City of Menlo Park

WATER RATE STUDY

FINAL REPORT

April 2010

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TABLE OF CONTENTS

EXECUTIVE SUMMARY

Purpose and Scope

Bartle Wells Associates ("BWA") was retained by the City of Menlo Park (the "City") to complete a comprehensive water rate study. The primary objective of the study was to recommend water rates which ensure the continued financial health and stability of the City's water enterprise, while minimizing the impact of any proposed rates changes on customers where possible. (See also: Introduction)

Financial Condition

The water enterprise is currently in good financial health. Water rates have increased 11.9% annually since the beginning of fiscal 2006/07, and these increases have allowed the City to mostly keep pace with the rising cost of wholesale water from SFPUC. However, SFPUC wholesale water rates have increased significantly faster than projected during the last rate setting process; as such, operating revenues from water rates (before accounting for capital surcharge revenue) do not currently meet operating expenses, with an operating deficit in 2008/09 of about $180,000, or about 4.7% of revenues. At the same time, the City has accumulated significant capital reserves, about $16.4 million at the end of 2008/09, primarily through collection of a capital surcharge of $0.35 per ccf of water used. (See also: Historical Financial Performance)

Operating Revenue Requirement

BWA developed an estimate of the ten-year revenue requirement for the operating fund. More than 50% of budgeted operating expenses are for wholesale water purchases from SFPUC, a percentage that will continue to grow.

BWA projects that annual operating expenses will increase from a budgeted amount of $5.1 million in 2009/10, to $8.3 million in 2014/15, about 65% in aggregate. The vast majority of this change (about 86% of the increased revenue requirement) is from the increased cost of wholesale water. (See also: Table 8, Operating Expense Projection)

Capital Revenue Requirement

The City developed a detailed five-year capital improvement program for 2010/11 through 2014/15, along with an additional five-year projection for 2015/16 through 2019/20. Major projects in the five-year planning period include periodic water main replacement and rehabilitation, the emergency water supply well project, and automated meter reading equipment installation. Planned capital improvements over the five-year planning period total $10,800,000. (See also: Table 10, Capital Expenditure Projection)

Recommended Rate Program

BWA developed a ten-year, cash flow projection for the water utility. The purpose of the projection is to model the impact of a given rate program on the finances of the water utility, including net revenues, fund balances, and capital funding. Of note, the program seeks to achieve operating fund self-sufficiency by 2014/15, while at the same time incorporating uniform annual increases for the duration of the program. It also assumes

that, in the interim years of the five-year period, the operating fund may carry over limited negative fund balances through use of available reserves. Importantly, this allows the City to adopt a "phased" approach with consistent five-year rate changes, limiting the need for larger and more variable annual rate changes based on SFPUC's wholesale rate adjustments.

Given these assumptions, BWA recommends that the City increase water rates 16.5% annually for the next five years. (See also: Table 13, Five-Year Cash Flow Projection) These increases are independent of the rate structure alternatives discussed below.

Rate Structure Alternatives

Working in close coordination with City staff, BWA developed three different rate structure options for consideration by the City Council. Of note, all three alternatives are designed to generate the same level of overall revenue for the utility; their impact does, however, vary by customer class and usage level.

Alternative 1 Maintain the current rate structure for all customers. Under this alternative, the 16.5% annual increase would apply evenly to all customers in all classes of service.

Alternative 2 Maintain the current rate structure for all single family residential customers, and transition all other rate classes (multi-family residential, commercial, industrial, public authority, and landscape irrigation) to a two-tiered inclining block rate. The first of these two-tiers would provide for "basic" water use, up to 50 ccf per month. The second tier would be for all water consumption above 50 ccf. Data analysis by BWA has shown that approximately 25% of all water sold in these customer classes would be at the tier 1 price under this alternative, with the balance (about 75%) being sold at tier 2.

Alternative 3 Transitions single family residential customers to a more "conservation oriented" rate structure. There would still be four tiers for water use, but larger increases in the marginal cost of water between each tier (i.e., "steeper" tiers). Transitions all other customers to the two-tiered inclining block rate structure discussed above.

Tables 14A through 14C detail these recommendations, and Tables 15 and 16 show the impact of the rate alternatives on sample set of customers.

Capital Facilities Charge

In the last rate study completed in 2006, the capital facilities charge for new connections was increased to $2,520 per 5/8" or 3/4" connection. The fee was calculated based on a valuation of the existing assets in the system and the number of equivalent meters in the system. Since that time, the charge has been updated based on the change in the ENR-CCI for the Bay Area; it is now $2,642. BWA has reviewed the updated asset valuation of the water utility, as well as future capital improvements, and recommends that the City maintain the existing capital facilities charge and continue to annually index it to the ENR-CCI.

INTRODUCTION

Bartle Wells Associates (BWA) was retained by the City of Menlo Park (City) to develop a water rate study and a five-year rate recommendation for the water utility. The City last conducted a water rate study in 2005/06. That study resulted in a four-year rate program with uniform annual water rate increases of 11.9% per year. The last increase of this program was put in place in July of 2009.

The major objectives of this study include:

- Ensure the continued financial health and stability of the City's water enterprise;
- Develop a ten-year projection of operating and capital revenue requirements for the water utility;
- Recommend a five-year rate program which meets these revenue requirements;
- Recommend alternative water rate structures, where possible, which encourage water conservation while meeting all revenue requirements;
- Develop emergency water shortage rates for use in times of severe drought; and,
- Maintain equity among all users of the system and ensure compliance with all legal requirements such as Proposition 218.

As with the 2005/06 study, the need to meet large increases in wholesale water cost from San Francisco Public Utilities Commission (SFPUC) over the next five years is the largest driver in the rate study. These wholesale water cost increases are currently projected to total 94 percent over the next five years.

In addition to providing for a stable revenue source to meet continued cost of operations, the City must also continue to repair and rehabilitate aging water mains, and build needed capital improvements such as the emergency water supply well project for the eastern portion of the service area. These capital improvement costs are expected to total $10.8 million over the next five years.

BWA also was tasked with developing alternatives to the existing water rate structure in place in the City. Currently, the City has a four tiered "inclining block" rate which applies to all customer classes equally. Of note, the first two tiers ($1.25 and $1.57 per ccf respectively) do not cover the cost of purchasing wholesale water when the capital surcharge is not included.

BWA worked closely with City staff and developed three alternative rate structures, discussed in depth later in this report. Each rate structure meets the same revenue target for a given year and recover the same amount of revenue from each customer class; they differ, however, in their impact within customer classes (such as non-residential, which is moved to a two-tier inclining block system) and in the amount of conservation incentive they provide.

THE WATER UTILITY

General

The City of Menlo Park is a general law city incorporated in 1927. The City's municipal water department is responsible for maintenance, operation, and repair of the City's water distribution system. The municipal water department's service area is not coterminous with the City's boundaries. The City provides service to about one-third of the City's population. The City water utility serves the Sharon Heights area, and portions of the City north of El Camino Real. California Water Service Company and O'Conner Tract Coop Water also serve portions of the city.

California Water Service Company has historically provided meter reading services to the City water department. These services will be taken over by Global Water Management prior to the July 2010 billing period.

Historical Financial Performance

The water department is a self-supporting City enterprise. Monthly service charges and sale of water to customers generates the revenue needed to support operations and capital replacement needs.

As mentioned previously, the City last completed a comprehensive rate study in 2005/06. The recommended rate program from that study, adopted in April 2006, increased rates 11.9% annually for the last four fiscal years. These increases were based in large part on projected changes in the SFPUC wholesale rates, which make up over 50% of the water utility's operating budget.

Importantly, the rate program in 2005/06 assumed a total, aggregate increase in the unit cost of SFPUC wholesale water of 31.4% through 2009/10 ($1.02 per ccf to $1.34 per ccf). Actual wholesale water rates have increased to $1.65 per ccf in 2009/10, **a 61.8% increase.** The estimated annual impact of this additional increase in wholesale water cost was $550,000 in 2009/10. In aggregate, over the course of the four-year rate program, BWA estimates that higher-than-expected wholesale water rates added about $1.05 million in unanticipated expenses to the water utility's budget.

For this reason, operating expenses have exceeded revenues by about 5% annually over the last four fiscal years. Healthy fund balances in both operating and capital funds have allowed the City to meet these increased costs without additional rate increases beyond those approved previously.

The capital fund has increased its fund balance from $10.5 million to $16.4 million as of the end of 2008/09. This is due primarily to the continued collection of the $0.35 per ccf capital surcharge.

Table 1 summarizes the financial performance of the water utility's operating fund over the last four fiscal years. It includes revenues, expenses, transfers out, and the ending fund balance.

Table 1
City of Menlo Park Water Utility
Water Operating Fund - Historical Revenues, Expenses, and Ending Fund Balance

	2005/06	2006/07	2007/08	2008/09
Operations Fund		**Current rate program**		
Rate change >>>>		*11.9%*	*11.9%*	*11.9%*
Revenues (1)	$3,148,928	$3,420,503	$3,766,011	$3,821,033
Expenses (2)	(2,948,621)	(3,420,464)	(3,864,611)	(3,802,940)
Tranfers out (3)	(227,700)	(238,700)	(202,376)	(198,814)
Net revenue	($27,393)	($238,661)	($300,976)	($180,721)
Ending fund balance	$4,298,896	$4,070,905	$1,377,240	$875,048

(1) Includes interest income
(2) Does not include depreciation
(3) Does not include transfers for capital; operating transfers to general fund only

Source: City of Menlo Park Comprehensive Annual Financial Reports

Table 2 summarizes the most recent SFPUC wholesale water rate projections, the SFPUC rate projections used in the last rate study in 2005/06, and the difference between projected and actual SFPUC rate increases through 2009/10.

The current SFPUC wholesale rate projections were as of January 14, 2010. These projections can and often do change from time to time, as illustrated by the historical differences between projected and actual increases since the last rate study.

Table 2
City of Menlo Park Water Utility
Historical and Projected SFPUC Wholesale Rate Projection

2006 Rate Study			As of Jan. 14, 2010			Difference Since 2006 Rate Study
FY	$ per ccf		FY	$ per ccf		
2005/06	$1.02	Actual	2005/06	$1.02		
2006/07	1.16		2006/07	1.22	Actual	**5.2%**
2007/08	1.26		2007/08	1.30		**3.2%**
2008/09	1.23		2008/09	1.43		**16.3%**
2009/10	1.34		2009/10	1.65		**23.1%**
2010/11	1.75	Projected	2010/11	1.90		
2011/12	2.18		2011/12	2.09		
2012/13	2.80		2012/13	2.71		
2013/14	3.57		2013/14	2.85		
2014/15	3.40		2014/15	3.21	Projected	
			2015/16	3.87		
			2016/17	3.77		
			2017/18	3.78		
			2018/19	3.80		
			2019/20	3.75		

Source: SFPUC projections as of Jan. 14, 2010 and December 2005 as presented in 2006 City of Menlo Park Rate Study

Current Water Rates

Table 3 details current water rates for the City. Of note, the rates are still among the lowest in the surrounding region. (See also: Regional Rate Survey) Average monthly single family water use in 2008/09 was about 14 hundred cubic feet (ccf). Average monthly usage is essentially unchanged from the 2005/06 study.

Table 3
City of Menlo Park Water Utility
Current Water Rates and Charges

Fixed charge (by meter size)	Monthly service charge	Meter ratio
5/8"	$7.84	1.0
3/4"	7.84	1.0
1"	12.54	1.6
1-1/2"	25.87	3.3
2"	41.55	5.3
3"	76.04	9.7
4"	117.59	15.0
6"	261.06	33.3
8"	579.34	73.9
10"	1,285.68	164.0

Water Consumption	Consumption Charge per ccf	Capital Surcharge per ccf	Total Consumption Charge per ccf
0 - 5 hundred cubic feet (ccf)	$1.25	$0.35	$1.60
6 - 10 ccf	1.57	0.35	1.92
11 - 25 ccf	1.88	0.35	2.23
>25 ccf	2.51	0.35	2.86

Source: City of Menlo Park

Customers

As of October 2009, the water utility had approximately 4,180 metered accounts, and another 140 unmetered customers. Table 4 details the number of meters in service in the City by customer class. Approximately 83% of customers are single family dwellings, with another 11% of customers in the commercial/industrial class. The percentage breakdown of customers by class was unchanged since 2005/06. The total number of accounts has increased slightly.

Table 4
City of Menlo Park Water Utility
Water Meters by Size and User Class (1)

Meter Size	Single Family	Multi Family	Commercial	Industrial	Irrigation	Public Agency	Total by Size
5/8"	2,797	50	63	55	13	1	2,979
3/4"	39	10	0	1	1	0	51
1"	624	21	54	46	22	5	772
1-1/2"	8	2	15	61	26	3	115
2"	11	16	39	81	44	19	210
3"	3	7	12	2	5	2	31
4"	2	3	2	0	1	1	9
6"	0	0	1	3	0	1	5
8"	0	0	2	3	0	2	7
10"	0	0	1	1	0	0	2
Totals	3,484	109	189	253	112	34	4,181
Unmetered fire accounts							140

Source: City of Menlo Park metered water use records, October 2009

Largest Customers

The City has a number of large commercial and industrial connections to its water system. Changes in the use patterns of these large customers can be significant to the overall financial health of the utility. In total, the twenty largest customers used approximately 38% of the City's water use in 2006, the last year for which full data was available for this study.

Table 5 summarizes the use of the twenty largest customers in the City. For privacy, the actual names of the customers are blocked out.

Table 5
City of Menlo Park Water Utility
Top 20 Largest Water Users (2002-2006)

Customer Name	Premise Type	Meter	Usage (hcf) Y2002	Y2003	Y2004	Y2005	Y2006
	INDUST	8"	177,762	157,768	184,025	174,806	171,395
	COMM	10"	48,322	52,393	57,868	60,816	99,756
	INDUST	8"	58,474	70,530	60,609	53,116	55,606
	INDUST	8"	50,926	59,794	46,852	49,537	60,420
	INDUST	6"	24,399	26,787	25,254	29,416	30,833
	IRRIGAT	3"	29,410	25,907	27,348	21,311	25,982
	COMM	8"	5,834	29,922	30,186	30,464	23,469
	IRRIGAT	3"	26,447	24,008	24,317	18,946	22,948
	IRRIGAT	2"	11,349	19,644	27,634	22,539	17,334
	HOUSE	4"	16,769	17,657	19,340	18,125	18,120
	INDUST	6"	16,590	17,496	13,799	12,876	13,878
	INDUST	6"	17,373	12,315	14,233	13,342	14,335
	COMM	2"	13,784	11,702	12,522	10,453	10,052
	MULT RES	3"	10,891	9,755	8,064	8,420	8,609
	INDUST	3"	10,257	10,449	9,189	7,761	7,799
	MULT RES	4"	8,833	8,598	9,674	8,087	8,215
	HOUSE	3"	8,278	7,753	8,718	7,327	7,159
	COMM	3"	8,148	7,371	7,860	6,161	7,578
	PUB AUTH	2"	9,101	7,501	7,595	5,190	6,927
	COMM	2"	2,955	5,995	6,618	7,798	7,487
TOTAL USAGE FROM TOP 20 CUSTOMERS		**>>>>**	555,902	583,345	601,705	566,491	617,902
TOTAL BILLED USAGE MPMWD		**>>>>**	1,638,162	1,612,234	1,701,262	1,590,652	1,636,568
% of Total		**>>>>**	33.9%	36.2%	35.4%	35.6%	37.8%

Source: City of Menlo Park data; analysis by BWA

Water Consumption

Volumetric water sales make up approximately 80% of total revenues when capital surcharge revenue is included. As such, accurately projecting water sales for the utility is a critical component of the long-term rate projections.

Table 6 shows total annual metered water consumption by customer class for 2006/07 through 2008/09. BWA develops a three-year average of use for the purposes of projecting revenues in the rate analysis, in order to remove some of the year-to-year variation from weather.

Total three-year average water consumption is approximately 1.7 million ccf annually.

Table 6
City of Menlo Park Water Utility
Total Historical Water Consumption By Class (ccf)

	FY 06-07		FY 07-08		FY 08-09		Three-Year Average
	Avg Accts	Total Units	Avg Accts	Total Units	Avg Accts	Total Units	Total Units
Single Family	3,375	652,204	3,412	644,785	3,439	623,012	640,000
Multi-Family	107	106,339	107	103,263	107	98,672	102,758
Group total		758,543		748,048		721,684	742,758
Commercial	184	253,596	187	251,400	192	258,675	254,557
Industrial	255	467,379	257	456,315	256	343,516	422,403
Group total		720,975		707,715		602,191	676,960
Land/Irrigation	112	159,097	108	170,846	106	160,021	163,321
Temp. meters	5	2,145	6	2,147	6	412	1,568
Public Facility	31	107,003	34	127,811	36	119,814	118,209
Total	**4,069**	**1,747,763**	**4,111**	**1,756,567**	**4,140**	**1,604,122**	**1,702,817**

BWA has also included three figures further illustrating water consumption in the City.

Figure 1 below details consumption of water by tier for all customer classes combined. About 15.4% of water is sold in the first tier, 11.3% in tier 2, 17.1% in tier 3, and about 56.2% in tier 4.

Figure 1. City of Menlo Park
Distribution of All Water Sales by Tier (2008-09)

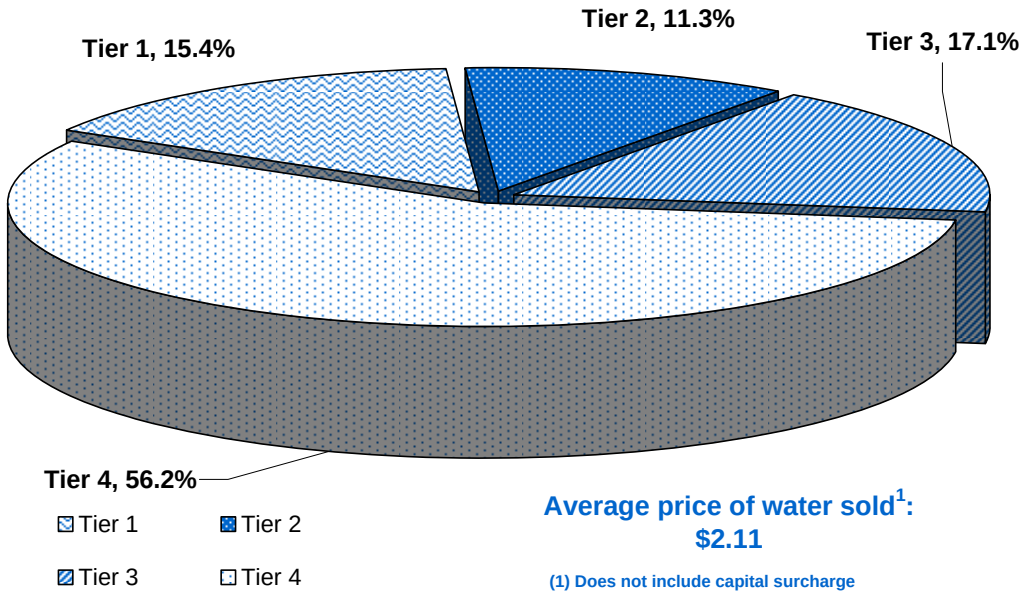


Figure 2 below shows water sales by tier for the single family rate class only. Water use is evenly distributed in this class among all four tiers.

Figure 2. City of Menlo Park
Distribution of Single Family Water Sales by Tier (2008-09)

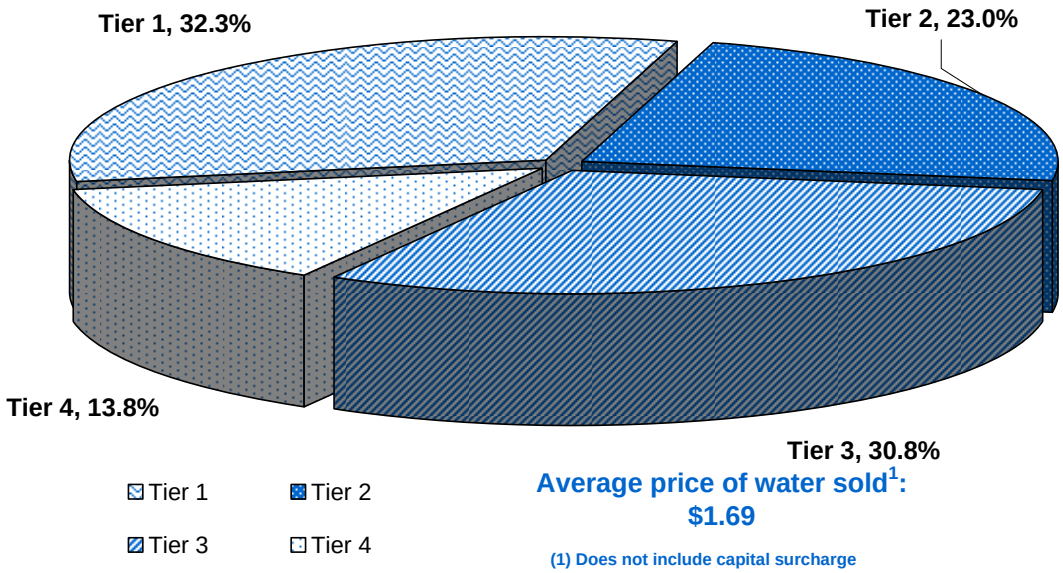
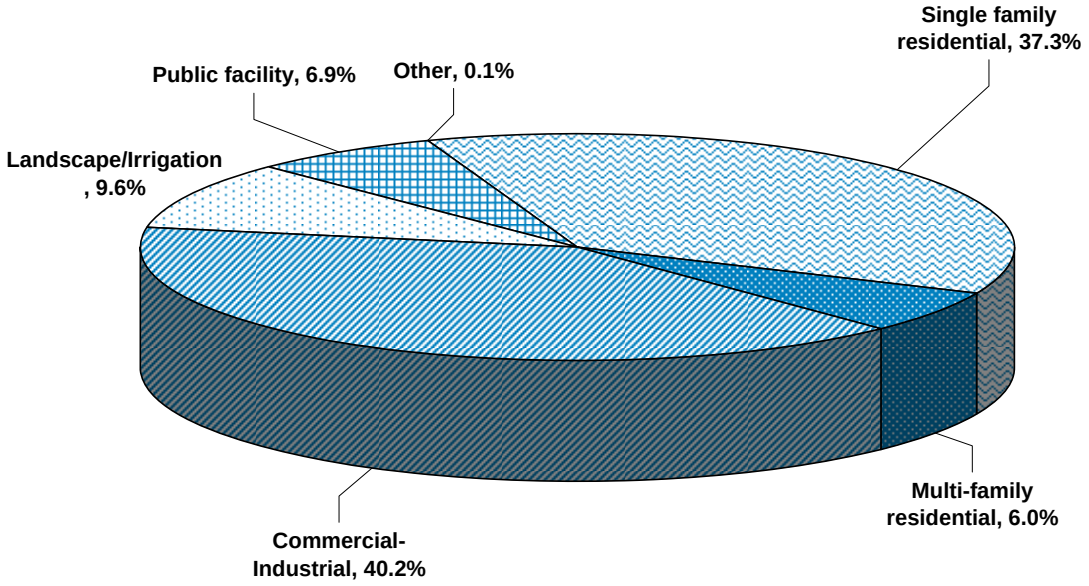


Figure 3 details total water consumption in the City by customer class. As a class, commercial/industrial users consume the most water, about 40.2% of all consumption. Single family residential users consume about 37.3% of all water in the City.

Figure 3. City of Menlo Park
Water Sales by Volume (ccf) by Customer Class (2007 and 2008)



Wholesale Water Purchases

Table 7 details historical wholesale water purchases (by volume) from both SFPUC and the City of East Palo Alto. Approximately 96% of all water is purchased from SFPUC. The remaining portion is from East Palo Alto.

Table 7
City of Menlo Park Water Utility
Historical Wholesale Water Purchases - ccf (2004 - 2008)

	2004	2005	2006	2007	2008
Purchased from SFPUC	1,781,549	1,683,576	1,583,490	1,757,183	1,693,703
Purchased from EPA	69,704	60,862	55,824	55,011	56,697
Total	1,851,253	1,744,438	1,639,314	1,812,194	1,750,400

Source: City of Menlo Park

REVENUE REQUIREMENT

Working closely with City staff, BWA developed operating and capital revenue requirements for the five-year planning period through 2014/15, and the extended planning period through 2019/20. The following section details the key findings of this work.

Operating Expenses

The current fiscal 2009/10 operating budget totals $5.102 million. About 55% of these expenses are for the purchase of wholesale water from SFPUC. (See also Wholesale Water Purchase Cost discussion). Other expenses include personnel related costs and services such as engineering, meter reading, and other consulting services. BWA assumes that these other costs escalate between 3% and 5% annually.

In total, operating expenses of the utility are expected to increase from $5.1 million in the current budget year to $8.3 million by 2014/15. Wholesale water purchases make up 86% of this increased revenue requirement. Additional cost increases in the extended planning period to 2019/20 bring the operating expense requirement to $9.5 million. Importantly, SFPUC rates are expected to level off in years 7 through 10 of the projection.

Table 8 details the ten-year operating expense projection.

Table 8
City of Menlo Park Water Utility
Operating Expense Projection

	Budget	Projected (1)									
	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Operating expenses (2)											
Salaries and wages	$609,434	$634,000	$659,000	$685,000	$712,000	$740,000	$770,000	$801,000	$833,000	$866,000	$901,000
Benefits	199,250	207,000	215,000	224,000	233,000	242,000	252,000	262,000	272,000	283,000	294,000
Operations expenses	201,909	208,000	214,000	220,000	227,000	234,000	241,000	248,000	255,000	263,000	271,000
Utilities	79,810	82,000	84,000	87,000	90,000	93,000	96,000	99,000	102,000	105,000	108,000
Wholesale water (3)	2,800,000	3,461,000	3,768,000	4,837,000	5,038,000	5,617,000	6,741,000	6,532,000	6,520,000	6,520,000	6,400,000
Services (4)	729,000	725,000	702,000	713,000	725,000	858,000	747,000	884,000	769,000	911,000	792,000
Capital outlay	139,739	147,000	154,000	162,000	170,000	179,000	188,000	197,000	207,000	217,000	228,000
Repairs and maintenance	131,405	138,000	145,000	152,000	160,000	168,000	176,000	185,000	194,000	204,000	214,000
Miscellaneous	7,800	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000
Transfer to other funds	160,814	169,000	177,000	186,000	195,000	205,000	215,000	226,000	237,000	249,000	261,000
Total operating expenses	$5,059,161	$5,779,000	$6,126,000	$7,274,000	$7,558,000	$8,344,000	$9,434,000	$9,442,000	$9,397,000	$9,626,000	$9,477,000

(1) Cost escalation factors

Salaries, wages, and benefits	4.0%
Operations, utilities, services, misc	3.0%
Capital outlay	5.0%
Repairs and maintenance	5.0%

(2) Does not include depreciation expense
(3) Wholesale water purchases from Table 9
(4) 2010/11 - 2014/15 projection of Services expense provided by City of Menlo Park

Source: City of Menlo Park 2009/10 Operating Budget and BWA analysis

Wholesale Water Purchase Cost

As mentioned previously, wholesale water purchases account for the bulk of increased operating expenses over the five-year rate program. BWA developed projections for the cost of wholesale water purchases using historical water consumption for the utility, assumed levels of water loss, and projected future water demand. For the purposes of these projections, total water consumption is expected to decrease by 1% annually during the five-year planning period, and 0.5% annually thereafter, due to continued conservation efforts within the City.

The unit cost of wholesale water purchases was taken from the most recent SFPUC rate projections (Jan. 14, 2010) provided to BWA by the City, and detailed previously in Table 2. In total, the unit cost is expected to increase from $1.65 per ccf currently, to $3.21 per ccf by 2014/15, an increase of 94%.

Table 9 details total wholesale water purchase cost for the next ten years.

Table 9
City of Menlo Park Water Utility
Wholesale Water Purchase Cost Projection

	Budget	Projected									
	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Metered water consumption (ccf) (1)	1,701,000	1,684,000	1,667,000	1,650,000	1,634,000	1,618,000	1,610,000	1,602,000	1,594,000	1,586,000	1,578,000
Water loss (ccf) (2)	136,000	135,000	133,000	132,000	131,000	129,000	129,000	128,000	128,000	127,000	126,000
Total wholesale water demand	1,837,000	1,819,000	1,800,000	1,782,000	1,765,000	1,747,000	1,739,000	1,730,000	1,722,000	1,713,000	1,704,000
Water purchases from SFPUC (ccf)	1,782,000	1,764,000	1,745,000	1,727,000	1,710,000	1,692,000	1,684,000	1,675,000	1,667,000	1,658,000	1,649,000
Water purchases from East Palo Alto (ccf)	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000
Price of water SFPUC ($ per ccf)	$1.65	$1.90	$2.09	$2.71	$2.85	$3.21	$3.87	$3.77	$3.78	$3.80	$3.75
% change (3)		**15.2%**	**10.0%**	**29.7%**	**5.2%**	**12.6%**	**20.6%**	**-2.6%**	**0.3%**	**0.5%**	**-1.3%**
Price of water EPA ($ per ccf)	$1.73	$2.00	$2.19	$2.85	$2.99	$3.37	$4.06	$3.96	$3.97	$3.99	$3.94
% change (4)		**15.2%**	**10.0%**	**29.7%**	**5.2%**	**12.6%**	**20.6%**	**-2.6%**	**0.3%**	**0.5%**	**-1.3%**
SFPUC water purchase cost	$2,940,300	$3,351,600	$3,647,050	$4,680,170	$4,873,500	$5,431,320	$6,517,080	$6,314,750	$6,301,260	$6,300,400	$6,183,750
EPA water purchase cost	95,288	109,725	120,698	156,503	164,588	185,378	223,493	217,718	218,295	219,450	216,563
Total water purchase cost	$3,036,000	$3,461,000	$3,768,000	$4,837,000	$5,038,000	$5,617,000	$6,741,000	$6,532,000	$6,520,000	$6,520,000	$6,400,000

(1) 2009/10 number from Table 12, Water Consumption; assumes 1% reduction in demand from conservation annually until 2014/15, then 0.5% annually thereafter
(2) Assumes 8% water loss
(3) From SFPUC wholesale rate projections, as of January 14, 2010
(4) Assumes same % increase as SFPUC water

Source: SFPUC rate projections, City of Menlo Park wholesale water purchase information and BWA analysis

Capital Expenditures

The City will also be required to complete a number of capital projects over the course of the five-year rate program and through the extended ten-year period. These projects are factored into the overall rate analysis and financial plan. Key projects include construction of the emergency water supply project, and automated meter read installation throughout the City. The total five-year capital improvement program (2010/11 through 2014/15) is $10.8 million. The ten-year capital expenditure projection includes another $4.3 million in capital repair and replacement funding ($15.1 million ten-year total).

Table 10 details the five- and ten-year capital improvement programs.

Table 10
City of Menlo Park Water Utility
Capital Improvement Program (CIP)

	Budget	Projected (1)									
	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Capital expenditures											
Water main repair/replacement	$0	$0	$300,000	$2,200,000	$0	$300,000	$2,000,000	$0	$0	$300,000	$2,000,000
Reservoirs 1 & 2 Mixers	0	0	0	0	0	0	0	0	0	0	0
Sharon Heights Pump Station	2,330,000	0	0	0	0	0	0	0	0	0	0
Emergency Water Supply Project	0	0	2,500,000	2,000,000	2,000,000	0	0	0	0	0	0
Re-roof reservoir 2	350,000	0	0	0	0	0	0	0	0	0	0
Automated Meter Reading	0	0	500,000	500,000	0	500,000	0	0	0	0	0
Total capital expenditures	$2,680,000	$0	$3,300,000	$4,700,000	$2,000,000	$800,000	$2,000,000	$0	$0	$300,000	$2,000,000
		Total five-year CIP (2010/11 - 2014/15)			**>>>>**	**$10,800,000**	**Total ten-year CIP (2010/11 - 2019/20)**			>>>>	**$15,100,000**

(1) Years 2015/16 through 2019/20 assumes only major water main replacement projects
Source: BWA anlaysis and City of Menlo Park

Financing Capital Improvements There are two primary methods for financing capital improvements; pay-as-you-go financing and debt financing (bonds or loans). As part of this five-year rate plan, BWA has developed a plan for financing the capital improvements detailed previously in Table 10.

The primary means for financing capital projects for the City's water utility has been, and will continue to be, pay-as-you-go financing. The capital surcharge, which currently generates approximately $600,000 annually in funding for capital projects, is the major source of ongoing funding for capital improvements. In the five- and ten-year planning horizons, BWA projects that the rate program developed herein, along with available cash reserves in the capital fund, will be sufficient to provide pay-as-you-go funding for all projects.

As part of this rate study and financing plan, BWA has also reviewed the capital surcharge (currently $0.35 per ccf for all water consumed), which was not updated during the last rate study in 2005/06. The Engineering News Record – Construction Cost Index (ENR-CCI) for the Bay Area, a measure of the changing costs of capital construction, has increased about 16% since the last rate study was completed. The capital surcharge has not kept up with these increasing costs. As such, BWA recommends that the City increase the capital surcharge from $0.35 per ccf to $0.41 per ccf on July 1, 2010. In the future, the City should index this charge annually to the change in the ENR-CCI to keep pace with rising costs of construction that the surcharge funds.

REVENUES

The vast majority of revenues for the water utility are generated through water rates. This includes monthly fixed service charges, and volumetric water consumption charges.

Table 11 details current fixed rate revenue from monthly meter charges. In total, about $700,000 in annual revenue is generated from these fixed charges at current rates.

Table 11
City of Menlo Park Water Utility
Meter Revenue Projection 2009/10

Meter Size	Number of Meters	Monthly Rate	Annual Revenue
5/8"	2,979	$7.84	$280,000
3/4"	51	7.84	5,000
1"	772	12.54	116,000
1-1/2"	115	25.87	36,000
2"	210	41.55	105,000
3"	31	76.04	28,000
4"	9	117.59	13,000
6"	5	261.06	16,000
8"	7	579.34	49,000
10"	2	1,285.68	31,000
Fire protection meters	140		20,000
Annual meter charge revenue (2009/10)			**$699,000**

Revenues are also generated from the sale of water to customers. At current rates, BWA estimates annual revenues of approximately $3.6 million from these water sales. Table 12 details these findings.

Table 12
City of Menlo Park Water Utility
Water Sales Revenue 2009/10 (Existing Rate Structure)

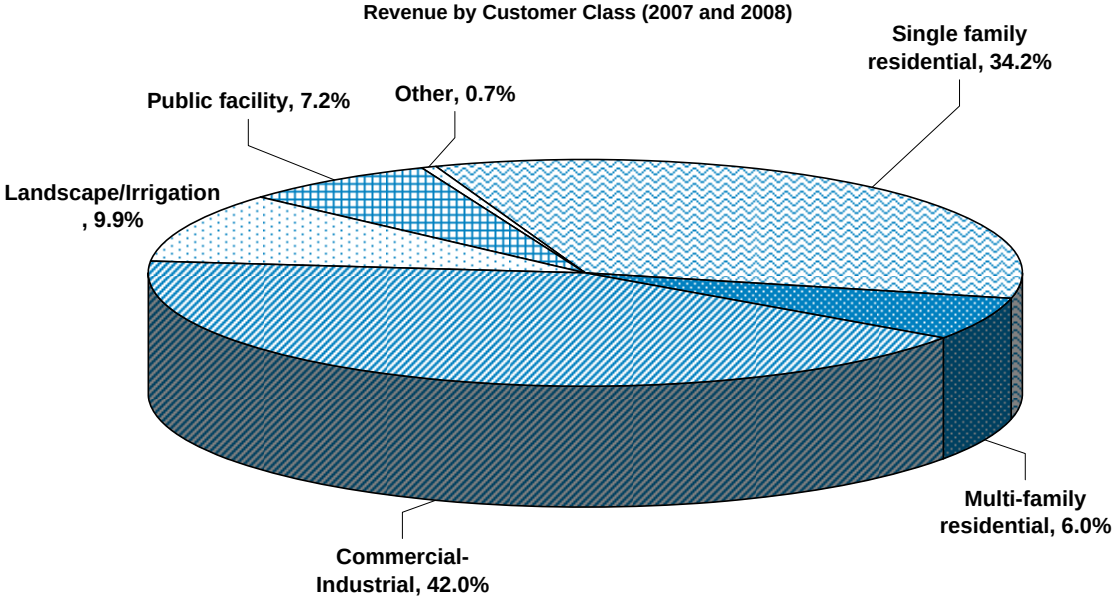
USAGE (ccf)				
				3-Year Average
Single family residential				640,000
Multi-family residential				102,758
Commercial				254,557
Industrial				422,403
Irrigation				163,321
Public authority				118,209
Total				1,701,249
REVENUE	ccf per tier	Price (1)	Use up to	% of total
Tier 1	262,629	$1.25	5	15.4%
Tier 2	191,994	$1.57	10	11.3%
Tier 3	290,124	$1.88	25	17.1%
Tier 4	956,502	$2.51	And over	56.2%
Annual water sales revenue (2009/10)				**$3,575,971**

(1) Does **not** include capital charge
Source: Based on updated consumption block review.

Of note, the above revenue projections apply to the current rate structure.

Figure 4 below details a summary of total revenues by customer class. It shows the percentage of total water utility revenues generated by each customer class (including both fixed service charges and consumption charges). Importantly, when compared to Figure 3, Total Water Consumption by Customer Class, the percentages of revenue recovery closely match those of water use. Commercial and industrial customers use just over 40% of total water in the city and generate 42% of total water revenues. The single family residential customer class uses 37.3% of all water and generates 34.2% of revenues. This relationship suggests a strong cost of service nexus between the existing rate structure and the operations of the utility.

Figure 4. City of Menlo Park
Revenue by Customer Class (2007 and 2008)



FIVE-YEAR RATE PROJECTION

The recommended five-year rate program must meet—first and foremost—the ongoing operating expenses of the utility. It must further allow for both the timely maintenance and repair of the system, as well as provide suitable funding for the capital improvement program through pay-as-you-go financing.

Working closely with City staff, BWA developed a number of parameters and criteria to guide development of the final five-year rate recommendation. Key considerations and assumptions of this rate program include:

1. No net customer growth in the water service area;
2. A 1% annual reduction in total water use city-wide, reflecting continued conservation among users in the City's service area;
3. The most recent SFPUC wholesale water rate projections, which show an increase in the wholesale rate from $1.65 per ccf currently (2009/10) to $3.21 in 2014/15 (See Wholesale Water Purchase discussion);
4. Between 3% and 5% growth in most other expenses (See Operating Expenses discussion);
5. About $10.8 million in total capital expenditures from 2010/11 through 2014/15 (See Capital Expenditures discussion);
6. An operating and capital reserve fund balance target of 4 months of operations and maintenance expenses plus a $1 million emergency capital reserve (about $3.8 million total) by 2014/15;
7. Full operating fund self-sufficiency by 2014/15 (that is, the operating fund meets all operating expenses *without* use of the capital surcharge by 2014/15).
8. All alternatives also assume use of the capital surcharge, and available fund reserves in the capital fund generated by the surcharge, to meet short-term revenue shortfalls within the five-year planning period, fund certain capital expenses, and mitigate required rate increases as the City keeps pace with rising SFPUC rates; and,
9. A uniform, five-year phase-in of rates to minimize year-to-year changes to customers.

In order to meet all of these criteria, BWA recommends that the City adopt a five-year rate program with **average 16.5% annual rate changes**. This program depends on the short-term use of some fund reserves for operating and capital needs, but also provides the City with long-term financial stability to meet the increasing cost of SFPUC wholesale water.

(Of note, the ten-year rate estimate completed in 2005/06 rate study estimated 10.3% annual increases for 2010/11 through 2014/15. The primary difference is due to SFPUC wholesale rates increasing at a much faster rate than anticipated in 2005/06.)

As stated previously in the capital financing section of this report, BWA also recommends that the City update the capital surcharge to $0.41 per ccf in 2010/11 based on the change in the ENR-CCI for the Bay Area since the last study was completed (about 16%). In the

future, the City should index this charge annually to keep pace with rising costs of construction that the surcharge funds.

Additionally, in the extended period (years 6 through 10), SFPUC currently projects only one more significant wholesale rate increase in 2015/16 of 20.6%. Projections for wholesale rates are level thereafter. As such, BWA projects in the extended period, positive net revenues for the utility, increasing fund balances, with only one additional potential increase of 11% in 2015/16, and inflationary (assumed to be 3%) increases thereafter.

Table 13 details a ten-year cash flow analysis for the water utility and both funds.

Table 13
City of Menlo Park Water Utility
Ten-Year Cash Flow Projection

										Interest earnings rate	2.00%
	Budget	Projected									
	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Beginning fund balance (operating)	$875,000	$409,000	($141,000)	($238,000)	($613,000)	($288,000)	$475,000	$1,110,000	$1,982,000	$3,196,000	$4,492,000
Beginning fund balance (capital)	$13,521,000	$11,436,000	$12,126,000	$9,537,000	$5,569,000	$4,323,000	$4,299,000	$3,102,000	$3,933,000	$4,793,000	$5,383,000
Total fund balance	$14,396,000	$11,845,000	$11,985,000	$9,299,000	$4,956,000	$4,035,000	$4,774,000	$4,212,000	$5,915,000	$7,989,000	$9,875,000
Customer growth rate		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Water use growth rate		-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%
Projected rate change		**16.5%**	**16.5%**	**16.5%**	**16.5%**	**16.5%**	**11.0%**	**3.0%**	**3.0%**	**3.0%**	**3.0%**
Water capital surcharge		**$0.41**	**$0.43**	**$0.44**	**$0.46**	**$0.48**	**$0.50**	**$0.52**	**$0.54**	**$0.56**	**$0.58**
Operating revenues											
Fixed metered revenues	$699,000	$815,000	$950,000	$1,107,000	$1,290,000	$1,503,000	$1,668,000	$1,718,000	$1,770,000	$1,823,000	$1,878,000
Water consumption revenues (1)	3,576,000	4,147,000	4,809,000	5,576,000	6,464,000	7,493,000	8,276,000	8,482,000	8,693,000	8,909,000	9,130,000
Miscellaneous	31,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Interest revenues	288,000	237,000	240,000	186,000	99,000	81,000	95,000	84,000	118,000	160,000	198,000
Total operating revenues	$4,594,000	$5,229,000	$6,029,000	$6,899,000	$7,883,000	$9,107,000	$10,069,000	$10,314,000	$10,611,000	$10,922,000	$11,236,000
Operating expenses											
Salaries, wages, benefits, general operations	$1,230,000	$1,277,000	$1,325,000	$1,376,000	$1,430,000	$1,485,000	$1,543,000	$1,603,000	$1,664,000	$1,729,000	$1,796,000
Purchased water	2,800,000	3,461,000	3,768,000	4,837,000	5,038,000	5,617,000	6,741,000	6,532,000	6,520,000	6,520,000	6,400,000
Services	729,000	725,000	702,000	713,000	725,000	858,000	747,000	884,000	769,000	911,000	792,000
Capital outlay	140,000	147,000	154,000	162,000	170,000	179,000	188,000	197,000	207,000	217,000	228,000
Transfer to other funds	161,000	169,000	177,000	186,000	195,000	205,000	215,000	226,000	237,000	249,000	261,000
Total operating expenses	$5,060,000	$5,779,000	$6,126,000	$7,274,000	$7,558,000	$8,344,000	$9,434,000	$9,442,000	$9,397,000	$9,626,000	$9,477,000
Net operating revenue	($466,000)	($550,000)	($97,000)	($375,000)	$325,000	$763,000	$635,000	$872,000	$1,214,000	$1,296,000	$1,759,000
Capital revenues and expenses											
Water capital surcharge (2)	595,000	690,000	711,000	732,000	754,000	776,000	803,000	831,000	860,000	890,000	921,000
Capital expenditures (3)	2,680,000	0	3,300,000	4,700,000	2,000,000	800,000	2,000,000	0	0	300,000	2,000,000
Net capital revenue	($2,085,000)	$690,000	($2,589,000)	($3,968,000)	($1,246,000)	($24,000)	($1,197,000)	$831,000	$860,000	$590,000	($1,079,000)
Ending fund balance (operating)	$409,000	($141,000)	($238,000)	($613,000)	($288,000)	$475,000	$1,110,000	$1,982,000	$3,196,000	$4,492,000	$6,251,000
Ending fund balance (capital)	$11,436,000	$12,126,000	$9,537,000	$5,569,000	$4,323,000	$4,299,000	$3,102,000	$3,933,000	$4,793,000	$5,383,000	$4,304,000
Total fund balance	$11,845,000	$11,985,000	$9,299,000	$4,956,000	$4,035,000	$4,774,000	$4,212,000	$5,915,000	$7,989,000	$9,875,000	$10,555,000
Operating plus emergency capital reserve target (4)	$2,687,000	$2,926,000	$3,042,000	$3,425,000	$3,519,000	$3,781,000	$4,145,000	$4,147,000	$4,132,000	$4,209,000	$4,159,000
Target met?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Operating self-sufficiency (w/o surcharge)	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES

(1) Does not include per ccf capital surcharge
(2) Assumes $0.35 per ccf in 09/10, $0.41 per ccf in 10/11, and then escalate by change in ENR-CCI thereafter (assumes 4% annually)
(3) From Table 9
(4) 4 months O&M expenses plus $1 million emergency capital reserve

RATE STRUCTURE ALTERNATIVES

BWA has developed three different rate structure options for the City as part of this project. As noted previously, all three of these rate structures meet the same revenue target in a given year. In addition, each rate alternative is developed to maintain the same relative revenue generation by customer class. That is to say, the recovery of the cost of service of the utility (as illustrated previously in Figure 4) will remain the same in all three alternatives. There are, however, differential impacts among low and high users within a customer class from moving to alternatives 2 and 3.

Of note, in all three alternatives, the first two tiers of water sold (or the first-tier of water sold in the two-tiered non-residential system) will remain below the cost of purchasing wholesale water. The first tier will be at approximately 75% of the wholesale cost. The primary reason for this is to allow for more conservation-oriented rate structures. If all tiers of water were above the cost of purchasing the water, there would be limited ability to have conservation-oriented rates in tiers 3 and 4 without generating too much revenue.

It is also important to remember that for low users of water who buy water at the first two tiers, the monthly fixed charge makes up a large portion of their bill, as much as 50% - 60%. In total, those customers are still meeting their overall cost of service, even if a portion of that comes from their fixed charge.

The following section describes each of the rate structure alternatives in more detail, along with their relative strengths and weaknesses.

Alternative 1 In Alternative 1, the City maintains the current rate structure for all customers. As such, all customers at all usage levels would be equally impacted by the uniform, 16.5% annual rate increase for the next five years.

The clearest advantage to this alternative is its simplicity. Existing customers are well-acquainted with the current system, and an analysis by BWA of revenues generated by customer class versus total water consumption by customer class shows that the system is, by and large, equitable and fair to all classes.

One potential disadvantage of the existing rate structure is that the “tiered rates” (or inclining block rate structure) applies equally to all customer classes. This means that a single family home gets the same tier structure as a large industrial customer. Because tiers are generally set based on the water usage of a typical single family home, the tiers are less relevant (and arguably less equitable) to a user that consumes thousands of ccf of water monthly.

Table 14A details the current rate structure, and the five-year projection maintaining that structure.

Table 14A
City of Menlo Park Water Utility
Alternative 1 - Five-Year Rate Projection - Current Structure

Fixed charge (by meter size)	Current fixed	2010/11	2011/12	2012/13	2013/14	2014/15
5/8"	$7.84	$9.14	$10.65	$12.41	$14.46	$16.84
3/4"	7.84	$9.14	$10.65	$12.41	$14.46	$16.84
1"	12.54	$14.61	$17.03	$19.85	$23.12	$26.94
1-1/2"	25.87	$30.15	$35.14	$40.95	$47.70	$55.57
2"	41.55	$48.42	$56.43	$65.77	$76.62	$89.26
3"	76.04	$88.62	$103.27	$120.36	$140.21	$163.35
4"	117.59	$137.04	$159.71	$186.12	$216.83	$252.61
6"	261.06	$304.24	$354.56	$413.20	$481.38	$560.81
8"	579.34	$675.16	$786.83	$916.98	$1,068.28	$1,244.54
10"	1,285.68	$1,498.33	$1,746.16	$2,034.97	$2,370.74	$2,761.91

	Current	2010/11	2011/12	2012/13	2013/14	2014/15
Water capital surcharge (per ccf)	$0.35	$0.41	$0.43	$0.44	$0.46	$0.48

Water Consumption	Current Consumption Charge per ccf	2010/11	2011/12	2012/13	2013/14	2014/15
0 - 5 hundred cubic feet (ccf)	$1.25	$1.46	$1.70	$1.98	$2.30	$2.69
6 - 10 ccf	1.57	1.83	2.13	2.48	2.90	3.37
11 - 25 ccf	1.88	2.19	2.55	2.98	3.47	4.04
>25 ccf	2.51	2.93	3.41	3.97	4.63	5.39

Source: City of Menlo Park

Alternative 2 In Alternative 2, the City maintains the current rate structure for all single family residential customers, but transitions all other customer classes (multi-family residential, commercial, industrial, public authority, and landscape irrigation) to a two-tiered inclining block rate.

This rate structure would be revenue neutral to a given revenue target and would generate the same total revenue by class as Alternative 1. The first tier for non-residential users provides for "basic" water use, up to 50 ccf per month. Many small businesses would have their water use fall into this first tier, and larger businesses would have most indoor use fall into this tier. This first tier price of water would be set at approximately the second or third tier price of single family water. The second tier would be for all water consumption above 50 ccf and would slightly exceed the current top tier price.

One advantage of this system is that there are fewer tiers for larger customers, while single family customers remain on their existing rate structure. In general, moderate commercial water users (such as restaurants) would see slightly lower bills than under Alternative 1.

At the same time, one disadvantage is that, in order to maintain revenue neutrality and not adversely impact the smallest non-residential users, the top tier price of water would be slightly higher (about 2.4%). Also, the smallest business users would see slightly larger bills as they lose the lowest cost water in tiers 1 and 2.

Table 14B summarizes this alternative for each customer class. Of note, in year one, the rate structure is shown by first "shifting" to the new rate structure, and then all rates increase 16.5% annually from that point.

Table 14B
City of Menlo Park Water Utility
Alternative 2 - Five-Year Rate Projection - New Non-Residential Structure Only

Fixed charge (by meter size) (1)	Current fixed	2010/11	2011/12	2012/13	2013/14	2014/15
5/8"	$7.84	$9.14	$10.65	$12.41	$14.46	$16.84
3/4"	7.84	$9.14	$10.65	$12.41	$14.46	$16.84
1"	12.54	$14.61	$17.03	$19.85	$23.12	$26.94
1-1/2"	25.87	$30.15	$35.14	$40.95	$47.70	$55.57
2"	41.55	$48.42	$56.43	$65.77	$76.62	$89.26
3"	76.04	$88.62	$103.27	$120.36	$140.21	$163.35
4"	117.59	$137.04	$159.71	$186.12	$216.83	$252.61
6"	261.06	$304.24	$354.56	$413.20	$481.38	$560.81
8"	579.34	$675.16	$786.83	$916.98	$1,068.28	$1,244.54
10"	1,285.68	$1,498.33	$1,746.16	$2,034.97	$2,370.74	$2,761.91

	Current	2010/11	2011/12	2012/13	2013/14	2014/15
Capital surcharge (per ccf - all customers)	$0.35	$0.41	$0.43	$0.44	$0.46	$0.48

All Single Family Homes

		Current Consumption Charge per ccf	2010/11	2011/12	2012/13	2013/14	2014/15
Tier 1	0 - 5 ccf	$1.25	$1.46	$1.70	$1.98	$2.30	$2.69
Tier 2	6 - 10 ccf	1.57	1.83	2.13	2.48	2.90	3.37
Tier 3	11 - 25 ccf	1.88	2.19	2.55	2.98	3.47	4.04
Tier 4	>25 ccf	2.51	2.93	3.41	3.97	4.63	5.39

All Non-Single Family Homes

	Current		**New**					
		Consumption Charge per ccf		Consumption Charge per ccf	2010/11	2011/12	2012/13	2013/14	2014/15
Tier 1	0 - 5 ccf	$1.25	0-50 ccf	$1.78	$2.07	$2.42	$2.82	$3.28	$3.82
Tier 2	6 - 10 ccf	1.57	> 50 ccf	2.57	3.00	3.49	4.07	4.74	5.52
Tier 3	11 - 25 ccf	1.88							
Tier 4	>25 ccf	2.51							

(1) Applies to all customer classes
Source: City of Menlo Park

Alternative 3 In Alternative 3, the City transitions single family residential customers to a more conservation-oriented rate structure that maintains four tiers for water use, but incorporates larger increases in the marginal cost of water between each tier ("steeper" tiers). At the same time, the City would also transition all other customers to the two-tiered inclining block rate structure discussed above in Alternative 2.

For residential users, the biggest advantage of this shift is that water-conserving customers will be rewarded with reduced bills (relative to higher water users), particularly in light of the major increases in cost of SFPUC users. Assuming revenue neutrality of the rate structure change, "steepened" tiers allow for lower cost water for low users, while higher users pay relatively more for their usage.

A disadvantage is that the shift will lead to a slightly larger rate increase (in year one) for the biggest single family residential water users, as some of their water is shifted to more costly tiers.

Of note, this Alternative assumes that the actual size and structure of the tiers for single family residential users remains the same; the only difference is in the unit cost of water.

For all other non-residential customers, the rate structure shift would be identical to that described in Alternative 2.

Table 14C summarizes this Alternative for each customer class.

Table 14C
City of Menlo Park Water Utility
Alternative 3 - Five-Year Rate Projection - Single Family Conservation Rates; New Non-Residential Structure

Fixed charge (by meter size) (1)	Current fixed	2010/11	2011/12	2012/13	2013/14	2014/15
5/8"	$7.84	$9.14	$10.65	$12.41	$14.46	$16.84
3/4"	7.84	9.14	10.65	12.41	14.46	16.84
1"	12.54	14.61	17.03	19.85	23.12	26.94
1-1/2"	25.87	30.15	35.14	40.95	47.70	55.57
2"	41.55	48.42	56.43	65.77	76.62	89.26
3"	76.04	88.62	103.27	120.36	140.21	163.35
4"	117.59	137.04	159.71	186.12	216.83	252.61
6"	261.06	304.24	354.56	413.20	481.38	560.81
8"	579.34	675.16	786.83	916.98	1,068.28	1,244.54
10"	1,285.68	1,498.33	1,746.16	2,034.97	2,370.74	2,761.91

Capital surcharge (per ccf - all customers)	Current	2010/11	2011/12	2012/13	2013/14	2014/15
	$0.35	$0.41	$0.43	$0.44	$0.46	$0.48

All Single Family Homes

		Current Consumption Charge per ccf	New Rate Structure	2010/11	2011/12	2012/13	2013/14	2014/15
Tier 1	0 - 5 ccf	$1.25	$1.07	$1.25	$1.45	$1.69	$1.97	$2.30
Tier 2	6 - 10 ccf	1.57	1.34	1.56	1.82	2.12	2.47	2.87
Tier 3	11 - 25 ccf	1.88	1.78	2.08	2.42	2.82	3.29	3.83
Tier 4	>25 ccf	2.51	3.57	4.16	4.84	5.64	6.58	7.66

All Non-Single Family Homes

	Current		**New**					
		Consumption Charge per ccf		Consumption Charge per ccf	2010/11	2011/12	2012/13	2013/14	2014/15
Tier 1	0 - 5 ccf	$1.25	0-50 ccf	$1.78	$2.07	$2.42	$2.82	$3.28	$3.82
Tier 2	6 - 10 ccf	1.57	> 50 ccf	2.57	3.00	3.49	4.07	4.74	5.52
Tier 3	11 - 25 ccf	1.88							
Tier 4	>25 ccf	2.51							

(1) Applies to all customer classes
Source: City of Menlo Park

IMPLEMENTATION OF RATES

Proposition 218 Water rates are considered property-related charges and as such, they are subject to the provisions of the California Constitution Article XIIID (also known as "Proposition 218"). Proposition 218 includes requirements that cities must follow for the adoption of rates, including the notification of impacted property owners, the method by which property owners or ratepayers can protest any proposed changes to rates, and the requirement that rates be considered at a public hearing.

For notification, the City must notify all property owners (and, if desired, renters who are financially responsible for their water service) in writing, at least 45 days prior to a public hearing to consider the rates. Property owners (and renters financially responsible for their bills) can submit written protests during this 45-day period, up to and including the public hearing. If a majority of property owners file written protests, the new charges cannot be adopted. If less than a majority protest exists, the City Council may adopt the new rates up to and including the maximum rates included in the notice.

For the five-year rate program detailed in this report, the City may choose to notice and adopt a "maximum" rate (essentially, the 2014/15 rate) and then incrementally increase water rates up to that rate over the next five years according to the projected program. This gives the City maximum flexibility during the next five-years to increase rates, if needed, faster than the current projections estimate.

The City can also adopt a five-year rate program with set maximum rates for each of the next five-years. In this case, the City cannot (except under the pass-through provisions discussed below) increase water rates beyond the yearly maximums included on the notice.

Because of these notification and public hearing requirements, if the City wishes to adopt the rates included in this report by July 1, 2010, the approximate deadline for mailing notices is Friday April 2nd 2010. This allows for a May 18th public hearing (at least 45 days later) and for inclusion of the new rates in the budget approval process for July 1, 2010.

AB 3030 Pass Through Legislation New legislation (AB 3030), signed into law in September 2008 (effective January 1, 2009) gives water utilities which purchase wholesale water from another provider greater ability to "pass-through" increases in the cost of wholesale water to their ratepayers without going through new Proposition 218 protest proceedings. This legislation expressly allows public utility providers to adopt a schedule for both inflation and wholesale rate pass-throughs provided they do not apply for more than five-years without a new protest hearing, and that the utility provider gives 30 days written notice to ratepayers each time a pass-through is implemented.

In practice, this means that the City can adopt a rate schedule that allows it to directly "pass-through" changes in SFPUC's wholesale water rate without having a new Prop 218 notification process and hearing. There are a number of ways this could be implemented, but the most straightforward would be for the City to state in its Prop 218 notice that the

five-year rate program presented assumes a maximum SFPUC wholesale rate of $3.21 per ccf, and to the extent that SFPUC increases its wholesale rates within the next five years above that amount, the City can pass-through those increased costs (above $3.21 per ccf) onto the rate charged to ratepayers on a "1:1" (or more accurately, a $0.01 for $0.01) basis. This pass-through provision would also apply to other charges from wholesalers such as an Environmental Surcharge or a Water Management Charge.

RATE IMPACTS

The following tables outline the impacts of the proposed rates on single family (Table 15) and an assortment of "non-single family" (Table 16) customers under the proposed rate changes. Of note, in Alternative 1, which maintains the current rate structure, all users at all levels would see a 16.5% increase in each of the five years.

In Alternatives 2 and 3, the rate impacts would be differential in Year 1 for some customers, due to the changes in the rate structure. For Years 2 through 5, all customers in all classes would have equal 16.5% increases.

Table 15 details the impacts of the recommended rate program on single family residential customers.

Table 15
City of Menlo Park Water Utility
Rate Impacts - Single Family Residential Users Monthly Water Bills (with capital surcharge)

Alternative 1		**Current**	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15**
	% of bills (1)						
Low User (5 ccf monthly)	22.5%	$15.84	$18.49	$21.25	$24.51	$28.31	$32.65
Average User (14 ccf)	63.9%	$34.36	$40.09	$45.97	$52.84	$60.83	$69.98
Above Average User (25 ccf)	86.3%	$58.89	$68.69	$78.75	$90.46	$104.06	$119.70
High User (40 ccf)	95.4%	$101.79	$118.79	$136.35	$156.76	$180.41	$207.75

Alternative 2		**Current**	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15**
	% of bills (1)						
Low User (5 ccf monthly)	22.5%	$15.84	$18.49	$21.25	$24.51	$28.31	$32.65
Average User (14 ccf)	63.9%	$34.36	$40.09	$45.97	$52.84	$60.83	$69.98
Above Average User (25 ccf)	86.3%	$58.89	$68.69	$78.75	$90.46	$104.06	$119.70
High User (40 ccf)	95.4%	$101.79	$118.79	$136.35	$156.76	$180.41	$207.75

Alternative 3		**Current**	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15**
	% of bills (1)						
Low User (5 ccf monthly)	22.5%	$15.84	$17.44	$20.05	$23.06	$26.61	$30.75
Average User (14 ccf)	63.9%	$34.36	$37.25	$42.70	$48.90	$56.26	$64.74
Above Average User (25 ccf)	86.3%	$58.89	$64.64	$74.05	$84.76	$97.51	$112.15
High User (40 ccf)	95.4%	$101.79	$133.19	$153.10	$175.96	$203.11	$234.25

(1) Percent of total single family residential bills up to and including usage level

Table 16 details impacts on a sample of non-residential customers.

Table 16
City of Menlo Park Water Utility
Rate Impacts - Non-Residential Users Monthly Water Bills (Includes capital surcharge)

Alternative 1		**Current**	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15**
	% of bills (1)						
Small business (15 ccf)	39.4%	$36.59	$42.69	$48.95	$56.26	$64.76	$74.50
Moderate use restaurant (75 ccf)	76.4%	$201.89	$235.69	$270.75	$311.46	$358.56	$413.20
High use restaurant (200 ccf)	90.0%	$559.39	$653.19	$750.75	$863.96	$994.81	$1,146.95
Large irrigation (750 ccf)	98.0%	$2,132.39	$2,490.19	$2,862.75	$3,294.96	$3,794.31	$4,375.45
Large industrial (2,000 ccf)	99.1%	$5,707.39	$6,665.19	$7,662.75	$8,819.96	$10,156.81	$11,712.95

Alternative 2		**Current**	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15**
	% of bills (1)						
Small business (15 ccf)	39.4%	$36.59	$46.34	$53.40	$61.31	$70.56	$81.35
Moderate use restaurant (75 ccf)	76.4%	$201.89	$218.27	$251.16	$288.10	$331.43	$381.87
High use restaurant (200 ccf)	90.0%	$559.39	$643.90	$741.22	$851.58	$981.31	$1,131.99
Large irrigation (750 ccf)	98.0%	$2,132.39	$2,516.69	$2,897.47	$3,330.86	$3,840.74	$4,432.48
Large industrial (2,000 ccf)	99.1%	$5,707.39	$6,773.04	$7,798.05	$8,965.59	$10,339.45	$11,933.61

Alternative 3		**Current**	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15**
	% of bills (1)						
Small business (15 ccf)	39.4%	$36.59	$46.34	$53.40	$61.31	$70.56	$81.35
Moderate use restaurant (75 ccf)	76.4%	$201.89	$218.27	$251.16	$288.10	$331.43	$381.87
High use restaurant (200 ccf)	90.0%	$559.39	$643.90	$741.22	$851.58	$981.31	$1,131.99
Large irrigation (750 ccf)	98.0%	$2,132.39	$2,516.69	$2,897.47	$3,330.86	$3,840.74	$4,432.48
Large industrial (2,000 ccf)	99.1%	$5,707.39	$6,773.04	$7,798.05	$8,965.59	$10,339.45	$11,933.61

(1) Percent of total non-residential bills up to and including usage level

REGIONAL RATE SURVEY

BWA conducted a regional rate survey of neighboring water agencies to compare the proposed 2010/11 rate changes with rates in other jurisdictions. Importantly, because most water utilities on the Peninsula are facing the same wholesale rate increases as the City, it is expected many other agencies will have similar long-term rate changes as in the City. Many already have rate proceedings in process. As such, this comparison is only for the 2010/11 year compared to current rates in place in other jurisdictions.

Table 17 includes a rate comparison for a basic 5/8" meter with 14 ccf of monthly water use (the average single family usage in the City for the last calendar year), for the City of Menlo Park at current rates, projected 2010/11 rates, and all other jurisdictions at their current rates as of March 1, 2010.

Table 17
City of Menlo Park Water Utility
Regional Rate Survey

For 5/8" meter with 14 ccf monthly use (1)

Menlo Park (current)	$34.36
Menlo Park (2010/11)	40.09
Foster City	41.07
Mountain View	45.47
Redwood City	49.73
Cal Water Mid-Peninsula	52.02
Cal Water Bear Gulch	58.18
Palo Alto	72.01
Mid-Peninsula Water District	76.14

(1) 14 ccf is monthly average usage for single family homes in City of Menlo Park

EMERGENCY WATER SHORTAGE RATES

The City of Menlo Park is highly dependent on SFPUC for its water supply. In the event that a significant drought leads to mandatory supply cutbacks, the City would be required to reduce water purchases from SFPUC in line with the mandated restrictions or face large financial penalties. In addition, the "20% by 2020" state requirement will impact water conservation efforts in the City over the next decade, resulting in potentially large mandatory reductions in purchases from SFPUC.

In order to meet reduction targets (either emergency shortage or 20% by 2020 targets), the City would likely implement both an aggressive marketing and enforcement campaign, as well as a so-called "drought pricing" (or shortage pricing) structure for water sales.

The purpose of drought rate pricing is two-fold. On the one hand, increasing the cost of water (in particular on the higher use tiers) will encourage the conservation necessary to meet reduction targets. At the same time, with reduced water sales volumes, the utility will have reduced revenues. In normal water year conditions, the reduced water sales would be mitigated somewhat by reduced costs for purchasing wholesale water. However, in times of drought or long-term conservation, wholesale water providers typically increase their own water prices to maintain their own revenue neutrality. For example, the SFPUC is currently considering adoption of an "Environmental Surcharge" in the event of future water shortages.

For this reason, for the purposes of this analysis, it is assumed that **the total cost of wholesale water paid to SFPUC would be constant for each cutback condition**. That is to say, if SFPUC requires a 15% reduction in water use, it would increase its wholesale rates to retailers by 15%, meaning overall payments to SFPUC would remain the same.

BWA has developed proposed drought/shortage pricing for the existing rate structure, as well as the new two-tiered rate structure (for non-residential customers in Alternatives 2 and 3), for potential cutbacks in water supply of 15%, 20%, and 25%. Importantly, each of the drought rate structures is based on generating revenues to meet the full cost of service under each cutback alternative. All rate changes are imposed on the volumetric component of the rate; the fixed monthly charges would be unchanged.

In addition, BWA assumes that the drought rate pricing would only apply to the top two tiers of water usage (or, the top tier in the case of the two-tiered system); the lowest two tiers for basic indoor usage (up to 10 ccf monthly) would remain the same. BWA's analysis has accounted for reduced volume of water sales in the higher cost tiers, as this is where most conservation is likely to occur.

Finally, BWA presents this drought rate analysis based on both the existing rate structure, as well as the adjusted two-tier rates at current revenue levels. However, using the "percent impact" on both tiers 3 and 4, the City could apply the drought surcharge pricing for a given conservation level to any rates in place at that time.

Table 18 summarizes the emergency water shortage rates.

Table 18
City of Menlo Park Water Utility
Emergency Water Shortage Rates

EXISTING RATE STRUCTURE

			15% Cutback		20% Cutback		25% Cutback	
Water commodity rates (1)		Normal	Per ccf	% Incr.	Per ccf	% Incr.	Per ccf	% Incr.
Tier 1	0 - 5 ccf	$1.25	$1.25	0.0%	$1.25	0.0%	$1.25	0.0%
Tier 2	6 - 10 ccf	1.57	1.57	0.0%	1.57	0.0%	1.57	0.0%
Tier 3	11 - 25 cccf	1.88	2.03	8.0%	2.13	13.3%	2.47	31.4%
Tier 4	> 25 ccf	2.51	2.81	12.0%	2.96	17.9%	3.69	47.0%

TWO-TIERED NON-RESIDENTIAL

			15% Cutback		20% Cutback		25% Cutback	
Water commodity rates (2)		Normal	Per ccf	% Incr.	Per ccf	% Incr.	Per ccf	% Incr.
Tier 1	0 - 50 ccf	1.78	$1.87	5.0%	$1.96	10.0%	$2.05	15.0%
Tier 2	> 50 ccf	2.57	3.14	22.1%	3.36	30.9%	3.65	41.9%

(1) Based on current 2009/10 rates; for years 2010/11 through 2014/15, % change for cutback scenario would be applied to Tiers 3 and 4 commodity rates at that time

(2) Based on existing revenue requirement with two-tiered non-residential rates; for years 2010/11 through 2014/15 % change for given cutback scenario as shown would be applied to commodity rates at that time

OTHER FINANCIAL CONSIDERATIONS

BWA has included operating and capital reserve assumptions into the five-year rate program. A short discussion of this issue is included below.

Operating Fund Reserves

Two main needs for an operating fund reserve include:

- Operating cash flow
- Water rate stabilization

Operating cash flow: The City needs to fund ongoing monthly operating expenses, which are relatively stable from month to month, though expenses do increase for wholesale water purchases in the summer months. Meanwhile, with almost 80% of revenues coming from volumetric water sales (when including the capital surcharge) revenues can vary greatly seasonally and with weather patterns.

Water rate stabilization: As wholesale water costs are projected to increase dramatically in the coming years, an operating reserve can provide a cushion to help even out rate adjustments to customers. Eventually customer rates will need to increase, but a reserve can help reduce the short-term impacts.

A rate stabilization account is used to spread a permanent cost increase over a number of years or to fund one-time expenses without the need for a rate adjustment. Such an account provides flexibility if unexpected costs occur beyond a budgeted amount. Use of a rate stabilization account involves drawing on the account when needed and then eventually replacing the funds used up to the minimum reserve target.

The operating reserve is currently much dimished from 2006 when a water rate study was last completed. As of the start of fiscal 2009/10, it held about $875,000 in reserve. Industry best practice suggests that an operating reserve of between 3 and 6 months is sufficient for a utility of this size. As such, BWA has built into its cash flow modeling the assumpion that by the end of the five-year planning period, the total fund balance will include an operating reserve of 4 months of operating expenses.

Capital Fund Reserves

A capital fund reserve is generally used to fund major projects and to provide a financing safeguard in the case of emergencies.

Emergency repairs: By its very nature a water purveyor is capital intensive. Such an agency requires a series of expensive public works facilities including pipelines, reservoirs, pump stations, and delivery facilities. These facilities cost many millions of dollars and are required for constant use. In the event of a breakdown or equipment failure, the City is obligated to instigate repairs under emergency conditions if necessary. The repairs must be implemented immediately and only later may a permanent capital plan be developed.

A source of emergency funding is a necessity. The capital reserve is available to serve as an efficient and painless method of funding emergency repairs.

The minimum amount for such a reserve may be determined is several ways. One method is to use the replacement cost of an expensive facility subject to a possible emergency breakdown and crucial to operations. A reservoir is an example of an expensive facility that must keep operating to avoid interruption of water service. The same could be said of a major distribution pipeline.

A general philosophy for an emergency repair amount is to assume that the City would prepare for one equipment emergency at any given time. The City could use the fund to make the needed repairs and gain time to seek grants, disaster relief, or permanent funding. An allowance of about $1 million would be sufficient to fund major repairs to either of these major facilities. As such, the five-year cash flow projections include a minimum emergency capital repair reserve target of $1 million in the five-year rate planning.

Irrigation Rates

Some jurisdictions provide irrigation and large landscape customers with rate structures specific to that type of use. Most commonly, these rates include "variable" tier sizes (also known as "water budgets") from customer to customer based on the area of landscaped turf. This, in essence, gives each irrigation customer a unique budget of base use water (tier 1) specific to the size of landscaped area, and charges a second, higher water rate for all water use above that allotment.

In some cases, irrigation rates can also include monthly modifications based on weather. In months with high rainfall, the amount of water an irrigation customer can use at the lowest rate is reduced; in months with lower rainfall and higher irrigation needs, that same customer is allotted more water in the first, base use tier.

BWA discussed irrigation rates with City staff in project meetings, and conducted an initial evaluation of their feasibility. It was determined that due to logistical burdens (irrigation water budgets are very staff-intensive, and also often require special software purchases), and given the scale of rate increases in general and potential rate structure changes being considered, that it was not practical to also develop and adopt a new irrigation rate structure at this time. The City can, however, consider a change to this rate structure at any time during the current rate program, and notify only irrigation customers of the change in a separate Prop 218 notice and hearing if appropriate.