403,938	48,832		
4	51 and over	31	2%	15,341	12%	494.9	480%	\$ 6.48	33%	81,553	15%	74,724	(6,829)	Target	
		1,241	100%	127,891	100%	103.1	100%			\$ 550,932	100%	626,127	75,195	624,698	-11.8%

Example of a Five Tier Structure - Adjusted Blocks

Tiers	Use Range in hcf per Bi-Monthly Billing	# of Users in Tier	% of Total Users	Annual Use Per Tier in hcf	% of Total Use	Annual Use Per User by Tier in hcf	Difference from Average Use	Current Rates per hcf	% Variance from Base Rate	Volume Revenues by Tier	%				
1	0 to 6	252	20%	4,351	3%	17.3	17%	\$ 3.65	-25%	\$ 15,895	3%	21,193	5,298		
2	6 to 12	259	21%	13,863	11%	53.5	52%	\$ 4.38	-10%	\$ 53,960	10%	67,525	13,565		
3 Base	12 to 30	555	45%	62,631	49%	112.8	110%	\$ 4.87	0%	\$ 271,005	48%	308,255	37,250		
	30 to 51	144	12%	31,705	25%	220.2	214%	\$ 6.09	25%	\$ 152,637	27%	154,430	1,793		
	51 and over	31	2%	15,341	12%	494.9	480%	\$ 8.52	75%	\$ 98,967	18%	74,724	(24,243)	Target	
		1,241	100%	127,891	100%	103.1	100%			\$ 592,463	105%	626,127	33,663	624,698	-5%

City of Calistoga
 Conservation Tier Structure

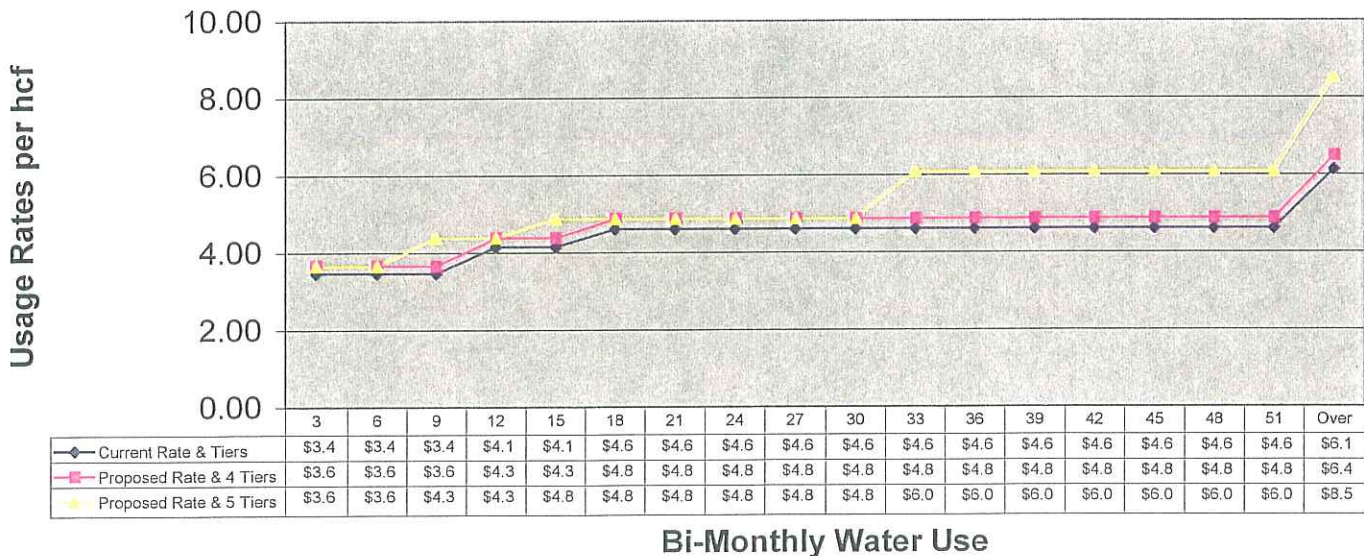


Table _____
Peak Day Water Consumption and Charge Calculation

Average Five Year Usage (in hcf)		Meter Capacity Equivalents	
Annual Adjusted Average Water Use From Table _____	316,207	Total Water Meter Capacity Equivalent from Table _____	2,592
Less Single Family Residential Use	-130,686	Less Single Family Residential Meter Equivalents	-1,303
Net Non SFR Annual Water Use	185,521	Net Non SFR Meter Capacity Equivalent	1,289

Average Annual water Use per meter equivalent (in hcf)	143.98
Peak Day to Average Day peaking Factor [1]	1.74
Avg Annual Water Use times Peaking Factor (in hcf)	250.53
Avg Monthly Water Use times Peaking Factor (in hcf)	20.88
Base Peak Monthly Allocation - Rounded (in hcf)	21

Meter Size	Meter Capacity Ratios	Current Peaking Charge Breakpoint	Updated Peaking Charge Breakpoint
5/8" & 3/4"	1	35	21
1"	2.5	88	53
1.5"	5	175	105
2"	8	280	168
3"	15	525	315
4"	25	875	525
6"	50	1750	1,050
8"	80	n/a	1,680

[1] Calculated from Calistoga Water Facilities Plan, table 3-9. Peaking factors are based on the City's consumption data and used to size facilities for peak demands.

	Current Rates	Proposed Rates					
		When Adopted	FY 10-11 January 1	FY 11-12 January 1	FY 12-13 January 1	FY 13-14 January 1	FY 14-15 January 1
Base Rate per hcf	\$4.61	4.87	4.87	5.25	5.38	5.51	5.63
North Bay Aqueduct	1.07	1.70	1.70	1.76	1.82	1.89	1.95
Wholesale Volume Cost	5.68	6.57	6.57	7.01	7.20	7.39	7.58
	23%	16%	0%	7%	3%	3%	3%
		35%	35%	34%	34%	34%	35%

Table 6
Meter Use Demand Ratios

User Type	Meters by Meter Capacity per EDU [1]	Total FY 08-09 Annual Usage by Class (in hcf)	Use Per Meter EDU (in hcf)	Calculated Demand Factor Ratio from SFR Use [2]	2009 Demand Factor Ratio	2002 Demand Factor Ratio
Residential						
01 Single family	1,303	130,472	100.1	1.00	1.00	1.00
03 Multi-family	299	42,442	142.2	1.42	1.42	1.58
05 Mobile home parks	158	33,372	211.2	2.11	2.11	2.36
Residential Subtotal	1,760	206,286	454	4.53		
Transient						
10 Transient general	318	30,762	96.7	0.97		
12 Spas with Groundwtr Discharge	59	15,056	257.4	2.57	2.57	
14 Campgrounds	25	4,111	164.4	1.64		
16 Bed & Breakfast	29	3,991	137.6	1.37		
Transient Subtotal	431	53,920	125.2	1.25	1.25	2.57
Commercial						
21 Commercial general	150	9,159	61.3	0.61		
22 Restaurants	44	10,391	238.9	2.39	2.39	2.38
24 Laundries	8	2,198	274.8	2.74	2.74	
26 Public Buildings	83	5,883	71.3	0.71		
27 Commercial social	34	4,467	133.3	1.33		
28 Medical care	35	6,844	195.5	1.95		
40 Industrial general	3	29	11.6	0.12		
Commercial/Industrial Subtotal	355	38,971	109.9	1.10	1.10	1.16
Bottling Works - Industrial						
42 Bottling works	47	15,005	319.3	3.19	3.19	5.35
Total	2,592	314,182	121.2			

[1] See Table 4 for calculation of meter capacity and equivalent number of meters by size. EDU refers to Equivalent Dwelling Unit which is the Single Family residential base.

[2] See Table 2 for Detail on FY 08-09 Annual Usage.

[3] The calculated Demand Ratios are applied to the monthly meter service charge based on the size of the meter and type of user. This will modify the meter charge based on the typical demand the type of user has on the water system.

**Table 1
Water Users by Meter Size**

User Type	Total Accounts by Meter Size [1]										Total Users per Accounts [3]	%
	5/8" [2]	1"	1.5"	2"	3"	4"	6"	8"	Total	%		
Residential												
01 Single family	1,070	64	13	1	0	0	0	0	1,148	75%	1,148	45%
03 Multi-family	79	27	10	9	2	0	0	0	127	8%	591	23%
05 Mobile home parks	0	0	0	1	0	0	3	0	4	0%	555	22%
Residential Subtotal	1,149	91	23	11	2	0	3	0	1,279	84%	2,294	90%
Transient												
10 Transient general	8	4	2	10	0	2	0	2	28	2%	28	1%
12 Spas with Grndwtr Discharge	2	5	4	3	0	0	0	0	14	1%	14	1%
14 Campgrounds	0	0	0	0	0	1	0	0	1	0%	1	0%
16 Bed & Breakfast	19	4	0	0	0	0	0	0	23	2%	23	1%
Transient Subtotal	29	13	6	13	0	3	0	2	66	4%	66	3%
Commercial												
21 Commercial general	65	13	4	4	0	0	0	0	86	6%	86	3%
22 Restaurants	23	3	1	1	0	0	0	0	28	2%	28	1%
24 Laundries	0	0	0	1	0	0	0	0	1	0%	1	0%
26 Public Buildings	10	13	0	5	0	0	0	0	28	2%	28	1%
27 Commercial social	16	3	2	0	0	0	0	0	21	1%	21	1%
28 Medical care	10	2	1	0	1	0	0	0	14	1%	14	1%
40 Industrial general	0	1	0	0	0	0	0	0	1	0%	1	0%
Commercial/Industrial Subtotal	124	35	8	11	1	0	0	0	179	12%	179	7%
Bottling Works - Industrial												
42 Bottling works	2	0	0	0	3	0	0	0	5	0%	5	0%
Total	1,304	139	37	35	6	3	3	2	1,529	100%	2,544	100%

[1] Accounts as of June 30, 2009. Includes all accounts including irrigation, water capacity and other accounts.
 [2] 5/8" meter category includes 3/4" meters. Both sizes are considered minimum meter size and have similar capacities
 [3] Includes individual multi-family apartments and mobile home units. Second units for Single Family Residence are either separate accounts or counted as part of the Single Family Unit. Does not include separate commercial units or 600 Lodging rooms in Transient facilities.

Table 2
Water Use by User Type

User Type	Total Users per Accounts	Last Fiscal Year - Twelve Months (July 2008 to June 2009)				Adjusted Average of Last Five Years [3] (July 2004 to June 2009)				Variance of Last 12 Mths to 5 Yr Avg
		Total Annual Usage (in hcf) [1]	Avg Annual Per User [2] (in hcf)	% of Type	% of Total	Total Annual Usage (in hcf)	Avg Annual Per User (in hcf)	% of Type	% of Total	
Residential										
01 Single family	1,148	130,472	113.7	63%	42%	130,686	113.8	62%	41%	-0.2%
03 Multi-family	591	42,442	71.8	21%	14%	45,228	76.5	22%	14%	-6.2%
05 Mobile home parks	555	33,372	60.1	16%	11%	33,705	60.7	16%	11%	-1.0%
Residential Subtotal	2,294	206,286	89.9	100%	66%	209,619	91.4	100%	66%	-1.6%
Transient										
10 Transient general	28	30,762	1,098.6	57%	10%	24,512	875.4	49%	8%	25.5%
12 Spas with Grndwtr Discharge	14	15,056	1,075.4	28%	5%	16,906	1,207.6	34%	5%	-10.9%
14 Campgrounds	1	4,111	4,111.0	8%	1%	4,005	4,005.0	8%	1%	2.6%
16 Bed & Breakfast	23	3,991	173.5	7%	1%	4,889	212.6	10%	2%	-18.4%
Transient Subtotal	66	53,920	817.0	100%	17%	50,312	762.3	100%	16%	7.2%
Commercial										
21 Commercial general	86	9,159	106.5	24%	3%	9,752	113.4	24%	3%	-6.1%
22 Restaurants	28	10,391	371.1	27%	3%	11,112	396.9	27%	4%	-6.5%
24 Laundries	1	2,198	2,198.0	6%	1%	2,372	2,372.0	6%	1%	-7.3%
26 Public Buildings	28	5,883	210.1	15%	2%	5,255	187.7	13%	2%	11.9%
27 Commercial social	21	4,467	212.7	11%	1%	4,787	228.0	12%	2%	-6.7%
28 Medical care	14	6,844	488.9	18%	2%	7,890	563.5	19%	2%	-13.3%
40 Industrial general	1	29	29.0	0%	0%	66	65.6	0%	0%	-55.8%
Commercial/Industrial Subtotal	179	38,971	217.7	100%	12%	41,233	230.4	100%	13%	-5.5%
Bottling Works - Industrial										
40 Bottling works [3]	5	15,005	3,001.0	100%	5%	15,042	3,008.5	100%	5%	-0.2%
Total	2,544	314,182	123.5	100%	100%	316,207	124.3	100%	100%	-0.6%

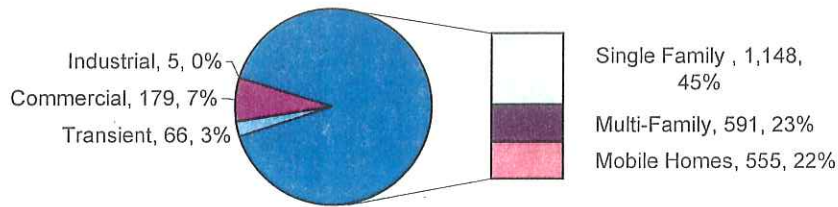
[1] "in hcf" is a typical water meter measurement of 100 cubic feet of water or 748 gallons. One cubic foot of water is the equivalent of 7.48 gallons or 1 1/2 Five gallon plastic bucket.

[2] An average single family residence uses 116.6 hcf per year or 87,217 gallons. This is a similar amount to 30 typical tank Trucks.

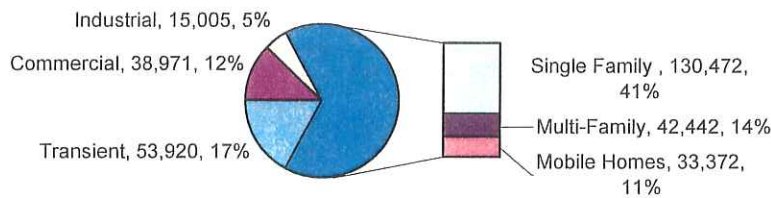
[3] Over the last five years water usage has varied with the weather, business activity and conservation efforts and the trend is a decrease in total usage. In the last year, the Bottling accounts have significantly decreased water use from 8% to 5% of the total use. This decrease is significant and the average use chart over the last five years has been adjusted to reflect a lower amount.

Table 2
Water Use by User Type

City of Calistoga
Water Users
As of June 2009



City of Calistoga
Twelve Month Annual Water Use
July 2008 to June 2009
(In hcf = one hundred cubic feet or 748 gallons)



City of Calistoga
Five Year Average Annual Use
July 2004 to June 2009
(In hcf = one hundred cubic feet or 748 gallons)

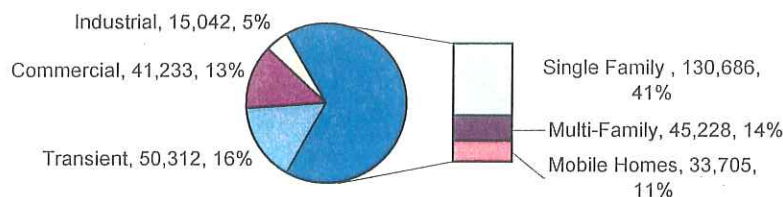


Table 4
Meter Capacity Equivalent

User Type	Total Accounts by Meter Size [1]								Total	%	
	5/8" [2]	1"	1.5"	2"	3"	4"	6"	8"			
Residential											
01 Single family	1,070	64	13	1	0	0	0	0	0	1,148	75%
03 Multi-family	79	27	10	9	2	0	0	0	0	127	8%
05 Mobile home parks	0	0	0	1	0	0	3	0	0	4	0%
Residential Subtotal	1,149	91	23	11	2	0	3	0	0	1,279	84%
Transient											
10 Transient general	8	4	2	10	0	2	0	2	2	28	2%
12 Spas with Gmwdwr Discharge	2	5	4	3	0	0	0	0	0	14	1%
14 Campgrounds	0	0	0	0	0	1	0	0	0	1	0%
16 Bed & Breakfast	19	4	0	0	0	0	0	0	0	23	2%
Transient Subtotal	29	13	6	13	0	3	0	2	2	66	4%
Commercial											
21 Commercial general	65	13	4	4	0	0	0	0	0	86	6%
22 Restaurants	23	3	1	1	0	0	0	0	0	28	2%
24 Laundries	0	0	0	1	0	0	0	0	0	1	0%
26 Public Buildings	10	13	0	5	0	0	0	0	0	28	2%
27 Commercial social	16	3	2	0	0	0	0	0	0	21	1%
28 Medical care	10	2	1	0	1	0	0	0	0	14	1%
40 Industrial general	0	1	0	0	0	0	0	0	0	1	0%
Commercial/Industrial Subtotal	124	35	8	11	1	0	0	0	0	179	12%
Bottling Works - Industrial											
42 Bottling works	2	0	0	0	3	0	0	0	0	5	0%
Total	1,304	139	37	35	6	3	3	2	1,529	100%	

User Type	Meter Capacity Equivalent [3]								Total	%	
	5/8" [2]	1"	1.5"	2"	3"	4"	6"	8"			
Residential											
01 Single family	1,070	160	65	8	0	0	0	0	0	1,303	50%
03 Multi-family	79	68	50	72	30	0	0	0	0	299	12%
05 Mobile home parks	0	0	0	8	0	0	150	0	0	158	6%
Residential Subtotal	1,149	228	115	88	30	0	150	0	1,529	68%	
Transient											
10 Transient general	8	10	10	80	0	50	0	160	318	12%	
12 Spas with Gmwdwr Discharge	2	13	20	24	0	0	0	0	59	2%	
14 Campgrounds	0	0	0	0	0	25	0	0	25	1%	
16 Bed & Breakfast	19	10	0	0	0	0	0	0	29	1%	
Transient Subtotal	29	33	30	104	0	75	0	160	431	17%	
Commercial											
21 Commercial general	65	33	20	32	0	0	0	0	150	6%	
22 Restaurants	23	8	5	8	0	0	0	0	44	2%	
24 Laundries	0	0	0	8	0	0	0	0	8	0%	
26 Public Buildings	10	33	0	40	0	0	0	0	83	3%	
27 Commercial social	16	8	10	0	0	0	0	0	34	1%	
28 Medical care	10	5	5	0	15	0	0	0	35	1%	
40 Industrial general	0	3	0	0	0	0	0	0	3	0%	
Commercial/Industrial Subtotal	124	88	40	88	15	0	0	0	355	14%	
Bottling Works - Industrial											
42 Bottling works	2	0	0	0	0	0	0	0	47	2%	
Total	1,304	348	185	280	90	75	150	160	2,592	100%	

[1] Accounts as of June 30, 2009. Includes all accounts including irrigation, water capacity and other accounts.

[2] 5/8" meter category includes 3/4" meters. Both sizes are considered minimum meter size and have similar capacities

[3] Meter Capacity equivalent calculates the increased capacity of larger meters to a standard residential 5/8" to 3/4" meters. Meter Capacity ratios used in this calculation were developed and adopted by the California Public Utilities Commission Standard Practice U-7-W, July 2006.

