

Council Meeting of
February 15, 2011

Honorable Mayor and Members
of the City Council
City Hall
Torrance, California

Members of the Council:

SUBJECT: Public Works and Water Commission – Public Hearing and adoption of RESOLUTION approving a series of annual water rate increases and related adjustments in water service charges for the Torrance Municipal Water service area for the 5 year period 2011 through 2015. Expenditure: Not applicable

RECOMMENDATION

Recommendation of the Water Commission and the Public Works Director that the City Council:

1. Adopt a **RESOLUTION** to approve a series of water rate and service charge adjustments for the 5 year period of 2011 through 2015 in the Torrance Municipal Water service area. Specifically, the Resolution authorizes increases in City water rates; adjustments in water service charges; a new conservation based tiered rate structure; and a change in the method for calculating Metropolitan Water District and other water cost pass-through adjustments to offset for higher wholesale water costs; and
2. Maintain the low income discount rate for senior and disabled customers; and
3. Approve March 1, 2011 as the effective date for water rate and service charge increases for 2011.

Funding

Not applicable.

BACKGROUND

Approximately 80% of the City of Torrance is provided water utility service through Torrance Municipal Water (TMW). There have been no rate increases in the TMW service in more than 15 years. During this period rate increases have occurred solely for Metropolitan Water District (MWD) and other water pass-through adjustments due to increases to wholesale imported water costs. To develop an assessment of municipal rate requirements for the next 10 years, the City retained the services of an outside utility rate expert, Raftelis Financial Consultants (RFC). The draft rate study with findings and recommendations was completed in November 2010 and is attached for reference.

On December 14, 2010, the City Council approved a request to hold a public hearing on a proposed series of annual increases in municipal water rates and service charges over the 5 year period of 2011 through 2015. The proposed rate increases will enable TMW to implement needed water system infrastructure replacements, meet new regulatory mandates, and fund the development of local water resources. The development of local water resources will help stabilize long term water costs impacted by future rate increases in imported water purchases and will enhance overall water supply reliability for the community.

In late December, a public notice with a notification packet was mailed to all TMW customers in accordance with modified Proposition 218 requirements. The packet included the basis for the rate increase, an explanation of the 218 process and a protest option with a protest form. This information was also posted on the City's website. As of the preparation date of this item, 1,731 protest responses have been received by the City Clerk's office. In accordance with Proposition 218, a protest response equaling 50% + 1 of the total TMW customers by the end of the public hearing by the affected TMW customers would prohibit the rate increase. In this case, the number of protest responses needed would be approximately 13,200. A notice regarding the February 15, 2011 public hearing date was published in the Daily Breeze on January 31 and February 10, 2011.

ANALYSIS

TMW is generating insufficient revenues at the current rate structure to implement needed capital improvements and develop local water resources. Due to the lack of funding, TMW has deferred the replacement of old and deteriorated infrastructure for the past 3 years. The municipal service area consists of over 300 miles of water mains, most of which are 40-50 years old and must be systematically replaced to ensure service reliability and system integrity. A water main replacement program reduces water main breaks and water outages

In addition, TMW needs to fund the construction of proposed new groundwater wells. These new wells will enhance water supply reliability and stabilize rates in the future by reducing expensive purchases of imported water.

Water Rate Study

Raftelis Consultants, in conjunction with staff, developed a multi-year water rate study and considered over 25 alternative scenarios to meet the following criteria:

- Provide adequate revenues to meet operating/maintenance needs, fund needed system infrastructure replacements/improvements, and provide capital for local water production.
- Meet cost of service requirements under Proposition 218 with an equitable allocation of cost and rate burden to all customers.

- Establish a conservation based tiered rate structure that promotes ongoing conservation.
- Ensure TMW's competitive position by continuing to maintain rates that are among lowest rates in the area.

Water Rate Structure

TMW's current rate structure includes both a quantity (commodity) charge for water usage and a fixed monthly meter service (readiness-to-serve) charge based on meter size. The study performed by RFC indicates that the City should retain this type of rate structure. The cost of service analysis portion of the study indicates that the meter service charge for most meters, except the smallest, should be reduced. The attached rate schedule shows the proposed rates for 2011.

Currently, TMW has a uniform quantity rate (same rate for usage) regardless of consumption. To encourage ongoing and to enhance conservation efforts to help the City meet new mandated urban water reduction targets, a conservation-based tiered rate structure is recommended with 4 tiers for single family customers and 2 tiers for all other standard customers. Similar conservation tiered rates are in effect in most water agencies in California and this conforms to best management conservation practices. The current low income discount for senior and disabled customers will be continued with a subsidy derived from sales of wholesale water supplies, which is consistent with Proposition 218 guidelines.

Water Rate Findings and Proposed Adjustments

As part of a Business Plan, TMW has developed a 20 year capital improvement program (CIP), which indicates that an investment of approximately \$4 million annually is required for infrastructure replacement to maintain reliable operational reliability and system integrity. Since this is an ongoing perpetual requirement, funding would be on a pay-as-you-go (paygo) basis. In addition, the proposed construction of new groundwater wells is estimated at approximately \$22.5 million. Due to the large capital expenditure and long life cycle (40+ years) of the facilities, a bond issue may be the most appropriate means to fund this project.

The new wells will enable TMW to reduce purchases of expensive imported water from the MWD with local supplies that are currently about one half the cost of MWD water. The wells would provide diversification of our water portfolio mix to reduce our current reliance on MWD water and provide greater local control over the cost of water. The water cost savings derived from additional groundwater wells will help mitigate future rate increases.

To assess rate levels, revenue requirements were projected over the 5 year period of 2011 through 2015. The proposed rate adjustment consists of 2 elements: an internal rate increase for revenue requirements other than water costs, and a pass-through adjustment to offset for wholesale water costs. The pass-through adjustment is

a continuation of the current process, and the only change is that the adjustment will be calculated based on a rate model rather than on a formula.

The proposed overall revenue requirement/rate increases over the next 5 years are as follows:

<u>Effective Date</u>	<u>Internal Overall Average Revenue Requirement Increase^(a)</u>	<u>Pass-Through Adjustment^(c)</u>
March, 2011	6.5%	Approx. 4%
January, 2012	6.5%	Per rate model
January, 2013 through January, 2015	CPI ^(b) each year	Per rate model

Note: (a) Composite increase to both quantity (commodity) and meter service charge. Impacts on individual customers will vary depending on actual use.

(b) CPI indicates Consumer Price Index for Los Angeles Region Projected at 2.5% in rate model.

(c) Pass through adjusted for change in annual water cost in accordance with updated rate model.

The impact of the proposed rate increase will vary with individual customers depending on usage. The monthly water bills for some typical household and business customers with the proposed new rate in 2011 including are as follows:

Household

Meter Size	Type	Monthly Usage ccf ^(a)	Current Monthly Bill	With Proposed New Rate	Increase/ (Decrease)	% Increase/ (Decrease)
¾"	Single Family	8	\$25.68	\$24.84	\$(0.84)	(3.3)
		14 ^(b)	\$41.61	\$43.08	\$1.47	3.5
		24	\$68.16	\$80.67	\$12.51	18.3
¾"	Small Business	10	\$31.09	\$29.75	\$(1.34)	(4.3)
2"	Small Multi-Family Residential	50	\$168.03	\$165.34	\$(2.69)	(1.6)
2"	Medium Commercial	80	\$247.68	\$258.01	\$10.33	4.2
4"	Commercial Industrial	500	\$1,438.58	\$1,598.92	\$160.34	11.1

Note: (a) Most customers billed every two months except for largest users. Usage is measured in hundred cubic feet (ccf), which equals 748 gallons

(b) 14 ccf is system wide average usage for single family residential

In addition to water rates, the service charge for private fire protection will be adjusted to conform to cost of service. A fire protection charge is levied to customers that require a dedicated fire protection meter to their premises. Almost all of these customers are commercial or institutional establishments. The current monthly charge will be reduced in accordance with the cost of service analysis performed in the rate study.

Water Commission Consideration

The Water Commission considered this matter at their regular meeting on October 21, 2010 and November 17, 2010. After discussion and careful deliberation of all the issues, the Water Commission took a position supporting the finding of the rate study and the staff proposal regarding the 5 year rate and funding plan. Therefore, the Water Commission's unanimously recommends that the City Council approve the 5 year rate proposal as delineated in this item and accompanying implementation resolution.

Respectfully Submitted

WATER COMMISSION

Charles Michel Deemer

Charles Deemer, Chair

ROBERT J. BESTE
Public Works Director

Charles J Schaich
By: Charles J. Schaich
Senior Administrative Analyst

CONCUR:

Jack van der Linden

Jack van der Linden
Deputy Public Works Director

Robert J. Beste

Robert J. Beste
Public Works Director

NOTED:

LeRoy J. Jackson

LeRoy J. Jackson
City Manager

- Attachments:
- A. Summary of Proposed Rates for FY 2011
 - B. Resolution Setting Rates and Service Charges
 - C. Draft Rate Study Report
 - D. Notice of Public Hearing published in Daily Breeze on 1-31-11 and 2-10-11
 - E. Public Notification mailed to customers In December 2010

Proposed 2011 Rates and Service Charges Effective March 1, 2011
Water Rate Schedule

Meter Size	Monthly Meter Service Charge Current	Meter Size	Monthly Meter Service Charge Effective 3-1-11
3/4"	\$ 4.44	3/4"	\$ 5.25
1"	\$ 11.11	1"	\$ 7.10
1-1/2"	\$ 22.22	1-1/2"	\$ 11.73
2"	\$ 35.28	2"	\$ 17.29
3"	\$ 66.65	3"	\$ 34.89
4"	\$ 111.08	4"	\$ 60.82
6"	\$ 222.16	6"	\$ 132.12
8"	\$ 355.45	8"	\$ 224.73
10"	\$ 510.96	10"	\$ 354.38
12"	\$ 955.27	12"	\$ 465.51
14"	\$ 1,300.23	14"	\$ 697.02
Quantity Rate Charge	Current Quantity Rate Per ccf	New Conservation Tiered Rate Structure	New Quantity Tiered Rate Per ccf
	<u>Current Uniform Rate</u>	<u>Quantity Usage Block per Month</u>	<u>Quantity Charge by Tier</u>
Single Family Customer	\$ 2.655	Tier 1 0-8 ccf	\$ 2.45
		Tier 2 9-14 ccf	\$ 3.04
		Tier 3 15-24 ccf	\$ 3.76
		Tier 4 25 + ccf	\$ 4.64
Other Standard Customers	\$ 2.655	Tier 1 0-10 ccf	\$ 2.45
		Tier 2 11 + ccf	\$ 3.09
Low Income Senior And Disabled	\$ 2.655	Tier 1 0-8 ccf	\$ 2.09
		Tier 2 9-14 ccf	\$ 2.68
		Tier 3 5-24 ccf	\$ 3.40
		Tier 4 25 + ccf	\$ 4.28

Note: Each customer pays a monthly fixed charge known as a "Meter Service Charge" based on meter size and a variable charge based on usage known as a "Quantity Charge", with usage billed in hundred cubic feet or ccf (each ccf equals 748 gallons). Most customers, except for the largest users are billed every two months.

Private Fire Protection Service Charge

Fire Meter Size	Current Monthly Charge	Fire Meter Size	New Monthly Charge
2"	\$ 4.44	3/4"	\$ 5.25
3"	\$ 11.11	1"	\$ 7.10
4"	\$ 22.22	1-1/2"	\$ 11.73
6"	\$ 35.28	2"	\$ 17.29
8"	\$ 66.65	3"	\$ 34.89
10"	\$ 111.08	4"	\$ 60.82
12"	\$ 222.16	6"	\$ 132.12

Note: Fire Protection Service Charge applies to customers with dedicated Fire Meter Service,

RESOLUTION NO. 2011-_____**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF TORRANCE ADOPTING A REVISED SCHEDULE OF RATES AND CHARGES FOR WATER SERVICE IN THE TORRANCE MUNICIPAL WATER SERVICE AREA**

WHEREAS, the City of Torrance provides water service to approximately 80% of the area of the City under the aegis of Torrance Municipal Water; and

WHEREAS, Pursuant to Section 76.2.7 of the Torrance Municipal Code, the City Council of the City of Torrance has the authority to set and collect rates and charges for water services for the area served by Torrance Municipal Water; and

WHEREAS, the City Council has previously set February 15, 2011 as the date for a Public Hearing for consideration of a revised schedule of water rates and charges (including automatic adjustments to become effective each year through 2015) for the Torrance Municipal Water service area; and

WHEREAS, notice of the February 15, 2011 public hearing (the "Hearing"), and of the proposed schedule of rates and charges, was mailed to each Torrance Municipal Water customer as required by the state constitution; and

WHEREAS, such mailing was completed on December 27, 2010; and

WHEREAS, a protest form was mailed to each customer along with the notice; and

WHEREAS, at the Hearing, the City Council heard and considered all oral and written testimony and protests; and

WHEREAS, the City Council desires to approve the proposed schedule of rates and charges.

THE CITY COUNCIL OF THE CITY OF TORRANCE, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:

SECTION 1. EFFECTIVE DATE.

The rates and charges set forth in this Resolution shall take effect on March 1, 2011.

SECTION 2. SCHEDULE OF RATES AND CHARGES**A. Rate Structure**

Each customer is charged both a monthly base charge known as a "Meter Service Charge" and a "Commodity Charge" based on the amount of water consumed during the billing service period.

B. Meter Service Charge

Meter Size	Monthly Meter Service Charge	Bi Monthly Meter Service Charge
3/4"	\$5.25	\$10.50
1"	\$7.10	\$14.20
1 1/2"	\$11.73	\$23.46
2"	\$17.29	\$34.58
3"	\$34.89	\$69.78
4"	\$60.82	\$121.64
6"	\$132.12	\$264.24
8"	\$224.73	\$449.46
10"	\$354.38	\$708.76
12"	\$465.51	\$931.02
14"	\$697.02	\$1,394.04

C. Commodity Charge

	TIER	Monthly Usage Block (ccf*)	Bi Monthly Usage Block (ccf)	Internal Rate Component \$/ccf	Pass Through Component \$/ccf	Total Commodity Charge \$/ccf
Single family residential (SFR)	1	First 8 ccf	First 16 ccf	\$2.33	\$0.12	\$2.45
	2	9-14 ccf	18- 28 ccf	\$2.92	\$0.12	\$3.04
	3	15-24 ccf	30 -48 ccf	\$3.64	\$0.12	\$3.76
	4	25 ccf and above	49 ccf and above	\$4.52	\$0.12	\$4.64
All other customers	1	First 10 ccf	First 20 ccf	\$2.33	\$0.12	\$2.45
	2	11 ccf and above	21 ccf and above	\$2.97	\$0.12	\$3.09
Low income senior and disabled	1	First 8 ccf	First 16 ccf	\$1.97	\$0.12	\$2.09
	2	9-14 ccf	18-26 ccf	\$2.56	\$0.12	\$2.68
	3	15-24 ccf	30-48 ccf	\$3.28	\$0.12	\$3.40
	4	25 ccf and above	49 ccf and above	\$4.16	\$0.12	\$4.28

SECTION 3. PRIVATE FIRE PROTECTION

A. Fireline Charge

Customers that require a fire protection service are charged a private fire protection service charge (also known as a fireline charge) based on the size of the fire protection service:

Fire Meter Size	Monthly Service Charge	Bi Monthly Service Charge
2"	\$5.06	\$10.12
3"	\$10.01	\$20.02
4"	\$18.53	\$37.06
6"	\$49.14	\$98.28
8"	\$101.92	\$202.40
10"	\$181.31	\$362.62
12"	\$291.35	\$582.70

B. Quantity Rates

Any water usage recorded on the fire protection service is billed in accordance with the rate schedule for "All Other Customers" in Section 2(C) of this Resolution.

SECTION 4. CONTRACTUAL RATES

Water rates for customers with contractual rates that are currently in effect are excluded from the provisions of this Resolution.

SECTION 5. RATE ADJUSTMENTS

Each rate set forth in Sections 2 and 3 of this Resolution shall automatically adjust effective January 1 of each year from 2012 through 2015 as follows:

A. Pass Through Component

The portion of the Commodity Charge identified as "Pass Through Component" shall be adjusted to reflect the actual change in the wholesale cost of water purchased by the City.

B. All Other Rates

All other rates, including the "Internal Rate Component" of the Commodity Charge shall be adjusted by 6.5% in 2012, and by the change in the consumer price index for all urban consumers for the Los Angeles/Riverside/Orange County Area for each year 2013 through 2015.

Notice of these adjustments shall be given to customers pursuant to Section 53756(d) of the California Government Code at least 30 days prior to their effective date.

The rates effective January 1, 2015 shall continue in effect until amended or repealed by action of the City Council.

SECTION 6. TEMPORARY WATER SERVICE

A. Minimum Charge

A minimum charge equal to the monthly meter service charge (Readiness-to-Serve) for a 3" meter shall apply to all applicants for temporary water service regardless whether a meter is actually set or a temporary permit is issued. This charge will not be prorated, except in cases where continuous usage exceeds one month.

B. Quantity Rates (Commodity)

In addition to the minimum charge, all applicants will be billed for the quantity of water used a prevailing quantity (commodity) rates.

C. Deposit for Temporary Meter

For temporary water service requiring the setting of a temporary meter, the applicant shall make a deposit of \$ 1,000 for said meter, which shall be refunded to the applicant once the meter is returned to the City. Upon completion of the temporary use period, the meter shall be returned to the City in good condition. In the event the meter is not returned the deposit will be forfeited. Any damage to the meter will be paid by the applicant and deducted from the deposit.

D. Non-metered Service

The policy of the City shall be to meter all temporary water usage, if possible. In the event such metering proves impracticable, a method shall be employed by the City to estimate usage based on the cubic footage of the ditch or area flooded, the area of ground sprinkled, the size and number of loads taken by tank trucks, or other reasonable method for calculating the amount of water used.

SECTION 7. MISCELLANEOUS CHARGES

The pumping service charge and fire flow service charges are indexed to the annual change in the Consumer Price Index for Urban Wage Earners (CPI-W) for the Los Angeles/Riverside/Orange County. Other service fees for start charge, reconnection charge, installation charges for small meters (3/4", 1" and 1 1/2"), potholing charge and meter accuracy test are incorporated into City Resolution 2009-66 and are not subject to this Resolution.

A. Pumping Service Charge

When water is furnished to a property at an elevation higher than can be supplied by gravity flow from the water source or reservoir that supplies water to said property, a pumping charge, as shown in the below chart, shall be added to the customer's water bill for energy and other related costs.

Meter Size	Monthly Service Charge	Bi Monthly Service Charge
3/4"	\$3.08	\$6.16
1"	\$7.64	\$15.28
1 1/2"	\$15.30	\$30.60
2"	\$24.48	\$48.96
3"	\$48.96	\$97.92
4"	\$76.49	\$152.98
6"	\$152.99	\$305.98
8"	\$244.78	\$489.56
10"	\$351.19	\$702.38
12"	\$657.85	\$1,315.70

B. Fire Flow Service Charge

A \$150 charge per service call shall apply to parties requesting the performance of a fire flow test. This fee is payable in advance of performance of the fire flow test.

C. Late Payment Penalty

A late payment charge shall be levied on all outstanding account balances, which are 30 days or more in arrears from the mailing date of the utility bill. The charge shall be equal to 3% of the unpaid balance 30 or more days in arrears.

D. Engineering, Inspection and Overhead Service Charge (EIO)

A service charge shall be levied to recover engineering, inspection and overhead costs for all water system facilities constructed at developer expense. The fee shall be equal to 22.5% of the actual construction cost of said facilities. The developer, or his designee, shall furnish a letter documenting the actual construction cost, and the City shall have the right to verify said costs. The fee is payable promptly after receipt of a billing rendered by the City.

E. Installation Charge for New Service Connection 2" and Larger

Upon application for new service connection 2" or larger, the applicant shall be required to make a deposit to the City for the total estimated cost of said installation, including the engineering, inspection and overhead charge.

- 1) The total cost of the new service connection shall consist of all actual Material and installation/construction costs plus a charge of 22.5% of said installation cost for engineering, inspection and overhead.
- 2) When said installation is complete, the total cost shall be determined. If said cost is less than the amount of the deposit, the excess shall promptly be refunded. If said cost is greater than the amount deposited, applicant shall be required to pay the difference promptly.

SECTION 8. RECYCLED WATER

Recycled water rates for non contract customers are established by City Resolution 99-103 and are unaffected by this Resolution.

SECTION 9. PRIOR ACTIONS SUPERSEDED

This Resolution supersedes prior resolutions of the City Council to the extent they set rates inconsistent with those set forth herein.

SECTION 10. ADMINISTRATION

It shall be the duty and function of the Finance Director to administer this Resolution.

SECTION 11. FINDINGS

The City Council hereby finds:

- A. That written protests against the rates established in Sections 2-5 of this Resolution have not been received with respect to a majority of affected customers.
- B. That revenues derived from those rates will not exceed the funds required to provide water service.
- C. That revenues derived from those rates will not be used for any purpose other than providing water service.
- D. That the amounts of those rates imposed upon any parcel or person as an incident of property ownership will not exceed the proportional cost of the service attributable to the parcel.
- E. That those rates will not be imposed unless water service is actually used by, or immediately available to, the customer.
- F. That those rates are imposed for water service and not for a general governmental service such as police, fire, ambulance or library services.

G. That Section 7 constitutes a restatement of existing rates.

INTRODUCED, APPROVED AND ADOPTED this day of 2011.

Mayor Frank Scotto

APPROVED AS TO FORM:
JOHN L. FELLOWS III, City Attorney

ATTEST:

by _____
Patrick Q. Sullivan, Assistant City Attorney

Sue Herbers, City Clerk



CITY OF
TORRANCE

Water Cost of Service and Recycled Water Rate Study



RAFTELIS FINANCIAL
CONSULTANTS, INC.

201 S. Lake Blvd, Suite 301
Pasadena • CA • 91101

■ Phone 626•583•1894
Fax 626•583•1411

■ www.raftelis.com

January 25, 2011

Mr. Robert J. Beste
Director of Public Works
City of Torrance
20500 Madrona Ave
Torrance, CA 90503

Dear Mr. Beste,

Raftelis Financial Consultants Inc. (RFC) is pleased to present this report on the water cost of service and recycled rate study (Study) to Torrance Municipal Water (TMW) and the City of Torrance (City). The Study involved a comprehensive review of TMW's financial plan and rate structures. In addition, the Study included the participation of the City's Water Commission and staff in the design of the rates.

The assumptions and recommendations are described in detail in this report. The rate structure for single family residence has been changed from uniform to four-tiered rate structure and for other customers to a two-tier rate structure to encourage conservation. The low income senior and disabled discount rate structure has been retained. The impacts on most single family residential (SFR) customers, particularly SFR customers using the system average for SFR of 14 hundred cubic feet or less per month, are relatively small. All the assumptions, including the increase in O&M costs, CIP expenses, groundwater production, future sales projections, etc are all factored into the rates. The various tables describing the calculation of the rates are included.

It has been a pleasure working with you and we wish to express our thanks to Mr. Chuck Schaich and other staff members of the City for the support and cooperation extended throughout the Study. We would also like to acknowledge the participation of and input provided by the City's Commission. If you have any questions, please call me at (626) 583-1894.

Sincerely,

A handwritten signature in black ink, appearing to read 'Sudhir Pardiwala', is written over a faint circular stamp.

Sudhir Pardiwala
Project Manager

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SECTION 1 – EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The City's last rate study was done in 2001, and the rates and rate structure have not been modified for more than 15 years, with the exception of the "pass through water rates" to reflect the increasing purchased water costs. Currently, TMW's revenues are primarily derived from water rates. The costs of water purchased from Metropolitan Water District of Southern California (MWD) have increased significantly over the last few years and are projected to increase significantly in the future. To reduce dependence on MWD and lower purchased water costs, the City is anticipating significant capital improvements in the near future to develop new wells, in addition to ongoing system infrastructure replacements and rehabilitation projects including water main and other water system improvements. Taking these factors into account and to develop a rate structure that promotes conservation, the City engaged Raftelis Financial Consultants, Inc. (RFC) to develop a financial plan and perform a comprehensive Water Rate and Capital Funding Study that meets Proposition 218 requirements, including cost of service criteria. The City engaged RFC to develop a financial plan and perform a water rate and cost of service study that accomplishes the following goals:

- Ensure revenue sufficiency (known as revenue requirements) to meet operating and capital expenses;
- Determine the costs to provide service to the City's customers;
- Determine water rates that conform to cost of service principles;
- Develop a water rate structure to promote conservation;
- Develop a funding plan for water resource and capital improvement implementation; and
- Develop sustainable rates that meet all revenue requirements, provide long term rate stability, maintain the City's competitive position and adhere to Proposition 218 guidelines.

The remainder of the Executive Summary provides a brief description of the water system, revenue requirements, cost of service principles, and the proposed water rates. It also includes the recycled water system and its proposed rates.

BACKGROUND

The City of Torrance has owned and operated Torrance Municipal Water (TMW) since its inception in 1934. TMWD's water service area is approximately 10,350 acres and comprises about 80 percent of the City. The California Water Service Company provides domestic water service to the remainder of the City. The City is now over 99 percent built out, so water demand is relatively stable. TMWD's water supply consists of purchased potable water from the MWD, local groundwater supplies, desalinated water for groundwater desalter, and purchased recycled water from the West Basin Municipal Water District (WBMWD). According to the City's 2005 Urban Water Management Plan, 65 percent of TMW's water supply is purchased water from MWD, 23 percent is purchased recycled water from WBMWD, four percent from groundwater and eight percent from the desalter. The distribution of water supply will change in future years due to the development of new wells increasing groundwater production and reducing purchased water costs. TMW's customer base mainly includes residential, commercial, institutional and industrial users, with Exxon-Mobil being the largest industrial user. The City, along with

SECTION 1 – EXECUTIVE SUMMARY

numerous agencies in California, is faced with challenges resulting from problems associated with long term water shortages and increasing water and power purchase costs.

CURRENT RATE STRUCTURE

Currently, the City's water rate structure includes a monthly service charge based on meter size and a uniform quantity water rate. City policy provides for a discount to low income seniors and disabled customers. The City passes through the incremental costs of purchasing water to its retail customers, so the quantity rate increases each year to reflect the increases in the purchased water costs. Table ES-1 shows the current water rate structure.

TABLE ES - 1– CURRENT WATER RATE STRUCTURE

Monthly Service Charge			
<u>Meter Size</u>		<u>Rates</u>	
3/4"		\$	4.44
1"		\$	11.11
1-1/2"		\$	22.22
2"		\$	35.28
3"		\$	66.65
4"		\$	111.08
6"		\$	222.16
8"		\$	355.45
10"		\$	510.96
12"		\$	955.27
14"		\$	1,300.23
			Uniform (per CCF)
	Effective Date		Sep-09
	Quantity Rate for customers billed at standard rate	\$	2.655
	Quantity Rate for low income seniors and permanently disabled	\$	2.295
	Quantity Rate for City of Torrance Accounts	\$	2.655

REVIEW OF REVENUE REQUIREMENTS

Revenue requirements include annual operating and maintenance (O&M) costs, capital expenditures, and debt service payments. The City's principal source of operating revenues is revenue from rates.

The City provided a number of forward looking assumptions in order to facilitate projections and assess the practicality of rate adjustments. Projections beyond five years generally are less reliable. This is a reasonable timeframe to assist management, policymakers, investors, and bond rating agencies, as well as the public or other agents that need to evaluate the financial position or revenue requirements of the water utility. Therefore, RFC has provided five year forecast data in this report.

The City estimates overall annual water O&M expenditures, excluding depreciation to have a minor reduction from approximately \$22.7 to \$22.0 million during the five-year period FY 2011 through FY 2015 due to the decrease in purchased water from the result of the increase in

SECTION 1 – EXECUTIVE SUMMARY

groundwater production. The City is expecting to construct new wells in the coming years, which will cost \$22.5 million. The City anticipates issuing \$22.5 million in new debts in FY 2012 to fund the new well development, in order to diversify its water mix to enhance supply reliability and minimize rate impacts in the future. With the increasing capital expenses and new debt payments, the City will have an operating deficit in FY 2012 without any rate adjustments.

Economic Analysis for New Wells

The construction of new wells is expected to start in FY 2012 and be completed by FY 2014. The new wells development project will cost about \$22.5 million and the City will fund this project through issuance of new debt. This project will enable the City fully utilize the current water rights and increase groundwater production. The City anticipates the new wells will lower future annual water purchase costs. RFC has conducted an economic analysis. The analysis shows that the project is profitable and will help the City to achieve the goal of reducing water costs in the long run while providing the City a more reliable source of supply. The return on investment for this project is 17 percent, the payback time is 13 years and the benefit/cost (B/C) ratio is five. The payback time means it takes 13 years for the return on the investment of the wells to repay the sum of the original investment. The positive benefit/cost ratio means that the overall benefit is more than the cost of the project. The B/C ratio greater than one is considered economically justified. The higher the B/C ratio, the more beneficial the project is.

ROI	17%
Payback Time (years)	13
Benefit Cost Ratio	5

Revenue Adjustments

Revenue requirements for the five-year planning period were projected from the City's FY 2011 budget information. The projections showed that the City needs rate adjustments over the next five years. The City has indicated that the rate increase can become effective as early as March 2011. As a result, the first rate adjustment will be implemented in March 2011. The subsequent rate increases are anticipated to become effective January of each year. RFC has proposed the following adjustments.

March, 2011	6.5%
January, 2012	6.5%
January 2013 to January 2015	CPI* each year

*CPI indicates Los Angeles Region Consumer Price Index

COST OF SERVICE

The total FY 2011 revenue requirement to be recovered from the City's users is around \$22.3 million, of which approximately \$21.7 million is operating costs and the remaining \$0.6 million is capital costs.

The cost of service allocations in this study are based on the Base-Extra Capacity method endorsed by the American Water Works Association (AWWA), a nationally recognized industry

SECTION 1 – EXECUTIVE SUMMARY

standard. Under the Base-Extra Capacity method, revenue requirements are allocated to different user classes proportionately to their use of the water system. Allocations are based on average day (Base) usage, maximum day (Max Day) usage, maximum hour peak (Max Hour) usage, meter services, billing and collection, and fire service. Details about the cost of service allocations are covered in later sections.

RECOMMENDATIONS AND PROPOSED CHANGES

This section of the Executive Summary outlines RFC's suggestions and recommendations that will enhance equity in the apportionment and recovery of costs. These changes include modifications to water rates and the reserve fund balances.

Recommended Rate Structure

RFC recommends that the City retains the use of a rate structure that includes both a fixed monthly service charge and a variable quantity or commodity rate.

Meter Service Charge (also known as Readiness to Serve Charge or RTS): We suggest that the City continues to utilize a monthly service charge varying with meter size. The service charge is composed of a fixed customer charge that is constant for all meters and a meter charge that varies with the capacity of the meter. The cost of service analysis results in an increase in the service charge for the smallest meter (¾ inch) and reduction in service charges for the other meters (1" through 14").

Commodity (Quantity) Rate: Because of the water supply situation the Metropolitan Water District (MWD) has imposed a mandatory cut back in consumption, known as Water Supply Allocation Plan (WSAP). The revenue requirements were developed assuming that the City's usage will decrease by one percent each year for all customer classes, except Mobil, starting FY 2011. The rates for the individual classes are described below and summarized on Table ES-2 on the following page.

Single Family Residences (SFR): In order to encourage conservation for single family residences, RFC recommends changing their current uniform rate structure to a four-tiered rate structure. The recommended **monthly tiers** and usage levels in each tier (modified for conservation) are:

First Tier: 0 – 8 hcf (46 percent of use and 27 percent of the bills fall within this block)

Second Tier: 9 – 14 hcf (27 percent of use and 34 percent of the bills fall within this block)

Third Tier: 15 – 24 hcf (19 percent of use and 30 percent of the bills fall within this block)

Fourth Tier: Over 24 hcf (8 percent of use and 9 percent of the bills fall within this block)

Low Income Customers (Seniors and Disabled): The City has developed a discount rate policy for low income senior and disabled customers by providing them a discount of \$0.36 per hcf. That discount will continue to be applied on the rates shown above. The City will recover this loss in revenue from revenue derived from its sale of wholesale water customer, which is not part of this study.

Standard Customers (All Other Customers): RFC recommends changing their current uniform rate structure to a two-tiered rate structure. Many small business customers fall into the

SECTION 1 – EXECUTIVE SUMMARY

first tier usage block. The recommended **monthly tiers** and usage levels in each tier (modified for conservation) are:

First Tier: 0 – 10 hcf (9 percent of use and 25 percent of the bills fall within this block)

Second Tier: Over 10 hcf (91 percent of use and 75 percent of the bills fall within this block)

City of Torrance Accounts: The City will eliminate the discount applied to the City of Torrance accounts. The water rates for these accounts will be the same as standard customers.

TABLE ES - 2– PROPOSED MONTHLY WATER RATE STRUCTURE

Monthly Service Charge Meter Size	Existing	Monthly Service Charge Meter Size	Proposed	Proposed	Proposed	Proposed	Proposed
	Nov 2009		03/01/2011	01/01/2012	01/01/2013	01/01/2014	01/01/2015
3/4"	\$ 4.44	3/4"	\$ 5.25	\$ 5.59	\$ 5.73	\$ 5.87	\$ 6.02
1"	\$ 11.11	1"	\$ 7.10	\$ 7.56	\$ 7.75	\$ 7.94	\$ 8.14
1-1/2"	\$ 22.22	1-1/2"	\$ 11.73	\$ 12.49	\$ 12.80	\$ 13.12	\$ 13.45
2"	\$ 35.28	2"	\$ 17.29	\$ 18.41	\$ 18.87	\$ 19.35	\$ 19.83
3"	\$ 66.65	3"	\$ 34.89	\$ 37.16	\$ 38.09	\$ 39.04	\$ 40.01
4"	\$ 111.08	4"	\$ 60.82	\$ 64.77	\$ 66.39	\$ 68.05	\$ 69.75
6"	\$ 222.16	6"	\$ 132.12	\$ 140.71	\$ 144.23	\$ 147.83	\$ 151.53
8"	\$ 355.45	8"	\$ 224.73	\$ 239.34	\$ 245.32	\$ 251.45	\$ 257.74
10"	\$ 510.96	10"	\$ 354.38	\$ 377.41	\$ 386.85	\$ 396.52	\$ 406.43
12"	\$ 955.27	12"	\$ 465.51	\$ 495.77	\$ 508.16	\$ 520.87	\$ 533.89
14"	\$ 1,300.23	14"	\$ 697.02	\$ 742.33	\$ 760.88	\$ 779.91	\$ 799.40
Quantity Rate (Uniform)		Quantity Rate					
Single Family Customers	\$ 2.655	0- 8 CCF	\$ 2.330	\$ 2.481	\$ 2.543	\$ 2.607	\$ 2.672
		9 - 14 CCF	\$ 2.920	\$ 3.110	\$ 3.188	\$ 3.267	\$ 3.349
		15 - 24 CCF	\$ 3.640	\$ 3.877	\$ 3.974	\$ 4.073	\$ 4.175
		25+ CCF	\$ 4.520	\$ 4.814	\$ 4.934	\$ 5.057	\$ 5.184
Other Customers	\$ 2.655	0- 10 CCF	\$ 2.330	\$ 2.481	\$ 2.543	\$ 2.607	\$ 2.672
		11+ CCF	\$ 2.970	\$ 3.163	\$ 3.242	\$ 3.323	\$ 3.406
City of Torrance	\$ 2.098	0- 10 CCF	\$ 1.773	\$ 1.888	\$ 1.935	\$ 1.984	\$ 2.033
		11+ CCF	\$ 2.413	\$ 2.570	\$ 2.634	\$ 2.700	\$ 2.767
Low Income Customers	\$ 2.295	0- 8 CCF	\$ 1.970	\$ 2.098	\$ 2.151	\$ 2.204	\$ 2.259
		9 - 14 CCF	\$ 2.560	\$ 2.726	\$ 2.795	\$ 2.864	\$ 2.936
		15 - 24 CCF	\$ 3.280	\$ 3.493	\$ 3.581	\$ 3.670	\$ 3.762
		25+ CCF	\$ 4.160	\$ 4.430	\$ 4.541	\$ 4.655	\$ 4.771

Reserves

Prudent business practice requires that the City maintains an operating reserve fund from rate revenues. These reserves may be used to meet ongoing operating expenses as well as unexpected increases in costs. The City currently has only one major reserve fund: an operating reserve fund. RFC recommends the City to set up a capital reserve fund which will help to meet anticipated capital expenses. RFC recommends that the City maintains 25 percent or 90 days of O&M expenses in its operating reserves to meet working capital requirements and unexpected increases in costs during the forecast years. Fifty percent of average routine Capital Improvement Projects (CIP) is recommended in the capital reserve fund.

SECTION 1 – EXECUTIVE SUMMARY

Pass Through Charges

The City will continue to implement pass through charges in order to pass through incremental costs of purchasing water to its retail customers. RFC recommends the City to change its pass through formula, by passing through the increase in purchased water cost from MWD, WRD pumping assessment charges and Desalter water costs. The pass through charges for the next five years is shown in Table ES – 3. The negative charges shown in FY 2013 and FY 2014 are due to the combination of the impacts caused by the decrease in total water sales, decrease in purchased water from MWD and the increase from lower cost groundwater production. The decrease in total water sales causes the lower pass through charges per unit from MWD than the previous year. Therefore, the City is recommended to adjust the water charges accordingly.

TABLE ES - 3 – PROPOSED PASS THROUGH CHARGES

	3/1/2011	1/1/2012	1/1/2013	1/1/2014	1/1/2015
Pass Thru Charges, \$/hcf	\$ 0.12	\$ 0.12	\$ (0.03)	\$ (0.04)	\$ 0.05

* Note the pass through for FY 2011 is an actual and for 2012 through 2015 is based on projection.

Table ES-4 shows the proposed monthly water rates, including the pass through charges.

TABLE ES - 4 – PROPOSED COMBINED MONTHLY WATER RATES

Monthly Service Charge Meter Size	Existing	Monthly Service Charge Meter Size	Proposed	Proposed	Proposed	Proposed	Proposed
	Nov 2009		03/01/2011	01/01/2012	01/01/2013	01/01/2014	01/01/2015
3/4"	\$ 4.44	3/4"	\$ 5.25	\$ 5.59	\$ 5.73	\$ 5.87	\$ 6.02
1"	\$ 11.11	1"	\$ 7.10	\$ 7.56	\$ 7.75	\$ 7.94	\$ 8.14
1-1/2"	\$ 22.22	1-1/2"	\$ 11.73	\$ 12.49	\$ 12.80	\$ 13.12	\$ 13.45
2"	\$ 35.28	2"	\$ 17.29	\$ 18.41	\$ 18.87	\$ 19.35	\$ 19.83
3"	\$ 66.65	3"	\$ 34.89	\$ 37.16	\$ 38.09	\$ 39.04	\$ 40.01
4"	\$ 111.08	4"	\$ 60.82	\$ 64.77	\$ 66.39	\$ 68.05	\$ 69.75
6"	\$ 222.16	6"	\$ 132.12	\$ 140.71	\$ 144.23	\$ 147.83	\$ 151.53
8"	\$ 355.45	8"	\$ 224.73	\$ 239.34	\$ 245.32	\$ 251.45	\$ 257.74
10"	\$ 510.96	10"	\$ 354.38	\$ 377.41	\$ 386.85	\$ 396.52	\$ 406.43
12"	\$ 955.27	12"	\$ 465.51	\$ 495.77	\$ 508.16	\$ 520.87	\$ 533.89
14"	\$ 1,300.23	14"	\$ 697.02	\$ 742.33	\$ 760.88	\$ 779.91	\$ 799.40
Quantity Rate (Uniform)		Quantity Rate					
Single Family Customers	\$ 2.655	0- 8 CCF	\$ 2.449	\$ 2.601	\$ 2.517	\$ 2.569	\$ 2.726
		9 - 14 CCF	\$ 3.039	\$ 3.230	\$ 3.162	\$ 3.229	\$ 3.403
		15 - 24 CCF	\$ 3.759	\$ 3.997	\$ 3.948	\$ 4.035	\$ 4.229
		25+ CCF	\$ 4.639	\$ 4.934	\$ 4.908	\$ 5.019	\$ 5.238
Other Customers	\$ 2.655	0- 10 CCF	\$ 2.449	\$ 2.601	\$ 2.517	\$ 2.569	\$ 2.726
		11+ CCF	\$ 3.089	\$ 3.283	\$ 3.216	\$ 3.285	\$ 3.460
City of Torrance	\$ 2.098	0- 10 CCF	\$ 1.892	\$ 2.008	\$ 1.909	\$ 1.946	\$ 2.087
		11+ CCF	\$ 2.532	\$ 2.690	\$ 2.608	\$ 2.662	\$ 2.821
Low Income Customers	\$ 2.295	0- 8 CCF	\$ 2.089	\$ 2.218	\$ 2.125	\$ 2.166	\$ 2.313
		9 - 14 CCF	\$ 2.679	\$ 2.846	\$ 2.769	\$ 2.826	\$ 2.990
		15 - 24 CCF	\$ 3.399	\$ 3.613	\$ 3.555	\$ 3.632	\$ 3.816
		25+ CCF	\$ 4.279	\$ 4.550	\$ 4.515	\$ 4.617	\$ 4.825

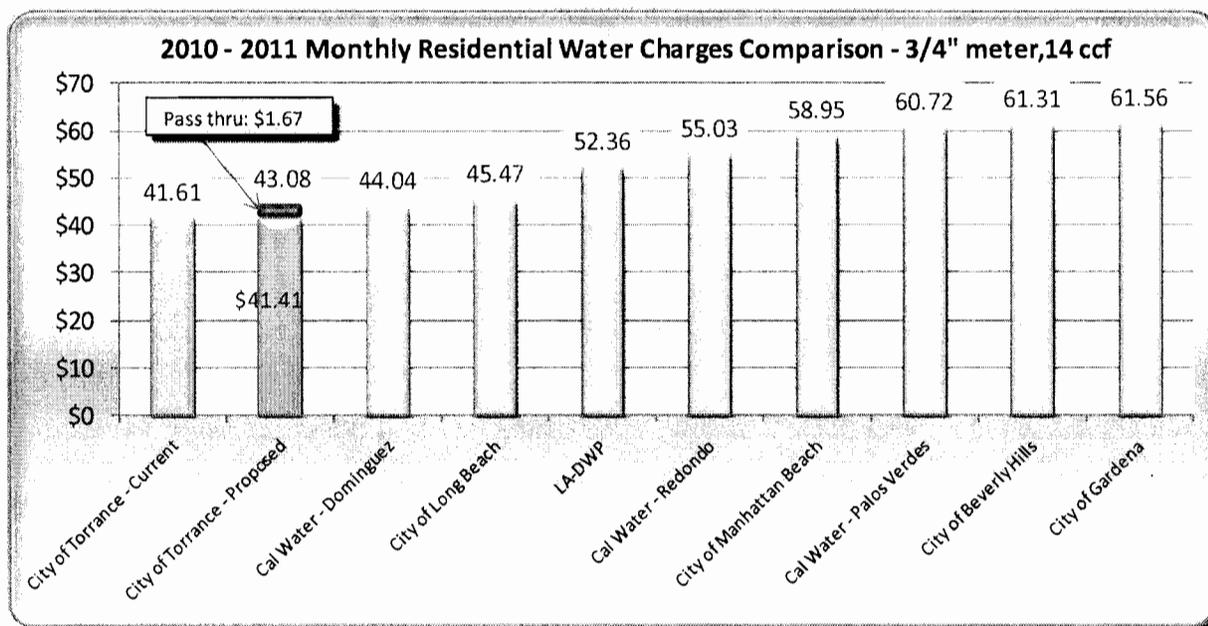
SECTION 1 – EXECUTIVE SUMMARY

RATE SURVEY

Comparing water rates with other representative communities can provide insights into a utility's pricing policies related to water service. Care should be taken, however, in drawing conclusions from such a comparison. High rates may not mean the utilities are operated and managed poorly. Many factors affect the level of costs and the pricing structure employed to recover those costs. Some of the most prevalent factors include geographic location, demand, water source, customer constituency, level of treatment, level of grant funding, age of system, level of general fund subsidization, and rate-setting methodology.

As shown in Figure ES-1, the City's existing monthly water charges are the lowest in a comparison with surrounding agencies. Even with the proposed increases, the City's charges are still the lowest compared to the neighboring utilities. Figure ES – 1 compares monthly bills under existing and proposed rates to other bills within the region, using regional charges that will be in effect at the time of the City's rates increase. In order to provide a meaningful comparison, all bills are calculated on a monthly basis for an SFR customer using a 3/4" meter and an assumed monthly usage of 14 hundred cubic feet which is the average usage for SFR customers in Torrance.

FIGURE ES - 1– SINGLE FAMILY RESIDENCE MONTHLY CHARGE COMPARISON



SECTION 1 – EXECUTIVE SUMMARY

RECYCLED WATER SYSTEM

Background

TMW purchases recycled water, about 23 percent of the City's total water supply, from the West Basin Municipal Water City (WBMWD). Exxon-Mobil is the largest recycled water customer consuming nearly 95 percent of TMWD's recycled water sales. The City executed agreements with Exxon-Mobil and WBMWD for recycled water service in 1995. The City is reviewing and planning to update the contract with Exxon-Mobil. The City is gradually increasing its recycled water sales to serve more landscape irrigation customers within the City. The growth in "greenbelt" customers are dependent on extension of recycled trunk pipelines constructed by WBMWD. At full development recycled supplies are expected to make up approximately 25% of TMW's water portfolio.

Rate Structure

Currently, the City's recycled water rate structure for other landscape customers (except Exxon-Mobil) includes a monthly service charge based on meter size and a uniform quantity water rate. The monthly service charges are the same as for potable water service. Commodity or quantity rates are set at 70 percent of the potable water rates. The monthly service charges under the proposed rates will be the same as for potable meters and the quantity rate is retained at the 70 percent of the potable rate. The current and proposed recycled water rate structure is shown in Table ES - 5.

TABLE ES - 5– CURRENT AND PROPOSED RECYCLED WATER RATE STRUCTURE

Monthly Service Charge			
<u>Meter Size</u>	<u>Rates</u>		
3/4"	\$	4.44	
1"	\$	11.11	
1-1/2"	\$	22.22	
2"	\$	35.28	
3"	\$	66.65	
4"	\$	111.08	
6"	\$	222.16	
8"	\$	355.45	
10"	\$	510.96	
12"	\$	955.27	
Effective Date	Sep-09	Proposed 2011	
Quantity Rate for customers billed at standard rate			
Uniform (per CCF)	\$	1.859	\$ 2.13

SECTION 2 – INTRODUCTION

INTRODUCTION

Torrance Municipal Water's (TMW) main water supply is imported water from MWD. The City has not increased its water rates (outside of the pass through resulting from increasing water purchase costs) since 1995. The water supply situation in Southern California has caused MWD to mandate water use restrictions and its rates to increase substantially. Increased capital and maintenance costs also cause the increase in MWD water rates. To enhance reliability and take advantage of lower cost local water, the City is planning to drill new wells and other capital improvement projects which will require funding. The combination of these factors and the fact that the City has not adjusted its rate structure in years prompted the City to engage Raftelis Financial Consultants, Inc. (RFC) to review water rates, develop a financial plan and to perform a water cost of service rate study.

BACKGROUND

The City of Torrance has owned and operated the TMW since its inception in 1934. TMW's water service area is approximately 10,350 acres and comprises about 80 percent of the City, a population of about 115,000. The California Water Service Company provides domestic water service to the remainder of the City. The City is now over 99 percent built out, so water demand is relatively stable. However, due to the long term water shortage situation facing California, the City wants to promote conservation. Recent State legislation under SBX 7 mandates that urban water agencies in the California reduce their usage by an additional 20% in rates by the year 2020 (known as the 2020 Plan).

TMWD's water supply consists of purchased potable water from the MWD, local groundwater supplies, desalter water and purchased recycled water from the WBMWD. According to the City's 2005 Urban Water Management Plan, 65 percent of TMWD's water supply is purchased water from MWD, 23 percent is purchased recycled water from WBMWD, four percent is groundwater and eight percent is from the desalter. Due to the development of new wells during the forecast period, the groundwater production is expected to increase; and the distribution of water supply will change in future years reducing overall water production costs. TMWD's customer base includes residential, commercial and industrial users. Exxon-Mobil is a major user in the City consuming 2,000 to 2,400 acre-feet of potable water each year. Exxon-Mobil's rates are governed by an agreement the City executed in 1994. The City is currently in the process of reviewing its water supply agreement with Exxon-Mobil.

SCOPE OF STUDY

The scope of this study entails developing a five-year financial plan and cost-based water user rates through a comprehensive cost of service and rate design study process. Figure 2-1 provides a graphical representation of the three major processes involved in this study. The three major processes are listed below and are executed by building a rate and financial planning model using a Microsoft Excel® (Rate Model):

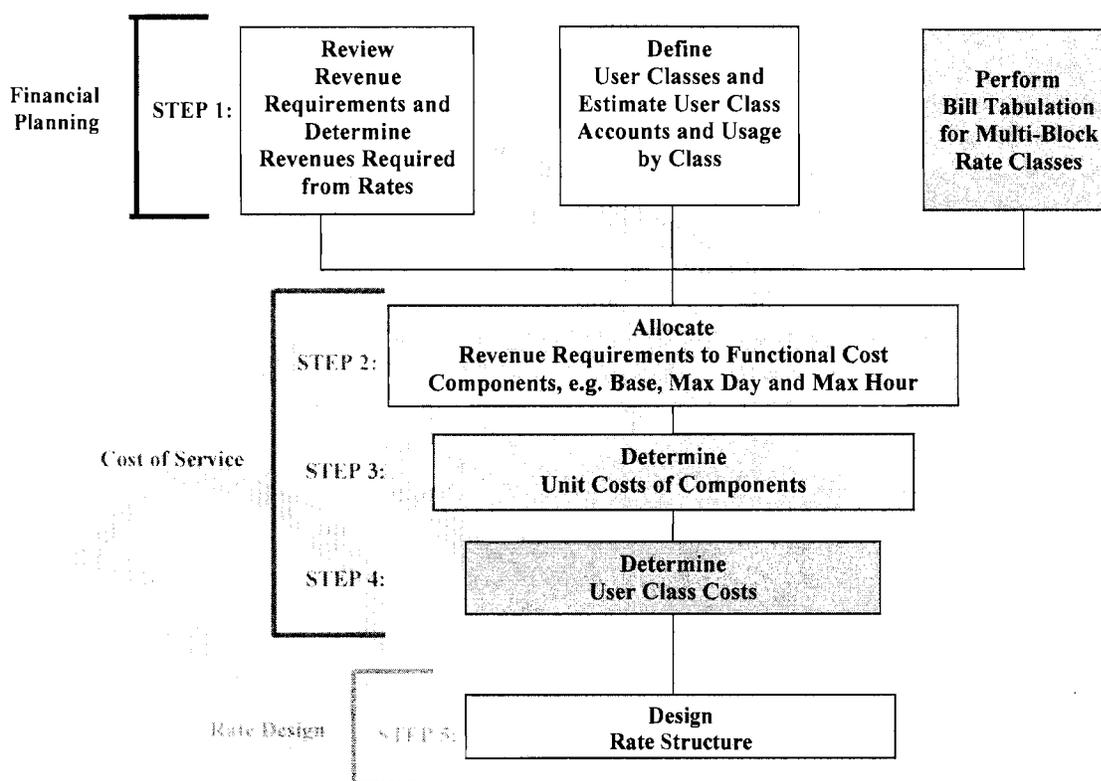
Financial Planning: Revenue requirements are projected for a five-year period from FY 2011 through FY 2015. Financial planning involves estimation of annual O&M and capital expenses (CIP), reserve requirements, operating and capital revenue sources, and the determination of required annual user revenues from rates and charges.

SECTION 2 – INTRODUCTION

Cost of Service Analysis: The cost of service analysis involves identifying and allocating annual revenue requirements to the different cost parameters. The cost of service allocations in this study are based on the Base-Extra Capacity method endorsed by the American Water Works Association (AWWA), a nationally recognized industry standard. Details about the cost of service allocations are covered in later sections.

Rate Design: The rate design involves the development of a fixed and variable schedule of rates to proportionately recover the costs of providing service. After evaluating the existing cost allocation basis and assessing the impact of any proposed adjustments to the cost allocations, the water rates will be calculated according to the proposed rate design. We will calculate water rates under the most appropriate rate structure based on our understanding of the City’s primary pricing objectives and water conservation goals, and consistent with industry accepted guidelines and practices.

FIGURE 2 - 1– COST OF SERVICE/ RATE DESIGN PROCESS



EXISTING SYSTEMS AND RATE STRUCTURE

Growth

The area within the City’s service boundaries is generally fully developed; therefore, the Rate Model assumes a conservative 0.25 percent annual account growth rate during the study period from FY 2011 to FY 2015. In addition, due to ongoing conservation and legislative mandates,

SECTION 2 – INTRODUCTION

total potable water usage in the TMW service area is projected to decline by 1% per year over the next 10 years.

Existing Rate Structure

The City's existing water rate structure includes a monthly customer charge based on meter size and a uniform quantity water rate to all customers. Rates are discounted for low income seniors and for City accounts. The existing customer charges are shown in Table 2-1 below.

Meter Service Charge (RTS): The typical single-family residential (SFR) user with a 3/4 inch meter pays \$4.44 monthly. Customers with larger demands require larger meters. Larger meters are more expensive to maintain and replace, so it is customary under the American Water Works Association (AWWA) methodology to charge higher monthly customer service charges for larger meters consistent with the demand they place on the system.

Commodity Charge: The City currently has a uniform rate structure, which is not very conducive to sending a strong signal for conservation. Tiered rate structures have been widely adopted in California and throughout the southwest to promote ongoing conservation by pricing water appropriately to meet this goal.

TABLE 2 - 1-CURRENT WATER RATE STRUCTURE

Monthly Service Charge			
	<u>Meter Size</u>		<u>Rates</u>
	3/4"	\$	4.44
	1"	\$	11.11
	1-1/2"	\$	22.22
	2"	\$	35.28
	3"	\$	66.65
	4"	\$	111.08
	6"	\$	222.16
	8"	\$	355.45
	10"	\$	510.96
	12"	\$	955.27
	14"	\$	1,300.23
			Uniform (per CCF)
	Effective Date		Sep-09
	Quantity Rate for customers billed at standard rate	\$	2.655
	Quantity Rate for low income seniors and permanently disabled	\$	2.295
	Quantity Rate for City of Torrance Accounts	\$	2.655

Meters and Equivalent Meters

Most customers in the City are provided service through 3/4" meter. The total number of meters by size in the City is shown in Table 2-2 below. To allocate meter-related costs appropriately, the concept of equivalent meters needs to be understood. By using equivalent meters instead of a straight meter count, the analysis reflects the fact that larger meters impose larger demands and are more expensive to install, maintain, and replace than smaller meters and require a greater capacity in the system.

SECTION 2 – INTRODUCTION

Most rate studies calculate equivalent meters based on meter hydraulic capacity. A ratio of hydraulic capacity is calculated by dividing large meter capacities by the base meter capacity. The base meter is the most common small meter, in our case, a ¾-in meter. The actual number of meters by size is multiplied by the corresponding capacity ratio to calculate equivalent meters.

Equivalent meters are used in calculating meter service costs. The equivalent meter ratios used for this study, along with the total number of equivalent meters in the system, are shown in Table 2-2 below.

TABLE 2 - 2– METERS AND EQUIVALENT METERS (EXCLUDING FIRE)

Meter Size	2011 Meters	Capacity Ratio	Equivalent Meters
¾"	21,409	1.00	21,409
1"	2,603	1.67	4,338
1-1/2"	1,021	3.33	3,403
2"	650	5.33	3,467
3"	141	11.67	1,645
4"	67	21.00	1,407
6"	27	46.67	1,260
8"	31	80.00	2,480
10"	7	126.67	887
12"	3	166.67	500
14"	1	250.00	250
	25,960		41,046

Account and Usage Characteristics

The majority of the City's accounts, 77.1 percent of total service accounts, are single family residential customers. Based on the data provided by the City, RFC performed several analyses to determine customers' usage characteristics. Figure 2-2 shows accounts by customer class. Figure 2-3 shows the usage by customer class. Single family customers use 36.7 percent of the total usage.

FIGURE 2 - 2 – ACCOUNT BY CUSTOMER CLASS

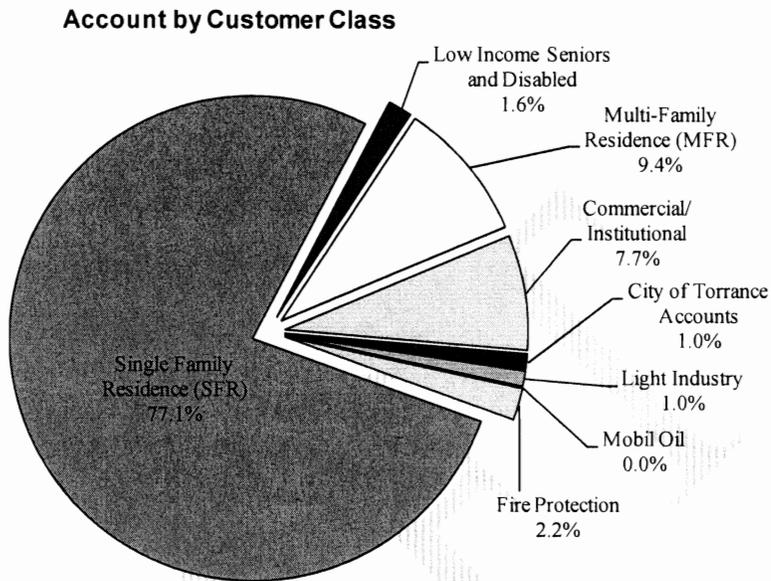


FIGURE 2 - 3 - USAGE BY CUSTOMER CLASS

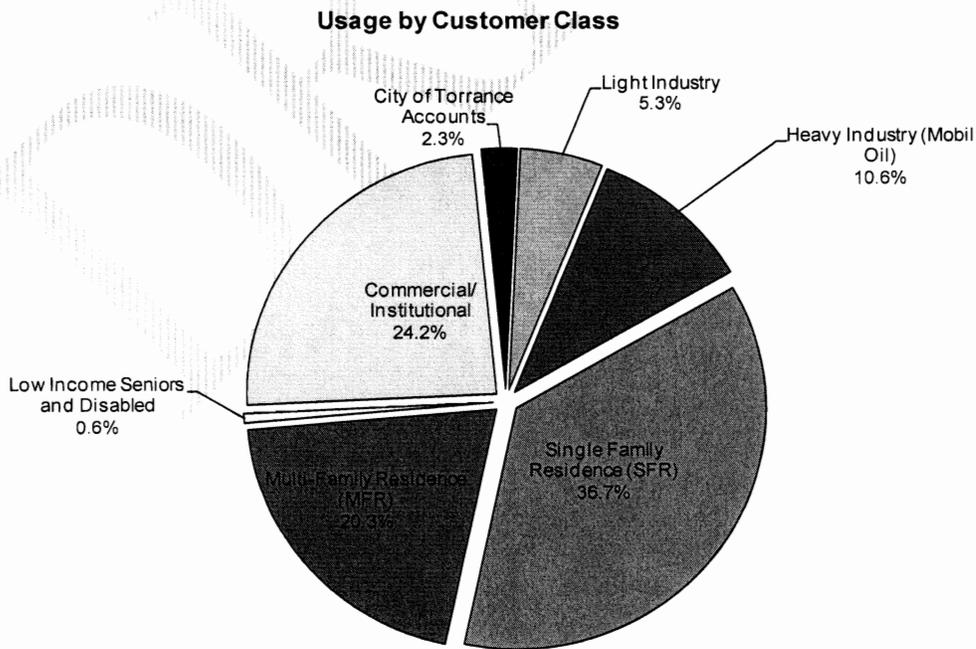
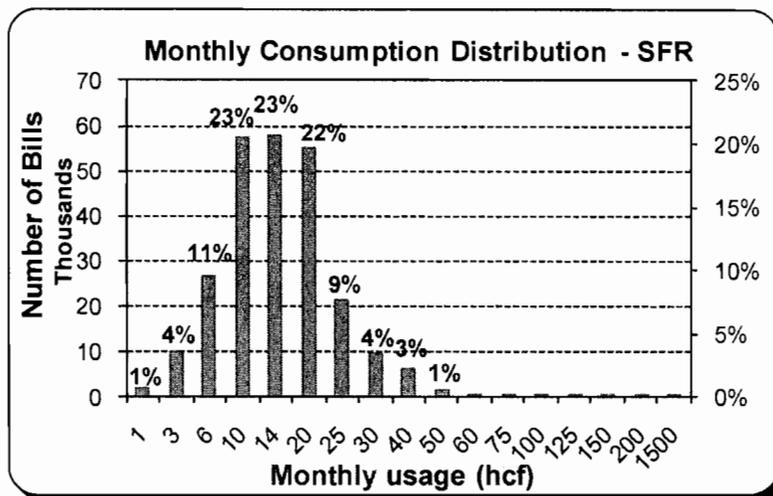


Figure 2-4 illustrates the usage pattern of residential customers.

FIGURE 2 - 4 – USAGE CHARACTERISTICS FOR RESIDENTIAL CUSTOMERS



This graph above shows the monthly consumption distribution for residential customers. The blue bar indicates the number of bills (vertical-axis) falling within certain usage (horizontal-axis). For example, the average monthly usage for residential customers is approximately 14 hcf, representing about 23 percent of bills. This analysis is useful in designing tiers and reviewing impacts on customers.

SECTION 3 – REVENUE REQUIREMENTS

REVENUE REQUIREMENTS

A review of the City's revenue requirements is a key first step in the rate design process. The review involves an analysis of annual operating revenues under existing rates, operation and maintenance (O&M) expenses, capital expenditures, transfers among funds, and reserve levels. The net annual adjustments needed to the revenues from rates are calculated by comparing the revenues under the current rates to the projected expenses. This section of the report provides a discussion of the projected revenues, O&M expenses, and capital improvement program (CIP).

PROJECTED REVENUES

Table 3-1 displays the City's water revenues projected at the current rates by the Rate Model during the first five years of the forecast period. These revenues are projected under the current rate structure.

The City executed water service agreements with Exxon-Mobil in 1995. The City is in the process of reviewing agreements with Exxon-Mobil. Therefore, the projection of revenues in the rate model is based on rates in the current agreements.

~~*QUESTION: Is service charge revenue based on current rates or proposed new rate?*~~

TABLE 3 - 1 - PROJECTED WATER REVENUES

	<u>Estimated</u> FY 2010	<u>Projected</u> FY 2011	<u>Projected</u> FY 2012	<u>Projected</u> FY 2013	<u>Projected</u> FY 2014	<u>Projected</u> FY 2015
Operating Revenues						
Meter Service Charge Revenues (RTS)	\$ 3,088,463	\$ 3,093,044	\$ 3,097,624	\$ 3,102,205	\$ 3,106,785	\$ 3,111,365
Usage Revenue	\$ 17,461,155	\$ 19,558,272	\$ 19,473,341	\$ 19,370,883	\$ 19,261,992	\$ 19,189,731
Total Operating Revenues	\$ 20,549,618	\$ 22,651,316	\$ 22,570,965	\$ 22,473,088	\$ 22,368,777	\$ 22,301,096
Other Revenues						
TMWD Fixed charge for Mobil Oil	\$ 569,588	\$ 622,744	\$ 775,012	\$ 763,612	\$ 666,018	\$ 631,172
Pumping (high pressure zone) Charges	\$ 97,607	\$ 97,846	\$ 98,086	\$ 98,325	\$ 98,565	\$ 98,804
Interest and Investment earnings	\$ 196,329	\$ 16,321	\$ 77,588	\$ 189,606	\$ 80,950	\$ 72,355
Other Misc. Revenues	\$ 872,414	\$ 894,224	\$ 916,580	\$ 939,494	\$ 962,982	\$ 987,056
Mobil Back Up Charges	\$ 900,000					
Total Other Revenues	\$ 2,635,938	\$ 1,631,136	\$ 1,867,266	\$ 1,991,037	\$ 1,808,515	\$ 1,789,388
TOTAL REVENUE	\$ 23,185,556	\$ 24,282,452	\$ 24,438,231	\$ 24,464,125	\$ 24,177,292	\$ 24,090,483

OPERATING AND MAINTENANCE EXPENSES (O&M)

The City's FY 2011 water budget was entered into the Rate Model and used as the base year for O&M costs. In order to project O&M expenses for future years, RFC assumed an escalation factor of 2.5 percent per year for general costs. Personnel cost is expected to remain flat in FY 2011 and 2.5 percent per year thereafter. Energy costs are also expected to increase 2.5 percent each year during the forecast period. Table 3-2 shows the projected volume of water purchased and production, as well as the unit costs for all sources. The total water purchased and produced is adjusted by five percent for unaccounted water, which is estimated by the City. Unaccounted for water includes water lost due to leaks, inaccurate meters, flushing of water lines, fires etc. Groundwater production will increase after the construction of new wells in FY 2013 and FY 2014 and correspondingly the purchased water from MWD will decrease. Desalter water

SECTION 3 – REVENUE REQUIREMENTS

purchase will remain flat over the forecast period. Since the City will adopt pass through charges for increased water rates from MWD, WRD pumping assessment rates and Desalter water rates; RFC has not incorporated the increase for those charges from FY 2011. Table 3-3 shows the O&M budget and projected costs in detail based on the FY 2011 budget.

TABLE 3 - 2 - WATER SALES PROJECTION AND UNIT COSTS BY SOURCES

In (AF)	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Total Water Sales	17,602	17,585	17,403	17,223	17,043	16,866
Unaccounted water/water loss	1%	5%	5%	5%	5%	5%
Total water purchased and produced	17,780	18,510	18,319	18,129	17,940	17,754
Total Water Purchased and Produced from Sources						
Water purchased from MWD	15,494	15,570	15,019	14,829	11,440	11,254
Groundwater	1,106	1,440	1,800	1,800	5,000	5,000
WRD Desalter water	1,181	1,500	1,500	1,500	1,500	1,500
Unit Cost (\$/AF)						
Energy Groundwater	\$ 81	\$ 83	\$ 85	\$ 88	\$ 91	\$ 94
Treatment Chemicals	\$ 42	\$ 43	\$ 69	\$ 71	\$ 73	\$ 75
Unadjusted Desalter water	\$ 489	\$ 489	\$ 489	\$ 489	\$ 489	\$ 489
Unadjusted WRD Pumping Assessment	\$ 182	\$ 182	\$ 182	\$ 182	\$ 182	\$ 182

QUESTION: IS THIS JUST BUDGET THAT IS FLATLINES. WHERE IS ACTUAL PROJECTION??

SECTION 3 – REVENUE REQUIREMENTS

TABLE 3 - 3 - WATER O&M EXPENSES

	<u>Actual</u> FY 2010	<u>Estimated</u> FY 2011	<u>Projected</u> FY 2012	<u>Projected</u> FY 2013	<u>Projected</u> FY 2014	<u>Projected</u> FY 2015
30 - Salaries and Employee Benefits	\$ 4,426,486	\$ 5,301,870	\$ 5,434,417	\$ 5,570,277	\$ 5,709,534	\$ 5,852,272
35 - Materials, Supplies & Maintenance	\$ 1,350,589	\$ 1,272,864	\$ 1,304,686	\$ 1,337,303	\$ 1,370,735	\$ 1,405,004
41 - MWD Ultra-Low Flow Rebate Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
45 - Professional/Contract Services & Utilities	\$ 500,503	\$ 666,474	\$ 683,136	\$ 700,214	\$ 717,720	\$ 735,663
46 - Water Supply Costs						
Purchased MWD Supply	\$ 11,937,708	\$ 11,884,430	\$ 11,497,665	\$ 11,364,670	\$ 8,989,170	\$ 8,858,280
Desalter Water Supply	\$ 646,567	\$ 733,335	\$ 733,335	\$ 733,335	\$ 733,335	\$ 733,335
WRD Pumping Assessment	\$ 185,863	\$ 261,864	\$ 327,330	\$ 327,330	\$ 909,250	\$ 909,250
Energy Groundwater	\$ 89,750	\$ 119,520	\$ 153,000	\$ 158,400	\$ 455,000	\$ 470,000
Treatment Chemicals	\$ 205,948	\$ 61,920	\$ 124,200	\$ 127,800	\$ 365,000	\$ 375,000
50 - Training, Travel & Membership Dues	\$ 17,959	\$ 42,275	\$ 43,332	\$ 44,415	\$ 45,526	\$ 46,664
60 - Liabilities, Settlements & Insurance	\$ 88,216	\$ 92,109	\$ 94,412	\$ 96,772	\$ 99,191	\$ 101,671
65 - Interdepartmental Charges	\$ 1,354,084	\$ 1,367,105	\$ 1,401,283	\$ 1,436,315	\$ 1,472,223	\$ 1,509,028
80 - Bad Debts and Other Losses	\$ 27,915	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
83 - Other Expenditures	\$ 733,978	\$ 718,000	\$ 735,950	\$ 754,349	\$ 773,207	\$ 792,538
85 - Other Operating Transfers Out	\$ 732,396	\$ 26,407	\$ 27,067	\$ 27,744	\$ 28,437	\$ 29,148
TOTAL O&M	\$ 22,297,961	\$ 22,698,173	\$ 22,709,811	\$ 22,828,923	\$ 21,818,328	\$ 21,967,852

CAPITAL IMPROVEMENT PROGRAM (CIP)

The City has developed a water capital improvement program (CIP) to address future water system needs. The total estimated inflated water CIP for the study period of FY 2011 to FY 2015 is \$34.2 million, including the \$22.5 million in construction of wells the City expects to start in FY 2012. The CIP expenses are listed in Table 3-4 below.

TABLE 3 - 4- CAPITAL IMPROVEMENT PROGRAM – INFLATED

<u>CIP#</u>	<u>Water Capital Improvement Program</u>	<u>Projected</u> FY 2011	<u>Projected</u> FY 2012	<u>Projected</u> FY 2013	<u>Projected</u> FY 2014	<u>Projected</u> FY 2015
I-52	Water Studies Update (Water Modelling Contract)	\$ -	\$ -	\$ -	\$ -	\$ -
I-73 PH1	Water Main - N. Torr. N/O Artesia, Crenshaw to Van Ness	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -
I-73 PH2	Water Main N. Torrance/ Residential N/O Artesia between Van Ness & Boundary	\$ -	\$ -	\$ -	\$ 3,500,000	\$ -
I-74 PH1	Water Main - Northwest Torrance/ S/O Redondo & W/O Crenshaw & N/O Artesia	\$ -	\$ -	\$ -	\$ -	\$ 2,500,000
I-74 PH2	Water Main - Northwest Torrance	\$ -	\$ -	\$ -	\$ -	\$ -
I-83	Walnut Ave., T-6 Transmission Main Replacement & Residential Water Mains	\$ -	\$ -	\$ -	\$ -	\$ -
S-31	Walteria Reservoir Rehabilitation - Project to Bid in Two Phases	\$ -	\$ 2,000,000	\$ -	\$ -	\$ -
I-95	Walteria Reservoir Slope Repairs Along Crenshaw Blvd.	\$ 350,000	\$ -	\$ -	\$ -	\$ -
FEAP-A	Citywide Meter Replacement	\$ 200,000	\$ 400,000	\$ 700,000	\$ 700,000	\$ 700,000
I-A	High Pressure Zone Water Booster Pump Station Upgrades	\$ -	\$ -	\$ -	\$ -	\$ -
I-B	Water Main - North Torrance/ N/O Dominguez Channel, E/O Van Ness	\$ -	\$ -	\$ -	\$ -	\$ -
I-C	Conjunctive Use/Water Augmentation (Feasibility Study)	\$ -	\$ 100,000	\$ -	\$ -	\$ -
I-D	Annual Water System Improvement Projects (4% increase per year)	\$ -	\$ -	\$ -	\$ -	\$ -
I-E	North Torrance Well Field Development and Well No. 10 and Transmission Main	\$ -	\$ 9,000,000	\$ -	\$ -	\$ -
I-F	Well No. 11 and Transmission Main	\$ -	\$ -	\$ 8,000,000	\$ -	\$ -
I-G	Well No. 12 and Transmission Main and DBR 2 Water Treatment	\$ -	\$ -	\$ -	\$ 5,500,000	\$ -
	Reduction in CIP	\$ -	\$ -	\$ (1,000,000)	\$ (1,000,000)	\$ (500,000)
	Total All Projects	\$ 550,000	\$ 11,500,000	\$ 10,700,000	\$ 8,700,000	\$ 2,700,000

SECTION 3 – REVENUE REQUIREMENTS

ECONOMIC ANALYSIS FOR NEW WELLS

The City's construction of new wells is expected to start in FY 2012 and be completed by FY 2014. The new wells development project will cost about \$22.5 million and the City will fund this project through issuance of new debt, most likely a revenue bond issue. The annual payment for the new debt is assumed to be about \$1.84 million each year over the 20-year term at 5% interest rate. This project will enable the City fully utilize the current water rights and increase groundwater production by 3,840 acre foot by FY2016. The City anticipates the additional production from the new wells will lower annual costs of water purchased from MWD in future years.

In order to evaluate the total benefit of constructing the new wells, RFC conducted an economic analysis. RFC has incorporated the annual debt payment, the cost of producing additional groundwater and the reduction in purchased water cost from MWD in order to calculate the total savings from local water production. Based on the analysis, the City will begin to see positive cash flow every year from the local water production starting FY 2016 after considering debt payments, well water production costs and savings from avoided purchased water costs. The accumulated cash flow will become positive starting FY 2024, which means, the payback time is 13 years. The return on investment for this project is 17 percent, the payback time is 13 years, and the benefit/cost ratio is five to one. This means the projected saving derived from the project over the 40 year study period is five times greater than the total cost. The analysis shows that the project is financially beneficial to the City and will help the City to achieve the goal of reducing water costs to stabilize rates in the long run and providing greater reliability from local water supplies.

ROI	17%
Payback Time (years)	13
Benefit Cost Ratio	5

CAPITAL FINANCING PLAN

Proposed Debt and Debt Service Requirements

The City is expecting to construct new wells in the coming years, which will cost \$22.5 million. The City will issue a debt of \$22.5 million in FY 2012 to fund the development of new wells.

Debt service requirements consist of both principal and interest payments. The City currently has 2004 water refunding revenue bond issue, which will expire in FY 2014. With the City's proposed debt in FY 2011, the debt service requirement will be \$2.5 million per year by FY 2014. The proposed debt service payments are calculated assuming that debt is issued for a 20-year term at a 5.0 percent interest rate and 2 percent issuance costs.

Proposed Debt Issue	
Amount	\$22.5 million
Term	20 years
Interest	5.0%
Annual Payment	\$ 1,841,567

Debt issues typically require a coverage, which means that the City's net revenues (after subtracting operating expenses) should amount to at minimum of 1.25 times the debt payments. Net revenues include funds derived from the ownership and operation

SECTION 3 – REVENUE REQUIREMENTS

of the enterprise including investment earnings but excluding connection or system development charges. Figure 3-1 shows that the City meets debt service coverage requirements over the forecast period with the proposed rate adjustments. Depreciation expense is excluded from the coverage calculation.

Figure 3-1 shows the debt coverage meets the requirements after the rate adjustments.

FIGURE 3 - 1- DEBT SERVICE COVERAGE

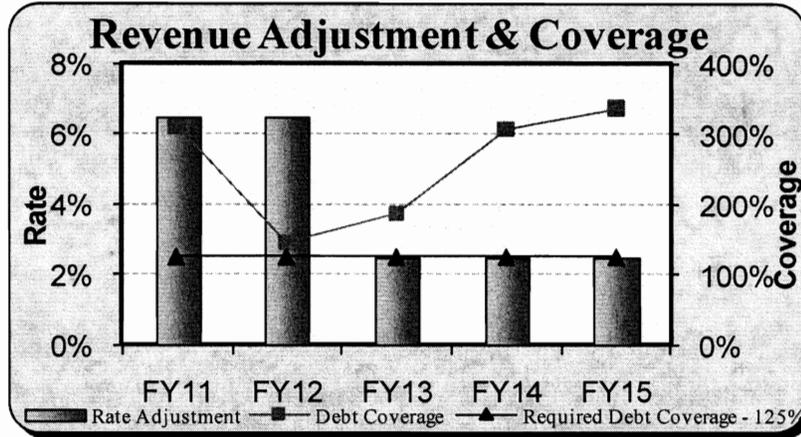
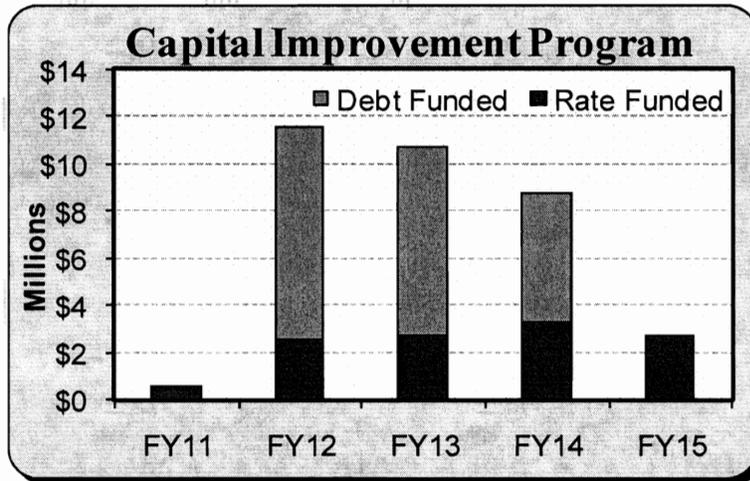


Figure 3 – 2 shows the CIP in graphical format, which separates the debt funded and the pay as you go (paygo) rate funded capital projects.

FIGURE 3 - 2- CAPITAL IMPROVEMENT PROGRAM



OPERATING FINANCIAL PLAN

Proposed Rate Adjustments

Rate requirements for the five-year planning period were projected from the City’s FY 2011 budget data. The projections indicated that the City needs rate adjustments over the next five

SECTION 3 – REVENUE REQUIREMENTS

years. The City has indicated that the rate increase can be effective as early as March 2011. As a result, the first rate adjustment will be assumed to be effective in March 2011. The subsequent rate increases are anticipated to take place in January of each year. RFC proposes the following adjustments.

March, 2011	6.5%
January, 2012	6.5%
January 2013 to January 2015	CPI* each year

*CPI indicates Los Angeles Region Consumer Price Index

Figure 3-3 below presents the proposed cash flow in a graphical format. The figure shows the O&M costs and the capital costs funded by rates. The figure shows that, in future years, the City's rate revenue stream will be sufficient to meet current and future revenue requirements. The revenues under current and proposed rates are represented by the lines.

FIGURE 3 - 3-WATER OPERATING FINANCIAL PLAN

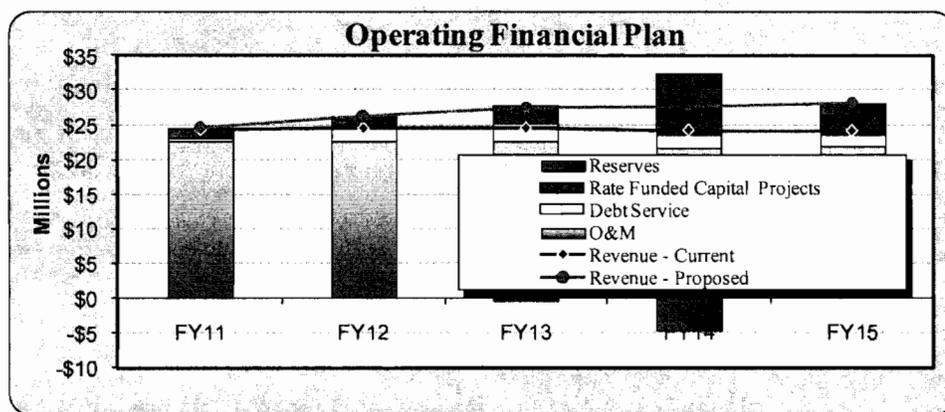


Table 3-5 shows the operating cash flow. Since the rate increase will be effective in March 2011 and January each year thereafter, the actual cash flow derived from the new rate lags two months from the effective date of the rate increase. Therefore, the cash flow uses appropriate revenue adjustment factors for FY 2011 and each year starting FY 2012 respectively, to reflect the increased revenues derived from the rate adjustments. The table shows negative annual balance in FY 2013 and FY 2014. The City indicates that they will transfer funds from other reserves have to supplement this deficit. Also, the City will evaluate and postpone capital projects, if necessary. The purpose for this is to minimize rate increases and impacts to customers.

QUESTION: Is chart below at current or new proposed rates

SECTION 3 – REVENUE REQUIREMENTS

TABLE 3 - 5 –PROJECTED WATER OPERATING CASH FLOW

Description	Projected FY 2011	Projected FY 2012	Projected FY 2013	Projected FY 2014	Projected FY 2015
REVENUE					
Revenue From Usage Charges	\$ 17,909,958	\$ 17,700,610	\$ 17,493,473	\$ 17,287,424	\$ 17,083,587
Revenue From Meter Charges	\$ 2,505,505	\$ 2,510,085	\$ 2,514,666	\$ 2,519,246	\$ 2,523,827
Service Charge from Fire Protection	\$ 558,716	\$ 558,716	\$ 558,716	\$ 558,716	\$ 558,716
Service Charge from Heavy Industry (Mobil Oil)	\$ 28,822	\$ 28,822	\$ 28,822	\$ 28,822	\$ 28,822
Revenues from existing rates	\$ 21,003,001	\$ 20,798,234	\$ 20,595,677	\$ 20,394,209	\$ 20,194,952
Additional Revenue Required:					
	Revenue	Months			
Year	Increase	Effective			
FY 2011	6.5%	3	\$ 341,299	\$ 1,351,885	\$ 1,338,719
FY 2012	6.5%	4		\$ 479,919	\$ 1,425,736
FY 2013	2.5%	4			\$ 194,668
FY 2014	2.5%	4			\$ 197,583
FY 2015	2.5%	4			\$ 200,543
FY 2016	0.0%	4			
FY 2017	0.0%	4			
FY 2018	0.0%	4			
FY 2019	0.0%	4			
FY 2020	0.0%	4			
Total Additional Revenue	\$ 341,299	\$ 1,831,804	\$ 2,959,123	\$ 3,513,286	\$ 4,070,808
Total Water Sales Revenue	\$ 21,344,300	\$ 22,630,038	\$ 23,554,800	\$ 23,907,495	\$ 24,265,760
Usage Charge from Heavy Industry (Mobil Oil)	\$ 1,648,315	\$ 1,772,731	\$ 1,877,411	\$ 1,974,567	\$ 2,106,144
TMWD Fixed Charge for Mobil Oil	\$ 622,744	\$ 775,012	\$ 763,612	\$ 666,018	\$ 631,172
Pumping (pressure zone) Charges	\$ 97,846	\$ 98,086	\$ 98,325	\$ 98,565	\$ 98,804
Miscellaneous Revenue	\$ 894,224	\$ 916,580	\$ 939,494	\$ 962,982	\$ 987,056
Interest Revenue	\$ 16,321	\$ 77,588	\$ 189,606	\$ 80,950	\$ 72,355
Discount on City of Torrance	\$ -				
Total Revenue	\$ 24,623,751	\$ 26,270,036	\$ 27,423,248	\$ 27,690,578	\$ 28,161,291
REVENUE REQUIREMENT					
O&M Expenses	\$ 22,548,173	\$ 22,559,811	\$ 22,678,923	\$ 21,668,328	\$ 21,817,852
Extra Bad Debts	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
Total O&M Expenses	\$ 22,698,173	\$ 22,709,811	\$ 22,828,923	\$ 21,818,328	\$ 21,967,852
Net Revenue Available for Debt Service	\$1,925,577	\$3,560,224	\$4,594,324	\$5,872,250	\$6,193,439
Debt Service					
Existing Debt Service	\$ 621,050	\$ 620,300	\$ 623,300	\$ 71,762	
Proposed Debt Service	\$ -	\$ 1,841,567	\$ 1,841,567	\$ 1,841,567	\$ 1,841,567
Total Debt Service	\$ 621,050	\$ 2,461,867	\$ 2,464,867	\$ 1,913,330	\$ 1,841,567
Total Revenue Requirements	\$23,319,223	\$25,171,679	\$25,293,791	\$23,731,658	\$23,809,420
Transfer from (to) Capital Reserve	\$ -	\$ -	\$ (2,661,818)	\$ (8,700,000)	\$ (2,700,000)
Net Annual Balance	\$1,304,527	\$1,098,357	(\$532,361)	(\$4,741,080)	\$1,651,872

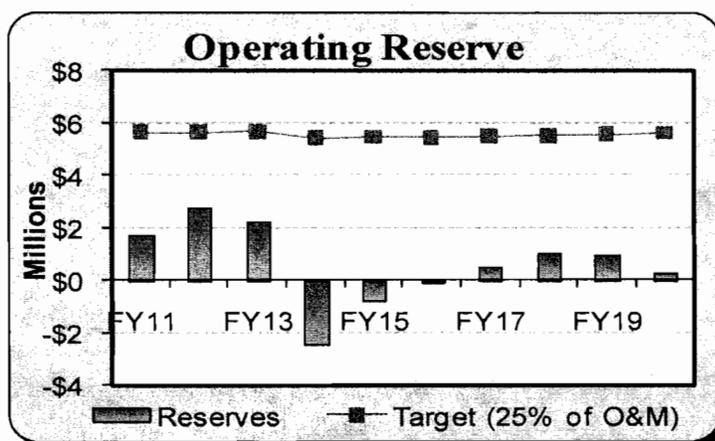
SECTION 3 – REVENUE REQUIREMENTS

Operating Reserve

Prudent business practice requires that the City maintains an operating reserve fund from rate revenues. These reserves may be used to meet ongoing operating expenses as well as unexpected increases in costs. RFC recommends that the City maintains 25 percent or 90 days of O&M expenses in its operating reserves to meet working capital requirements and unexpected increases in costs during the year.

Figure 3-4 shows projected operating reserve fund level over the study period. The figure shows that the City's operating reserve will not be met towards during the forecast period if the recommended rate adjustments are implemented. The City wants to minimize rate increases and impacts to customers. Therefore, they will transfer from other reserves to supplement the operating fund. Also, they will evaluate and postpone capital projects, if necessary. The City indicates that it will make its best effort to maintain the financial sufficiency of the operating fund.

FIGURE 3 - 4 WATER OPERATING RESERVES

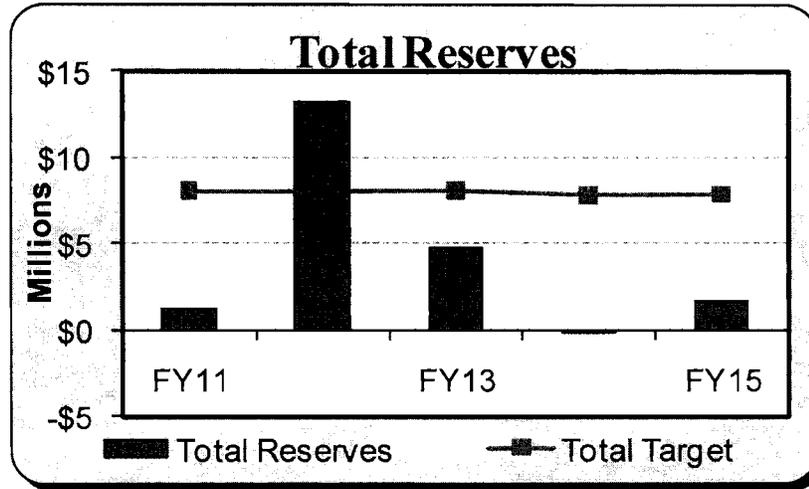


Total Reserves

Figure 3-5 shows projected total unrestricted reserves level over the study period. The figure shows that TMW's total reserves will show a negative of about \$50,000 in FY 2014, and the reserves will pick up gradually in FY 2015 due to the completion of the new wells development. TMW indicates that it will maintain its reserve level to a positive level by transferring funds or postpone a capital project. At the end of 2015, it is projected that TMW will have unrestricted reserve of approximately \$1.6 million. The target reserve in figure 3-5 is the combination of the operating and capital reserve target level, which is 25 percent of O&M and 50 percent of average CIP.

SECTION 3 – REVENUE REQUIREMENTS

FIGURE 3 - 5--UNRESTRICTED WATER RESERVES



SECTION 4 - COST OF SERVICE AND RATES

COST OF SERVICE AND RATES

The City's revenue requirements discussed in the previous section of the report provide the basis for performing the cost of service analysis. This section of the report discusses the allocation of operating and capital costs, the determination of unit costs, and the design of rates.

COST OF SERVICE ANALYSIS

The cost of service analysis is based upon the premise of generating revenues sufficient to meet the estimated annual revenue requirements and allocating the revenue requirements to the customers in proportion to the service they receive. Revenue requirements include operating costs and rate funded capital costs, annual debt service, and reserve levels. Deductions from revenue requirements include miscellaneous operating revenues, interest revenues, pumping revenues, usage charges from Exxon-Mobil, whose rates are based on agreements. Adjustments for fund balances and mid-year rate increases ensure that rates are not set higher than needed to recover the necessary revenue requirements. Table 4-1 below shows the costs to be recovered from the City for FY 2011. This cost is then used as the basis to develop unit costs and to allocate costs to the various user classes in proportion to the water services rendered.

TABLE 4- 1– COST TO BE RECOVERED FROM WATER RATES

	FY 2011		
	Operating Expense	Capital Cost	Total
Operating Expenses	\$	\$	\$
O&M Expenses	\$22,548,173		\$ 22,548,173
Extra Bad Debts	\$ 150,000		\$ 150,000
Existing debt service		\$ 621,050	\$ 621,050
Proposed debt service		\$ -	\$ -
Transfer to Capital Reserve		\$ -	\$ -
Subtotal	\$ 22,698,173	\$ 621,050	\$ 23,319,223
Less: Miscellaneous Revenue			
Usage charge from Heavy Industry (Mobil Oil)	\$ 1,648,315		\$ 1,648,315
Other Fixed charge from Mobil Oil	\$ 622,744		\$ 622,744
Pumping Charges	\$ 97,846		\$ 97,846
Miscellaneous Revenue	\$ 894,224		\$ 894,224
Interest Revenue	\$ 16,321		\$ 16,321
Transfer from Capital Reserve	\$ -		\$ -
Subtotal	\$ 3,279,451	\$ -	\$ 3,279,451
Less: Adjustments			
Adjustment for Annual Cash Balance	\$ (1,304,527)		\$ (1,304,527)
Adjustment to Annualize Rate Increase	\$ (1,023,896)		\$ (1,023,896)
Subtotal	\$ (2,328,424)	\$ -	\$ (2,328,424)
Total Cost to be Recovered	\$ 21,747,147	\$ 621,050	\$ 22,368,197

SECTION 4 - COST OF SERVICE AND RATES

The total costs of the water enterprise are functionalized as supply, treatment, transmission and distribution, storage, customer service, etc. These costs are then allocated to water system parameters in accordance with the Base-Extra Capacity method endorsed by the American Water Works Association (AWWA), a nationally recognized industry standard. For this analysis, the functionalized water utility costs are allocated to three parameters or cost centers including base costs, extra capacity costs and customer service related costs.

Base costs are those operating and capital costs of the water system associated with serving customers under average conditions. Extra capacity costs represent those operating costs incurred to meet customer peak demands for water in excess of average day usage, plus those capital costs for extra plant and system capacity beyond that required to supply water at the average rate of use. Total extra capacity costs are subdivided into costs associated with maximum day and maximum hour demands. RFC used peaking factors provided by the City to allocate among base, maximum day and maximum hour as shown in Table 4-2. Additionally, a portion of the cost is allocated to fire service to recognize costs in the distribution system to meet fire service requirements.

TABLE 4- 2– PEAKING FACTORS

Base-Extra Capacity Method

Peaking Factors System Wide	Demand					
	Factors	Base	Max Day	Max Hour	Fire Service	Total
Base	1.00	100.00%				100.00%
Max Day	1.66	55.24%	34.76%		10%	100.00%
Max Hour	2.95	30.56%	19.04%	40.40%	10%	100.00%

UNIT COSTS OF SERVICE

In order to allocate costs of service to the different user classes, unit costs of service need to be developed for each cost parameter. The unit costs of service are developed by dividing the total annual costs allocated to each parameter by the total annual units of service of the respective cost parameter. Table 4-3 shows the units of service and the development of the FY 2011 unit costs for each of the cost parameters. Some customers have discount rates, such as seniors and disabled customers. Low income seniors and disabled accounts are offered \$0.36 per hcf. The revenues lost from them will be recovered through revenues from the sale of wholesale water, which is not part of this study.

Different units are used for the different cost parameters. The volume related costs parameters are based on volumetric units of one hundred cubic feet or hcf (about 748 gallons). The extra capacity parameters of Max Day and Max Hour are based on a rate of usage so they are calculated in HCF per day. Customer related cost parameters are based on equivalent meters or bills.

SECTION 4 - COST OF SERVICE AND RATES

TABLE 4-3- COST ALLOCATION AND UNIT COST CALCULATION

	Base	Max Day	Max Hour	Meter Charges	Billing & Customer Service	Fire Service	General	Total
Net Operating Expense	\$ 13,963,358	\$ 1,894,874	\$ 1,447,501	\$ 952,752	\$ 710,753	\$ 707,528	\$ 2,070,381	\$ 21,747,147
Capital Costs	\$ 307,171	\$ 189,974	\$ 62,278	\$ -	\$ -	\$ 61,627	\$ -	\$ 621,050
Total Cost of Service	\$ 14,270,529	\$ 2,084,848	\$ 1,509,778	\$ 952,752	\$ 710,753	\$ 769,155	\$ 2,070,381	\$ 22,368,197
Allocation Percentage	73%	11%	8%	5%	4%			
Allocation of Fire Service				\$ 314,643				
Allocation of General Cost	\$ 1,512,927	\$ 221,031	\$ 160,063	\$ 101,008	\$ 75,352			
Total Cost	\$ 15,783,456	\$ 2,305,878	\$ 1,669,842	\$ 1,368,403	\$ 786,106	\$ 454,512		\$ 22,368,197
Total Modified Cost	\$ 15,783,456	\$ 2,305,878	\$ 1,669,842	\$ 1,368,403	\$ 786,106	\$ 454,512		\$ 22,368,197
Unit of Measure	ccf	ccf/day	ccf/day	Equiv Meters / monthly	Equiv Bills /monthly	Private Fire Service		
Total Units of Service	6,788,779	12,276	23,993	492,552	318,360	175,131		
Total Unit Cost of Service	\$ 2.32	\$ 0.51	\$ 0.19	\$ 2.78	\$ 2.47	\$ 2.60		
Average Uniform Rate	\$ 2.911							

Table 4-4 shows the revenue allocation to customer classes, excluding the revenues from Exxon-Mobil and fire service, and any sales of wholesale water.

TABLE 4-4- REVENUE ALLOCATION TO CUSTOMER CLASSES

	Base	Max Day	Max Hour	Meter Charges	Billing & Customer Service	Total
Units of Service						
Customer Class						
Single Family Residence (SFR)						
Units	2,785,046	5,036	9,843	256,044	245,640	
Costs - \$	\$ 6,475,045	\$ 945,969	\$ 685,040	\$ 711,339	\$ 606,543	\$ 9,423,936
Multi-Family Residence (MFR)						
Units	1,540,186	2,785	5,443	90,540	29,796	
Costs - \$	\$ 3,580,830	\$ 523,140	\$ 378,841	\$ 251,537	\$ 73,573	\$ 4,807,922
Low Income Seniors and Disabled						
Units	47,649	86	168	5,188	5,088	
Costs - \$	\$ 110,780	\$ 16,184	\$ 11,720	\$ 14,413	\$ 12,563	\$ 165,661
Commercial/Institutional						
Units	1,835,508	3,319	6,487	93,412	24,444	
Costs - \$	\$ 4,267,434	\$ 623,449	\$ 451,482	\$ 259,516	\$ 60,358	\$ 5,662,239
City of Torrance Accounts						
Units	174,322	315	616	13,748	3,228	
Costs - \$	\$ 405,287	\$ 59,210	\$ 42,878	\$ 38,195	\$ 7,971	\$ 553,541
Industry						
Units	406,068	734	1,435	28,304	3,276	
Costs - \$	\$ 944,080	\$ 137,925	\$ 99,881	\$ 78,634	\$ 8,089	\$ 1,268,609

SECTION 4 - COST OF SERVICE AND RATES

FIGURE 4-1– COMPARISON OF REVENUE BY CUSTOMER CLASSES

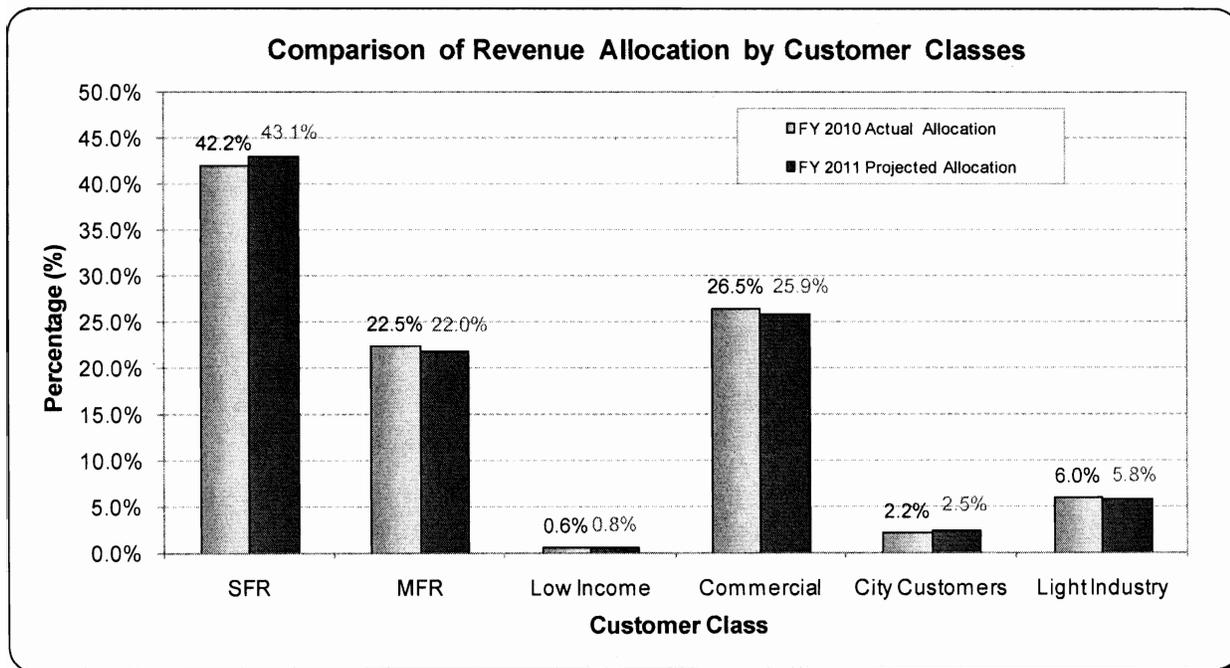


FIGURE 4-2– COMPARISON OF REVENUE BY CUSTOMER CLASSES

Comparison of Revenue Allocation by Customer Classes - FY 2011

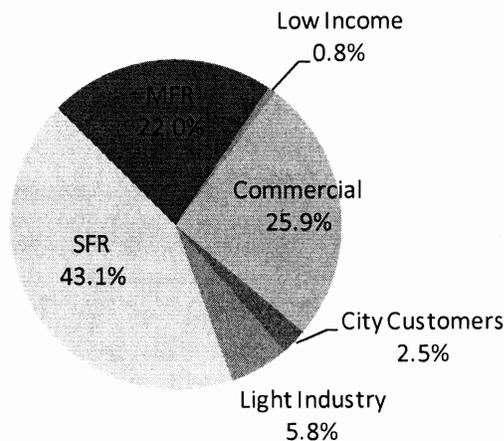


Figure 4-1 shows that projected revenues collected from FY 2011 vs the actual revenues collected from FY 2010. For example, 43.1 percent of revenues are collected from single family residences in FY 2011 compared to 42.2 percent of revenues in FY 2010. Figure 4-2 shows the revenue allocation for FY 2011 by customer classes in pie chart.

SECTION 5 - PROPOSED RATE STRUCTURE

PROPOSED RATE STRUCTURE

Rate design is the process of developing rate schedules for each user class which will recover, in an equitable manner, the annual cost of service from the members of that class. Rate structures should be designed to ensure that users pay their proportionate share of costs. In addition, rate structures should be easy to understand, simple to administer, and comply with regulatory requirements.

After careful review of the City's revenue requirements and cost of service, RFC recommends that the City retains the use of a rate structure that includes both a fixed monthly customer charge and a variable quantity, or commodity rate.

Meter Service Charge (RTS): We suggest that the City continues to utilize a monthly meter service charge varying with meter size. The service charge is composed of two charges – the customer's service charge covering costs such as meter reading, billing, and customer service is constant for all customers independent of meter size. The meter related costs, according to industry standards, will increase with meter size, reflect the higher costs of servicing those meters. The capacity ratio for determining the proportion of the charges needs to be in compliance with AWWA methodology. The analysis shows that service charges for the smallest meter, a $\frac{3}{4}$ inch meter, will experience an increase and all other larger meters will experience a decrease in monthly service charges, to align to cost of service.

Commodity (Quantity) Rate: The remaining revenues to be recovered from rates, after determining service charge revenues, are allocated to the commodity rate and result in a uniform rate of \$2.911 per hcf. The total uniform rate, including pass through charges, will be \$3.04 in FY 2011. The City may continue to charge this rate to all customers. However, in view of the water situation, the City would like to provide incentives for conservation. The design of the rate structure for the different customer classes is further explained below.

Single Family Residence: In order to encourage conservation for single family residences, RFC recommends changing their current uniform rate structure to a four-tiered rate structure. The recommended **monthly tiers** and usage levels in each tier (modified for conservation) are:

First Tier: 0 – 8 hcf (46 percent of use and 27 percent of the bills fall within this block)

Second Tier: 9 – 14 hcf (27 percent of use and 34 percent of the bills fall within this block)

Third Tier: 15 – 24 hcf (19 percent of use and 30 percent of the bills fall within this block)

Fourth Tier: Over 24 hcf (8 percent of use and 9 percent of the bills fall within this block)

Low Income Customers (Seniors and Disabled): The City has developed a discount rate policy for low income senior customers by providing them a discount of \$0.36 per hcf. That discount will maintain at the same level and continue to be applied on the rates shown above. The City will recover this loss in revenue from revenue picked up from water sales to wholesale customer which is not part of this study.

Standard Customers (All other customers): RFC recommends changing their current uniform rate structure to a two-tiered rate structure. The recommended **monthly tiers** and usage levels in each tier (modified for conservation) are:

SECTION 5 - PROPOSED RATE STRUCTURE

First Tier: 0 – 10 hcf (9 percent of use and 25 percent of the bills fall within this block)

Second Tier: Over 10 hcf (91 percent of use and 75 percent of the bills fall within this block)

City of Torrance Accounts: The City will eliminate the discount applied to the City of Torrance. The water rates for these accounts will be the same as standard customers.

Table 5-1 shows the proposed rate structure.

**TABLE 5 - 1– PROPOSED MONTHLY WATER RATE UNDER CONSERVATION
BASED TIER STRUCTURE**

Monthly Service Charge Meter Size	Existing	Monthly Service Charge Meter Size	Proposed	Proposed	Proposed	Proposed	Proposed
	Nov 2009		03/01/2011	01/01/2012	01/01/2013	01/01/2014	01/01/2015
3/4"	\$ 4.44	3/4"	\$ 5.25	\$ 5.59	\$ 5.73	\$ 5.87	\$ 6.02
1"	\$ 11.11	1"	\$ 7.10	\$ 7.56	\$ 7.75	\$ 7.94	\$ 8.14
1-1/2"	\$ 22.22	1-1/2"	\$ 11.73	\$ 12.49	\$ 12.80	\$ 13.12	\$ 13.45
2"	\$ 35.28	2"	\$ 17.29	\$ 18.41	\$ 18.87	\$ 19.35	\$ 19.83
3"	\$ 66.65	3"	\$ 34.89	\$ 37.16	\$ 38.09	\$ 39.04	\$ 40.01
4"	\$ 111.08	4"	\$ 60.82	\$ 64.77	\$ 66.39	\$ 68.05	\$ 69.75
6"	\$ 222.16	6"	\$ 132.12	\$ 140.71	\$ 144.23	\$ 147.83	\$ 151.53
8"	\$ 355.45	8"	\$ 224.73	\$ 239.34	\$ 245.32	\$ 251.45	\$ 257.74
10"	\$ 510.96	10"	\$ 354.38	\$ 377.41	\$ 386.85	\$ 396.52	\$ 406.43
12"	\$ 955.27	12"	\$ 465.51	\$ 495.77	\$ 508.16	\$ 520.87	\$ 533.89
14"	\$ 1,300.23	14"	\$ 697.02	\$ 742.33	\$ 760.88	\$ 779.91	\$ 799.40
Quantity Rate (Uniform)		Quantity Rate					
Single Family Customers	\$ 2.655	0- 8 CCF	\$ 2.330	\$ 2.481	\$ 2.543	\$ 2.607	\$ 2.672
		9 - 14 CCF	\$ 2.920	\$ 3.110	\$ 3.188	\$ 3.267	\$ 3.349
		15 - 24 CCF	\$ 3.640	\$ 3.877	\$ 3.974	\$ 4.073	\$ 4.175
		25+ CCF	\$ 4.520	\$ 4.814	\$ 4.934	\$ 5.057	\$ 5.184
Other Customers	\$ 2.655	0- 10 CCF	\$ 2.330	\$ 2.481	\$ 2.543	\$ 2.607	\$ 2.672
		11+ CCF	\$ 2.970	\$ 3.163	\$ 3.242	\$ 3.323	\$ 3.406
City of Torrance	\$ 2.098	0- 10 CCF	\$ 1.773	\$ 1.888	\$ 1.935	\$ 1.984	\$ 2.033
		11+ CCF	\$ 2.413	\$ 2.570	\$ 2.634	\$ 2.700	\$ 2.767
Low Income Customers	\$ 2.295	0- 8 CCF	\$ 1.970	\$ 2.098	\$ 2.151	\$ 2.204	\$ 2.259
		9 - 14 CCF	\$ 2.560	\$ 2.726	\$ 2.795	\$ 2.864	\$ 2.936
		15 - 24 CCF	\$ 3.280	\$ 3.493	\$ 3.581	\$ 3.670	\$ 3.762
		25+ CCF	\$ 4.160	\$ 4.430	\$ 4.541	\$ 4.655	\$ 4.771

* Quantity rates just include internal rates

Pass Through Charges

The City will continue to implement pass through charges in order to pass through incremental costs of purchasing water to its retail customers. RFC recommends the City to change its pass through formula, by passing through the increase in purchased water cost from MWD, WRD pumping assessment charges and Desalter water costs in accordance with the rate model rather than by the current formula. The projected pass through charges for the next five years is shown in Table 5 – 2. The negative charges shown in FY 2013 and FY 2014 are due to the combination of the impacts caused by the decrease in total water sales, decrease in purchased water from

SECTION 5 - PROPOSED RATE STRUCTURE

MWD and the increase from groundwater production. The decrease in total water sales causes the lower pass through charges per unit from MWD than the previous year. Therefore, the City is recommended to adjust the water charges accordingly.

TABLE 5 – 2 –PROPOSED PASS THROUGH CHARGES

	3/1/2011	1/1/2012	1/1/2013	1/1/2014	1/1/2015
Pass Thru Charges, \$/hcf	\$ 0.12	\$ 0.12	\$ (0.03)	\$ (0.04)	\$ 0.05

* Note the pass through for FY 2011 is an actual and for 2012 through 2015 is based on projection.

TABLE 5 - 3– PROPOSED COMBINED MONTHLY WATER RATES

Monthly Service Charge Meter Size	Existing	Monthly Service Charge Meter Size	Proposed	Proposed	Proposed	Proposed	Proposed
	Nov2009		03/01/2011	01/01/2012	01/01/2013	01/01/2014	01/01/2015
3/4"	\$ 4.44	3/4"	\$ 5.25	\$ 5.59	\$ 5.73	\$ 5.87	\$ 6.02
1"	\$ 11.11	1"	\$ 7.10	\$ 7.56	\$ 7.75	\$ 7.94	\$ 8.14
1-1/2"	\$ 22.22	1-1/2"	\$ 11.73	\$ 12.49	\$ 12.80	\$ 13.12	\$ 13.45
2"	\$ 35.28	2"	\$ 17.29	\$ 18.41	\$ 18.87	\$ 19.35	\$ 19.83
3"	\$ 66.65	3"	\$ 34.89	\$ 37.16	\$ 38.09	\$ 39.04	\$ 40.01
4"	\$ 111.08	4"	\$ 60.82	\$ 64.77	\$ 66.39	\$ 68.05	\$ 69.75
6"	\$ 222.16	6"	\$ 132.12	\$ 140.71	\$ 144.23	\$ 147.83	\$ 151.53
8"	\$ 355.45	8"	\$ 224.73	\$ 239.34	\$ 245.32	\$ 251.45	\$ 257.74
10"	\$ 510.96	10"	\$ 354.38	\$ 377.41	\$ 386.85	\$ 396.52	\$ 406.43
12"	\$ 955.27	12"	\$ 465.51	\$ 495.77	\$ 508.16	\$ 520.87	\$ 533.89
14"	\$ 1,300.23	14"	\$ 697.02	\$ 742.33	\$ 760.88	\$ 779.91	\$ 799.40
Quantity Rate (Uniform)		Quantity Rate					
Single Family Customers	\$ 2.655	0- 8 CCF	\$ 2.449	\$ 2.601	\$ 2.517	\$ 2.569	\$ 2.726
		9- 14 CCF	\$ 3.039	\$ 3.230	\$ 3.162	\$ 3.229	\$ 3.403
		15 - 24 CCF	\$ 3.759	\$ 3.997	\$ 3.948	\$ 4.035	\$ 4.229
		25+ CCF	\$ 4.639	\$ 4.934	\$ 4.908	\$ 5.019	\$ 5.238
Other Customers	\$ 2.655	0- 10 CCF	\$ 2.449	\$ 2.601	\$ 2.517	\$ 2.569	\$ 2.726
		11+ CCF	\$ 3.089	\$ 3.283	\$ 3.216	\$ 3.285	\$ 3.460
City of Torrance	\$ 2.098	0- 10 CCF	\$ 1.892	\$ 2.008	\$ 1.909	\$ 1.946	\$ 2.087
		11+ CCF	\$ 2.532	\$ 2.690	\$ 2.608	\$ 2.662	\$ 2.821
Low Income Customers	\$ 2.295	0- 8 CCF	\$ 2.089	\$ 2.218	\$ 2.125	\$ 2.166	\$ 2.313
		9 - 14 CCF	\$ 2.679	\$ 2.846	\$ 2.769	\$ 2.826	\$ 2.990
		15 - 24 CCF	\$ 3.399	\$ 3.613	\$ 3.555	\$ 3.632	\$ 3.816
		25+ CCF	\$ 4.279	\$ 4.550	\$ 4.515	\$ 4.617	\$ 4.825

CUSTOMER RATE IMPACTS

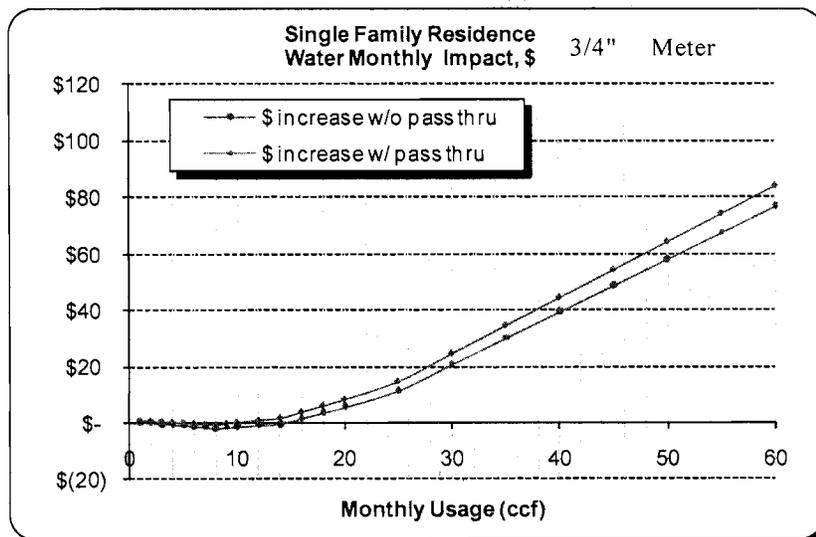
Before implementing any rate structure recommendations, it is important to understand how the proposed rate structure would impact water customers. RFC worked closely with City Staff to ensure that the new rate structure would recover the necessary revenue requirements while at the same time maintaining manageable customer impacts.

SECTION 5 - PROPOSED RATE STRUCTURE

Since residential customers represent a large part of the City's customer base and they have the biggest change in their rate structure. RFC has developed the following tables and figures which demonstrate the impacts of their proposed rates for FY 2011 across varying usage levels.

Figure 5-1, Table 5-4 and 5-5 show the rate impacts on customers in different formats for the proposed rates. Both the dollar and percentage impacts increase with usage level. Table 5-4 and 5-5 show the impacts with and without pass through charges respectively. From Table 5-4, customers with usage 8 hcf per month will have a moderate decrease in their bills of approximately \$1.79 decrease in their monthly bill without pass through charges, and an overall decrease of 3% or \$0.84 in their monthly bill with the pass through as shown on Table 5-5. From Table 5-5, average single family customers usage customers with 14 hcf per month will have a minimal impact, four percent or \$1.47 increase in their monthly bill with the pass through charges.

FIGURE 5 - 1- SINGLE FAMILY RESIDENCE IMPACTS - 3/4" METER



SECTION 5 - PROPOSED RATE STRUCTURE

TABLE 5 - 4 – SINGLE FAMILY RESIDENCE IMPACTS – ¾” METER

\$ increase w/o pass thru

Monthly Usage (hcf)	Existing	Proposed	% Increase	\$ Increase
1	\$ 7.10	\$ 7.58	7%	\$ 0.48
2	\$ 9.75	\$ 9.91	2%	\$ 0.16
3	\$ 12.41	\$ 12.24	-1%	\$ (0.17)
4	\$ 15.06	\$ 14.57	-3%	\$ (0.49)
5	\$ 17.72	\$ 16.90	-5%	\$ (0.82)
6	\$ 20.37	\$ 19.23	-6%	\$ (1.14)
7	\$ 23.03	\$ 21.56	-6%	\$ (1.47)
8	\$ 25.68	\$ 23.89	-7%	\$ (1.79)
9	\$ 28.34	\$ 26.81	-5%	\$ (1.53)
10	\$ 30.99	\$ 29.73	-4%	\$ (1.26)
12	\$ 36.30	\$ 35.57	-2%	\$ (0.73)
14	\$ 41.61	\$ 41.41	0%	\$ (0.20)
16	\$ 46.92	\$ 48.69	4%	\$ 1.77
18	\$ 52.23	\$ 55.97	7%	\$ 3.74
20	\$ 57.54	\$ 63.25	10%	\$ 5.71
25	\$ 70.82	\$ 82.33	16%	\$ 11.52
30	\$ 84.09	\$ 104.93	25%	\$ 20.84
35	\$ 97.37	\$ 127.53	31%	\$ 30.17
40	\$ 110.64	\$ 150.13	36%	\$ 39.49
45	\$ 123.92	\$ 172.73	39%	\$ 48.82
50	\$ 137.19	\$ 195.33	42%	\$ 58.14
55	\$ 150.47	\$ 217.93	45%	\$ 67.47
60	\$ 163.74	\$ 240.53	47%	\$ 76.79
70	\$ 190.29	\$ 285.73	50%	\$ 95.44
80	\$ 216.84	\$ 330.93	53%	\$ 114.09
90	\$ 243.39	\$ 376.13	55%	\$ 132.74
100	\$ 269.94	\$ 421.33	56%	\$ 151.39

SECTION 5 - PROPOSED RATE STRUCTURE

TABLE 5 - 5- SINGLE FAMILY RESIDENCE IMPACTS - 3/4" METER

\$ increase w/ pass thru

Monthly Usage (hcf)	Existing	Proposed	% Increase	\$ Increase
1	\$ 7.10	\$ 7.70	9%	\$ 0.60
2	\$ 9.75	\$ 10.15	4%	\$ 0.40
3	\$ 12.41	\$ 12.60	2%	\$ 0.19
4	\$ 15.06	\$ 15.05	0%	\$ (0.01)
5	\$ 17.72	\$ 17.50	-1%	\$ (0.22)
6	\$ 20.37	\$ 19.94	-2%	\$ (0.43)
7	\$ 23.03	\$ 22.39	-3%	\$ (0.63)
8	\$ 25.68	\$ 24.84	-3%	\$ (0.84)
9	\$ 28.34	\$ 27.88	-2%	\$ (0.45)
10	\$ 30.99	\$ 30.92	0%	\$ (0.07)
12	\$ 36.30	\$ 37.00	2%	\$ 0.70
14	\$ 41.61	\$ 43.08	4%	\$ 1.47
16	\$ 46.92	\$ 50.59	8%	\$ 3.67
18	\$ 52.23	\$ 58.11	11%	\$ 5.88
20	\$ 57.54	\$ 65.63	14%	\$ 8.09
25	\$ 70.82	\$ 85.31	20%	\$ 14.49
30	\$ 84.09	\$ 108.50	29%	\$ 24.41
35	\$ 97.37	\$ 131.70	35%	\$ 34.33
40	\$ 110.64	\$ 154.89	40%	\$ 44.25
45	\$ 123.92	\$ 178.09	44%	\$ 54.17
50	\$ 137.19	\$ 201.28	47%	\$ 64.09
55	\$ 150.47	\$ 224.48	49%	\$ 74.01
60	\$ 163.74	\$ 247.67	51%	\$ 83.93
70	\$ 190.29	\$ 294.06	55%	\$ 103.77
80	\$ 216.84	\$ 340.45	57%	\$ 123.61
90	\$ 243.39	\$ 386.84	59%	\$ 143.45
100	\$ 269.94	\$ 433.23	60%	\$ 163.29

Figure 5-2 shows the rate impacts for single family residences for three different usage scenarios 8, 14 and 24 hcf. Figure 5-3 shows the rate impacts for other standard customers with various usages. The figures also indicate the percentage increases for each usage level.

SECTION 5 - PROPOSED RATE STRUCTURE

FIGURE 5 - 2- SINGLE FAMILY RESIDENCE IMPACTS - 3/4" METER

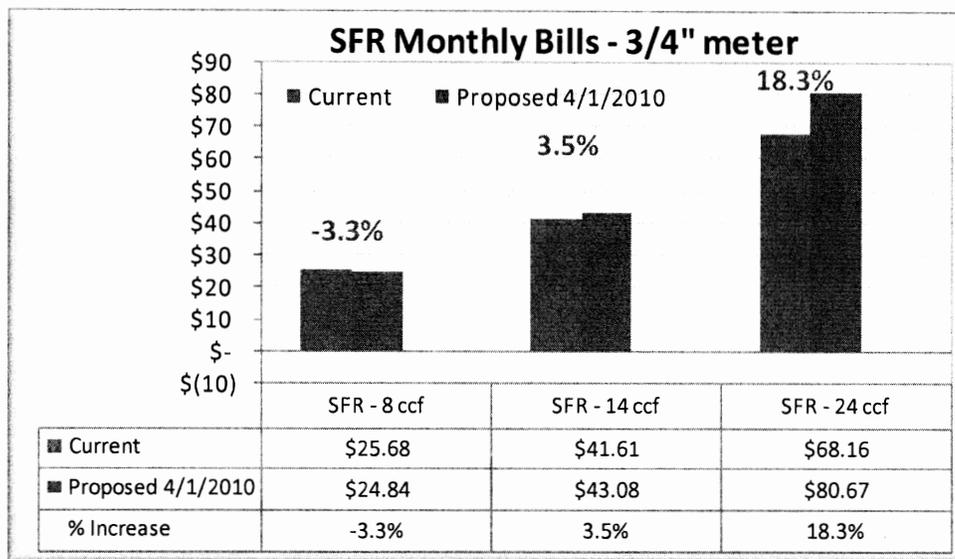
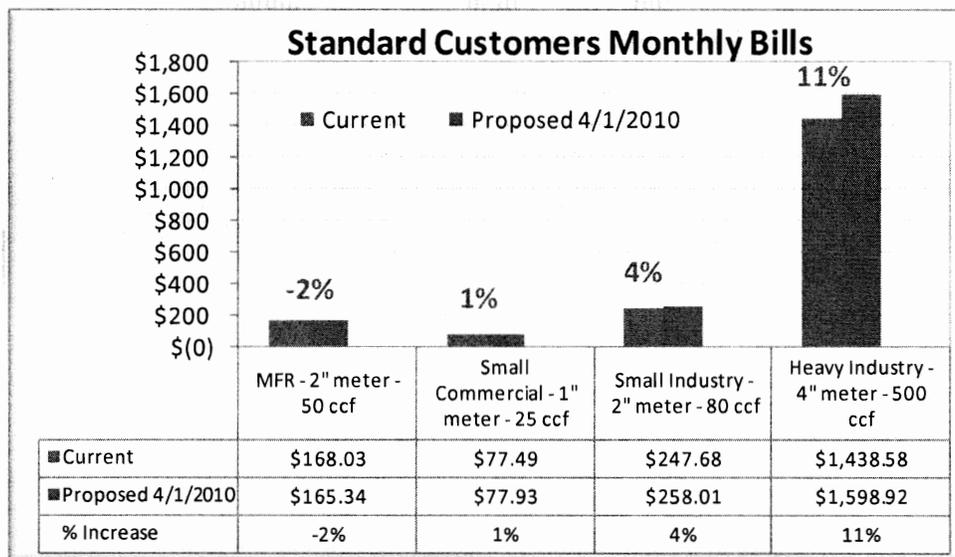


FIGURE 5 - 3- OTHER CUSTOMERS BILL IMPACTS

**RATE SURVEY**

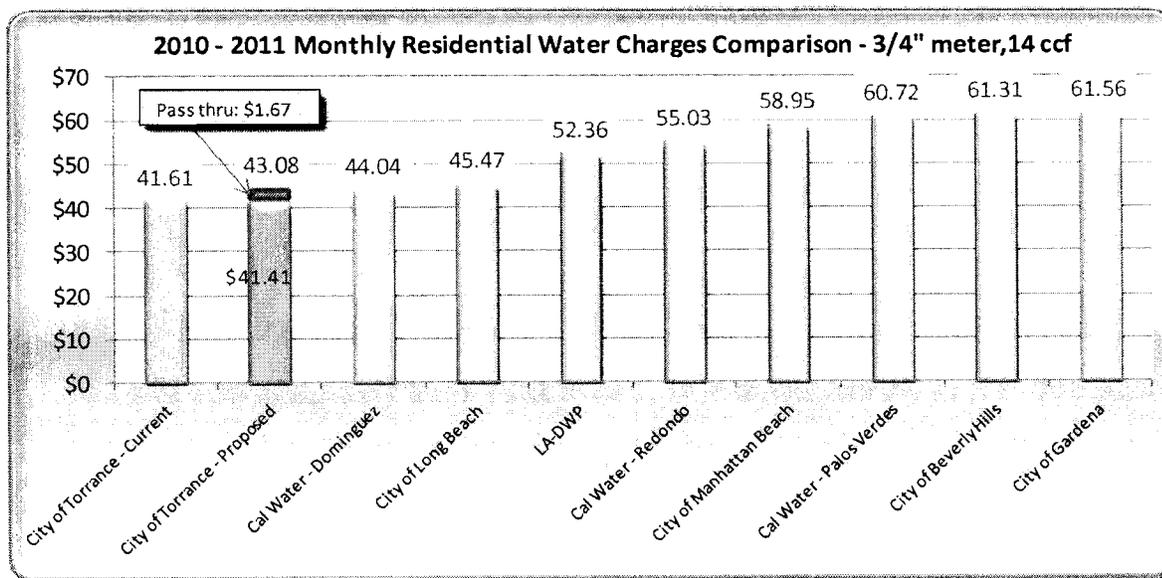
Comparing water rates with other representative communities can provide insights into a utility's pricing policies related to water service. Care should be taken, however, in drawing conclusions from such a comparison. High rates may not mean the utilities are operated and managed poorly.

SECTION 5 - PROPOSED RATE STRUCTURE

Many factors affect the level of costs and the pricing structure employed to recover those costs. Some of the most prevalent factors include geographic location, demand, water source, customer constituency, level of treatment, level of grant funding, age of system, level of general fund subsidization, and rate-setting methodology.

As shown in Figure 5 - 4, the City's existing monthly water charges are the lowest in a comparison with surrounding agencies. Even with the proposed increases, the City's charges are still the lowest compared to the neighboring utilities. Figure 5 - 4 compares monthly bills under existing and proposed rates to other bills within the region, using regional charges that will be in effect at the time of the City's rates increase. In order to provide a meaningful comparison, all bills are calculated on a monthly basis for an SFR customer using a 3/4" meter and a monthly usage of 14 hundred cubic feet which is the average usage for SFR customers in Torrance.

FIGURE 5 - 4- SINGLE FAMILY RESIDENCE MONTHLY CHARGE COMPARSION



SECTION 7 - CONCLUSION

CONCLUSION

After discussing different alternatives with City Staff and Commission, RFC and TMW have recommended the implementation of the following rate increases:

March, 2011	6.5%
January, 2012	6.5%
January 2013 to January 2015	CPI* each year

*CPI indicates Los Angeles Region Consumer Price Index

The recommended rate structures are as follows:

Single Family Residence: RFC recommends changing their current uniform rate structure to a four-tiered rate structure. The recommended **monthly tiers** and usage levels in each tier (modified for conservation) are:

First Tier: 0 – 8 hcf (46 percent of use and 27 percent of the bills fall within this block)

Second Tier: 9 – 14 hcf (27 percent of use and 34 percent of the bills fall within this block)

Third Tier: 15 – 24 hcf (19 percent of use and 30 percent of the bills fall within this block)

Fourth Tier: Over 24 hcf (8 percent of use and 9 percent of the bills fall within this block)

Low Income Customers (Seniors and Disabled): That discount of \$0.36 per hcf will maintain at the same level and continue to be applied on the rates shown above.

Standard Customers (All other customers): RFC recommends changing their current uniform rate structure to a two-tiered rate structure. The recommended **monthly tiers** and usage levels in each tier (modified for conservation) are:

First Tier: 0 – 10 hcf (9 percent of use and 25 percent of the bills fall within this block)

Second Tier: Over 10 hcf (91 percent of use and 75 percent of the bills fall within this block)

City of Torrance Accounts: The City will eliminate the discount applied to the City of Torrance. The water rates for these accounts will be the same as standard customers.

Recycled water rate structure will maintain the same. Commodity or quantity rates are set at 70 percent of the potable water rates in accordance with City Resolution 99-103.

**NOTICE OF PUBLIC HEARING
PROPOSED WATER RATE INCREASE
Daily Breeze 1-31-11 and 2-10-11**

DB 1-109

**NOTICE OF A PUBLIC HEARING
CITY OF TORRANCE**

Proposed Torrance Municipal Water Rate Increases

**Torrance City Council Meeting
7:00 p.m., Tuesday February 15, 2011
Torrance City Hall, Council Chamber
3031 Torrance Boulevard
Torrance, CA 90503**

The City of Torrance Public Works Department is proposing a series of annual increases in municipal water rates over the next 5 year period of 2011 through 2015 to fund needed water system infrastructure replacements, to meet regulatory requirements and to develop new local water resources to replace higher cost and less reliable imported water supplies. The proposed increases will lower long term water costs to help stabilize rates in future, enhance the reliability of the city's water supply and ensure the continued integrity of the municipal water system. The last internal increase in municipal water rates was over 15 years ago. The proposal only applies to the area of the city served by Torrance Municipal Water.

The proposal provides for overall internal rate increases of 6.5% in 2011 and 2012, with subsequent annual overall internal increases in 2013, 2014 and 2015 in accordance with the change in the Consumer Price Index (CPI). Rates will also continue to be adjusted by a revised pass through mechanism to recover higher wholesale water costs. To meet State mandated water usage reductions, the current rate structure will be converted to conservation based tiered schedule. A Low Income Senior and Disabled discount rate schedule will continue to remain in effect. If approved, the proposed 2011 rate increase will become effective March 1, 2011.

Objections to the increase must be submitted to the City Clerk's office prior to the completion of the Public Hearing of the City Council meeting held in the City Council Chambers. For information regarding the process, contact the City Clerk's Office at 310-618-2870. For other questions, contact the Public Works Department at 310-781-6900 or visit the website at: www.TorranceCa.Gov/PublicWorks

Sue Herbers
City Clerk

Pub: January 31; February 10, 2011

PUBLIC NOTICE

PUBLIC HEARING FEBRUARY 15, 2011

The City of Torrance Public Works Department is proposing annual increases to the Torrance Municipal Water rates over the next 5 years as a means to fund needed water system infrastructure replacements, to implement new regulatory mandates, to stabilize long-term water rates, and to develop new local water resources to replace high cost imported water supplies. The proposed increase in water rates will also help improve the reliability of the community's water supply.

The rate proposal applies only to the area within the city served by Torrance Municipal Water. To meet new State mandated water usage reduction targets for urban areas, the current rate structure will be converted to a conservation-based tiered schedule to encourage conservation. Your actual usage will vary depending on your usage. Please visit www.TorranceCA.Gov/PublicWorks to determine your increase based on your individual usage.

The last increase to Torrance Municipal water rates was over 15 years ago. Since then, the only increases have been automatic pass through adjustments to compensate for the higher water costs charged by our wholesale water suppliers. Torrance Municipal Water (TMW) imposes its rates to cover TMW's actual costs of providing high quality water service to its customers. The rates have been calculated so that each customer pays for the cost of service to their account. TMW rates are not used to fund costs unassociated with water service. Even with the proposed adjustments, TMW water rates are expected to remain among the lowest in the area.

This proposed series of annual increases to internal Torrance Municipal Water service area rates over the 5 year period of 2011 through 2015 as follows: Overall system average internal increase of 6.5% in 2011 and 6.5% in 2012, with subsequent annual overall internal increases in 2013, 2014 and 2015 by the change in the Consumer Price Index (CPI) for the Los Angeles/Riverside/Orange County Area. Rates will also continue to be adjusted during this period by a pass through mechanism to recover higher wholesale water costs. The pass through method will be revised according to the water rate model. Please submit any comments about this increase in writing before the completion of the Public Hearing. For more information on submitting comments, contact the City's Clerk's Office at 310-618-2870.

Questions or comments may be directed to the Public Works Department at (310) 781-6900 or publicworkinfo@TorranceCA.gov. Please visit www.TorranceCA.Gov/PublicWorks for additional information.

City Council

Frank Scotto, Mayor

Gene Barnett	Cliff Numark
Tom Brewer	Susan M. Rhilinger
Pat Furey	Bill Sutherland

CITY CLERK
Sue Herbers
CITY TREASURER
Dana Cortez



City of Torrance
Public Works Department
20500 Madrona Avenue
Torrance, California 90503-2970
Robert J. Beste
Public Works Director

**Proposed Torrance Municipal Water Rate and Service Charge Schedule
Proposed 2011 Rates (to be effective March 1, 2011)**

Quantity Usage (Commodity) Conservation Tiered Rate Schedule

		Monthly usage block (ccf*)	Internal rates \$/ccf	Pass through adjustment \$/ccf	Total proposed commodity rate \$/ccf
Single family residential (SFR)	Tier 1	First 8 ccf	\$2.33	\$0.12	\$2.45
	Tier 2	9-14 ccf	\$2.92	\$0.12	\$3.04
	Tier 3	15-24 ccf	\$3.64	\$0.12	\$3.76
	Tier 4	25 ccf and over	\$4.52	\$0.12	\$4.64
*ccf = 100 cubic feet/Billing Unit					
All other customers (a)	Tier 1	First 10 ccf	\$2.33	\$0.12	\$2.45
	Tier 2	11 ccf and over	\$2.97	\$0.12	\$3.09
Low income senior and disabled	Tier 1	First 8 ccf	\$1.97	\$0.12	\$2.09
	Tier 2	9-14 ccf	\$2.56	\$0.12	\$2.68
	Tier 3	15-24 ccf	\$3.28	\$0.12	\$3.40
	Tier 4	25 ccf and over	\$4.16	\$0.12	\$4.28

(a) Excludes contractual rates

Monthly Meter Service Charge (Readiness to Serve) Rate Schedule	
Meter Size	Proposed charge per month
3/4"	\$5.25
1"	\$7.10
1 1/2"	\$11.73
2"	\$17.29
3"	\$34.89
4"	\$60.82
6"	\$132.12
8"	\$224.73
10"	\$354.38
12"	\$465.51
14"	\$697.02

Monthly Private Fire Protection (Fireline Service Charge)	
Fire meter size	Proposed charge per month
2"	\$5.06
3"	\$10.01
4"	\$18.53
6"	\$49.14
8"	\$101.92
10"	\$181.31
12"	\$291.35

Rates 2012 through 2015: The rates shown above will automatically adjust effective January 1 each year from 2012 through 2015. Each amount shown above will increase by 6.5% in 2012, and by the change in the consumer price index for all urban consumers for the Los Angeles/Riverside/Orange County Area for each year 2013 through 2015. Additionally, a portion of the commodity charge for each hundred cubic feet (ccf) of water is designated as a "pass through charge" for water purchased by Torrance Municipal Water (TMW) from sources with variable rates. This portion of the commodity charge will be adjusted annually to reflect the actual costs of such purchased water. All these adjustments will occur automatically without a hearing.

Note: Each customer pays a monthly base charge and a variable charge. The base charge, also known as a "meter service charge" or "readiness to serve charge", is calculated based on the customer's meter size. The variable charge, also known as "quantity usage charge" or "commodity charge", is calculated based on the quantity of water consumed during the latest meter reading period. Customers are billed for water consumption in ccf. Each ccf (also known as a billing unit) equals approximately 748 gallons. Most customers, except for the largest customers, are billed every two months.



Notice of Public Hearing Regarding the Proposed Increases to Internal Torrance Municipal Water Rates

During the regularly scheduled meeting of the City Council on **February 15, 2011 at 7:00 p.m.**, the City Council will hold a Public Hearing in the City Council Chambers located at 3031 Torrance Blvd., Torrance, to discuss the proposed increases to internal Torrance Municipal Water (TMW) Rates over the five year period of 2011 through 2015. In addition, rates will also be adjusted during this period by a revised pass through mechanism according to the water rate model to recover higher wholesale water costs levied by water suppliers to the municipal service area. Torrance Municipal Water provides water service to approximately 80% of the City.

The City Council is considering increases to Torrance Municipal water rates for the next five year period of 2011 through 2015. This is your opportunity to file a protest to this potential action. If protests, by 50% plus one of the customer accounts served by Torrance Municipal Water, are received by the City Clerk by the end of the Public Hearing, the water rate increases cannot be adopted. At the City Council meeting held on December 14, 2010, the City Council approved noticing for the proposed rate increases to be considered for approval at the Public Hearing mentioned above.

Questions or comments may be directed to the Public Works Department at (310) 781-6900 or publicworkinfo@TorranceCA.gov. Please visit www.TorranceCA.Gov/PublicWorks for additional information.

CITY OF TORRANCE GUIDELINES FOR SUBMISSION AND TABULATION OF PROTESTS

Where notice of a public hearing with respect to the adoption or increase of a utility charge has been given by the City pursuant to Article XIID, Section 6 of the California Constitution, the following guidelines apply:

Submission of Protests

1. Any customer billing party of record provided water service by Torrance Municipal Water (TMW) may submit a written protest to the City Clerk, either by delivery to the City Clerk's office, at 3031 Torrance Blvd., Torrance, CA 90503, by mail to the City Clerk, 3031 Torrance Blvd, Torrance, CA 90509-2970, or by submitting the protest at the public hearing. Protests must be received by the end of the public hearing. No postmarks will be accepted; therefore, any protest not actually received by the close of the hearing, whether or not mailed prior to the hearing, will not be counted. Emailed, faxed and photocopied protests will not be counted.

For purposes of these Guidelines the term "customer billing party of record" means the party liable for payment of water charges and fees as recorded in TMW customer billing records.

2. Each protest must identify the customer billing account number or street address and include the original signature of the customer billing party of record. Although oral comments at the public hearing will not qualify as a formal protest unless accompanied by a written protest, the City Council welcomes input from the community during the public hearing on the proposed water rates and fees.

3. If a customer account served by the City has more than one customer billing party of record either may submit a protest, but only one protest will be counted per customer account served by TMW and any one protest submitted in accordance with these rules will be sufficient to count as a protest for that customer account.
4. In order to be valid, a protest must bear the original signature of the customer billing party of record with respect to the customer account identified on the protest. Protests not bearing the original signature of a customer billing party of record will not be counted.
5. Any person who submits a protest may withdraw it by submitting to the City Clerk a written request that the protest be withdrawn. The withdrawal of a protest must contain sufficient information to identify the affected customer billing party of record and the name of the customer billing party of record who submitted both the protest and the request that it be withdrawn.
6. A fee protest proceeding is not an election.
7. To ensure transparency and accountability in the fee protest tabulation, protests will constitute disclosable public records from and after the time they are opened during tabulation.

Tabulation of Protests

1. The City Clerk, or the Clerk's designee, will determine the validity of all protests. The Clerk will not accept as valid any protest if the Clerk determines that any of the following conditions exist:
 - a. The protest does not identify a water account served by the City.
 - b. The protest does not bear an original signature of a customer billing party of record identified on the protest.
 - c. The protest does not state its opposition to the proposed rates/fees.
 - d. The protest was not received by the City Clerk before the close of the public hearing on the proposed rates/ fees.
 - e. A request to withdraw the protest is received prior to the close of the public hearing on the proposed rates/ fees.
2. The City Clerk's decision that a protest is not valid constitutes a final action of the City and is not subject to any internal appeal.
3. A majority protest exists if written protests are timely submitted and not withdrawn by the property owners of a majority (50% plus one) of the customer accounts provided water service by the City subject to the proposed rate/fee.

At the conclusion of the public hearing, the City Clerk will complete the tabulation of all protests received, including those received during the public hearing and will report the results of the tabulation to the City Council upon completion. If review of the protests received demonstrates that the number received is manifestly less than one-half of the customer accounts provided water service by the City with respect to the fee that is the subject of the protest, then the City Clerk may advise the City Council of the absence of a majority protest without determining the validity of all protests.

4. If at the conclusion of the public hearing, the City Clerk determines that additional time will be required to tabulate the protests, the Clerk will so advise the City Council, which may adjourn the meeting to allow the tabulation to be completed on another day or days. If so, the City Council will declare the time and place of tabulation, which will be conducted in a place where interested members of the public may observe the tabulation, and the Council will declare the time at which the meeting will be resumed to receive and act on the tabulation report of the City Clerk.

To Water Customer Billing Parties of Record

For your written protest to be valid you need to ensure that the following information is included:

- ✓ The protest must include the Street Address or Customer Account Number.
- ✓ The protest must have the original signature of the Customer Billing Party of Record.
- ✓ The protest must state its opposition to the proposed rate/fee increase.
- ✓ The protest must be received by the City Clerk before the close of the Public Hearing on the proposed rate/fee.
- ✓ A protest form is enclosed should you wish to file a protest against the proposed rate/fee increase.

PROTEST FORM

(Note all protests must be received by 2-15-11 deadline. Postmarks, faxes, emails or photocopied protests will not be accepted)

Deliver or Mail to:

The City Clerk

City of Torrance

3031 Torrance, Blvd.

Torrance, CA 90503

Date _____

Street Address **OR** Customer Billing Account Number

RE: Proposed Torrance Municipal Water Rate Increase

CHECK ONE:

- Protest Torrance Municipal water rate increase
- Withdraw previously submitted protest

Original Signature

Print Name