Water Rate Study

October 2007

Purissima Hills Water District

Prepared By

Pakpour Consulting Group, Inc.

5776 Stoneridge Mall Road, Suite 320
Pleasanton, CA 94597
(925) 224-7717
www.pcgengr.com

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Figures and Tables

Prepared by:

Joubin Pakpour, P.E.
District Engineer

Introduction

Purissima Hills Water District (District) owns and operates a water system consisting of storage reservoirs, booster pump stations, fire hydrants, and distribution piping.

Pakpour Consulting Group (PCG) serves as District Engineers to the Purissima Hills Water District and was requested to review and analyze the District's current rate structure in order to recommend possible rate and fee increases in response to increases in costs and projected capital improvement projects.

This report presents the results of the review that was conducted to determine if the current structure of rates, fees and charges would provide the revenues needed to offset the anticipated increases in cost to provide water service to customers, to maintain and repair the distribution system and to fund capital improvements.

The scope of this study includes a review and analysis of the expenditures and revenues for the past five years, the approved Capital Improvement Plan, and projected future revenue requirements.

The District last increased its water usage rates in February 2004. Since that time the Consumer Price Index for the Bay Area rose by a total of 9.1%.

Basic Principles

The following basic principles were applied to analyze and project future costs, revenues, and water rates for this study:

- Proposed water rates must generate sufficient revenues to cover all the costs of system operations and maintenance.
- The District will operate with a balanced budget, maintaining required reserves for maintenance, capital improvements and emergencies.
- Since land within the District is largely developed, the funding for the District's Capital Improvement Program must come from the District's rate base rather than the collection of developer fees from new customers.
- The District's Capital Improvement Program focuses on repair and replacement of aging infrastructure to improve system reliability.

Water System Overview

The District's water system was established in 1955. The system is operated by a governmental entity where the costs of providing water services are funded through user fees. These fees consist of a meter charge based upon meter size and a tiered rate structure based on water usage. The system provides water service to a service area of approximately 9 square miles. The service area consists of approximately 6,000 residents in the Town of Los Altos Hills and Santa Clara County, with 2,040 residential services and

47 institutional services including Foothill College, Pinewood High School and the Town's Little League Baseball field.

Water rates for the District are established by the District's Board of Directors. The current rates were adopted by Resolution No. 2004-1, in February 2004.

District Water Supply Assurance

The District is a member of the Bay Area Water Supply and Conservation Agency (BAWSCA – formerly BAWUA), which represents the interests of 26 public agencies and two private utilities in Alameda, Santa Clara and San Mateo Counties. These agencies purchase water on a wholesale basis from the San Francisco Public Utility Commission (SFPUC). BAWSCA provides the ability for the customers of the regional system to work with San Francisco on an equal basis to ensure that the water regional system gets fixed and to collectively and efficiently meet local responsibilities.

The Master Agreement between the District and the SFPUC was negotiated by BAWUA and authorized by the District's in Resolution No. 1984-2 dated August 8, 1984; it provides the District with its share of the available water (based on system capacity). This supply assurance was originally based on historical usage by the District and was last adjusted in 1993 to 792,831 ccf. For FY 2006-2007, the total water purchased by the District was 1,112,291 ccf (40% over the supply assurance). For the last few years, there have been no water shortages, and the District has been able to purchase the additional water from the SFPUC at current rates without any additional charges for exceeding the supply assurance. The District, through BAWSCA, is negotiating a new contract for delivery of water with SFPUC. The new contract is anticipated to be ratified by 2009.

Compliance Statement

This water rate study was prepared to satisfy the substantive requirements for proposition 218 set forth in California Constitution, Article 13D, Section 6(b) pertaining to new or increased fees for property related services.

This water rate study was prepared in accordance with industry standards and generally accepted principles for establishing water rates, fees and charges for water purveyors.

Historical and Projected Water Demands

Population – History and Forecast

The majority of the District is built out and only a few parcels remain that are not served by the District's water distribution system. Future development will primarily be a result of subdividing parcels, replacing existing homes with larger homes and construction of second units.

Active Water Accounts – Demand Forecast

As of August 2007, the District has a total of 2,087 active water accounts. The accounts consist of 2,040 single-family residential connections and 47 institutional connections. A Water Supply Master Plan[1] completed for the District by the consulting firm EKI indicates a 2% growth per year in water usage in for the next 10 years. For the purposes of this study, the proposed revenues were calculated based on historical water purchases of 1,080,000 ccf for FY 2007-08 through 2009-10, assuming a dry year with increased level of conservation.

Table 1 - Historical Water Usage

	2002-03	2003-04	2004-05	2005-06	2006-07
Meter Connection					
Residential *	2027	2034	2036	2036	2040
Institutional *	44	44	46	47	47
Total *	2071	2078	2082	2083	2087
Annual Consumption (ccf)					
Residential	902,388	992,444	858,634	896,148	955,474
Institutional	72,236	79,401	69,359	61,362	66,086
Other **	27,754	56,612	52,479	7,237	90,731
Total Purchased Water	1,002,378	1,128,457	980,472	964,747	1,112,291
SFPUC Allotment	792,831	792,831	792,831	792,831	792,831
Average Annual Consumption per Account (ccf)					
Residential	445	483	422	440	468
Institutional	1,642	1,805	1,576	1,395	1,502
Total	484	543	471	463	533
Annual Increase in Water Usage					
Residential		9.6%	-13.6%	4.4%	6.4%
Institutional		9.9%	-12.6%	-11.5%	7.7%
Total		12.2%	-13.3%	-1.7%	15.1%

* Does not include suspended meters
** "Other" consumption includes water main breaks, leaks and the District flushing program to keep the watermains clean.

Historical Annual Expenditures and Revenues

Expenditures

Figure 1 shows the historical breakdown of expenditures for the District, by type, for the past five years, excluding Capital Improvement Projects (CIP), FY 2002-03 through 2006-07.

Figure 1 - Historical Expenditures – Excluding CIP

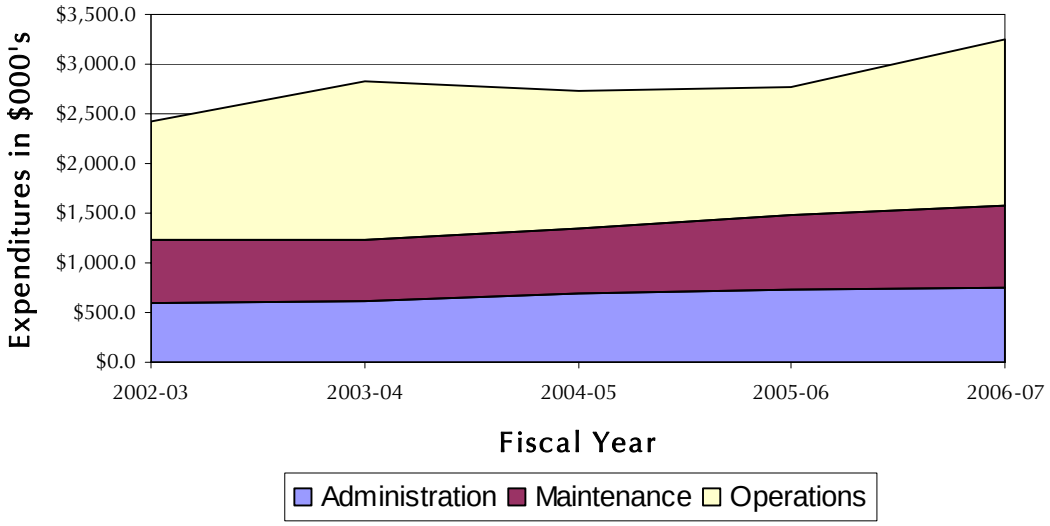


Table 2 is a summary of the District's operating expenditures from FY 2002-03 to 2006-07. The percent change in expenditures from year to year is also shown to assist in projecting future expenditures.

Operating Expenses (Operations) include the cost of water purchased from the SFPUC, power or energy costs for pumping and water quality testing treatment for the District's wholesale water purchases.

Maintenance Expenses include the costs associated with maintenance of the District's water distribution and storage facilities, personnel and equipment costs directly related to system maintenance.

Administration includes the costs related to customer account expenses and the District's general and administrative expenses.

Capital Improvement Projects (CIP) include costs related to the replacement of the District's assets with related engineering and administrative expenditures. The District updated its comprehensive capital improvement program in 2007[(2)], which outlined the capital need of the District over the next seven years.

Contributed Capital Improvement Projects includes funds spent by other agencies or developers to replace or enhance District facilities. Over the past few years the District has developed a good relationship with other agencies in the area. These other agencies, most notably, the Los Altos Hills County Fire District, have contributed to replacements or enhancements of District facilities where those improvements benefit water supply and fire suppression purposes. The District will continue to grow these partnerships to assist with the District's Capital needs.

As seen in Table 2, although the District's operating expenses were slightly lower in FY 2004-05 due to a decrease in water usage and a decrease in unplanned and emergency repairs, expenses have been increasing at an average overall rate of 8% per year over the last five years. This increase in expenditures is largely a result of the increased cost the District must pay for water purchased from the SFPUC and power costs for pumping, which has increased by almost 53% per ccf over the past five years. Operating expenses account for approximately 50% of the Districts budget (excluding CIP). This increase over the previous five years has had a significant impact on the District's total Operating Budget.

Table 2 - Historical Expenditures and Percent Change (in $000s)

	2002-03	2003-04	2004-05	2005-06	2006-07
SFPUC Rate per ccf	$0.88	$1.10	$1.02	$1.20	$1.22
Operations	$1,204.9	$1,588.2	$1,388.2	$1,279.6	$1,677.8
Maintenance	$629.5	$624.5	$646.7	$750.3	$820.1
Administration	$596.7	$615.2	$693.5	$731.0	$754.4
Total Operating Expenditures	**$2,431.1**	**$2,827.9**	**$2,728.4**	**$2,760.9**	**$3,252.3**
% Change (year to year)	-	16.3%	-3.5%	1.2%	17.8%
CIP	$270.0	$1,213.6	$1,011.7	$1,364.7	$2,543.1
Total Including CIP	**$2,701.1**	**$4,041.5**	**$3,740.1**	**$4,125.6**	**$5,795.3**
% Change (year to year)		49.6%	-7.5%	10.3%	40.5%
Contributed CIP	$16.0	$313.4	$384.6	$170.0	$899.0

The information in Table 2 was used to project future expenditures as shown in Table 3. The projected annual increase in expenditures is due to the 9% proposed increase in rates from the SFPUC for the purchase of water from FY 2006-07 rates to FY 2009-10.

Table 3 – Projected Expenditures for Operations (in $000s)

	2006-07	2007-08	2008-09	2009-10
Projected SFPUC Rate (ccf)	$1.22 *	$1.30 *	$1.30	$1.33
Operations	$1,677.8	$1,753.8	$1,753.8	$1,786.1
Maintenance	$820.1	$857.4	$921.9	$953.8
Administration	$754.4	$819.9	$850.0	$883.5
Total Operating Expenditures	$3,252.3	$3,431.0	$3,525.8	$3,623.4
% Change (year to year)		5.50%	2.76%	2.77%
Proposed CIP	$2,543.1	$1,300.0	$1,300.0	$1,300.0
Total Including CIP	$5,795.3	$4,731.0	$4,825.8	$4,923.4
% Change (year to year)		-18.37%	2.00%	2.02%

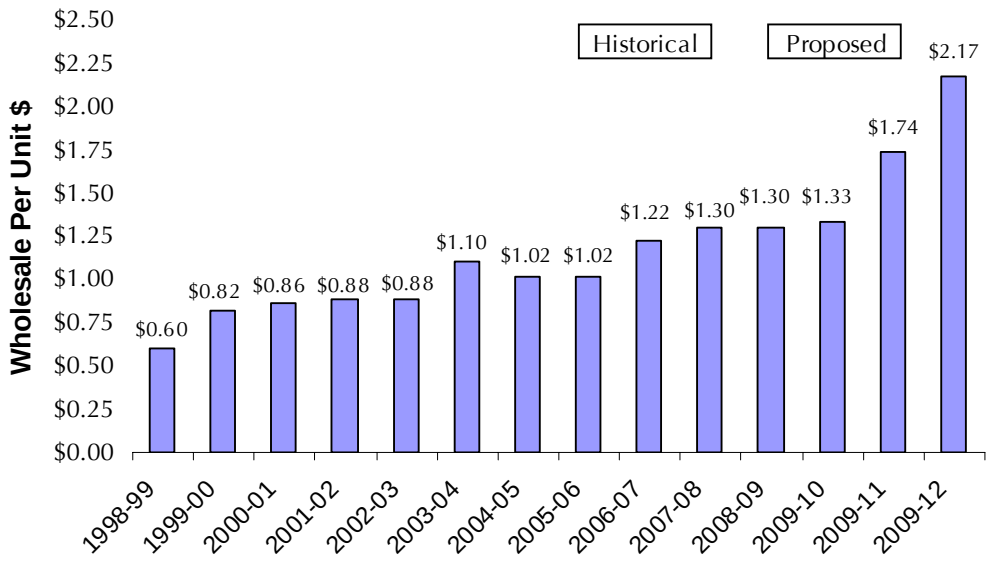
* Actual

Expenses for FY 2007-08 through 2009-10 are estimated budget dollars by the District. The costs shown for Capital Improvements are from the District's approved CIP.

Expenditures – San Francisco Public Utility Commission Water Rates

During the last three years, SFPUC increased its wholesale water rates by 27% from $1.02 to $1.30; the District absorbed this increase and did not raise its water rates.

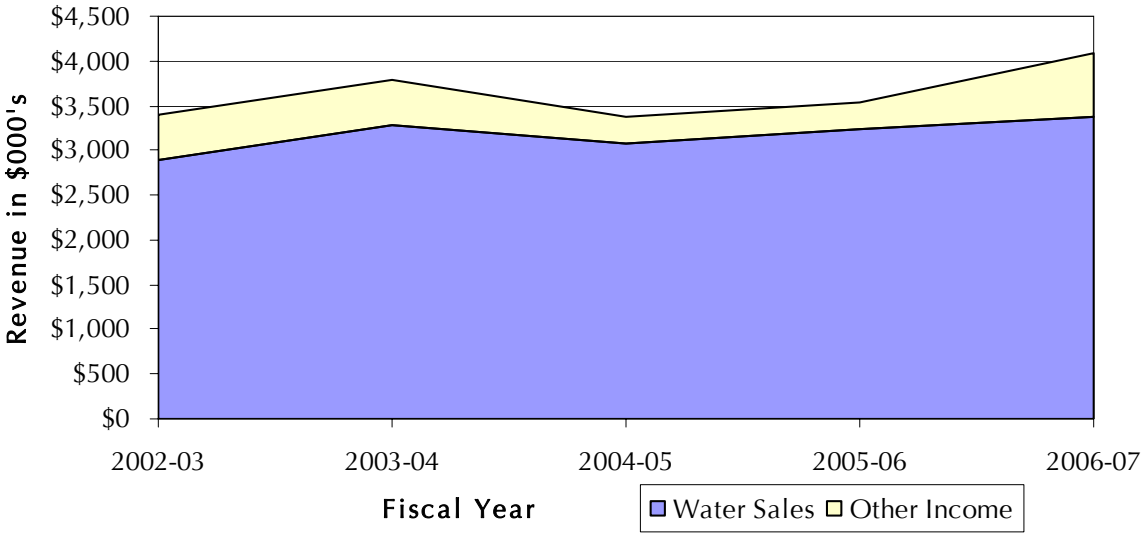
Figure 2 – Historical and Projected SFPUC Rates



Water System Revenues

Figure 3 shows the breakdown of revenues by type for the last five FY's:

Figure 3 – Historical Revenues



The majority of the District's revenue comes from the sale of water. The largest source of Other Income revenue comes from property taxes, whereby the District receives a small percentage of the 1% percent property tax collected and rental income from antenna sites located on District property. The District was also able to absorb a reduction in property tax revenue of $626,000 for FY 2004-05 and 2005-06 due to an ERAF (education revenue augmentation funds) diversion by the State of California. Table 4 is a summary of the District's operating revenues from FY 2002-03 to 2006-07.

Table 4 – Historical Revenues (in $000's)

	2002-03	2003-04	2004-05	2005-06	2006-07
Water Sales - Residential	$2,286.1	$2,639.1	$2,439.6	$2,540.1	$2,744.8
Water Sales - Institutional	$159.3	$204.8	$183.3	$168.8	$174.1
Water Sales - Other (RTS, Misc fees)	$445.7	$445.0	$458.1	$523.7	$467.0
Other Income	$515.6	$508.8	$286.7	$306.1	$698.2
Total Income	$3,406.6	$3,797.8	$3,367.7	$3,538.6	$4,084.0
% Change		11.5%	-11.3%	5.1%	15.4%

Table 5 shows the District's projected revenues based upon the current rate structure. Revenue from water sales was calculated using 1,080,000 ccf for FY 2007-08 through 2009-10. Revenue is forecasted to be flat with the anticipation of a dry water year with lower water usage than comparable years due to increased conservation efforts. Should water demand fall under the projected 1,080,000 ccf, resulting in lower revenues, the District will scale back its CIP accordingly.

Table 5 – Projected Revenues (in $000's) – Current Rates

	2006-07 *	2007-08	2008-09	2009-10
Water Sales - Residential	$2,744.8	$2,768.3	$2,768.3	$2,768.3
Water Sales - Institutional	$174.1	$191.2	$191.2	$191.2
Water Sales - Other (RTS, Misc fees)	$467.0	$445.0	$445.0	$445.0
Other Income	$698.2	$653.4	$655.0	$655.5
Projected Income	$4,084.0	$4,057.8	$4,059.4	$4,059.9
% Change		-0.6%	0.0%	0.0%

* Actual

Table 6 shows the projected revenues and expenditures for the District based upon the current rate structure. As shown under the current rate structure, the District will collect sufficient revenues for Operations and Maintenance, but will fall short in revenue to fully fund the Capital Improvement Program.

Table 6 – Summary of Projected Revenues and Expenditures (in $000s) – Current Rates

	2006-07 *	2007-08	2008-09	2009-10
Revenues	$4,084.0	$4,057.8	$4,059.4	$4,059.9
Expenses	$3,252.3	$3,431.0	$3,525.8	$3,623.4
CIP	$2,543.1	$1,300.0	$1,300.0	$1,300.0
Surplus (Shortfall)	($1,711.3)	($673.2)	($766.4)	($863.5)

* Actual

Rate Discussion – Readiness-To-Serve Charge

The Readiness-To-Serve (RTS) charge is a fix fee charged to each active account based on the meter size. The majority of the District's revenue is obtained from sales of water during the high usage summer months. The intent of the RTS is to equitably allocate a portion of the fixed costs incurred by the District while providing minimum operating funds during the low usage winter months. The District's RTS charge has not increased since 1996.

Table 7 – Existing and Recommended Readiness-to Serve Charges

		Current		Proposed		
	# of Meters	RTS per Month	Amount Collected per Year	RTS per Month	Amount Collected per Year	% Increase
3/4" Meter	1489	$13.50	$241,218.00	$15.00	$268,020.00	11%
1" Meter	517	$22.00	$136,488.00	$24.50	$151,998.00	11%
1 1/2" Meter	35	$30.50	$12,810.00	$34.00	$14,280.00	11%
2" Meter	40	$44.00	$21,120.00	$49.00	$23,520.00	11%
4" & Above Meter	6	$101.00	$7,272.00	$112.00	$8,064.00	11%
Total	2087		$418,908.0		$465,882.00	11%

Rate Discussion – Usage Charge

Based upon the projection of future operation, maintenance, administration and CIP expenditures for the District, a proposed rate has been developed based on historical water sales and the projected fiscal needs of the District. Table 8a and 8b shows the current rate schedule, the recommended rate schedule and the percent change based upon water consumption. No changes have been recommended to the "break points" at which the rate per unit increases. The District's tiered structure provides additional incentive for the highest users to conserve water and to pay their proportional share of the operations and maintenance costs for the system.

Table 8a – Existing and Recommended Rates – Residential

Existing Rate Schedule		Proposed Rate Schedule		
Billed Units (ccf)	Unit Rate	Billed Units (ccf)	Unit Rate	% Increase
1-10	$1.95	1-10	$2.15	10%
11-30	$2.45	11-30	$2.75	12%
31-60	$2.95	31-60	$3.75	27%
61-100	$3.55	61-100	$5.25	48%
101-200	$4.50	101-200	$7.25	61%
200+	$5.00	200+	$10.65	113%

Table 8b – Existing and Recommended Customer Bills – Residential

Billed Units	Existing Rate Schedule *	Proposed Rate Schedule *	% Change
5 ccf	$23.25	$25.75	11%
10 ccf	$33.00	$36.50	11%
25 ccf	$69.75	$77.75	11%
50 ccf	$141.00	$166.50	18%
75 ccf	$223.75	$282.75	26%
100 ccf	$312.50	$414.00	32%
150 ccf	$537.50	$776.50	44%
200 ccf	$762.50	$1,139.00	49%
300 ccf	$1,262.50	$2,204.00	75%

* Based on a ¾ inch meter Readiness-To-Serve charge

Figure 4 – Billing Comparison – Residential (Existing Rates vs. Proposed Rates)

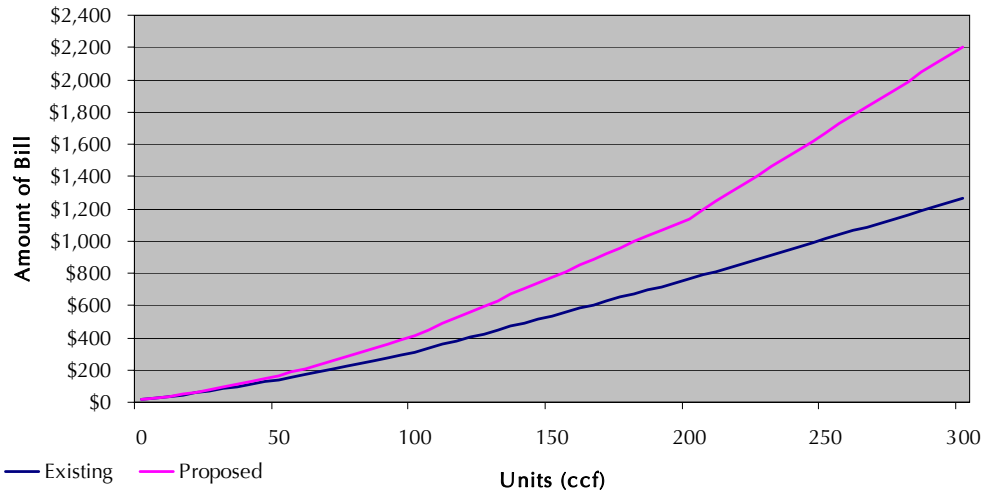


Figure 5 – Comparison of Water Rates with Other Agencies in the Area – Residential

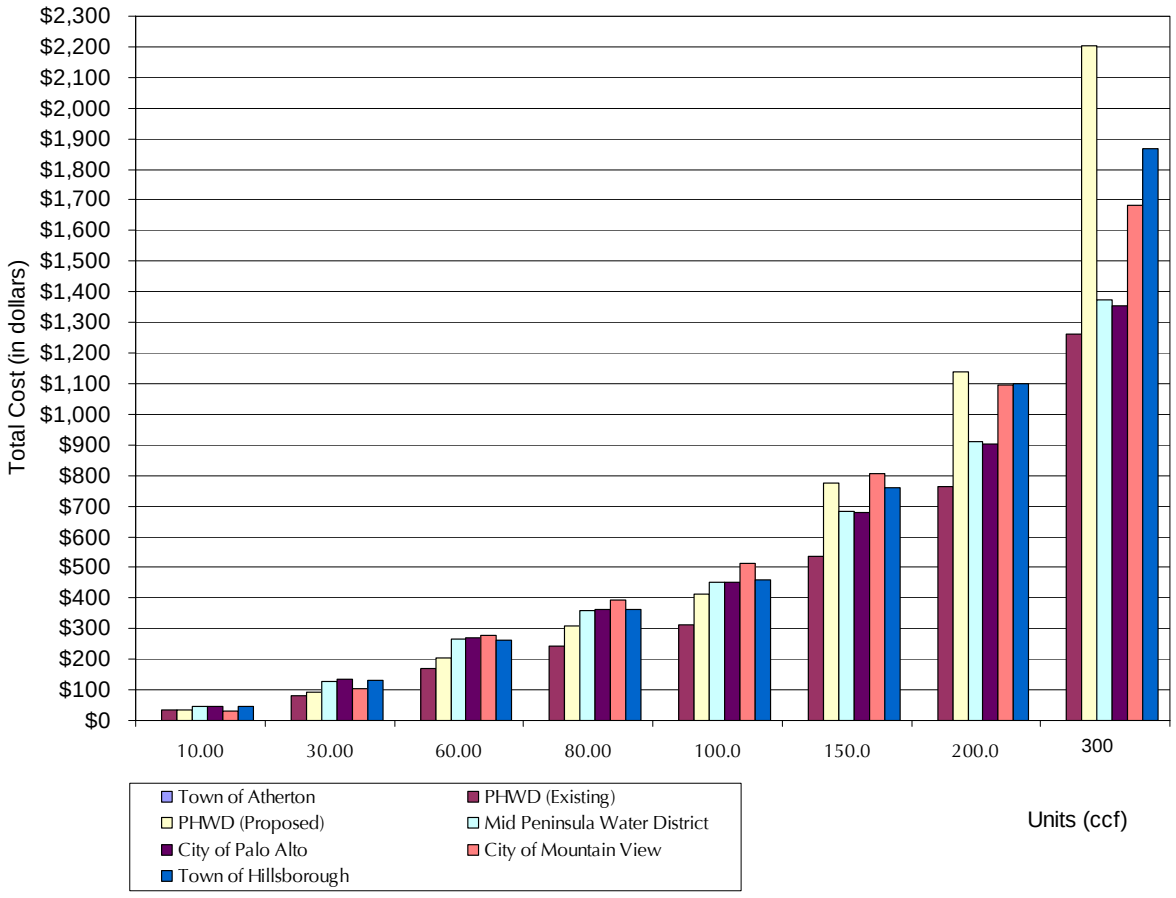


Table 9 – Existing and Recommended Rates – Institutional

Existing Rate Schedule		Proposed Rate Schedule		
Billed Units (ccf)	Unit Rate	Billed Units (ccf)	Unit Rate	% Increase
Flat Fee	$2.95	1-10	$2.15	-27%
		11-30	$2.75	-7%
		31-60	$3.00	2%
		61-100	$3.25	10%
		101-3,000	$3.50	19%
		3,000+	$3.75	27%

Table 10 summarizes the projected new income using the new rates listed in Tables 8 & 9.

Table 10 – Summary of Revenue and Expenditures (in $000s) – New Rates

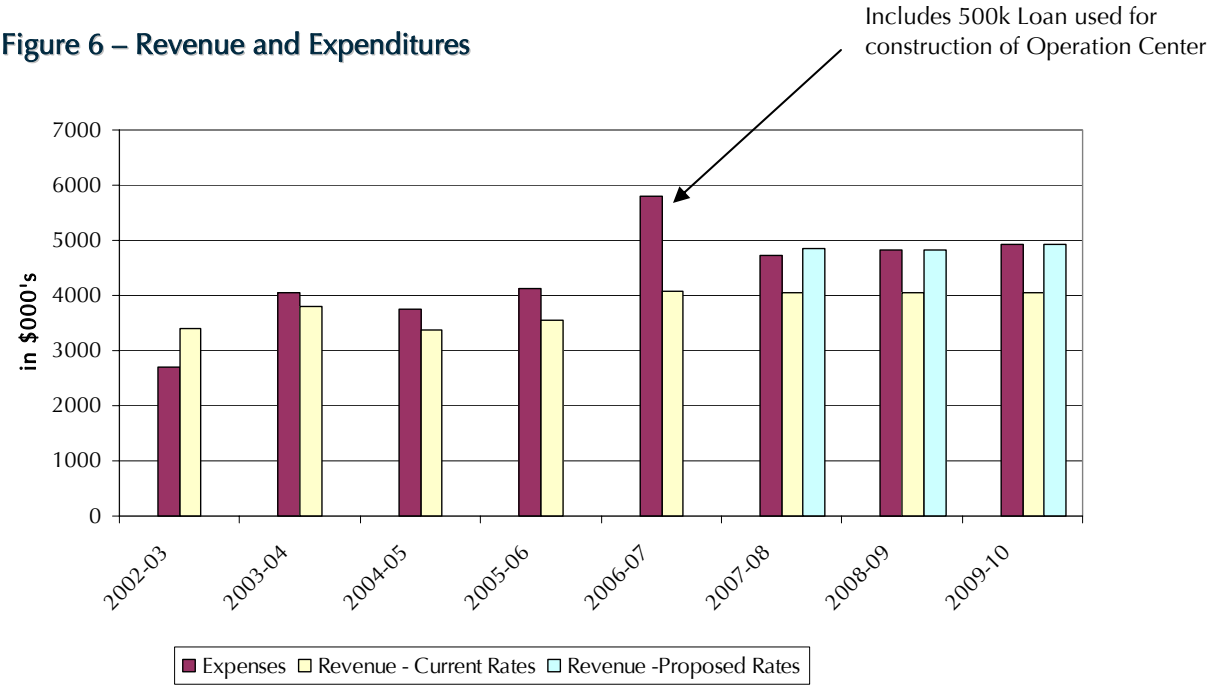
Revenue	2007-08	2008-09	2009-10
Water Sales	$4,360.6	$4,360.6	$4,360.6
Other Income	$486.7	$474.2	$565.1
Projected Income Proposed Rates	**$4,847.3**	**$4,834.8**	**$4,925.7**
Expenses	2007-08	2008-09	2009-10
Operations	$1,753.8	$1,753.8	$1,786.1
Maintenance	$857.4	$921.9	$953.8
Administration	$819.9	$850.0	$883.5
Proposed CIP	$1,300.0	$1,300.0	$1,300.0
Projected Total Expenses	**$4,731.0**	**$4,825.8**	**$4,923.4**
Projected Annual Surplus (Shortfall)	**$116.3**	**$9.0**	**$2.3**

Table 11 shows projected revenues and expenditures based on current and proposed rates. The expenditures shown include Capital Improvement Projects.

Table 11 – Summary of Projected Expenditures and Current and Projected Rates (in $000s)

	2007-08	2008-09	2009-10
Projected Income Proposed Rates	$4,847.3	$4,834.8	$4,925.7
Projected Income Existing Rates	$4,057.8	$4,059.4	$4,059.9
Projected Total Expenses	$4,731.0	$4,825.8	$4,923.4

Figure 6 – Revenue and Expenditures



Miscellaneous Fees and Charges

Table 12 lists one time fees a new customer is required to pay to connect to the District's distribution and storage system. These fees are designed as a "buy-in" to the District by the new customer to pay for their portion of the existing facilities (present replacement value). These fees were last raised in 1996. As part of this study the present replacement value of the District's pumping, storage and transmission systems was re-calculated and distributed to the varying meter sizes.

Table 12 – Facility Charges

Facility Charges	Meter Size	Current Rates	Proposed Rates
Storage Fees	1 inch	$1,622	$6,996
Storage Fees	1 ½ inch	$3,245	$13,993
Storage Fees	2 inch	$5,192	$22,389
Storage Fees	3 inch	$11,356	$44,777
Storage Fees	4 inch	$16,223	$69,964
Transmission Fees	1 inch	$4,418	$10,153
Transmission Fees	1 ½ inch	$8,835	$20,306
Transmission Fees	2 inch	$14,138	$32,489
Transmission Fees	3 inch	$30,924	$64,978
Transmission Fees	4 inch	$44,177	$101,528

Table 13 lists the Districts billing fees which are one time charges that would appear on a customer's water bill for non-compliance to District regulations, such as late payment of a water bill. The District's is imposing these charges to recoup actual expenses by the District. The District proposes to collect these charges from the customer responsible so that other District customers are not subsidizing these expenses.

Table 13 – Billing Fees

Billing Fees	Current Rates	Proposed Rates
Late fees	No Charge	1% of balance
Returned check fee	No Charge	$25
Turn-off for non payment 8 am - 5 pm	No Charge	$50
Turn-off for non payment 5 pm - 8 am	No Charge	$150

Table 14 lists the District fees charged to cover the costs to install certain facilities to serve the customer. Where an installation is unique and site specific, an estimated cost would be quoted to the customers. These fees were last raised in 1996, and the cost of providing the services listed in Table 14 has increased over the past 11 years.

Table 14 – Installation Charges

Installation Charges	Meter Size	Current Rates	Proposed Rates
Meter Installation	¾ inch	$150	$300
Meter Installation	1 inch	$200	$350
Meter Installation	1 ½ inch	$600	$750
Meter Installation	2 inch	$900	$1,000
Meter Installation	3 inch	$3,000	Actual Cost
Meter Installation	4 inch	$4,000	Actual Cost
Service Line Installation	1 inch	$1,500	$3,000
Service Line Installation	1 ½ inch	$2,200	$3,500
Service Line Installation	2 inch	$2,500	$3,750
Service Line Installation	3 inch	Actual Cost	Actual Cost
Service Line Installation	4 inch	Actual Cost	Actual Cost
Fire Hydrant Installation		Actual Cost	Actual Cost
Backflow Installation	1 inch	Actual Cost	$800
Backflow Installation	1 ½ inch	Actual Cost	$1,000
Backflow Installation	2 inch	Actual Cost	$1,200
Construction Inspection		4.5% Contract Amt	10% of Contract
Plan Check		$50	$50
Plan Check Hydraulic Analysis		No Charge	$250

References

1 – Report titled "Water Supply Master Plan" prepared for the Purissima Hills Water District by *Erler and Kalinowski*, September 2005

2 – Report titled "Seven Year Capital Improvement Program" prepared for the Purissima Hills Water District by *Pakpour Consulting Group,* May 2007