

PUBLIC HEARING TO CONSIDER PROPOSED ADJUSTMENTS IN WATER RATES AND CHARGES (F: 112.16) (XR: 24.12) (XR: 60.2)

Staff report dated May 29, 2007, was introduced.

A presentation was given by Keith Jones, Director of Public Services; Richard Mathis, Water Services Manager; and Ann Bui, Black & Veatch representative. The City of Garden Grove's Water Division has not had a rate increase since 2001. Staff indicated several routine and capital improvement projects have been curtailed, and permanent and temporary cost reduction measures have been implemented, to address the negative cash flow to the water enterprise for the past three years. Staff further reported if issues are not addressed, there is high possibility of catastrophic system failure and the City would be failing to comply with Federal and State Mandates. Also, the City would be in danger of violating bond covenants, as well as jeopardizing receivership.

At 7:58 p.m., the meeting was reconvened with Mayor Dalton and all Council Members present.

In response to Council Member Broadwater's question on the effective date of the new rates, staff indicated that it would be sometime in August 2007.

Mayor Dalton declared the public hearing opened and asked if anyone wished to address the City Council on the matter. He suggested to those companies with more than one representative in attendance that a spokesperson be chosen to speak for the entire group.

David Lautherboren, Don Gordon, Ann Wyatt, Dawn Neilsen, Don Switzler, Jon Wilmes, Donald Spencer, Joy McLearn, Peggy Bergin, Janine Fowler, Bill Knitter, David Vill, Russ McDonald, Barbara Barker, Bob Freeman, Beatrice Jones, Robert Servis, Allan Cronk, Robin Marcario, Bob Owens, George Brietigam, Charles Mitchell, Steve Smith, Tony Flores, and Harry Pearce addressed the City Council protesting the proposed water rate adjustment. Several concerns and questions were raised, including the hardship a rate increase would place on residents, especially those on fixed incomes; the effect on lawn maintenance; the dangers of using a chlorine gas system; why the situation hasn't been addressed sooner, urging that responsible staff members be held accountable; and lack of communication to the residents on the seriousness of the situation. Suggestions included seeking alternative funding sources; changing to a monthly billing cycle; and offering a lifeline rate for seniors.

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Ellis Chang, Yung Suh, Robert Lee, and Armando Becerra addressed the City Council on behalf of US Dyeing and Finishing, Inc., regarding the negative impact increased water rates would have on their company, urging that alternatives be considered.

Ray Grangoff, Julia Araiza, Michael Chew, John Konwiser, Ronald Berg, and Christine O'Connor addressed the City Council on behalf of apartment owners/managers, urging the tiered system be reconsidered, indicating it is unfair for apartment dwellers to pay a higher rate.

There being no further comments from the audience, the public hearing was declared closed.

Council Member Broadwater stated the use of the chlorine system should be changed immediately. If need be, discussions need to be held to find revenue sources to insure the changes happen quickly. He further commented when he left the City Council two and half years ago, the Water Enterprise Fund was not a problem, and the sewer maintenance had been addressed.

Council Member Rosen commented that each year through the budget process, staff has reported the insufficient funds in the Water Enterprise Fund; however, the sewer maintenance fee was in worse shape and was dealt with first. Now is the time to address the water fund.

Council Member Rosen further stated that by law, the Water Enterprise Fund must be self-sufficient, and if the City does not take action, fines against the City may be assessed. He suggested that a committee of community members representing different interest groups affected by this rate adjustment meet with staff to further discuss the proposed rate adjustments. He recommended a member of the Board of Realtors, the Apartment Association, Connie Margolin from the Chamber of Commerce, and Robin Marcario from CGGNA be included on the committee.

In a question and answer time, staff addressed Council Members' questions as well as those raised during the public hearing portion of the meeting.

Regarding a lifeline rate for senior citizens, the City Attorney responded that under Proposition 218, rates charged could only be for the cost of service. It would be inappropriate for a rate payer to subsidize other rate payers.

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Council Member Rosen clarified that the figures used in the presentation were estimates on what the capital improvement project could cost. Each project would go out to bid, insuring the City is using the funds wisely. If a project should come in below estimates, those budgeted funds could be applied to other projects.

Regarding the age of the pipes, the older pipes consist of more than just the fire lines. Two existing systems were incorporated under the City's water system in 1956. In addition, standards have changed; originally, four inch pipes could be used, where six inch pipes are now the standard.

In responding to comments made for additional studies, Mayor Dalton cited Black & Veatch's record, indicating that they are a nationally recognized company, and number one in their field. A second study would only confirm what Black & Veatch has already discovered, and would cause a delay in starting the program.

To the concerns raised on new development creating a drain on the City's water system, developers are charged a fee for each development, as well as having to comply to specific conditions required by the City to build construction projects according to code.

Mayor Dalton empathized with the residents who spoke and those sending in protests. However, not to address the situation would be unreasonable. Rates need to be raised. These problems will not get better. Steps need to be taken to mitigate the consequences.

To the concerns raised by the apartment owners/managers regarding the tiered system and the unfairness to apartment dwellers, staff indicated that with the data obtained through the installation of new meters, water usage would be measured more accurately. This, however, would not insure the water bill would be less; just that the measurement would be more accurate. Customers may be surprised by an increase in their bill with the new meters reading what they actually are using.

Council Member Nguyen asked if the rate increase to the tiered rates would be different than the 64 percent presented, to which staff indicated no, 64 percent is across the board no matter what tier.

In response to Council Member Nguyen's inquiry on how much a second study would cost and the length of time it would take to complete, staff indicated the cost would be approximately \$120,000 and would take up to three months to complete.

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Council Member Rosen requested staff provide information on how the formula of 30, 20, 10, 10 percent increases would affect the changes staff has proposed.

Council Member Nguyen commented that a second study would be a good investment to assure the citizens that the course of action the City Council chooses is the right one.

Council Member Rosen disagreed with Council Member Nguyen, citing Black & Veatch's excellent credentials in their field. What the City needs is an in-flow of cash to make the necessary changes and start the capital improvements. He didn't feel it was necessary to spend an additional \$120,000 to delay this decision. The figures have been determined, and the final decision is scheduled for June 12.

In response to Mayor Dalton's question on changing how the percentages will be applied and public hearing re-noticing, the City Attorney indicated that as long as the City Council keeps the accumulative amount under what was noticed, under Proposition 218, the rate adjustment would not have to be re-noticed.

Several Council Members indicated that no politician wants to be known to have raised rates or taxes. However, it is the City Council's responsibility to protect the city's infrastructure.

Mayor Dalton directed staff to meet with community representatives to discuss the proposed rate adjustments further; and that consideration of an Ordinance with proposed adjustments will be listed on the June 12, 2007, City Council agenda.

Council Member Nguyen stated that her request for a second opinion was not a negative reflection on the consultant or their work. She felt that the problem is important enough to get a second opinion.

The Deputy City Clerk read into the record: The City Clerk's Office, as of 5:30 p.m., May 29, 2007, had received a total of 197 protests. Since 5:30 p.m., an additional 11 protests were received. There are 34,004 parcels in the city. As a result, there has not been a submittal of a majority protest.





three years, while costs for operation, regulatory compliance, capital, and maintenance requirements have continued to escalate. Consequently, the fiscal condition of the Water Enterprise has been tenuous and deteriorating. Furthermore, debt service covenants were not met due to insufficient revenues. To maintain the City's quality of life as well as preserve each resident and business owner's investment in Garden Grove, it is important to plan for the future by repairing and maintaining the systems that serve the City.

### DISCUSSION

It is the perception of staff that the condition of the water system has reached a point whereas continually deferring needed improvements will threaten public health and safety. Moreover, additional funds are needed to meet the financial, regulatory, operational, public health and safety, and moral obligations entrusted to the City by the community.

The Water Financial Plan has identified the overall revenue needs for minimal financing of the operations, capital improvements and debt obligations for the Water Enterprise through:

- Evaluating existing policies and procedures affecting water rates.
- Evaluating adequacy of projected revenues under existing rates to meet projected revenue requirements.
- Developing a sound financial plan for covering a ten-year study for both ongoing operations, planned capital improvements and complying with Federal and State Mandates.
- Developing a suitable schedule of water rates that produce revenues adequate to meet financial needs and business principles adopted by the City Council.

The study concludes that a revised water rate be established under the existing rate structure which is an inclining tiered block structure that includes a service charge, which varies by meter size, and a commodity charge applicable to each hundred cubic feet of billed water sales. The proposed rate adjustment will amend the service charge for 5/8 x 3/4 meters (typical residential meter size) from \$3.00 to \$4.92 per month and a usage charge of \$1.06 to \$1.74 per HCF of water (748 gallons) use per month up to a maximum use of 36 HCF. Added to this will be the commodity adjustment charges and capital improvement charges, which will remain the same. This would result in the water portion of the bill increasing from \$23.64 to \$35.73 for the average residential customer (15 HCF) per month, which amounts to a 64% rate adjustment with an overall increase of approximately \$12.00 per monthly bill.

Service charge rates will also be adjusted for all meter sizes from 1" to 10", plus a usage charge ranging from \$1.74 to \$1.94 per HCF of water use per month, up to a maximum use for each tier. These rates will replace the existing tiered rates of \$1.06 to \$1.18 per HCF. Commodity adjustment charges (Pass-Through) and capital improvement charges will also remain the same.

All meter size service charge rates and usage charges will be adjusted 5% annually to cover funding of reserve accounts, inflationary costs and imported water cost increases on July 1 of each year, commencing July 1, 2008, without further action by the City Council. The proposed rates are contained in the following table.

<b>Meter Size</b>	<b>Service Charge</b>	<b>Capital Improvement Charge</b>
(inches)	(\$/mo)	(\$/mo)
5/8" x 3/4"	\$4.92	\$0.69
1"	\$13.12	\$0.97
1-1/2"	\$25.42	\$1.24
2"	\$38.54	\$2.00
3"	\$63.96	\$7.59
4"	\$88.56	\$9.66
6"	\$202.54	\$14.49
8"	\$316.52	\$20.01
10"	\$430.50	\$25.53
<b>Units of Water Consumed</b>	<b>Base Commodity Charge (usage)</b>	<b>Commodity Adjustment Charge*</b>
(hcf)	(\$/hcf)	(\$/hcf)
0 - 36	\$1.74	\$0.27
37 - 250	\$1.80	\$0.27
251 - 500	\$1.87	\$0.27
> 500	\$1.94	\$0.27

\*Commodity Adjustment per billing unit cost includes increased water costs from Metropolitan Water District of Southern California and Orange County Water District.

The total fee (see table) charged is calculated based upon the funds required by the City to maintain and operate the City's water system, repay bond indebtedness, and to comply with new regulations imposed by State and Federal agencies.

Procedure

The basic procedure for increasing water rates is as follows:

- a) A public hearing is held on the matter. Notice of public hearing on the water rate increase was given 45 days in advance of the public hearing to the record owners of each identified piece of real property within the Water Enterprise pursuant to Proposition 218;
- b) Property owners within the Water Enterprise boundaries have the right to file a written protest against the increase;
- c) If more than a simple majority of the total number of property owners files protests against water rates increase, then the increase may not be instituted (The total number of parcels is 34,084); and

- d) Under State law, revision to Water Enterprise fees and charges must be approved by a three-fifths (3/5) vote of the Council, that is three affirmative votes. (Health and Safety Code section 5471)

FISCAL IMPACT

Funding the level of revenue requirements necessary for efficient operation, maintenance, and structural refurbishments of the water system requires substantial rate increases or some combination of rate increases and debt financing. The Consultant, in concert with staff, completed a financial plan (Attachment 1 – Water Rate Study, City of Garden Grove, California), which outlines funding options including debt financing and amending water service fees under the existing rate structure. The financial plan establishes minimum rates that are needed to cover the financing of operations, capital improvements and debt obligations. The proposed rate amendment was selected based on the accumulative, present and future needs of the Water Enterprise and minimizing the financial impact to the customers.

COMMUNITY VISION IMPLEMENTATION

The project is consistent with the community vision for maintaining and upgrading the water system to ensure maximum protection for public health and the environment.

RECOMMENDATION

It is recommended that City Council:

- Hold a Public Hearing to hear public testimony and receive written protests from property owners

  
KEITH G. JONES  
Public Works Director

By:   
Raquel Manson  
Administrative Analyst

Approved for Agenda Listing

  
Matthew Feral  
City Manager

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# REPORT

## Water Rate Study City of Garden Grove, California



April 2007



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ENERGY WATER INFORMATION GOVERNMENT

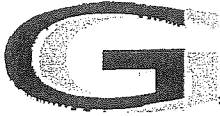
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## Introduction

This report was prepared for the City of Garden Grove, California (City) to document the development of a multi-year financing planning and water rate structure for the City's Water Services Division of the Public Works Department (the Water Division). The specific goals of the study were to:

- Review and evaluate existing policies and procedures affecting water rates;
- Evaluate the adequacy of projected revenues under existing rates to meet projected revenue requirements;
- Develop a sound financial plan for the Water Division covering a ten-year study period for both ongoing operations and planned capital improvements;
- Allocate the Water Division's projected Fiscal Year 2007/2008 (FY 07/08) revenue requirements to the various customer classes defined by meter size in accordance with the respective service requirements; and
- Develop a suitable schedule of water rates that produce revenues adequate to meet financial needs while recognizing customer costs of service and local policy considerations.

## General Background

The City of Garden Grove Water Services Division provides water service to approximately 34,000 customers who include residential, commercial, and agricultural accounts. The Water Division derives its water from three sources: groundwater, the Metropolitan Water District (MWD) and the Orange County Water District (OCWD). The utility currently owns and operates 12 groundwater wells throughout the City that have a capacity to extract 35,000 gallons per minute (gpm). In addition, the utility supplements its groundwater source with MWD and OCWD water. Through its four connections, the utility has a capacity to import 22,500 gpm of purchased water. Overall, the utility manages over 360 miles of water mains, covering a service area of about 18 square miles. Water provided by the Water Division is a blend of water purchased from MWD and OCWD and the City's own groundwater wells.

The City of Garden Grove operates and maintains the Water Division as a self-supporting enterprise. As such, the water rates are developed to provide sufficient levels of revenue to meet all operation and maintenance expenses of the system, debt service requirements, routine annual extensions and replacements of capital improvements to be funded from current revenues, and other specific bond ordinance and revenue requirements. Current water rates were adopted by Council in 2001. Throughout the years, adjustments have been made to the water rates to account for increases in the cost of purchased water from MWD and the replenishment assessment fees from OCWD, but no other rate adjustments have been applied since 2001. Prior to the increase in 2001, the City last changed the minimum charge (meter service charge) in 1989 and the commodity charge (volume based charge) in 1991.



## **Purpose**

The purpose of this report is to present the findings obtained from Black & Veatch Corporation's (Black & Veatch's) study of the Water Division's financing and capital facilities needs. The study develops a financial plan that projects operating revenue, expenses and capital financing costs for the Water Division over a ten-year planning period ending June 30, 2016. As part of the plan, future revenues under existing rates, operation and maintenance expense, principal and interest expense on bonded debt, and capital improvement requirements are considered. Annual projections of customers, water use, revenues, and expenditures have been made using historical data and estimates of conditions in the area in the next ten years.

## **Scope**

The results of a study of the projected revenues, revenue requirements, costs of service, and rates for water service are presented herein. For purposes of this report, the study period is the ten fiscal years beginning July 1, 2006 and ending June 30, 2016. Unless otherwise noted, references in this report to a specific year are for the City's year ending June 30. To avoid confusion between calendar and fiscal years, the term FY 05/06 refers to the year beginning July 1, 2005 and ending June 30, 2006. Revenues and revenue requirements for the study period were projected based on a review of historical factors and the Water Division's operating and capital budgets and financial policies. The study of revenue requirements recognizes projected operation and maintenance (O&M) expense, establishment and/or maintenance of reserve funds, and capital financing requirements. Capital financing requirements include payments on outstanding bond issues as well as capital improvement expenditures met from annual revenues and available reserve funds.

The Water Division costs of service were allocated to customer classes utilizing a cost causative approach endorsed by the American Water Works Association (AWWA). This allocation methodology produces cost of service allocations recognizing the projected customer service requirements for the utility. Proposed rates are designed in accordance with allocated cost of service and local policy considerations. The extent to which the existing rate structure recovers revenues from customer classes in accordance with cost of service allocations is also evaluated.

## **Disclaimer**

In conducting our studies, we reviewed the books, records, agreements, capital improvement programs, and customer sales and financial projections of the Water Division as we deemed necessary to express our opinion of the Water Division's operating results and projections. While we consider such books, records, documents, and projections to be reliable, Black & Veatch has not verified the accuracy of these documents.

The projections set forth in this report below are intended as "forward-looking statements". In formulating these projections, Black & Veatch has made certain assumptions with



respect to conditions, events, and circumstances that may occur in the future. The methodology utilized in performing the analyses follows generally accepted practices for such projections. Such assumptions and methodologies are reasonable and appropriate for the purpose for which they are used. While we believe the assumptions are reasonable and the projection methodology valid, actual results may differ materially from those projected, as influenced by the conditions, events, and circumstances that actually occur. Such factors may include the Water Division's ability to execute the capital improvement program as scheduled and within budget, regional climate and weather conditions affecting the demand for water, and adverse legislative, regulatory or legal decisions (including environmental laws and regulations) affecting the Water Division's ability to manage the system and meet water quality requirements.



## Revenues and Revenue Requirements

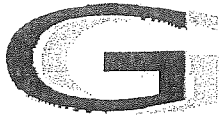
### Customer Usage Projections

Based on a review of available historical data and engineering estimates of future growth, City customer account growth is projected to increase an average of 0.2 percent per year as shown in Table 1. It is important to note that the growth in accounts is minimal as a result of customer classes that are projected to demonstrate little or no growth in the next ten years such as public schools, parks, and agricultural. For customer classes still experiencing growth such as residential and commercial due to zoning changes, it is estimated that growth will occur at approximately 1 percent per year which is consistent with County growth rates.

Projected water sales volumes through FY 15/16 are shown in Table 2. Projected sales volumes are based on the forecasted number of customers and historical patterns of water usage per customer. Historically, the City's customers have demonstrated a high level of sensitivity to price changes. When the 2001 rate increase was implemented, the Water Division reported a significant drop in water sales for several years. Based on previous experience with rate increases, it is anticipated that consumption will initially decrease as customers will reduce usage to maintain a low water bill. Thereafter, it is expected that water sales volumes will increase based on the addition of new customer accounts and the fact that existing customer will slowly migrate back to old consumption patterns.

**Table 1**  
**Projected Average Number of Accounts**

Line No.	Description	Actual		Projected			
		FY05/06	FY06/07	FY07/08	FY08/09	FY09/10	FY10/11
			accts	accts	accts	accts	accts
<b>Customer Classes</b>							
1	Agricultural	4	4	4	3	3	2
2	Public School - Non GGUSD	8	8	8	8	8	8
3	Commercial	1,680	1,697	1,714	1,732	1,750	1,768
4	Duplex	252	255	258	261	264	267
5	Private School	22	22	22	22	22	22
6	Church	53	53	53	53	53	53
7	Hospital	14	14	14	14	14	14
8	Industrial	321	321	321	321	321	321
9	Laundry	13	13	13	13	13	13
10	Multi-Unit (>2 Units)	1,456	1,472	1,492	1,512	1,533	1,555
11	Hotel/Motel	24	24	24	26	28	30
12	Sewer/Septic	50	50	50	50	50	50
13	Parks	1	1	1	1	1	1
14	Residential	29,169	29,191	29,213	29,235	29,250	29,265
15	Public School - GGUSD	64	64	64	64	64	64
16	Condo/Townhouse	18	18	20	22	23	24
17	Car Wash	9	9	9	9	9	9
18	Landscape	313	313	313	313	313	313
19	Fire Service	513	511	511	511	511	511
20	Public School - F/S	50	50	50	50	50	50
21	<b>Total</b>	<b>34,034</b>	<b>34,090</b>	<b>34,154</b>	<b>34,220</b>	<b>34,280</b>	<b>34,340</b>



**Table 1 (continued)**  
**Projected Average Number of Accounts**

Line No.	Description	Projected				
		FY11/12	FY12/13	FY13/14	FY14/15	FY15/16
		accts	accts	accts	accts	accts
<b>Customer Classes</b>						
1	Agricultural	2	2	2	2	2
2	Public School - Non GGUSD	8	8	8	8	8
3	Commercial	1,787	1,806	1,825	1,844	1,863
4	Duplex	270	273	276	279	282
5	Private School	22	22	22	22	22
6	Church	53	53	53	53	53
7	Hospital	14	14	14	14	14
8	Industrial	321	321	321	321	321
9	Laundry	13	13	13	13	13
10	Multi-Unit (>2 Units)	1,577	1,599	1,621	1,644	1,668
11	Hotel/Motel	30	30	30	30	30
12	Sewer/Septic	50	50	50	50	50
13	Parks	1	1	1	1	1
14	Residential	29,280	29,295	29,310	29,325	29,340
15	Public School - GGUSD	64	64	64	64	64
16	Condo/Townhouse	24	24	24	24	24
17	Car Wash	9	9	9	9	9
18	Landscape	313	313	313	313	313
19	Fire Service	511	511	511	511	511
20	Public School - F/S	50	50	50	50	50
21	<b>Total</b>	<b>34,399</b>	<b>34,458</b>	<b>34,517</b>	<b>34,577</b>	<b>34,638</b>

**Table 2**  
**Projected Billed Volume**

Line No.	Description	Actual	Projected				
		FY05/06	FY06/07	FY07/08	FY08/09	FY09/10	FY10/11
		ccf	ccf	ccf	ccf	ccf	ccf
<b>Customer Classes</b>							
1	Agricultural	5,700	5,700	5,700	4,300	4,300	2,900
2	Public School - Non GGUSD	27,200	27,200	27,200	27,200	27,200	27,200
3	Commercial	1,346,600	1,352,900	1,352,800	1,367,000	1,395,100	1,409,500
4	Duplex	74,700	75,300	75,100	76,000	76,800	77,700
5	Private School	36,000	36,000	36,000	36,000	36,000	36,000
6	Church	42,800	42,700	42,700	42,700	42,700	42,700
7	Hospital	76,800	76,700	76,700	76,700	76,700	76,700
8	Industrial	576,900	576,500	576,500	576,500	576,500	576,500
9	Laundry	36,500	36,500	36,500	36,500	36,500	36,500
10	Multi-Unit (>2 Units)	2,174,400	2,195,100	2,169,300	2,204,100	2,235,800	2,270,200
11	Hotel/Motel	220,100	220,000	218,900	237,200	256,700	275,000
12	Sewer/Septic	8,800	8,700	8,700	8,700	8,700	8,700
13	Parks	0	0	0	0	0	0
14	Residential	5,774,000	5,749,900	5,609,900	5,628,500	5,634,300	5,643,000
15	Public School - GGUSD	533,800	533,600	533,600	533,600	533,600	533,600
16	Condo/Townhouse	3,400	3,400	3,700	4,000	4,200	4,400
17	Car Wash	20,800	20,800	20,800	20,800	20,800	20,800
18	Landscape	1,229,700	1,227,100	1,214,800	1,214,800	1,227,100	1,227,100
19	Fire Service	0	0	0	0	0	0
20	Public School - F/S	0	0	0	0	0	0
21	<b>Total</b>	<b>12,188,200</b>	<b>12,187,600</b>	<b>12,008,900</b>	<b>12,094,600</b>	<b>12,193,000</b>	<b>12,268,500</b>

ccf = hundred of feet



**Table 2 (continued)  
Projected Billed Volume**

Line No.	Description	Projected				
		FY11/12	FY12/13	FY13/14	FY14/15	FY15/16
		ccf	ccf	ccf	ccf	ccf
<b>Customer Classes</b>						
1	Agricultural	2,900	2,900	2,900	2,900	2,900
2	Public School - Non GGUSD	27,200	27,200	27,200	27,200	27,200
3	Commercial	1,424,600	1,439,800	1,454,900	1,470,100	1,485,200
4	Duplex	78,600	79,400	80,300	81,200	82,100
5	Private School	36,000	36,000	36,000	36,000	36,000
6	Church	42,700	42,700	42,700	42,700	42,700
7	Hospital	76,700	76,700	76,700	76,700	76,700
8	Industrial	576,500	576,500	576,500	576,500	576,500
9	Laundry	36,500	36,500	36,500	36,500	36,500
10	Multi-Unit (>2 Units)	2,304,700	2,336,800	2,369,000	2,402,600	2,437,700
11	Hotel/Motel	275,000	275,000	275,000	275,000	275,000
12	Sewer/Septic	8,700	8,700	8,700	8,700	8,700
13	Parks	0	0	0	0	0
14	Residential	5,651,600	5,654,500	5,657,400	5,660,300	5,663,200
15	Public School - GGUSD	533,600	533,600	533,600	533,600	533,600
16	Condo/Townhouse	4,400	4,400	4,400	4,400	4,400
17	Car Wash	20,800	20,800	20,800	20,800	20,800
18	Landscape	1,227,100	1,227,100	1,227,100	1,227,100	1,227,100
19	Fire Service	0	0	0	0	0
20	Public School - F/S	0	0	0	0	0
21	<b>Total</b>	<b>12,327,600</b>	<b>12,378,600</b>	<b>12,429,700</b>	<b>12,482,300</b>	<b>12,536,300</b>

ccf = hundred of feet

In comparing FY 04/05 sales to FY 05/06, it appears that water sales increased slightly. The increase was primarily a result of an increase in the commodity charge associated with purchased water costs. The ability to examine average consumptive behavior by customer class was only available this year after the City implemented billing system changes for the Sewer Division. Thus, no customer-class trends could be readily established. However, in conducting water rate studies for utilities in the Western US, Black & Veatch has observed a decline in use per account trend in the last few years. This trend is generally the result of drought conditions, conservation efforts, and/or use of water efficient fixtures. We recommend that as more detailed information becomes available, the City should monitor average consumption levels by customer class to help ascertain the impact of any conservation efforts on water sales.

### Revenue Projections

The majority of the Water Division's revenue is derived from rates and charges for water service. Table 3 presents a summary of the City's current water rates for customers. Projections of future water sales revenue are based on analyses of historical and forecasted trends for customer growth, average water use per customer and current usage patterns; average revenues billed per unit volume of water sold and service charges. In addition, the City imposes a flat capital improvement fee on all customers based on meter size. These fees are transferred to the capital and replacement fund to be used for future capital improvement projects.



**Table 3**  
**Existing Water Rates**

Bi-Monthly Service Charge				Commodity Service Charge	
Meter Size	Minimum Charge	Capital Improv. Charge	Fire Service	Units of Water [1] in ccf	Commodity Charge
5/8" x 3/4"	\$6.00	\$1.38	\$11.00	0 - 36	\$1.33
1"	\$16.00	\$1.94	\$11.00	37 - 250	\$1.37
1-1/2"	\$31.00	\$2.48	\$11.00	251 - 500	\$1.41
2"	\$47.00	\$4.00	\$11.00	Excess	\$1.45
3"	\$78.00	\$15.18	\$14.00		
4"	\$108.00	\$19.32	\$19.00	Water Cost [2]	\$0.27
6"	\$247.00	\$28.98	\$29.00		
8"	\$386.00	\$40.02	\$38.00		
10"	\$525.00	\$51.06	\$48.00		

ccf = hundred cubic feet

[1] All residential customers with 5/8" x 3/4" meters who use 6 units or less of water in a billing period shall only pay the minimum charge.

[2] The water cost commodity rate of \$0.27/ccf is added to the commodity charge as a result of increases incurred by the City for acquisition of groundwater and imported water.

Table 4 represents a summary of projected water sales revenue under existing rates and charges. As shown, the revenue generated is anticipated to increase slightly from \$14,655,000 in FY 06/07 to \$15,107,000 in FY 15/16. Note that Table 4 does not include revenues from the water cost commodity charge. This is a pass through cost that changes based on the actual cost of purchased water. Specifics on the cost elements making up this pass through charge are discussed later in this report.

The Water Division finances its activities primarily through user charges for water service. However, income is also generated through a variety of other miscellaneous revenue sources, including assessment fees, penalties, meter installs, licenses, and interest.

Finally, it is critical to note that the revenue projections shown on Table 4 by customer class are based on one year's worth of data gathered by the Water Division and the accuracy of customer classification has not been verified as part of this study. As such, the revenue projections on Table 4 may not accurately reflect the appropriate breakdown by customer class, but the revenues in total are indicative of the income projected in total for the system.





Revenues and Revenue Requirements

**Table 4**  
**Projected Revenues under Existing Rates**

Line No.	Description	Projected				
		FY06/07	FY07/08	FY08/09	FY09/10	FY10/11
		\$	\$	\$	\$	\$
<b>Customer Classes</b>						
1	Agricultural	7,200	7,200	5,400	5,400	3,600
2	Public School - Non GGUSD	35,200	35,200	35,200	35,200	35,200
3	Commercial	1,675,500	1,677,600	1,695,100	1,727,500	1,745,200
4	Duplex	85,400	85,400	86,500	87,400	88,400
5	Private School	45,600	45,600	45,600	45,600	45,600
6	Church	55,600	55,600	55,600	55,600	55,600
7	Hospital	93,900	93,900	93,900	93,900	93,900
8	Industrial	672,700	672,700	672,700	672,700	672,700
9	Laundry	45,000	45,000	45,000	45,000	45,000
10	Multi-Unit (>2 Units)	2,661,600	2,635,900	2,676,600	2,714,300	2,755,000
11	Hotel/Motel	274,400	273,100	296,200	320,700	343,800
12	Sewer/Septic	9,900	9,900	9,900	9,900	9,900
13	Parks	0	0	0	0	0
14	Residential	6,745,800	6,610,400	6,629,500	6,635,800	6,644,900
15	Public School - GGUSD	661,600	661,600	661,600	661,600	661,600
16	Condo/Townhouse	3,600	4,000	4,300	4,500	4,800
17	Car Wash	25,900	25,900	25,900	25,900	25,900
18	Landscape	1,466,600	1,452,500	1,452,500	1,466,600	1,466,600
19	Fire Service	89,500	89,500	89,500	89,500	89,500
20	<b>Total</b>	<b>14,655,000</b>	<b>14,481,000</b>	<b>14,581,000</b>	<b>14,697,100</b>	<b>14,787,200</b>

**Table 4 (continued)**  
**Projected Revenues under Existing Rates**

Line No.	Description	Projected				
		FY11/12	FY12/13	FY13/14	FY14/15	FY15/16
		\$	\$	\$	\$	\$
<b>Customer Classes</b>						
1	Agricultural	3,600	3,600	3,600	3,600	3,600
2	Public School - Non GGUSD	35,200	35,200	35,200	35,200	35,200
3	Commercial	1,763,800	1,782,400	1,801,000	1,819,500	1,838,200
4	Duplex	89,500	90,400	91,400	92,400	93,500
5	Private School	45,600	45,600	45,600	45,600	45,600
6	Church	55,600	55,600	55,600	55,600	55,600
7	Hospital	93,900	93,900	93,900	93,900	93,900
8	Industrial	672,700	672,700	672,700	672,700	672,700
9	Laundry	45,000	45,000	45,000	45,000	45,000
10	Multi-Unit (>2 Units)	2,795,800	2,833,900	2,872,200	2,912,100	2,954,000
11	Hotel/Motel	343,800	343,800	343,800	343,800	343,800
12	Sewer/Septic	9,900	9,900	9,900	9,900	9,900
13	Parks	0	0	0	0	0
14	Residential	6,653,800	6,657,300	6,660,700	6,664,100	6,667,600
15	Public School - GGUSD	661,600	661,600	661,600	661,600	661,600
16	Condo/Townhouse	4,800	4,800	4,800	4,800	4,800
17	Car Wash	25,900	25,900	25,900	25,900	25,900
18	Landscape	1,466,600	1,466,600	1,466,600	1,466,600	1,466,600
19	Fire Service	89,500	89,500	89,500	89,500	89,500
20	<b>Total</b>	<b>14,856,600</b>	<b>14,917,700</b>	<b>14,979,000</b>	<b>15,041,800</b>	<b>15,107,000</b>



### Operation and Maintenance Expense Projections

Table 5 summarizes the Water Division’s projected operation and maintenance expense (O&M). These expenses include costs related to payroll, contract services, materials and supplies, purchased water, and utilities. The forecasted expenditures are based upon the City’s Ten Year Plan developed in 2004 and Water Division staff’s expertise and knowledge on the effect of system growth and increase in water purchase costs. Projections in the Ten Year Plan incorporate inflation rates of 5.0 percent for personnel payroll, 1 percent for contractual services, 2.5 percent for commodities which include utilities, and 3.0 percent for administrative support services. Based on Black & Veatch’s experience, a 4 percent escalation rate was used for commodity (purchased water) increases. This level of adjustment is more consistent with recent increases seen throughout the area. Total O&M (less capital outlay) is projected to increase from \$18,577,500 in FY 06/07 to \$22,211,300 in FY 15/16.

We note that the Water Division’s budget includes filling open positions for various department sections in the utility. In the last few years, these positions have not been filled due to operating cash restrictions. In preparing the projections presented herein, Black & Veatch has included these positions based on discussions with City Staff. Finally, it was observed that the costs of the City’s National Pollutant Discharge Elimination System (NPDES) Permit and drainage fees are included in the Water Division’s expenses. Water Division records indicate that since FY 03/04, the Water Utility has paid \$434,600 for the NPDES permits and another \$724,200 for drainage fees. It is our understanding that, at the direction of the City, it has been the policy for the Water Division to pay these costs. The costs of NPDES permits and drainage fees are costs that are associated with wastewater activities, and these expenses are generally borne by the Sewer enterprise fund for most utilities. We recommend that the Water Division re-assess this particular policy to determine if changed circumstances may permit a change in policy. It should be noted that removal of these costs will reduce the Water Division’s O&M costs, but it will not remedy the current fiscal shortfall.

**Table 5**  
**Projected Operating Expenses**

Line No.	Description	Budget Year	Budget Year	Projected		
		FY06/07	FY07/08	FY08/09	FY09/10	FY10/11
		\$	\$	\$	\$	\$
Operations						
1	Labor	3,444,600	3,774,300	3,963,000	4,161,200	4,369,300
2	Contractual Services	985,200	1,000,000	1,010,000	1,020,100	1,030,300
3	Commodities	872,100	978,000	1,003,000	1,043,100	1,084,800
4	Vehicle / Equipment Rentals	552,000	574,000	591,000	608,700	627,000
5	Insurance	263,300	263,300	263,300	263,300	263,300
6	Admin Support Costs	1,660,300	1,660,000	1,660,000	1,709,800	1,761,100
7	Purchased Water	10,800,000	11,200,000	11,200,000	11,200,000	11,200,000
8	Subtotal	18,577,500	19,449,600	19,690,300	20,006,200	20,335,800
9	Capital Outlay	1,200,000	1,750,000	1,802,500	1,856,600	1,912,300



**Table 5 (continued)  
Projected Operating Expenses**

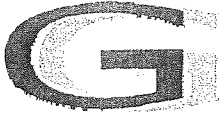
Line No.	Description	Projected				
		FY11/12	FY12/13	FY13/14	FY14/15	FY15/16
		\$	\$	\$	\$	\$
	Operations					
1	Labor	4,587,800	4,817,200	5,058,100	5,311,000	5,576,600
2	Contractual Services	1,040,600	1,051,000	1,061,500	1,072,100	1,082,800
3	Commodities	1,128,200	1,173,300	1,220,200	1,269,000	1,319,800
4	Vehicle / Equipment Rentals	645,800	665,200	685,200	705,800	727,000
5	Insurance	263,300	263,300	263,300	263,300	263,300
6	Admin Support Costs	1,813,900	1,868,300	1,924,300	1,982,000	2,041,500
7	Purchased Water	11,200,000	11,200,000	11,200,000	11,200,000	11,200,000
8	Subtotal	20,679,600	21,038,300	21,412,600	21,803,200	22,211,000
9	Capital Outlay	1,969,700	2,028,800	2,089,700	2,152,400	2,217,000

The City purchases water from MWD and OCWD to supplement water from other City-owned groundwater sources. In accordance with City Ordinance, the utility may automatically pass through any increases in purchased water costs to rate-payers. Water acquisitions represent the most significant portion of O&M costs and average 56 percent of total O&M. For the purposes of this study, we have assumed that the City will pass any increases in purchased water costs through to customers using the mechanisms established by the City Ordinance.

It is important to note that the City's Ordinance outlines the exact nature of purchased water costs that may be automatically passed through to rate-payers. Specifically, the City may pass on the increased purchased water cost from MWD and OCWD and any increases in pumping costs associated with transporting the imported water to the City's basin. No other costs, fixed or variable, are included in the calculation. Among the City's Staff, the pass through cost is commonly referred to as a variable cost pass through commodities charge. To clarify the actual nature of this cost and to maintain consistency with commonly used terms in the rate-making industry; this report refers to it as a *purchased-water pass through commodities charge*.

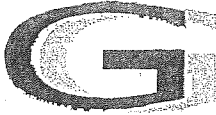
### Capital Improvement Program

The Water Division Major Capital Improvement Program (CIP) for FY 06/07 through FY 15/16 is summarized in Table 6. The CIP was developed by City Staff and Black & Veatch and consists of capital improvement projects anticipated to be designed and constructed during the study period.



**Table 6**  
**Projected Capital Improvement Program**

Line No.	Description	Projected				
		FY06/07	FY07/08	FY08/09	FY09/10	FY10/11
		\$	\$	\$	\$	\$
	<b>CIP Project I - All Inclusive Management Plan</b>					
1	All Inclusive Capital Investment Plan	0	776,300	177,700	0	0
	<b>CIP Project II - Water Distribution Projects</b>					
2	4" Water Main Replacements	0	598,900	644,900	693,100	743,600
3	Replace Blow Offs / Air / Vacs	0	53,100	57,200	61,500	66,000
4	Service Line Replacements	0	588,200	633,400	680,800	730,400
5	Fire Hydrant Replacements	0	0	445,500	458,900	472,600
6	Meter Replacements	0	0	952,900	981,500	1,011,000
7	Gate Valves	0	0	1,603,100	1,651,200	1,700,700
	<b>CIP Project III - Chlorine Conversion Projects</b>					
8	Well No. 19	0	0	280,100	0	0
9	Well No. 24	0	0	280,100	0	0
10	Well No. 25	0	0	280,100	0	0
11	Well No. 26	0	0	0	252,500	0
12	Well No. 29	0	0	0	252,500	0
13	Westhaven Booster	0	0	0	252,500	0
14	Lampson Booster	0	0	0	0	271,400
15	Trask Booster	0	0	0	0	271,400
16	West GG Booster	0	0	0	0	324,200
	<b>CIP Project IV - Well Improvement Projects</b>					
17	Well No. 19	0	0	0	0	377,000
18	Well No. 24	0	0	0	0	0
19	Well No. 25	0	0	0	0	0
20	Replacement for Well 16	0	0	0	0	0
	<b>CIP Project V - Booster Pump Replacement Projects</b>					
21	Pump Maintenance & Repair @ Westhaven Booster (3)	0	0	66,500	71,600	76,900
22	Pump Maintenance & Repair @ Lampson Booster (5)	0	0	110,800	119,300	128,200
23	Pump Maintenance & Repair @ Magnolia Booster (1)	0	0	0	23,900	25,600
24	Pump Maintenance & Repair @ Trask Booster (5)	0	0	0	0	128,200
25	Pump Maintenance & Repair @ West GG Booster (3)	0	0	0	0	0
	<b>CIP Project VI - Natural Gas Engine Replacement Projects</b>					
26	Well #29 (1)	0	0	0	0	0
27	Westhaven (4)	0	0	0	0	0
28	Lampson (2)	0	0	0	0	0
29	Magnolia (1)	0	0	0	0	0
	<b>CIP Project VII - Miscellaneous O&amp;M Projects</b>					
30	Lampson PS Pitch Roof	0	0	26,100	0	0
31	Exhaust Stacks Corrections	0	0	16,900	0	0
32	West GG Sumps	0	0	390,900	0	0
33	Cathodic Protection	0	0	84,700	0	0
34	Westhaven Reservoir Roof Cracks	0	0	0	0	0
35	<b>Total</b>	<b>0</b>	<b>2,016,500</b>	<b>6,050,900</b>	<b>5,499,300</b>	<b>6,327,200</b>



**Table 6 (continued)**  
**Projected Capital Improvement Program**

Line No.	Description	Projected				
		FY11/12	FY12/13	FY13/14	FY14/15	FY15/16
		\$	\$	\$	\$	\$
<b>CIP Project I - All Inclusive Management Plan</b>						
1	All Inclusive Capital Investment Plan	0	0	0	0	0
<b>CIP Project II - Water Distribution Projects</b>						
2	4" Water Main Replacements	796,600	852,000	910,100	970,900	1,034,500
3	Replace Blow Offs / Air / Vacs	70,700	75,600	80,700	86,100	91,800
4	Service Line Replacements	782,400	836,900	893,900	953,600	1,016,100
5	Fire Hydrant Replacements	486,800	501,400	516,400	531,900	547,900
6	Meter Replacements	1,041,300	1,072,500	1,104,700	1,137,800	1,172,000
7	Gate Valves	1,751,800	1,804,300	1,858,400	1,914,200	1,971,600
<b>CIP Project III - Chlorine Conversion Projects</b>						
8	Well No. 19	0	0	0	0	0
9	Well No.24	0	0	0	0	0
10	Well No. 25	0	0	0	0	0
11	Well No. 26	0	0	0	0	0
12	Well No. 29	0	0	0	0	0
13	Westhaven Booster	0	0	0	0	0
14	Lampson Booster	0	0	0	0	0
15	Trask Booster	0	0	0	0	0
16	West GG Booster	0	0	0	0	0
<b>CIP Project IV - Well Improvement Projects</b>						
17	Well No. 19	0	0	0	0	0
18	Well No. 24	485,400	0	0	0	0
19	Well No. 25	0	519,900	0	0	0
20	Replacement for Well 16	0	0	2,780,600	0	0
<b>CIP Project V - Booster Pump Replacement Projects</b>						
21	Pump Maintenance & Repair @ Westhaven Booster (3)	82,500	88,400	94,500	101,000	107,700
22	Pump Maintenance & Repair @ Lampson Booster (5)	137,500	147,300	157,600	168,300	179,500
23	Pump Maintenance & Repair @ Magnolia Booster (1)	27,500	29,500	31,500	33,700	35,900
24	Pump Maintenance & Repair @ Trask Booster (5)	137,500	147,300	157,600	168,300	179,500
25	Pump Maintenance & Repair @ West GG Booster (3)	82,500	88,400	94,500	101,000	107,700
<b>CIP Project VI - Natural Gas Engine Replacement Projects</b>						
26	Well #29 (1)	0	381,300	0	0	0
27	Westhaven (4)	0	0	1,631,300	0	0
28	Lampson (2)	0	0	0	871,200	0
29	Magnolia (1)	0	0	0	0	464,700
<b>CIP Project VII - Miscellaneous O&amp;M Projects</b>						
30	Lampson PS Pitch Roof	0	0	0	0	0
31	Exhaust Stacks Corrections	0	0	0	0	0
32	West GG Sumps	0	0	0	0	0
33	Cathodic Protection	0	0	0	0	0
34	Westhaven Reservoir Roof Cracks	0	0	0	732,600	0
35	<b>Total</b>	<b>5,882,500</b>	<b>6,544,800</b>	<b>10,311,800</b>	<b>7,770,600</b>	<b>6,908,900</b>

The City is projecting a \$64,823,300 capital improvement program over the study period, which includes both capital and replacement projects. Working with City Staff, Black & Veatch identified short and long-term capital facilities needs for the Water Division and developed a comprehensive schedule and costs for the projects. An annual inflation allowance of 3 percent is included in the above capital improvement project costs. Due to cash flow restrictions, no capital activities are planned for FY 06/07. In fact, due to severe cash constraints, the Water Division has curtailed all capital activities for the past several years. This has created a project backlog and for some projects, raised the criticality by providing a sustainable financial plan for the project.



### Capital Fund Financing Plan

A proposed financing plan for the Water Division's Capital Improvement Program is shown in Table 7 and Table 8. Financing for the Capital Improvement Program is anticipated to be from a combination of funds on hand, revenues derived from rates, capital improvement fees and bond proceeds.

**Table 7  
Proposed CIP Financing Plan – Capital Fund**

Line No.	Description	Projected				
		FY06/07	FY07/08	FY08/09	FY09/10	FY10/11
		\$	\$	\$	\$	\$
<b>Sources of Funds</b>						
1	Transfer from Operating Fund	0	1,000,000	1,000,000	3,000,000	4,000,000
2	Capital Improvement Fees	421,700	422,500	423,400	424,400	425,100
3	Proposed Revenue Bond	0	0	12,000,000	0	0
4	Interest Income	28,100	26,300	111,700	177,200	122,000
5	<b>Total Sources of Funds</b>	<b>449,800</b>	<b>1,448,800</b>	<b>13,535,100</b>	<b>3,601,600</b>	<b>4,547,100</b>
<b>Uses of Funds</b>						
6	Capital Improvement Program	0	2,016,500	6,050,900	5,499,300	6,327,200
7	Bond/Loan Issuance Expense	0	0	240,000	0	0
8	Bond/Loan Reserve Fund Requirement	0	0	983,400	0	0
9	<b>Total Uses of Funds</b>	<b>0</b>	<b>2,016,500</b>	<b>7,274,300</b>	<b>5,499,300</b>	<b>6,327,200</b>
<b>Fund Balance</b>						
10	Net Annual Cash Balance	449,800	(567,700)	6,260,800	(1,897,700)	(1,780,100)
11	Beginning Fund Balance	711,300	1,161,100	593,400	6,854,200	4,956,500
12	<b>Cumulative Fund Balance</b>	<b>1,161,100</b>	<b>593,400</b>	<b>6,854,200</b>	<b>4,956,500</b>	<b>3,176,400</b>

**Table 7 (continued)  
Proposed CIP Financing Plan – Capital Fund**

Line No.	Description	Projected				
		FY11/12	FY12/13	FY13/14	FY14/15	FY15/16
		\$	\$	\$	\$	\$
<b>Sources of Funds</b>						
1	Transfer from Operating Fund	4,000,000	2,000,000	3,000,000	3,000,000	3,000,000
2	Capital Improvement Fees	425,800	426,400	427,200	427,900	428,500
3	Proposed Revenue Bond	20,000,000	0	0	0	0
4	Interest Income	348,100	547,300	396,400	237,500	125,600
5	<b>Total Sources of Funds</b>	<b>24,773,900</b>	<b>2,973,700</b>	<b>3,823,600</b>	<b>3,665,400</b>	<b>3,554,100</b>
<b>Uses of Funds</b>						
6	Capital Improvement Program	5,882,500	6,544,800	10,311,800	7,770,600	6,908,900
7	Bond/Loan Issuance Expense	400,000	0	0	0	0
8	Bond/Loan Reserve Fund Requirement	1,639,000	0	0	0	0
9	<b>Total Uses of Funds</b>	<b>7,921,500</b>	<b>6,544,800</b>	<b>10,311,800</b>	<b>7,770,600</b>	<b>6,908,900</b>
<b>Fund Balance</b>						
10	Net Annual Cash Balance	16,852,400	(3,571,100)	(6,488,200)	(4,105,200)	(3,354,800)
11	Beginning Fund Balance	3,176,400	20,028,800	16,457,700	9,969,500	5,864,300
12	<b>Cumulative Fund Balance</b>	<b>20,028,800</b>	<b>16,457,700</b>	<b>9,969,500</b>	<b>5,864,300</b>	<b>2,509,500</b>



Revenues and Revenue Requirements

**Table 8**  
**Proposed CIP Financing Plan – Replacement Fund**

Line No.	Description	Projected				
		FY06/07	FY07/08	FY08/09	FY09/10	FY10/11
		\$	\$	\$	\$	\$
<b>Sources of Funds</b>						
1	Transfer from Operating Fund	0	750,000	1,802,500	1,856,600	1,912,300
2	Proposed Revenue Bond	0	0	0	0	0
3	Interest Income	68,600	31,100	16,800	17,300	17,800
4	<b>Total Sources of Funds</b>	<b>68,600</b>	<b>781,100</b>	<b>1,819,300</b>	<b>1,873,900</b>	<b>1,930,100</b>
<b>Uses of Funds</b>						
5	Replacement Program	1,200,000	1,750,000	1,802,500	1,856,600	1,912,300
6	Bond Issuance Expenses	0	0	0	0	0
7	Transfer to Operating Fund	400,000	0	0	0	0
8	<b>Total Uses of Funds</b>	<b>1,600,000</b>	<b>1,750,000</b>	<b>1,802,500</b>	<b>1,856,600</b>	<b>1,912,300</b>
<b>Fund Balance</b>						
9	Net Annual Cash Balance	(1,531,400)	(968,900)	16,800	17,300	17,800
10	Beginning Fund Balance	3,052,029	1,520,629	551,729	568,529	585,829
11	<b>Cumulative Fund Balance</b>	<b>1,520,629</b>	<b>551,729</b>	<b>568,529</b>	<b>585,829</b>	<b>603,629</b>

**Table 8 (continued)**  
**Proposed CIP Financing Plan – Replacement Fund**

Line No.	Description	Projected				
		FY11/12	FY12/13	FY13/14	FY14/15	FY15/16
		\$	\$	\$	\$	\$
<b>Sources of Funds</b>						
1	Transfer from Operating Fund	1,969,700	2,028,800	2,089,700	2,152,400	2,217,000
2	Proposed Revenue Bond	0	0	0	0	0
3	Interest Income	18,400	18,900	19,500	20,100	20,700
4	<b>Total Sources of Funds</b>	<b>1,988,100</b>	<b>2,047,700</b>	<b>2,109,200</b>	<b>2,172,500</b>	<b>2,237,700</b>
<b>Uses of Funds</b>						
5	Replacement Program	1,969,700	2,028,800	2,089,700	2,152,400	2,217,000
6	Bond Issuance Expenses	0	0	0	0	0
7	Transfer to Operating Fund	0	0	0	0	0
8	<b>Total Uses of Funds</b>	<b>1,969,700</b>	<b>2,028,800</b>	<b>2,089,700</b>	<b>2,152,400</b>	<b>2,217,000</b>
<b>Fund Balance</b>						
9	Net Annual Cash Balance	18,400	18,900	19,500	20,100	20,700
10	Beginning Fund Balance	603,629	622,029	640,929	660,429	680,529
11	<b>Cumulative Fund Balance</b>	<b>622,029</b>	<b>640,929</b>	<b>660,429</b>	<b>680,529</b>	<b>701,229</b>

The Water Division currently has two distinct funds for capital and replacement projects. The capital fund receives revenues primarily through capital improvement fees that are charged during a normal billing cycle. These charges are based on meter size and have remained unchanged since their inception in 1991. The capital improvement fees were adopted to recoup improvement costs that have accrued over the years. In addition, both the capital and replacement funds receive





revenue from the operating fund. Since the operating fund has not generated sufficient revenues in the past few years, all major capital and replacement projects have been deferred to a later date.

Based on the proposed capital improvement program and low funds on hand, the City will need to issue debt through revenue bonds. The proposed debt is indicated above and assumes the following service terms: 20-year payment period, 5.25 percent annual interest rate, 2 percent issuance expense, and a debt service reserve equal to one years' debt service.

### Operating Fund Financing Plan

Tables 9a through 9c present the proposed financial plan for the Water Division under different situations. As requested by the City, Black & Veatch examined three scenarios: satisfying the City's business principles over one year, four years, and over five years (Tables 9b through 9c).<sup>1</sup> In addition, to provide a baseline for comparison, Table 9a presents a "status quo" scenario. The City's business principles are as follows:

- Meet bond covenants requirements for outstanding water revenue bonds;
- Generate sufficient funds to have the Enterprise Fund break-even, not generate a deficit;
- Provide for a working capital balance of 2 months cash flow plus a contingency reserve of \$500,000;
- Preserve the replacement sinking fund reserve, with a target of 5 percent of the system's value; and,
- Adequately fund new capital improvement programs to maintain the system and facilities up to industry standards.

To supplement revenues from water sales under existing rates, the City has available to it additional revenues from other miscellaneous revenue and interest earnings on available balances. For Tables 9a through 9c, Line 1 presents the projected water revenues under existing rates (from Table 4), representing commodity and service charges at current rate levels that are subject to rate adjustments. Lines 2 through 11 indicate additional revenue adjustments necessary to meet Operating Fund requirements and fiscal policy objectives. For all scenarios except Status Quo, our analyses indicate that the Water Division needs a series of rate increases during the study period to meet fiscal policy goals.

Line 13 presents the additional revenues from the purchased water pass through charge. Sources of projected other operating revenues is summarized in Line 14. These other revenues are primarily assessments, meter installations, turn on/off fees, penalties, and the sale of miscellaneous items. Another source of income comes from interest income derived from operating and restricted reserve accounts (Lines 15 and 16, respectively). Since the City has not been able to generate sufficient revenues to cover its expenses, the operating fund currently has no reserve and thus is not creating interest income. Transfers from other Funds are summarized on Lines 17 and 18. Projected

<sup>1</sup> Note that because of the City's circumstances, satisfying the four year requirement also results in achieving the five year scenario. Thus, only one table is presented for the four and five year timelines.



operation and maintenance expense from Table 5 is shown on Line 20 and purchased water costs are shown on Line 21. Debt service on existing and proposed bond issues are shown on Lines 23 through 26. Transfers to Other Funds including payment on the Street Repair Loan are shown in Lines 27 through 30.

Based on Black & Veatch's review of the Water Division's desired long-term goal of maintaining a two month cash flow as well as a reserve of \$500,000 for contingencies, we are recommending that the utility establish a **Rate Stabilization Fund**. Once established, funds deposited into this reserve fund would be used to help reduce the size of future rate adjustments. In areas where the impacts of water conservation are causing fluctuating revenue streams, many utilities are using Rate Stabilization funds to help maintain steady cash flows and mitigate future revenue adjustments. For an initial funding amount, we are recommending that the City consider an annual deposit as soon as it has met the requirements of its business principles. This amount is shown on Line 32 of Tables 9b through 9c. In addition, Black & Veatch also recommends that the Water Division establish a **Replacement Sinking Fund**. The purpose of this fund is to provide monies for the replacement of infrastructure assets. As discussed previously, past financial constraints caused the Water Division to curtail not only capital improvement projects, but to also only perform minimal levels of work on the existing system. This has resulted in not only a backlog of capital projects, but possibly increased the likelihood of system problems. Establishing a Replacement Sinking Fund encourages the utility to reinvest in its infrastructure in a timely fashion and also provides a mechanism for the utility to replace large system assets while minimizing the impact on rate payers. Similar to the Rate Stabilization Fund, we suggest that annual contributions to this fund be made as soon as possible. Contributions to the Replacement Sinking Fund are shown on Line 31 of Tables 9b through 9c.

Shown on Line 34, total revenue requirements for the Water Division are expected to increase during the study period and can be correlated with an increase in the O&M expenses and Capital Improvement Program expenditures. Capital improvement expenditures affect the operating fund through transfers.

The ending funding balance and comparison to the City's targeted two months of O&M requirement is provided on Lines 35 through 38. Debt service coverage is calculated on Line 39. Revenue transfers into the operating fund are specifically excluded from the debt service calculation because they have been "counted" before and including them would amount to a double-counting of revenue.

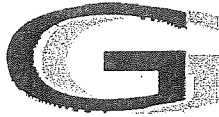


## Revenues and Revenue Requirements

**Table 9a**  
**Operating Fund Financing Plan – Status Quo**

Line No.	Description	Projected				
		FY06/07	FY07/08	FY08/09	FY09/10	FY10/11
		\$	\$	\$	\$	\$
<b>1</b>	<b>Revenue</b>					
	Revenue Under Existing Rates	14,655,000	14,481,000	14,581,000	14,697,100	14,787,200
	Additional Revenue Required:					
	Year      Percent					
2	2007      0.00%	0	0	0	0	0
3	2008      0.00%	0	0	0	0	0
4	2009      0.00%	0	0	0	0	0
5	2010      0.00%	0	0	0	0	0
6	2011      0.00%	0	0	0	0	0
7	2012      0.00%	0	0	0	0	0
8	2013      0.00%	0	0	0	0	0
9	2014      0.00%	0	0	0	0	0
10	2015      0.00%	0	0	0	0	0
11	2016      0.00%	0	0	0	0	0
12	Total Revenue From Rates	14,655,000	14,481,000	14,581,000	14,697,100	14,787,200
13	Purchased Water Pass Through Revenues	2,997,700	2,953,800	2,976,000	3,001,800	3,021,600
14	Other Operating Revenue	128,500	128,500	128,500	128,500	128,500
	<b>Non-Operating Revenue</b>					
15	Interest - Operating Fund	0	0	0	0	0
16	Interest - Restricted Reserve Fund	40,800	40,800	49,500	70,700	70,700
	<b>Transfers from Other Funds</b>					
17	Transfer from Replacement Fund	400,000	0	0	0	0
18	Reserves	0	0	0	0	0
19	<b>Total Revenue</b>	<u>18,222,000</u>	<u>17,604,100</u>	<u>17,735,000</u>	<u>17,898,100</u>	<u>18,008,000</u>
	<b>Revenue Requirements</b>					
20	O&M Expense	7,777,500	8,249,500	8,490,600	8,806,300	9,135,800
21	Purchased Water Costs	10,800,000	11,200,000	11,200,000	11,200,000	11,200,000
22	<b>Total O&amp;M Expense</b>	<u>18,577,500</u>	<u>19,449,500</u>	<u>19,690,600</u>	<u>20,006,300</u>	<u>20,335,800</u>
	<b>Debt Service</b>					
	Existing					
23	2004 Refunding Revenue Bond	1,303,300	1,296,600	1,298,100	1,302,200	1,298,800
	Proposed					
24	Proposed Rev Bonds - Capital	0	0	573,700	983,400	983,400
25	Proposed Rev Bonds - Replacement	0	0	0	0	0
26	<b>Total Debt Service</b>	<u>1,303,300</u>	<u>1,296,600</u>	<u>1,871,800</u>	<u>2,285,600</u>	<u>2,282,200</u>
	<b>Transfers to Other Funds</b>					
27	Transfer to Capital Fund	0	1,000,000	1,000,000	3,000,000	4,000,000
28	Transfer to Replacement Fund	0	750,000	1,802,500	1,856,600	1,912,300
29	Streets Loan	0	0	2,700,000	2,700,000	2,700,000
30	Reserve Drawdown	0	0	0	0	0
31	Replacement Sinking Fund	0	0	0	0	0
32	Rate Stabilization Fund	0	0	0	0	0
33	<b>Total Other Funds</b>	<u>0</u>	<u>1,750,000</u>	<u>5,502,500</u>	<u>7,556,600</u>	<u>8,612,300</u>
34	<b>Total Revenue Requirements</b>	<u>19,880,800</u>	<u>22,496,100</u>	<u>27,064,900</u>	<u>29,848,500</u>	<u>31,230,300</u>
	<b>Operating Fund Balance</b>					
35	Net Annual Cash Balance	(1,658,800)	(4,892,000)	(9,329,900)	(11,950,400)	(13,222,300)
36	Beginning Fund Balance	0	(1,658,800)	(6,550,800)	(15,880,700)	(27,831,100)
37	<b>Net Cumulative Fund Balance</b>	<u>(1,658,800)</u>	<u>(6,550,800)</u>	<u>(15,880,700)</u>	<u>(27,831,100)</u>	<u>(41,053,400)</u>
38	Minimum Desired Balance [1]	1,778,500	1,856,100	1,895,700	1,947,600	2,001,800
39	Debt Service Coverage (Min 1.25)	(0.27)	(1.42)	(1.04)	(0.92)	(1.02)

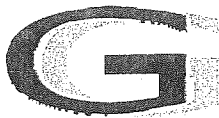
[1] Estimated at 60 days of operation and maintenance expense less purchased water costs, plus \$500,000 reserve for contingencies



**Table 9a (continued)**  
**Operating Fund Financing Plan – Status Quo**

Line No.	Description	Projected				
		FY11/12	FY12/13	FY13/14	FY14/15	FY15/16
		\$	\$	\$	\$	\$
<b>1</b>	<b>Revenue</b>					
	Revenue Under Existing Rates	14,856,600	14,917,700	14,979,000	15,041,800	15,107,000
	Additional Revenue Required:					
	Year					
	Percent					
2	2007 0.00%	0	0	0	0	0
3	2008 0.00%	0	0	0	0	0
4	2009 0.00%	0	0	0	0	0
5	2010 0.00%	0	0	0	0	0
6	2011 0.00%	0	0	0	0	0
7	2012 0.00%	0	0	0	0	0
8	2013 0.00%	0	0	0	0	0
9	2014 0.00%	0	0	0	0	0
10	2015 0.00%	0	0	0	0	0
11	2016 0.00%	0	0	0	0	0
12	Total Revenue From Rates	14,856,600	14,917,700	14,979,000	15,041,800	15,107,000
13	Purchased Water Pass Through Revenues	3,037,000	3,050,300	3,063,600	3,077,200	3,091,200
14	Other Operating Revenue	128,500	128,500	128,500	128,500	128,500
	<b>Non-Operating Revenue</b>					
15	Interest - Operating Fund	0	0	0	0	0
16	Interest - Restricted Reserve Fund	85,300	120,600	120,600	120,600	120,600
	<b>Transfers from Other Funds</b>					
17	Transfer from Replacement Fund	0	0	0	0	0
18	Reserves	0	0	0	0	0
19	Total Revenue	18,107,400	18,217,100	18,291,700	18,368,100	18,447,300
	<b>Revenue Requirements</b>					
20	O&M Expense	9,479,800	9,838,400	10,212,600	10,603,500	11,011,300
21	Purchased Water Costs	11,200,000	11,200,000	11,200,000	11,200,000	11,200,000
22	Total O&M Expense	20,679,800	21,038,400	21,412,600	21,803,500	22,211,300
	<b>Debt Service</b>					
	Existing					
23	2004 Refunding Revenue Bond	1,296,100	1,300,500	1,298,500	1,296,100	1,296,500
	Proposed					
24	Proposed Rev Bonds - Capital	1,939,500	2,622,400	2,622,400	2,622,400	2,622,400
25	Proposed Rev Bonds - Replacement	0	0	0	0	0
26	Total Debt Service	3,235,600	3,922,900	3,920,900	3,918,500	3,918,900
	<b>Transfers to Other Funds</b>					
27	Transfer to Capital Fund	4,000,000	2,000,000	3,000,000	3,000,000	3,000,000
28	Transfer to Replacement Fund	1,969,700	2,028,800	2,089,700	2,152,400	2,217,000
29	Streets Loan	1,350,000	1,350,000	1,350,000	1,350,000	1,350,000
30	Reserve Drawdown	0	0	0	0	0
31	Replacement Sinking Fund	0	0	0	0	0
32	Rate Stabilization Fund	0	0	0	0	0
33	Total Other Funds	7,319,700	5,378,800	6,439,700	6,502,400	6,567,000
34	Total Revenue Requirements	31,235,100	30,340,100	31,773,200	32,224,400	32,697,200
	<b>Operating Fund Balance</b>					
35	Net Annual Cash Balance	(13,127,700)	(12,123,000)	(13,481,500)	(13,856,300)	(14,249,900)
36	Beginning Fund Balance	(41,053,400)	(54,181,100)	(66,304,100)	(79,785,600)	(93,641,900)
37	Net Cumulative Fund Balance	(54,181,100)	(66,304,100)	(79,785,600)	(93,641,900)	(107,891,800)
38	Minimum Desired Balance [1]	2,058,300	2,117,300	2,178,800	2,243,000	2,310,100
39	Debt Service Coverage (Min 1.25)	(0.80)	(0.72)	(0.80)	(0.88)	(0.96)

[1] Estimated at 60 days of operation and maintenance expense less purchased water costs, plus \$500,000 reserve for contingencies



**Table 9b**  
**Operating Fund Financing Plan – One Year, No General Fund Reserve Drawdown**

Line No.	Description	Projected				
		FY06/07	FY07/08	FY08/09	FY09/10	FY10/11
		\$	\$	\$	\$	\$
1	<b>Revenue</b>					
	Revenue Under Existing Rates	14,655,000	14,481,000	14,581,000	14,697,100	14,787,200
	Additional Revenue Required:					
	Year					
	Percent					
2	2007	0	0	0	0	0
3	2008	0	12,164,000	12,248,000	12,345,600	12,421,200
4	2009	0	0	0	0	0
5	2010	0	0	0	0	0
6	2011	0	0	0	0	0
7	2012	0	0	0	0	0
8	2013	0	0	0	0	0
9	2014	0	0	0	0	0
10	2015	0	0	0	0	0
11	2016	0	0	0	0	0
12	Total Revenue From Rates	14,655,000	26,645,000	26,829,000	27,042,700	27,208,400
13	Purchased Water Pass Through Revenues	2,997,700	2,953,800	2,976,000	3,001,800	3,021,600
14	Other Operating Revenue	128,500	128,500	128,500	128,500	128,500
	<b>Non-Operating Revenue</b>					
15	Interest - Operating Fund	0	60,200	217,200	269,000	260,300
16	Interest - Restricted Reserve Fund	40,800	40,800	49,500	70,700	70,700
	<b>Transfers from Other Funds</b>					
17	Transfer from Replacement Fund	400,000	0	0	0	0
18	Reserves	0	0	0	0	0
19	Total Revenue	18,222,000	29,828,300	30,200,200	30,512,700	30,689,500
	<b>Revenue Requirements</b>					
20	O&M Expense	7,777,500	8,249,500	8,490,600	8,806,300	9,135,800
21	Purchased Water Costs	10,800,000	11,200,000	11,200,000	11,200,000	11,200,000
22	Total O&M Expense	18,577,500	19,449,500	19,690,600	20,006,300	20,335,800
	<b>Debt Service</b>					
	Existing					
23	2004 Refunding Revenue Bond	1,303,300	1,296,600	1,298,100	1,302,200	1,298,800
	Proposed					
24	Proposed Rev Bonds - Capital	0	0	573,700	983,400	983,400
25	Proposed Rev Bonds - Replacement	0	0	0	0	0
26	Total Debt Service	1,303,300	1,296,600	1,871,800	2,285,600	2,282,200
	<b>Transfers to Other Funds</b>					
27	Transfer to Capital Fund	0	1,000,000	1,000,000	3,000,000	4,000,000
28	Transfer to Replacement Fund	0	750,000	1,802,500	1,856,600	1,912,300
29	Streets Loan	0	0	2,700,000	2,700,000	2,700,000
30	Reserve Drawdown	0	0	0	0	0
31	Replacement Sinking Fund	0	0	0	250,000	250,000
32	Rate Stabilization Fund	0	0	0	100,000	100,000
33	Total Other Funds	0	1,750,000	5,502,500	7,906,600	8,962,300
34	Total Revenue Requirements	19,880,800	22,496,100	27,064,900	30,198,500	31,580,300
	<b>Operating Fund Balance</b>					
35	Net Annual Cash Balance	(1,658,800)	7,332,200	3,135,300	314,200	(890,800)
36	Beginning Fund Balance	0	(1,658,800)	5,673,400	8,808,700	9,122,900
37	Net Cumulative Fund Balance	(1,658,800)	5,673,400	8,808,700	9,122,900	8,232,100
38	Minimum Desired Balance [1]	1,778,500	1,856,100	1,895,700	1,947,600	2,001,800
39	Debt Service Coverage (Min 1.25)	(0.27)	8.00	5.61	4.60	4.54

[1] Estimated at 60 days of operation and maintenance expense less purchased water costs, plus \$500,000 reserve for contingencies



## Revenues and Revenue Requirements

**Table 9b (continued)**  
**Operating Fund Financing Plan – One Year, No General Fund Reserve Drawdown**

Line No.	Description	Projected				
		FY11/12	FY12/13	FY13/14	FY14/15	FY15/16
		\$	\$	\$	\$	\$
<b>1</b>	<b>Revenue</b>					
	Revenue Under Existing Rates	14,856,600	14,917,700	14,979,000	15,041,800	15,107,000
	Additional Revenue Required:					
	Year					
	Percent					
2	2007	0	0	0	0	0
3	2008	12,479,500	12,530,900	12,582,400	12,635,100	12,689,900
4	2009	0	0	0	0	0
5	2010	0	0	0	0	0
6	2011	0	0	0	0	0
7	2012	0	0	0	0	0
8	2013	0	0	0	0	0
9	2014	0	0	0	0	0
10	2015	0	0	0	0	0
11	2016	0	0	0	0	0
12	Total Revenue From Rates	27,336,100	27,448,600	27,561,400	27,676,900	27,796,900
13	Purchased Water Pass Through Revenues	3,037,000	3,050,300	3,063,600	3,077,200	3,091,200
14	Other Operating Revenue	128,500	128,500	128,500	128,500	128,500
	<b>Non-Operating Revenue</b>					
15	Interest - Operating Fund	235,500	228,400	213,400	169,300	113,900
16	Interest - Restricted Reserve Fund	85,300	120,600	120,600	120,600	120,600
	<b>Transfers from Other Funds</b>					
17	Transfer from Replacement Fund	0	0	0	0	0
18	Reserves	0	0	0	0	0
19	Total Revenue	30,822,400	30,976,400	31,087,500	31,172,500	31,251,100
	<b>Revenue Requirements</b>					
20	O&M Expense	9,479,800	9,838,400	10,212,600	10,603,500	11,011,300
21	Purchased Water Costs	11,200,000	11,200,000	11,200,000	11,200,000	11,200,000
22	Total O&M Expense	20,679,800	21,038,400	21,412,600	21,803,500	22,211,300
	<b>Debt Service</b>					
	Existing					
23	2004 Refunding Revenue Bond	1,296,100	1,300,500	1,298,500	1,296,100	1,296,500
	Proposed					
24	Proposed Rev Bonds - Capital	1,939,500	2,622,400	2,622,400	2,622,400	2,622,400
25	Proposed Rev Bonds - Replacement	0	0	0	0	0
26	Total Debt Service	3,235,600	3,922,900	3,920,900	3,918,500	3,918,900
	<b>Transfers to Other Funds</b>					
27	Transfer to Capital Fund	4,000,000	2,000,000	3,000,000	3,000,000	3,000,000
28	Transfer to Replacement Fund	1,969,700	2,028,800	2,089,700	2,152,400	2,217,000
29	Streets Loan	1,350,000	1,350,000	1,350,000	1,350,000	1,350,000
30	Reserve Drawdown	0	0	0	0	0
31	Replacement Sinking Fund	250,000	250,000	500,000	500,000	500,000
32	Rate Stabilization Fund	100,000	100,000	100,000	100,000	100,000
33	Total Other Funds	7,669,700	5,728,800	7,039,700	7,102,400	7,167,000
34	Total Revenue Requirements	31,585,100	30,690,100	32,373,200	32,824,400	33,297,200
	<b>Operating Fund Balance</b>					
35	Net Annual Cash Balance	(762,700)	286,300	(1,285,700)	(1,651,900)	(2,046,100)
36	Beginning Fund Balance	8,232,100	7,469,400	7,755,700	6,470,000	4,818,100
37	Net Cumulative Fund Balance	7,469,400	7,755,700	6,470,000	4,818,100	2,772,000
38	Minimum Desired Balance [1]	2,058,300	2,117,300	2,178,800	2,243,000	2,310,100
39	Debt Service Coverage (Min 1.25)	3.13	2.53	2.47	2.39	2.31

[1] Estimated at 60 days of operation and maintenance expense less purchased water costs, plus \$500,000 reserve for contingencies



**Table 9b2**  
**Operating Fund Financing Plan – One Year (with General Fund Reserve Drawdown)**

Line No.	Description	Projected				
		FY06/07	FY07/08	FY08/09	FY09/10	FY10/11
		\$	\$	\$	\$	\$
<b>1</b>	<b>Revenue</b>					
	Revenue Under Existing Rates	14,655,000	14,481,000	14,581,000	14,697,100	14,787,200
	Additional Revenue Required:					
	Year					
	Percent					
2	2007	0	0	0	0	0
3	2008	0	13,757,000	13,852,000	13,962,200	14,047,800
4	2009	0	0	0	0	0
5	2010	0	0	0	0	0
6	2011	0	0	0	0	0
7	2012	0	0	0	0	0
8	2013	0	0	0	0	0
9	2014	0	0	0	0	0
10	2015	0	0	0	0	0
11	2016	0	0	0	0	0
12	Total Revenue From Rates	14,655,000	28,238,000	28,433,000	28,659,300	28,835,000
13	Purchased Water Pass Through Revenues	2,997,700	2,953,800	2,976,000	3,001,800	3,021,600
14	Other Operating Revenue	128,500	128,500	128,500	128,500	128,500
	<b>Non-Operating Revenue</b>					
15	Interest - Operating Fund	0	145,400	277,800	272,800	265,800
16	Interest - Restricted Reserve Fund	40,800	40,800	40,800	40,800	40,800
	<b>Transfers from Other Funds</b>					
17	Transfer from Replacement Fund	400,000	0	0	0	0
18	Reserves	2,000,000	0	0	0	0
19	Total Revenue	20,222,000	31,506,500	31,856,100	32,103,200	32,291,700
	<b>Revenue Requirements</b>					
20	O&M Expense	7,777,500	8,249,500	8,490,600	8,806,300	9,135,800
21	Purchased Water Costs	10,800,000	11,200,000	11,200,000	11,200,000	11,200,000
22	Total O&M Expense	18,577,500	19,449,500	19,690,600	20,006,300	20,335,800
	<b>Debt Service</b>					
	Existing					
23	2004 Refunding Revenue Bond	1,303,300	1,296,600	1,298,100	1,302,200	1,298,800
	Proposed					
24	Proposed Rev Bonds - Capital	0	0	0	0	0
25	Proposed Rev Bonds - Replacement	0	0	0	0	0
26	Total Debt Service	1,303,300	1,296,600	1,298,100	1,302,200	1,298,800
	<b>Transfers to Other Funds</b>					
27	Transfer to Capital Fund	0	1,000,000	5,500,000	5,000,000	6,000,000
28	Transfer to Replacement Fund	0	750,000	1,802,500	1,856,600	1,912,300
29	Streets Loan	0	0	2,700,000	2,700,000	2,700,000
30	Reserve Drawdown	0	0	1,045,200	1,045,200	0
31	Replacement Sinking Fund	0	0	0	250,000	250,000
32	Rate Stabilization Fund	0	0	0	100,000	100,000
33	Total Other Funds	0	1,750,000	11,047,700	10,951,800	10,962,300
34	Total Revenue Requirements	19,880,800	22,496,100	32,036,400	32,260,300	32,596,900
	<b>Operating Fund Balance</b>					
35	Net Annual Cash Balance	341,200	9,010,400	(180,300)	(157,100)	(305,200)
36	Beginning Fund Balance	0	341,200	9,351,600	9,171,300	9,014,200
37	Net Cumulative Fund Balance	341,200	9,351,600	9,171,300	9,014,200	8,709,000
38	Minimum Desired Balance [1]	1,778,500	1,856,100	1,895,700	1,947,600	2,001,800
39	Debt Service Coverage (Min 1.25)	1.26	9.30	9.37	9.29	9.21

[1] Estimated at 60 days of operation and maintenance expense less purchased water costs, plus \$500,000 reserve for contingencies





## Revenues and Revenue Requirements

**Table 9b2 (continued)**  
**Operating Fund Financing Plan – One Year (with General Fund Reserve Drawdown)**

Line No.	Description	Projected				
		FY11/12	FY12/13	FY13/14	FY14/15	FY15/16
		\$	\$	\$	\$	\$
<b>1</b>	<b>Revenue</b>					
	Revenue Under Existing Rates	14,856,600	14,917,700	14,979,000	15,041,800	15,107,000
	Additional Revenue Required:					
	Year					
	Percent					
2	2007	0	0	0	0	0
3	2008	14,113,800	14,171,800	14,230,100	14,289,700	14,351,700
4	2009	0	0	0	0	0
5	2010	0	0	0	0	0
6	2011	0	0	0	0	0
7	2012	0	0	0	0	0
8	2013	0	0	0	0	0
9	2014	0	0	0	0	0
10	2015	0	0	0	0	0
11	2016	0	0	0	0	0
12	Total Revenue From Rates	28,970,400	29,089,500	29,209,100	29,331,500	29,458,700
13	Purchased Water Pass Through Revenues	3,037,000	3,050,300	3,063,600	3,077,200	3,091,200
14	Other Operating Revenue	128,500	128,500	128,500	128,500	128,500
	<b>Non-Operating Revenue</b>					
15	Interest - Operating Fund	273,300	293,400	248,000	172,900	123,600
16	Interest - Restricted Reserve Fund	40,800	40,800	40,800	40,800	40,800
	<b>Transfers from Other Funds</b>					
17	Transfer from Replacement Fund	0	0	0	0	0
18	Reserves	0	0	0	0	0
19	<b>Total Revenue</b>	<u>32,450,000</u>	<u>32,602,500</u>	<u>32,690,000</u>	<u>32,750,900</u>	<u>32,842,800</u>
	<b>Revenue Requirements</b>					
20	O&M Expense	9,479,800	9,838,400	10,212,600	10,603,500	11,011,300
21	Purchased Water Costs	11,200,000	11,200,000	11,200,000	11,200,000	11,200,000
22	<b>Total O&amp;M Expense</b>	<u>20,679,800</u>	<u>21,038,400</u>	<u>21,412,600</u>	<u>21,803,500</u>	<u>22,211,300</u>
	<b>Debt Service</b>					
	Existing					
23	2004 Refunding Revenue Bond	1,296,100	1,300,500	1,298,500	1,296,100	1,296,500
	Proposed					
24	Proposed Rev Bonds - Capital	0	0	0	0	0
25	Proposed Rev Bonds - Replacement	0	0	0	0	0
26	<b>Total Debt Service</b>	<u>1,296,100</u>	<u>1,300,500</u>	<u>1,298,500</u>	<u>1,296,100</u>	<u>1,296,500</u>
	<b>Transfers to Other Funds</b>					
27	Transfer to Capital Fund	6,000,000	6,000,000	9,500,000	7,000,000	7,000,000
28	Transfer to Replacement Fund	1,969,700	2,028,800	2,089,700	2,152,400	2,217,000
29	Streets Loan	1,350,000	1,350,000	1,350,000	1,350,000	1,350,000
30	Reserve Drawdown	0	0	0	0	0
31	Replacement Sinking Fund	250,000	250,000	500,000	500,000	500,000
32	Rate Stabilization Fund	100,000	100,000	100,000	100,000	100,000
33	<b>Total Other Funds</b>	<u>9,669,700</u>	<u>9,728,800</u>	<u>13,539,700</u>	<u>11,102,400</u>	<u>11,167,000</u>
34	<b>Total Revenue Requirements</b>	<u>31,645,600</u>	<u>32,067,700</u>	<u>36,250,800</u>	<u>34,202,000</u>	<u>34,674,800</u>
	<b>Operating Fund Balance</b>					
35	Net Annual Cash Balance	804,400	534,800	(3,560,800)	(1,451,100)	(1,832,000)
36	Beginning Fund Balance	8,709,000	9,513,400	10,048,200	6,487,400	5,036,300
37	<b>Net Cumulative Fund Balance</b>	<u>9,513,400</u>	<u>10,048,200</u>	<u>6,487,400</u>	<u>5,036,300</u>	<u>3,204,300</u>
38	Minimum Desired Balance [1]	2,058,300	2,117,300	2,178,800	2,243,000	2,310,100
39	Debt Service Coverage (Min 1.25)	9.08	8.89	8.68	8.45	8.20

[1] Estimated at 60 days of operation and maintenance expense less purchased water costs, plus \$500,000 reserve for contingencies



**Table 9c**  
**Operating Fund Financing Plan – Multiple Years**

Line No.	Description	Projected				
		FY06/07	FY07/08	FY08/09	FY09/10	FY10/11
		\$	\$	\$	\$	\$
<b>1</b>	<b>Revenue</b>					
	Revenue Under Existing Rates	14,655,000	14,481,000	14,581,000	14,697,100	14,787,200
	Additional Revenue Required:					
	<u>Year</u> <u>Percent</u>					
2	2007    0.00%	0	0	0	0	0
3	2008    64.00%	0	9,267,800	9,331,800	9,406,100	9,463,800
4	2009    5.00%	0	0	1,195,600	1,205,200	1,212,600
5	2010    5.00%	0	0	0	1,265,400	1,273,200
6	2011    5.00%	0	0	0	0	1,336,800
7	2012    5.00%	0	0	0	0	0
8	2013    5.00%	0	0	0	0	0
9	2014    5.00%	0	0	0	0	0
10	2015    5.00%	0	0	0	0	0
11	2016    5.00%	0	0	0	0	0
12	Total Revenue From Rates	14,655,000	23,748,800	25,108,400	26,573,800	28,073,600
13	Purchased Water Pass Through Revenues	2,997,700	2,953,800	2,976,000	3,001,800	3,021,600
14	Other Operating Revenue	128,500	128,500	128,500	128,500	128,500
	<b>Non-Operating Revenue</b>					
15	Interest - Operating Fund	0	77,000	148,300	130,500	99,400
16	Interest - Restricted Reserve Fund	40,800	40,800	49,500	70,700	70,700
	<b>Transfers from Other Funds</b>					
17	Transfer from Replacement Fund	400,000	0	0	0	0
18	Reserves	2,000,000	0	0	0	0
19	Total Revenue	20,222,000	26,948,900	28,410,700	29,905,300	31,393,800
	<b>Revenue Requirements</b>					
20	O&M Expense	7,777,500	8,249,500	8,490,600	8,806,300	9,135,800
21	Purchased Water Costs	10,800,000	11,200,000	11,200,000	11,200,000	11,200,000
22	Total O&M Expense	18,577,500	19,449,500	19,690,600	20,006,300	20,335,800
	<b>Debt Service</b>					
	Existing					
23	2004 Refunding Revenue Bond	1,303,300	1,296,600	1,298,100	1,302,200	1,298,800
	Proposed					
24	Proposed Rev Bonds - Capital	0	0	573,700	983,400	983,400
25	Proposed Rev Bonds - Replacement	0	0	0	0	0
26	Total Debt Service	1,303,300	1,296,600	1,871,800	2,285,600	2,282,200
	<b>Transfers to Other Funds</b>					
27	Transfer to Capital Fund	0	1,000,000	1,000,000	3,000,000	4,000,000
28	Transfer to Replacement Fund	0	750,000	1,802,500	1,856,600	1,912,300
29	Streets Loan	0	0	2,700,000	2,700,000	2,700,000
30	Reserve Drawdown	0	0	1,045,200	1,045,200	0
31	Replacement Sinking Fund	0	0	0	250,000	250,000
32	Rate Stabilization Fund	0	0	0	250,000	500,000
33	Total Other Funds	0	1,750,000	6,547,700	9,101,800	9,362,300
34	Total Revenue Requirements	19,880,800	22,496,100	28,110,100	31,393,700	31,980,300
	<b>Operating Fund Balance</b>					
35	Net Annual Cash Balance	341,200	4,452,800	300,600	(1,488,400)	(586,500)
36	Beginning Fund Balance	0	341,200	4,794,000	5,094,600	3,606,200
37	Net Cumulative Fund Balance	341,200	4,794,000	5,094,600	3,606,200	3,019,700
38	Minimum Desired Balance [1]	1,778,500	1,856,100	1,895,700	1,947,600	2,001,800
39	Debt Service Coverage (Min 1.25)	1.26	5.78	4.66	4.33	4.85

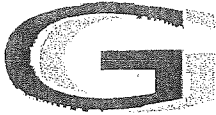
[1] Estimated at 60 days of operation and maintenance expense less purchased water costs, plus \$500,000 reserve for contingencies



**Table 9c (continued)**  
**Operating Fund Financing Plan – Multiple Years**

Line No.	Description	Projected				
		FY11/12	FY12/13	FY13/14	FY14/15	FY15/16
		\$	\$	\$	\$	\$
<b>1</b>	<b>Revenue</b>					
	Revenue Under Existing Rates	14,856,600	14,917,700	14,979,000	15,041,800	15,107,000
	Additional Revenue Required:					
	Year					
	Percent					
2	2007	0	0	0	0	0
3	2008	9,508,200	9,547,300	9,586,600	9,626,800	9,668,500
4	2009	1,218,200	1,223,300	1,228,300	1,233,400	1,238,800
5	2010	1,279,200	1,284,400	1,289,700	1,295,100	1,300,700
6	2011	1,343,100	1,348,600	1,354,200	1,359,900	1,365,800
7	2012	1,410,300	1,416,100	1,421,900	1,427,900	1,434,000
8	2013	0	1,486,900	1,493,000	1,499,200	1,505,700
9	2014	0	0	1,567,600	1,574,200	1,581,000
10	2015	0	0	0	1,652,900	1,660,100
11	2016	0	0	0	0	1,743,100
12	Total Revenue From Rates	29,615,600	31,224,300	32,920,300	34,711,200	36,604,700
13	Purchased Water Pass Through Revenues	3,037,000	3,050,300	3,063,600	3,077,200	3,091,200
14	Other Operating Revenue	128,500	128,500	128,500	128,500	128,500
	<b>Non-Operating Revenue</b>					
15	Interest - Operating Fund	105,400	170,500	276,900	411,300	592,200
16	Interest - Restricted Reserve Fund	85,300	120,600	120,600	120,600	120,600
	<b>Transfers from Other Funds</b>					
17	Transfer from Replacement Fund	0	0	0	0	0
18	Reserves	0	0	0	0	0
19	Total Revenue	32,971,800	34,694,200	36,509,900	38,448,800	40,537,200
	<b>Revenue Requirements</b>					
20	O&M Expense	9,479,800	9,838,400	10,212,600	10,603,500	11,011,300
21	Purchased Water Costs	11,200,000	11,200,000	11,200,000	11,200,000	11,200,000
22	Total O&M Expense	20,679,800	21,038,400	21,412,600	21,803,500	22,211,300
	<b>Debt Service</b>					
	Existing					
23	2004 Refunding Revenue Bond	1,296,100	1,300,500	1,298,500	1,296,100	1,296,500
	Proposed					
24	Proposed Rev Bonds - Capital	1,939,500	2,622,400	2,622,400	2,622,400	2,622,400
25	Proposed Rev Bonds - Replacement	0	0	0	0	0
26	Total Debt Service	3,235,600	3,922,900	3,920,900	3,918,500	3,918,900
	<b>Transfers to Other Funds</b>					
27	Transfer to Capital Fund	4,000,000	2,000,000	3,000,000	3,000,000	3,000,000
28	Transfer to Replacement Fund	1,969,700	2,028,800	2,089,700	2,152,400	2,217,000
29	Streets Loan	1,350,000	1,350,000	1,350,000	1,350,000	1,350,000
30	Reserve Drawdown	0	0	0	0	0
31	Replacement Sinking Fund	250,000	500,000	500,000	500,000	500,000
32	Rate Stabilization Fund	500,000	500,000	500,000	500,000	500,000
33	Total Other Funds	8,069,700	6,378,800	7,439,700	7,502,400	7,567,000
34	Total Revenue Requirements	31,985,100	31,340,100	32,773,200	33,224,400	33,697,200
	<b>Operating Fund Balance</b>					
35	Net Annual Cash Balance	986,700	3,354,100	3,736,700	5,224,400	6,840,000
36	Beginning Fund Balance	3,019,700	4,006,400	7,360,500	11,097,200	16,321,600
37	Net Cumulative Fund Balance	4,006,400	7,360,500	11,097,200	16,321,600	23,161,600
38	Minimum Desired Balance [1]	2,058,300	2,117,300	2,178,800	2,243,000	2,310,100
39	Debt Service Coverage (Min 1.25)	3.80	3.48	3.85	4.25	4.68

[1] Estimated at 60 days of operation and maintenance expense less purchased water costs, plus \$500,000 reserve for contingencies



## Summary of Revenues, Expenditures, and Obligations

The revenue requirements of the Water Division consist of system operation and maintenance expense, routine capital expenditures for equipment and improvements not financed from bond proceeds, debt service requirements on existing and proposed debt, and reserve requirements to ensure that debt service coverage and rate covenant requirements are met.

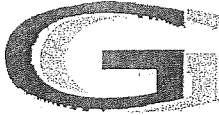
Shown in Lines 35 through 38 is a summary of the proposed operating fund for the study period. Based on a beginning balance of approximately \$341,200 and the proposed capital improvements projects, it is apparent that a series of proposed adjustments over the entire study period will be needed to ensure that ending year-end balances will achieve targeted levels of operating reserves.

Under Scenario 1, Status Quo, forgoing any revenue adjustments results in the Water Enterprise Fund's operating deficit increasing from (\$1,658,800) to (\$107,819,800) by the end of the planning period. Of particular concern is the projected financial condition of the utility for FY 06/07.

It is our understanding that the Water Division has operated in a deficit position for several years, drawing down on its operating reserves. To help manage these conditions, the utility has delayed major repair and replacement projects, as well as new capital improvements. Additionally, the Water Division has not filled personnel requisitions, and has operated at minimal levels of staffing. To fund operating needs, the Water Division has borrowed monies from the Replacement and Expansion Funds; replacing these funds at year-end with General Fund dollars. As of June 30, 2006, the Water Division borrowed \$3.6 million from these two funds. Although, the utility has received revenues from its purchased water pass through charges, these revenues are insufficient to cover all the increases in operating costs. The pass through charge revenues, as outlined in the ordinance, only cover the variable cost associated with changes in the MWD and OCWD fees. Thus, normal annual increases in such items as gasoline would not be included in this charge, and thus, is a direct (variable) expense borne by the utility. In reviewing the Water Division's historical rate increases, Black & Veatch has observed that the 2001 rate increase was predicated on water sales of approximately 10 billion gallons. Actual water sales for FY 05/06 were 9.1 billion gallons, and Black & Veatch projects that this level of water sales will remain essentially flat over the planning period.

Finally, there are two overriding issues that the Water Division faces. First, the Water Division is operating under a severe cash flow crisis. Without an influx of additional revenues, the projected year end balance for FY 06/07 in the Operating Fund will be (\$1,658,800). Second, based on these projections, the utility will be in technical default on its outstanding bonds. We understand that this would be the third year, in a row, for this event, and in our experience, there are possible ramifications to the City and utility should corrective actions not be undertaken. Such remedies would be required by the Bond Trustees and could range from mandatory rate increases to receivership.

Black & Veatch's analysis shows that if the Water Enterprise Fund implements a 84 percent revenue adjustment effective July 1, 2007, then it achieves a positive balance in its operating fund



and meets its debt service requirement for the year. Recognizing that a revenue adjustment of this magnitude may not be a feasible option for the City or its rate-payers; Black & Veatch recommends a more palatable alternative, Table 9c, which would meet the goal of establishing a sustainable ten-year financial plan.

Nevertheless of the scenario examined, the Water Enterprise Fund will need an immediate infusion of approximately \$2 million in Fiscal Year 06/07 to (1) allow the Water Division to have working capital and (2) help the utility meet the debt service coverage requirement (1.25 times net revenues) identified in the 2004 Revenue Bond official statement. The water utility has failed to meet debt covenants for the past two years and is on schedule to fail this fiscal year. As discussed above, failure to remedy the technical default could result in the Bond Trustee taking actions against the City and the utility. The \$2 million loan, payable over two years, from the General Fund is proposed for this purpose.

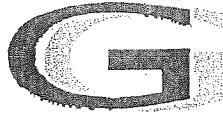
The proposed financial plans (excluding Status Quo) will allow the Water Division to stop operating on a "paycheck to paycheck" basis, provides for financial stability, and establishes a sound capital improvement program to maintain system assets.

Lines 35 through 39 shows how the proposed plans address the City's minimum reserve balance and bond requirements, in terms of annual debt service coverage. Note that for each year of the study period, debt coverage levels are at or above the required 125 percent level when the appropriate revenue adjustments are applied.

Finally, based on the recommended alternative, Table 9c, the required percentage rate increase needed is a one-time 64 percent in Fiscal Year 07/08 and incremental 5 percent per year increases until Fiscal Year 15/16.

### **Test Year FY 07/08 Revenue Requirements**

In analyzing the Water Division's cost of service for allocation to customer classes, the annual revenue requirements for FY 07/08 is selected as the Test Year (TY) requirements to demonstrate the development of cost-of-service water rates. Scenario 2 (Table 9c), achieving the business principle goals within a 4 year timeframe serve as the basis for the analyses presented herein. The total cost of service to be recovered from rates is \$23,748,800.



### Cost of Service Allocations

The revenue requirements to be derived from rates and charges for water service are synonymous with the definition of the cost of service. In analyzing the Water Division's cost of service for allocation to customer classes, the annual revenue requirements for FY 07/08 are selected as the Test Year requirements to demonstrate the development of cost of service water rates. The determination of the cost of service to be recovered through charges for water service is summarized in Lines 1 through 18 of Table 10.

**Table 10**  
**Total Cost of Service to be Recovered from Rates**  
**TY 07/08**

Line No.	Description	Operating Expense	Capital Cost	Total
	<b>Revenue Requirements</b>	\$	\$	\$
1	O&M Expense	19,449,500		19,449,500
2	Debt Service Requirements		1,296,600	1,296,600
3	Reserve Drawdown Repayment		0	0
4	Streets Repair Loan		0	0
5	Transfer to Capital Fund		1,000,000	1,000,000
6	Replacement Sinking Fund		0	0
7	Rate Stabilization Fund		0	0
8	Routine Capital Outlay		750,000	750,000
9	Subtotal	19,449,500	3,046,600	22,496,100
	<b>Less Revenue Requirements Met from Other Sources</b>			
10	Other Miscellaneous Revenue	128,500		128,500
11	Purchase Water Passthrough Charges	2,953,800	0	2,953,800
12	Loan from General Fund	0		0
13	Interest from Operations	67,100		67,100
14	Interest from Restricted Reserve		40,800	40,800
15	Subtotal	3,149,400	40,800	3,190,200
	<b>Adjustments</b>			
16	Adjustment for Annual Cash Balance	(4,442,900)	0	(4,442,900)
17	Adjustment to Annualize Rate Increase	0		0
18	Subtotal	(4,442,900)	0	(4,442,900)
19	Cost of Service to be Recovered from Rates	20,743,000	3,005,800	23,748,800

### Functional Cost Components

In developing an equitable rate structure, revenue requirements are allocated to the various customer classifications according to the cost of service rendered. Allocations of these requirements to customer classes of the Water Division should take into account water flow, the number of customers, and other relevant factors.



Customers are classified to reflect groups of customers with similar service requirements who can be served at similar cost. Each class represents a particular type of service requirement. For the purposes of the cost of service analysis, the customer classifications in this study include residential, multi-family, commercial, industrial, irrigation, and private fire protection. These customer classes are assumed to exhibit similar types of system load characteristics.

As a basis for allocating costs of service among customer classes, costs are first allocated to functional cost components, then allocated to cost categories, and subsequently distributed to customer classes. In this study, there are four primary cost components: (1) base flow, or volume costs, (2) maximum day cost, (3) peak hour costs, and (4) directly assigned costs.

### Allocation to Cost Components

Each element of cost is allocated by the base-extra capacity method. In the base-extra capacity method, costs of service are separated into four primary cost components: (1) base costs, (2) extra capacity costs, (3) customer costs, and (4) direct costs.

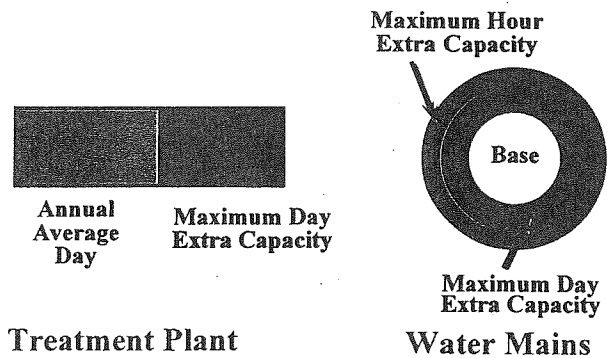
According to the *Principles of Water Rates, Fees, and Charges, MI Manual* as published by the American Water Works Association:

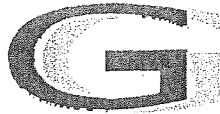
“Base costs are costs that tend to vary with the total quantity of water used without the elements of cost incurred to meet water use variations and resulting peaks in demand. Extra capacity costs are costs associated with meeting variations of cost over average load conditions and include O&M expenses and capital costs for system capacity beyond those required for average rate of use. These costs are further divided into costs necessary to meet maximum-day extra and peak-hour demand. Customer costs comprise those costs associated with serving customers. They include meter reading, billing, and customer accounting and collection expense, as well as maintenance and capital costs related to meters and services. Direct fire-protection

costs are those costs that are applicable solely to the fire-protection function. Usually, such costs are simply those directly related to public fire hydrants and related branch mains and valves.

The separation of the costs of service into these principal components provides a means for further allocation of such costs to the various customer classes on the basis of the respective base, extra capacity, and customer cost requirements of each particular type of service.”

### Water Cost of Service Concepts





**Allocation of Operation and Maintenance Expense**

The allocation of operation and maintenance expense to cost functions is shown in Table 11. The net operation and maintenance expense to be recovered for water service is derived by deducting funds available from other sources from the total Test Year expense. Net Test Year operation and maintenance expense of \$20,743,000 is shown allocated to cost components on Line 23 of Table 11.

**Table 11  
Allocation of TY 07/08 O&M Expense to Functional Cost Components**

Line No.	Description	Total	Base	Extra Capacity		Customer		Direct Fire Protection
				Max Day	Max Hour	Meters & Services	Billing & Collection	
		\$	\$	\$	\$	\$	\$	\$
<b>Production &amp; Storage</b>								
1	Salaries & Benefits	377,400	377,400	0	0	0	0	0
2	Water Purchases	11,200,000	7,000,000	4,200,000	0	0	0	0
3	Contractual Services	200,000	66,700	40,000	93,300	0	0	0
4	Operations & Maintenance	301,900	301,900	0	0	0	0	0
5	Subtotal	12,079,300	7,746,000	4,240,000	93,300	0	0	0
<b>Pumping</b>								
6	Salaries & Benefits	1,132,300	377,400	226,500	528,400	0	0	0
7	Contractual Services	450,000	150,000	90,000	210,000	0	0	0
8	Commodities	440,100	146,700	88,000	205,400	0	0	0
9	Operations & Maintenance	114,800	38,200	23,000	53,600	0	0	0
10	Subtotal	2,137,200	712,300	427,500	997,400	0	0	0
<b>Transmission &amp; Distribution</b>								
11	Salaries & Benefits	1,698,400	846,500	467,100	109,200	191,200	84,400	0
12	Contractual Services	250,000	124,600	68,800	16,100	28,100	12,400	0
12	Operations & Maintenance	531,500	264,900	146,200	34,200	59,800	26,400	0
13	Subtotal	2,479,900	1,236,000	682,100	159,500	279,100	123,200	0
<b>Customer Service</b>								
14	Salaries & Benefits	188,700	0	0	0	0	188,700	0
15	Operations & Maintenance	654,300	0	0	0	0	654,300	0
16	Subtotal	843,000	0	0	0	0	843,000	0
<b>Admin &amp; General</b>								
17	Salaries & Benefits	377,400	0	0	0	377,400	0	0
18	Operations & Maintenance	1,532,700	0	0	0	1,532,700	0	0
19	Subtotal	1,910,100	0	0	0	1,910,100	0	0
20	Total	19,449,500	9,694,300	5,349,600	1,250,200	2,189,200	966,200	0
21	Percent		49.8%	27.5%	6.4%	11.3%	5.0%	0.0%
22	Less Other Revenues	1,293,500	644,700	355,800	83,100	145,600	64,300	0
23	Net O&M Expense	20,743,000	10,339,000	5,705,400	1,333,300	2,334,800	1,030,500	0





**Allocation of Capital Costs**

The estimated investment in water system facilities is allocated to appropriate cost components as a basis for the further distribution of capital related costs to the various customer classes. The allocation of estimated plant investment serving water customers for the Test Year is shown in Table 12. The total net plant investment of \$46,486,100 shown on Line 8 represents the estimated Test Year original cost less accumulated depreciation of plant in service.

**Table 12  
Allocation of TY 07/08 Net Plant Investment and Capital Costs to Functional Cost Components**

Line No.	Description	Total	Base	Extra Capacity		Customer		Direct Fire Protection
				Max Day	Max Hour	Meters & Services	Billing & Collection	
		\$	\$	\$	\$	\$	\$	\$
1	Source of Supply	15,977,700	15,977,700	0	0	0	0	0
2	Pumping Plant	2,157,300	2,157,300	0	0	0	0	0
3	Treatment	132,200	82,600	49,600	0	0	0	0
4	Transmission & Distribution	15,208,800	5,069,600	3,041,800	7,097,400	0	0	0
5	Meters & Services	7,079,900	0	0	0	7,079,900	0	0
6	Hydrants	5,138,900	0	0	0	0	0	5,138,900
7	General Plant	791,300	403,300	53,500	122,900	122,600	0	89,000
8	<b>Total</b>	<b>46,486,100</b>	<b>23,690,500</b>	<b>3,144,900</b>	<b>7,220,300</b>	<b>7,202,500</b>	<b>0</b>	<b>5,227,900</b>
9	Capital Cost Allocation	3,005,800	1,531,900	203,300	466,900	465,700	0	338,000

**Units of Service**

The total cost responsibility of each class of service may be established by developing unit costs of service for each cost function and assigning those costs to the customer classes based on the respective service requirements of each. To properly recognize the cost of service, each customer class is allocated its share of base, maximum day and peak hour costs. The number of units of service required by each customer class provides a means for the proportionate distribution of costs previously allocated to respective cost categories. Table 13 is a summary of the estimated units of service for the various customer classes.

The cost of service responsibility for base costs varies with the volume of water requirements and may be distributed to customer classes on that basis. Extra capacity costs are those costs associated with meeting peak rates of water use, and are distributed to customer classes based on their respective system capacity requirements in excess of average requirement rates. Customer costs, which consist of meter related costs, billing, collection and accounting costs, are allocated based on the number of equivalent meters and bills. Private fire protection costs are allocated on the basis of equivalent fire hydrants.

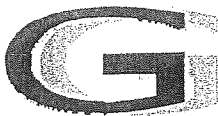


Table 13  
Test Year Units of Service

Customer Class	(1) Annual Use ccf	(2) Maximum Day Requirements			(3) Maximum Hour Requirements			(4) Maximum Day Requirements			(5) Maximum Hour Requirements			(6) Capacity Factor %	(7) Total Capacity ccf/day	(8) Extra Capacity ccf/day	(9) No. of Customers Accts.	(10) No. of Meters Equiv.	(11) No. of Bills	(12) Direct Fire Protection Eq. Meter	(13) Private Fire Protection Eq. Hyd.
		Average Daily Use ccf/day	Capacity Factor %	Total Capacity ccf/day	Capacity Factor %	Total Capacity ccf/day	Capacity Factor %	Total Capacity ccf/day	Capacity Factor %	Total Capacity ccf/day	Capacity Factor %	Total Capacity ccf/day	Capacity Factor %								
Agricultural	5,700	16	175.0%	27	12	53	340.0%	26	4	9	24	24	9	4	9	24	24	24	24	24	
Public School - Non GGUSD	27,200	75	200.0%	149	75	272	365.0%	123	8	81	48	48	81	8	81	48	48	48	48	48	
Commercial	1,352,800	3,706	150.0%	5,559	1,853	11,675	315.0%	6,115	1,714	2,752	10,284	10,284	2,752	1,714	2,752	10,284	10,284	10,284	10,284	10,284	
Duplex	75,100	206	175.0%	360	154	700	340.0%	339	258	281	1,548	1,548	281	258	281	1,548	1,548	1,548	1,548	1,548	
Private School	36,000	99	200.0%	197	99	360	365.0%	163	22	83	132	132	83	22	83	132	132	132	132	132	
Church	42,700	117	175.0%	205	88	398	340.0%	193	53	108	318	318	108	53	108	318	318	318	318	318	
Hospital	76,700	210	200.0%	420	210	767	365.0%	347	14	88	84	84	88	14	88	84	84	84	84	84	
Industrial	576,500	1,579	150.0%	2,369	790	4,975	315.0%	2,606	321	603	1,926	1,926	603	321	603	1,926	1,926	1,926	1,926	1,926	
Laundry	36,500	100	225.0%	225	125	390	390.0%	165	13	33	78	78	33	13	33	78	78	78	78	78	
Multi-Unit (>2 Units)	2,169,300	5,943	175.0%	10,401	4,457	20,207	340.0%	9,806	1,492	3,178	8,952	8,952	3,178	1,492	3,178	8,952	8,952	8,952	8,952	8,952	
Hotel/Motel	218,900	600	200.0%	1,199	600	2,189	365.0%	990	24	248	144	144	248	24	248	144	144	144	144	144	
Sewer/Septic	8,700	24	175.0%	42	18	81	340.0%	39	50	53	300	300	53	50	53	300	300	300	300	300	
Parks	0	0	200.0%	0	0	0	365.0%	0	1	1	6	6	1	1	1	6	6	6	6	6	
Residential	5,609,900	15,370	175.0%	26,897	11,527	52,257	340.0%	25,360	29,213	29,213	175,278	175,278	29,213	29,213	29,213	175,278	175,278	175,278	175,278	175,278	
Public School - GGUSD	533,600	1,462	200.0%	2,924	1,462	5,336	365.0%	2,412	64	732	384	384	732	64	732	384	384	384	384	384	
Condo/Townhouse	3,700	10	175.0%	18	8	34	340.0%	17	20	20	120	120	20	20	20	120	120	120	120	120	
Car Wash	20,800	57	200.0%	114	57	208	365.0%	94	9	21	54	54	21	9	21	54	54	54	54	54	
Landscaping	1,214,800	3,328	200.0%	6,656	3,328	12,148	365.0%	5,492	313	656	1,878	1,878	656	313	656	1,878	1,878	1,878	1,878	1,878	
Total (Ex. Fire Protection)	12,008,900	32,901		57,763	24,862	112,050		54,287	33,593	38,576	201,558	201,558	38,576	33,593	38,576	201,558	201,558	201,558	201,558	201,558	
Fire Protection																					
Public				3,370	3,370	8,089		4,718												111,040	632
Private				640	640	1,537		897												111,040	632
Total (Inc. Fire Protection)	0	0		4,011	4,011	9,626		5,615	511	511	0	0	0	511	511	0	0	0	111,040	632	
Total System	12,008,900	32,901		61,774	28,873	121,675		59,902	34,104	38,576	204,624	204,624	38,576	34,104	38,576	204,624	204,624	204,624	204,624	204,624	204,624
Total Noncoincidental Demand less Fire Demand			57,763			112,050															
Total Coincidental Demand			52,642			98,703															
Ratio Non to Coincidental			1.10			1.14															
1.1 to 1.4 is standard range																					



The estimated units of service for the various customer classifications are shown in Table 13. Estimates of test year annual water requirements, shown in Column 1, are based on the projections of total water sales previously developed in this report adjusted by the bill tabulation factor. Average daily use of all water sales is presented in Column 2. Columns 3 through 8 of Table 13 show the estimated maximum day and peak hour capacity factors for each customer class.

In the overall rate setting process there is a need to establish a base level of cost for which the cost of larger customers can be measured. Customer-related meter and service costs are allocated based on the number of equivalent 5/8" meters because the 5/8" meter is the most prevalent meter size found in many water utilities. Included in the development of meter cost ratios is the direct cost of the various categories of labor involved in the installation, fringe benefit related overheads and other appropriate administrative overheads applicable to the labor costs, all direct materials and supplies costs, and the cost of equipment used in the installation. Generally, equivalent meter cost ratios should be used when assigning elements of costs specifically related to meters among the various sizes of meters used by the customer in the system. For the Water Division, the equivalent meter ratios use the base unit of a 3/4" meter. Customer billing and accounting costs are distributed to classes based on number of bills for each customer class in Columns 9 through 11. Fire protection costs, both public and private, are allocated in Columns 12 and 13.

In accordance with M1 standards and typical engineering design, the provision of the maximum hour component addresses peak system needs, in addition to those posed by fire protection requirements. Actual system data for the derivation of maximum day capacity were not available; as such, a standard ratio of 1.65 was applied to maximum day rates. As the City collects more customer-specific data for a greater period of time, we recommend that the class demand factors be reviewed and adjusted as needed. As a check on the validity of our assumptions, we calculated a diversity ratio for the system. This ratio is a measure of the total noncoincidental to coincidental demand. The typical diversity ratio for utilities is in the range of 1.10 to 1.40. As shown on Table 13, the calculated system diversity ratio is within this typical range.

## **Cost of Service Allocations**

Costs of service are allocated to the customer classes by application of unit costs of service to respective service requirements. Unit costs of service are based upon the total costs previously allocated to functional components and the total number of applicable units of service. Dividing the costs allocated to functional cost components by the respective total units of service requirements develops unit costs of operation and maintenance expense, and net capital costs.

### ***Unit Costs of Service***

Table 14 presents total Test Year O&M expense and net capital costs allocated to functional cost component as taken from Tables 10 and 11.



Table 14  
Test Year Unit Costs of Service

Description	Total	Base	Extra Capacity		Customer		Direct
			Max Day	Max Hour	Meters & Services	Billing & Collecting	Fire Protection
	\$	\$	\$	\$	\$	\$	\$
Net Operating Expense	20,743,000	10,339,000	5,705,400	1,333,300	2,334,800	1,030,500	0
Capital Costs (b)	3,005,800	1,531,800	203,400	466,900	465,700	0	338,000
<b>Total Cost of Service - \$</b>	<b>23,748,800</b>	<b>11,870,800</b>	<b>5,908,800</b>	<b>1,800,200</b>	<b>2,800,500</b>	<b>1,030,500</b>	<b>338,000</b>
<b>Units of Service</b>							
Units of Measure		ccf	ccf/day	ccf/day	Equip Mtrs	Equip Bills	Equip Hyd
Total Units of Service		12,008,900	28,873	59,902	38,576	204,624	111,040
<b>Unit Cost of Service</b>							
Operating		0.8609	197.6059	22.2581	60.5255	5.0361	0.0000
Capital		0.1276	7.0447	7.7944	12.0724	0.0000	3.0439
<b>Total Unit Cost of Service</b>		<b>0.9885</b>	<b>204.6507</b>	<b>30.0525</b>	<b>72.5979</b>	<b>5.0361</b>	<b>3.0439</b>

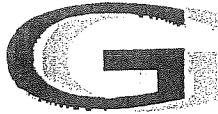
**Distribution of Costs of Service to Customer Classes**

The customer class responsibility for service is obtained by applying the unit costs of service to the number of units for which the customer class is responsible. This process is illustrated in Table 15, in which the unit costs of service are applied to the customer class units of service.



**Table 15**  
**Allocation of Costs of Service to Customer Classes**

Line No.	Description	Total	Base	Extra Capacity		Customer		Direct
				Max Day	Max Hour	Meters & Services	Billing & Collecting	Fire Protection
	<u>Number of Units</u>							
1	Unit Cost of Service		0.9885	204.6507	30.0525	72.5979	5.0361	3.0439
	Units of Measure		ccf	ccf/day	ccf/day	Equiv Mtrs	Equiv Bills	Eq. FP Meters
	<u>Customer Class</u>							
	<u>Agricultural</u>							
2	Units		5,700	12	26	9	24	
3	Costs - \$	9,400	5,500	2,300	900	500	200	
	<u>Public School - Non GGUSD</u>							
4	Units		27,200	75	123	81	48	
5	Costs - \$	52,000	26,900	15,300	3,700	5,900	200	
	<u>Commercial</u>							
6	Units		1,352,800	1,853	6,115	2,752	10,284	
7	Costs - \$	2,151,800	1,337,200	379,200	183,800	199,800	51,800	
	<u>Duplex</u>							
8	Units		75,100	154	339	281	1,548	
9	Costs - \$	144,200	74,200	31,600	10,200	20,400	7,800	
	<u>Private School</u>							
10	Units		36,000	99	163	83	132	
11	Costs - \$	67,500	35,600	20,200	4,900	6,100	700	
	<u>Church</u>							
12	Units		42,700	88	193	108	318	
13	Costs - \$	75,400	42,200	18,000	5,800	7,800	1,600	
	<u>Hospital</u>							
14	Units		76,700	210	347	88	84	
15	Costs - \$	136,000	75,800	43,000	10,400	6,400	400	
	<u>Industrial</u>							
16	Units		576,500	790	2,606	603	1,926	
17	Costs - \$	863,300	569,900	161,600	78,300	43,800	9,700	
	<u>Laundry</u>							
18	Units		36,500	125	165	33	78	
19	Costs - \$	69,500	36,100	25,600	5,000	2,400	400	
	<u>Multi-Unit (&gt;2 Units)</u>							
20	Units		2,169,300	4,457	9,806	3,178	8,952	
21	Costs - \$	3,627,100	2,144,400	912,200	294,700	230,700	45,100	
	<u>Hotel/Motel</u>							
22	Units		218,900	600	990	248	144	
23	Costs - \$	387,500	216,400	122,700	29,700	18,000	700	
	<u>Sewer/Septic</u>							
24	Units		8,700	18	39	53	300	
25	Costs - \$	18,900	8,600	3,700	1,200	3,900	1,500	
	<u>Parks</u>							
26	Units		0	0	0	1	6	
27	Costs - \$	100	0	0	0	100	0	
	<u>Residential</u>							
28	Units		5,609,900	11,527	25,360	29,627	175,278	
29	Costs - \$	11,700,100	5,545,400	2,359,000	762,100	2,150,900	882,700	
	<u>Public School - GGUSD</u>							
30	Units		533,600	1,462	2,412	732	384	
31	Costs - \$	954,200	527,500	299,200	72,500	53,100	1,900	
	<u>Condo/Townhouse</u>							
32	Units		3,700	8	17	20	120	
33	Costs - \$	7,900	3,700	1,600	500	1,500	600	
	<u>Car Wash</u>							
34	Units		20,800	57	94	21	54	
35	Costs - \$	37,000	20,600	11,700	2,800	1,600	300	
	<u>Landscape</u>							
36	Units		1,214,800	3,328	5,492	656	1,878	
37	Costs - \$	2,104,000	1,200,800	681,100	165,000	47,600	9,500	
	<u>Fire Protection</u>							
	<u>Public</u>							
38	Units		0	3,370	4,718	0	0	111,040
39	Costs - \$	1,169,500	0	689,700	141,800	0	0	338,000
	<u>Private</u>							
40	Units		0	640	897	0	3,066	
41	Costs - \$	173,400	0	131,100	26,900	0	15,400	
42	<b>Total Cost of Service - \$</b>	<b>23,748,800</b>	<b>11,870,800</b>	<b>5,908,800</b>	<b>1,800,200</b>	<b>2,800,500</b>	<b>1,030,500</b>	<b>338,000</b>



**Adequacy of Existing Rates to Meet Cost of Service**

Presented in Table 16 is a comparison of the allocated cost of service and revenue under existing rates for the system in total. Adjustments to the allocated cost of service take place in Column 2. For the Water Division, the cost of public fire protection is allocated to all customers because it is viewed as a general benefit to all. Column 5 indicates the approximate adjustment rate levels necessary to recover 100 percent of the allocated costs of service.

It is important to note that the data by customer class for water consumption has only been available in the last year and the accuracy of this data has not been validated since the Water Division's current rate structure is based on meter size not customer classes. As such, the cost allocation by customer class shown in the table below should be considered as approximations. Black & Veatch strongly recommends that the Water Division continue to gather data on customer class consumption to validate the assumptions made herein.

**Table 16  
Comparison of Adjusted Cost of Service with Revenue under Existing Rates  
Test Year 07/08**

Line No.	Customer Class	Allocated Cost of Service	Allocation of Public Fire Protection	Adjusted Cost of Service	Revenue Under Existing Rates	Indicated Revenue Increase
		\$	\$	\$	\$	%
1	Agricultural	9,400		9,400		
2	Public School - Non GGUSD	52,000	3,000	55,000		
3	Commercial	2,151,800	124,000	2,275,800		
4	Duplex	144,200	8,300	152,500		
5	Private School	67,500	3,900	71,400		
6	Church	75,400	4,300	79,700		
7	Hospital	136,000	7,800	143,800		
8	Industrial	863,300	49,800	913,100		
9	Laundry	69,500	4,000	73,500		
10	Multi-Unit (>2 Units)	3,627,100	209,000	3,836,100		
11	Hotel/Motel	387,500	22,300	409,800		
12	Sewer/Septic	18,900	1,100	20,000		
13	Parks	100		100		
14	Residential	11,700,100	674,400	12,374,500		
15	Public School - GGUSD	954,200	55,000	1,009,200		
16	Condo/Townhouse	7,900	500	8,400		
17	Car Wash	37,000	2,100	39,100		
18	Landscape	2,104,000		2,104,000		
19	Subtotal	22,405,900	1,169,500	23,575,400	14,391,500	63.81
	Fire Protection					
20	Public	1,169,500	(1,169,500)	0	0	0.00
21	Private	173,400		173,400	89,500	93.74
22	Total System	23,748,800	0	23,748,800	14,481,000	64.00



## Proposed Rate Adjustments

The initial consideration in the derivation of rate schedules for utility service is the establishment of equitable charges to the customers commensurate with the cost of providing that service. While the cost of service allocations to customer classes should not be construed as literal or exact determinations, they offer a guide to the necessity for, and the extent of, rate adjustments. Moreover, as noted previously, this latter point is of particular importance to the Water Division because of the relative lack of historical data pertaining to customer class consumption. Practical considerations sometimes modify rate adjustments by taking into account additional factors such as the extent of change from previous rate levels, existing contracts, and past local policies and practices.

### Existing Rates

A summary of existing water rates was presented earlier in Table 3. The existing rates consist of a ready-to-serve charge (service charge), which varies by meter size, and a commodity charge applicable to each hundred cubic feet (hcf or ccf) of billed water sales.

### Proposed Rates

The costs of service analysis described in preceding sections of this report provide a basis for the design of rates. The rate schedules shown in Table 17 take into consideration City policies and shows rates reflecting no changes to the blocks. We strongly recommend that the City continue to collect consumptive data by customer class and validate the accuracy of these customer classes. After several years of data have been gathered, the City should consider conducting another cost-of-service study to (1) verify the appropriateness of existing rate blocks and (2) consider adopting customer class based rate structures or other changes. Should such changes be warranted, a phased approach to cost-of-service rates may be appropriate to mitigate any adverse impacts to any one customer class.

### Revenue Sufficiency

Presented in Table 18 is a comparison of Test Year allocated cost of service with revenues under the suggested water rate structure. Test year costs of service are obtained from Table 13 and the proposed rates recover essentially 100 percent of the total cost of service.



**Table 17**  
**Proposed Rates for Test Year FY 07/08**

Service Charge				
Meter Size	Current Rates	Proposed Rates	Capital Charge	Total
	\$/bi-mo	\$/bi-mo	\$/bi-mo	\$/bi-mo
5/8" x 3/4"	\$6.00	\$9.84	\$1.38	\$11.22
1"	\$16.00	\$26.24	\$1.94	\$28.18
1 1/2"	\$31.00	\$50.84	\$2.48	\$53.32
2"	\$47.00	\$77.08	\$4.00	\$81.08
3"	\$78.00	\$127.92	\$15.18	\$143.10
4"	\$108.00	\$177.12	\$19.32	\$196.44
6"	\$247.00	\$405.08	\$28.98	\$434.06
8"	\$386.00	\$633.04	\$40.02	\$673.06
10"	\$525.00	\$861.00	\$51.06	\$912.06

Commodity Charge						
Units of Water	Existing Rates			Proposed Rates		
	Commodity Charge	MWD Surcharge	Total	Commodity Charge	MWD Surcharge	Total
	\$/ccf	\$/ccf	\$/ccf	\$/ccf	\$/ccf	\$/ccf
0 - 36	\$1.06	\$0.27	\$1.33	\$1.74	\$0.27	\$2.01
37 - 250	\$1.10	\$0.27	\$1.37	\$1.80	\$0.27	\$2.07
251 - 500	\$1.14	\$0.27	\$1.41	\$1.87	\$0.27	\$2.14
>500	\$1.18	\$0.27	\$1.45	\$1.94	\$0.27	\$2.21

**Table 18**  
**Comparison of Adjusted Cost of Service and Revenues under Proposed Rates**

Customer Class	Test Year 2008 Cost of Service	Revenue Under Existing Rates	Revenue Under Proposed Rates	Total Percent Recovered
	\$	\$	\$	%
Agricultural	9,400			
Public School - Non GGUSD	55,000			
Commercial	2,275,800			
Duplex	152,500			
Private School	71,400			
Church	79,700			
Hospital	143,800			
Industrial	913,100			
Laundry	73,500			
Multi-Unit (>2 Units)	3,836,100			
Hotel/Motel	409,800			
Sewer/Septic	20,000			
Parks	100			
Residential	12,374,500			
Public School - GGUSD	1,009,200			
Condo/Townhouse	8,400			
Car Wash	39,100			
Landscape	2,104,000			
Subtotal	23,575,400	14,391,500	23,612,800	100.16%
Fire Protection Private	173,400	89,500	173,400	100.00%
<b>Total System</b>	<b>23,748,800</b>	<b>14,481,000</b>	<b>23,786,200</b>	<b>100.16%</b>



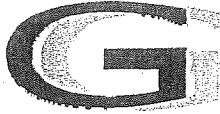


## Rate Comparisons

The timely adoption of the proposed rates presented in Table 17 will provide for 100 percent recovery of the Water Division's estimated costs of service in Test Year 07/08. Based on the proposed rates, the service rate for a typical single family residential (SFR) with a standard 5/8" meter will increase from \$3.00 per month to \$4.92 per month, an increase of 64 percent (excluding the capital charge). Similarly the tiered commodity rates will experience an increase. For a typical SFR with a consumption of 15 ccf per month, the commodity rate will be 1.74 per ccf, an increase of 64 percent (excluding the MWD surcharge of \$0.27/ccf), and the commodity charge will be \$26.10 per month. Added together, a typical single family residential household will pay roughly \$31.02 (\$35.74 with capital charge and MWD surcharge) compared to \$18.90 (\$23.64 with capital charge and MWD surcharge), an increase of 64 percent.

As noted previously, historically, the City's residents react to a rate increase by reducing consumption. This type of behavior is not uncommon; however, in the case of Garden Grove, the reversion back to "typical" consumptive patterns has taken longer than expected. Whenever revenue adjustments are proposed, the impact to the rate-payer must always be taken into account. When the proposed adjustments are large, as they are here, more attention must be paid to make sure that affordability concerns are addressed. In many areas of the country, water utilities employ Lifeline rates or have Senior Citizen discount rates. Programs such as these are most readily implemented when a utility has access to the gas or electric utilities customer records so that the same criteria is used for all. Administratively, these programs require accurate record keeping, annual renewal procedures, and income verifications policies. At this point in time, the Water Division and City do not have adequate resources to dedicate to the development and implementation of such a program. It should also be noted that the Water Division has a policy that effectively makes their service charge a minimum bill: When a resident uses less than 6 units, they are not charged the first tier rate, just the service charge. However, if the same resident uses 6.5 units, they would be charged the full amount. The inclusion of a minimum allowance recognizes that fixed income residents tend to be the most water conscious users.

Presented in Table 19 and Figure 1 are the proposed rates compared to rates of neighboring cities, for a residential customer with a 5/8" meter consuming 15 ccf per month. We note that by the end of FY 10/11, the proposed rate still places the City in the middle of the surveyed communities. All surveyed community rates are current as of January 2007. As neighboring cities make adjustments to their rates in the coming years, we anticipate that the proposed rates for the City will shift towards the lower end of the spectrum.

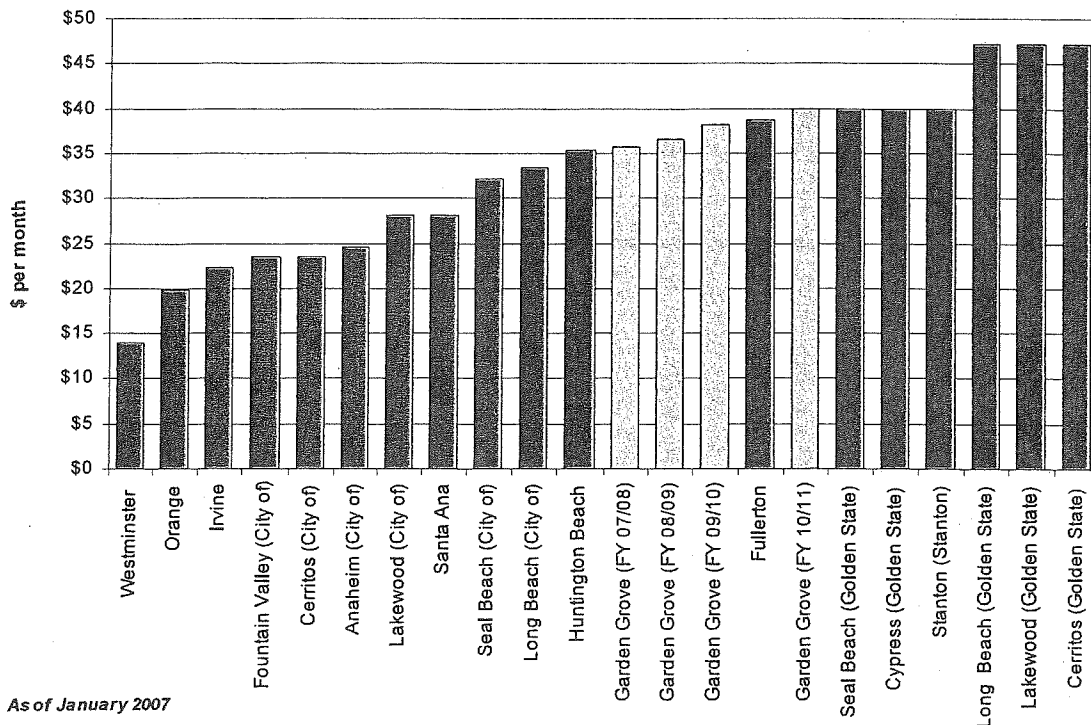


**Table 19  
Proposed Rates Comparison**

City	Fixed	Variable	Total	Notes
Westminster	\$5.35	\$8.68	\$14.03	Water Rates - Effective 8/9/04
Orange	\$7.93	\$11.91	\$19.84	Water Rates - Effective 4/1/05
Irvine	\$6.75	\$15.58	\$22.33	Water Rates - Effective 07/24/2006
Fountain Valley (City of)	\$0.00	\$23.55	\$23.55	Water Rates - Effective 7/1/04
Cerritos (City of)	\$4.38	\$19.20	\$23.58	Water Rates - Effective 7/1/05
Anaheim (City of)	\$5.00	\$19.50	\$24.50	Water Rates - Effective 8/1/06
Lakewood (City of)	\$3.38	\$24.64	\$28.02	Water Rates - Effective 7/01/04
Santa Ana	\$0.00	\$28.07	\$28.07	Water Rates - Effective 7/1/06
Seal Beach (City of)	\$6.05	\$26.16	\$32.21	Water Rates - Effective 7/1/05
Long Beach (City of)	\$8.91	\$24.40	\$33.31	Water Rates - Effective 11/01/06
Huntington Beach	\$8.16	\$27.21	\$35.37	Water Rates - Effective 10/1/06
Garden Grove (FY 07/08)	\$5.61	\$30.13	\$35.74	Proposed Rates - Effective 07/01/2007
Garden Grove (FY 08/09)	\$5.17	\$31.43	\$36.60	Proposed Rates - Effective 07/01/2008
Garden Grove (FY 09/10)	\$5.42	\$32.80	\$38.22	Proposed Rates - Effective 07/01/2009
Fullerton	\$5.12	\$33.56	\$38.68	Water Rates - Effective 9/19/05
Garden Grove (FY 10/11)	\$5.70	\$34.24	\$39.93	Proposed Rates - Effective 07/01/2010
Seal Beach (Golden State)	\$14.20	\$25.74	\$39.94	Water Rates - Effective 1/19/06
Cypress (Golden State)	\$14.20	\$25.74	\$39.94	Water Rates - Effective 1/19/06
Stanton	\$14.20	\$25.74	\$39.94	Water Rates - Effective 1/19/06
Long Beach (Golden State)	\$15.75	\$31.40	\$47.15	Water Rates - Effective 4/04/06
Lakewood (Golden State)	\$15.75	\$31.40	\$47.15	Water Rates - Effective 4/04/06
Cerritos (Golden State)	\$15.75	\$31.40	\$47.15	Water Rates - Effective 4/04/06

Note: Garden Grove charges include \$1.38/bi-monthly capital charge and \$0.27/ccf MWD surcharge.

**Figure 1  
Proposed Rates Comparison**



As of January 2007

**CONTACT INFORMATION:**

*For more information, please contact:*

*Ann Bui*

*Black & Veatch*

*800 Wilshire Boulevard, Suite 600*

*Los Angeles, CA 90017*

*Tel: 213-312-3300*

*Fax: 213-312-3399*

*Email: [buiat@bv.com](mailto:buiat@bv.com)*

*[www.bv.com](http://www.bv.com)*



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