CITY OF BEVERLY HILLS
STAFF REPORT

Meeting Date: May 6, 2008

To: Honorable Mayor & City Council

From: Shana Epstein, Environmental Utilities Manager

Subject: Wastewater Rates

Attachments:
1. Raftelis Financial Consultants Wastewater Rate Study Final Report

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INTRODUCTION

On April 15, 2008, staff presented the recommended water and solid waste utility rates to the City Council. This memorandum discusses the third utility – wastewater. As an aside, the fourth utility is stormwater. The City is unable to bring forth rates to meet the revenue requirements for this utility because of the requirements under Proposition 218. To raise these rates a popular election with a 2/3rds approval would have to occur.

Last spring, when staff brought forward FY 07/08 rates, it was concluded that wastewater rates were the only rates that had not been reviewed by an outside consultant for compliance with existing regulatory requirements and cost of service. This fiscal year, as part of the Wastewater Utility's workplan, staff hired Raftelis Financial Consultants (RFC) to complete such a study. In brief, the summary concluded the rate structure's primary objective should be financial sufficiency and stability, followed by ease of implementation. These considerations yielded a flat rate for residential customers and altered commercial rates leading to a fixed rate regardless of meter size, and a variable rate based on both flow and strength (BOD and SS). The strength rate would only be charged to heavy users such as restaurants.

DISCUSSION

Sub-Programs and Upcoming Regulations

Within the Wastewater Enterprise Fund the City has the following sub-programs: maintenance, blockage, treatment, conservation, and capital improvement programs.

Maintenance: This sub-program maintains the wastewater conveyance system (sanitary sewer system), which includes, but is not limited to, inspection, cleaning and repair. The City's preventative maintenance program is measured by minimizing liability to the City from sewer blockage incidents. The City utilizes the best management practices and latest technology to maintain optimally the wastewater systems for the benefit of the residents, businesses and the City.

Blockage: This sub-program utilizes the City's wastewater crews to respond to calls from residents or businesses to address possible City mainline sewer stoppages that may cause back-ups on customer property or sanitary sewer overflows (SSO) to the storm drain system. Crewmembers respond to all calls and determine necessary action 24 hours per day, 7 days per week. Response times are as quick as possible. In addition, the City reports specific SSOs accordingly to the State of California. This reporting process is on-line and is in its second year of operation.

Treatment: The City of Beverly Hills contracts with the City of Los Angeles to treat wastewater at Hyperion Treatment Plant and maintains a contract with the County of Los Angeles to administer the industrial waste pre-treatment program in which the City of Los Angeles is the responsible party. The City continues to manage and monitor effectively the City's contractual obligations to the City and County of Los Angeles. This sub-program is the bulk of the wastewater budget. It includes the operation and maintenance costs of the City of Los Angeles' Hyperion Treatment Plant and the conveyance system to the plant, which is part of the amalgamated system. This arrangement is the most cost effective alternative for disposing of the City's wastewater.

Conservation: This sub-program produces community outreach and education materials recommending the proper disposal of liquid waste associated with hazardous cleaning solvents, grease, and other liquids or solids that deteriorate the sanitary sewer and treatment infrastructure.

Capital Improvement Program: The two major capital improvement projects are maintaining and repairing the City's conveyance system and the City's contribution to the City of Los Angeles' amalgamated system. Examples of internal projects are replacing existing lines or expanding the capacity of lines to address growing demand in certain areas. In addition, staff is updating the City's master plan in order to be compliant with new regulations.

New Regulations: In May 2006, the State Water Resources Control Board approved Waste Discharge Requirements (WDR) that require the City to complete on-line reporting for sanitary sewer overflows and develop a Sanitary Sewer Management Plan. The plan is a comprehensive approach to long range financial planning, long range capital planning, emergency response planning, and regular maintenance planning. It is anticipated that the required implementation of this plan will increase demands for funds. The City will be submitting the second phase of the WDR in June.

Rate Restructuring

The City's existing wastewater rate structure was implemented in FY 93/94. At that time, it was decided to shift away from a residential rate based on flow and charge a flat rate instead. Prior to this change the average residential rate was $85 in FY 92/93; after the rate was decreased to below $30. The commercial rate was based upon the potable water meter size and flow. A strength charge was on the books, but never charged due to the lack of specific account information. Given the considerable time lapse, there is little institutional knowledge to explain why the rates were changed.

The study conducted by RFC included a thorough assessment of what customers are paying vis-à-vis the service they are receiving. It was concluded that residential customers return 33% of their water through the wastewater conveyance system while commercial customers return 95%. Commercial customers, who only consume 18% of the potable water, are accountable for 45% of the wastewater that reaches the Hyperion Wastewater Treatment Plant. Residential customers are accountable for 55% of the

wastewater stream. Furthermore, RFC studied our customer base by examining those customers who are typically considered to have high strength or more solids in their waste water flow. This customer base includes hotels with restaurants, bakeries, grocery stores and restaurants.

RFC subsequently held a pricing objective workshop with the Public Works Commission and representative staff. Via the use of a questionnaire, the workshop determined what factors should be evaluated in the creation of an appropriate rate model.

The study also addressed regulatory compliance with Proposition 218 and the federal Environmental Protection Agency's Clean Water Program. Proposition 218 is a state law that requires utility rates to be based on cost of service. The EPA standards are subject to wastewater agencies that have their flows treated by a federally funded facility, such as Hyperion.

Ultimately, four alternatives were presented to the Commission and they were compared to the results of the pricing objectives workshop. The Commission selected one alternative for further in-depth analysis.

The recommended alternative ensures that the customer base is paying the appropriate share for the services it receives. The residential rate will still be one flat rate per dwelling unit while the commercial rate will have a fixed component (not based on the meter size) and two variable factors based on flow and strength – if identified as a high strength user. This alternative was seen as similar enough to the existing system while achieve the pricing objectives of financial sufficiency, revenue stability and rate stability.

Attached is the final report from RFC's wastewater rate study completed for the City. The City did ask RFC to complete additional evaluations of how to implement the new rate structure over two, three or four years. A two year gradual implementation would require no change to the existing commercial rate structure and implement the increase to the residential customer slower with FY 08/09 being $12 less per bi-monthly period as noticed and the noticed residential rate for FY 09/10. The two, three and four year scenarios are not included in RFC summary, but available if the City Council would like additional information. If the City Council would prefer to implement the recommended rate structure over three or four years then the wastewater rates would have to be re-noticed to the customers.

Revenue Requirement

During last year's budget presentation, staff forewarned that the fund was dipping into reserves to pay for capital programming. Staff expects to use $2 million from reserves for FY 08/09. The City will begin building its reserves for future years in FY 09/10.

The Public Works Commission considered debt financing as a possible alternative. Staff recommended against issuing debt and noted that the present condition of the bond market and the size of the Hyperion Capital Program would not lend to prudent financing practices. For FY 08/09, staff is requesting an additional $1.5 million to be collected through rates and an addition $2 million in FY 09/10.

The Public Works Commission approved the new wastewater rate structure with the increased revenue requirements to be distributed to the community for noticing. They will make their final recommendation on all the rates on May 8, 2008.

Meeting Date: May 6, 2008

FISCAL IMPACT

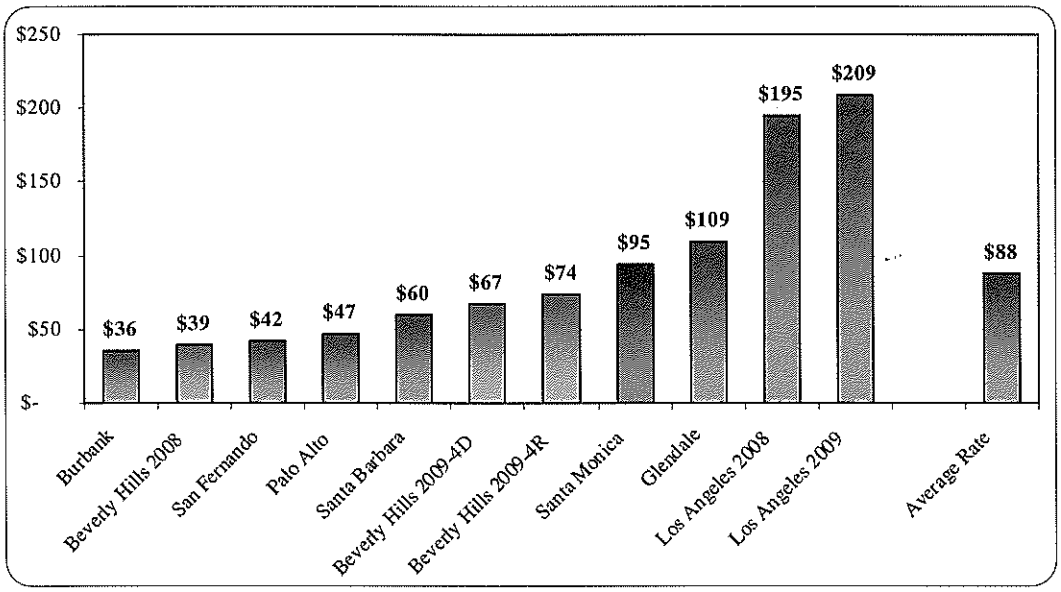
The funds collected for the Wastewater Enterprise Fund allow this utility to function independently from the General Fund.

The bi-monthly fiscal impact to the customer base is shown below:

Customer	FY 07/08	FY 08/09	FY 09/10
Single Family Resident	$39	$73.97	$87.36
Six Unit Apt Building	$234	$443.82	$524.28
Hotel w/ Restaurant	$2,463.96	$2,718.62	$3,574.20
Small Business	$418.60	$352.02	$413.40

In addition to these rate increases, Staff is proposing that, should costs not exceed the Consumer Price Index (CPI) for any given year, rates be increased in proportion to the CPI. This recommendation will help to offset the gradual erosion of future fund balances caused by inflation while also limiting the necessity of exhaustive rate analyses.

RFC prepared a bi-monthly residential wastewater rate comparison with the proposed rate structure and increased revenue requirements as illustrated below. The rate being proposed by City staff is labeled Beverly Hills 2009 – 4R. The "R" is for rated funded capital program. It is also important to note that these rates are compared with neighboring communities existing rates.



RECOMMENDATION

This item is for informational purposes only; the Council will host a public hearing on this matter on May 20, 2008.

David Gustavson
Approved By

4/29/2008

CITY OF BEVERLY HILLS

Wastewater Rate Study
Final Report

April 3, 2008

RFC
RAFTELIS FINANCIAL
CONSULTANTS, INC.

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I. Background

The City of Beverly Hills (City) owns and operates the wastewater collection system that collects wastewater from all its residents and businesses and discharges it to the Hyperion Treatment Plant (Hyperion) which is part of the Hyperion System that provides wastewater collection, treatment, and disposal services for an approximately 600 square mile service area. The Hyperion System, owned and operated by the City of Los Angeles (L.A.), provides wastewater services to portions of Los Angeles and 28 other Subscribing Agencies pursuant to sewage disposal contracts. The Hyperion System consists of the 450 MGD Hyperion Plant and two water reclamation plants, 28 pumping stations, and a collection system comprising local service lines and major collection interceptors. Under the terms of the April 22, 1999 Hyperion Agreement, all treatment and disposal charges are based on actual discharges and comply with federal and state requirements for measuring discharge in terms of flows and strength. The Hyperion Agreement also requires that L.A. and all the Subscribing Agencies pay equivalent rates.

As a Subscribing Agency of the Hyperion System, the City is subject to many of the same federal and state regulatory requirements as L.A. These regulatory requirements are administered by the California State Water Resources Control Board (SWRCB). Since L.A. has received federal grants and state loans, the City is also obligated to comply with SWRCB's Revenue Program Guidelines. The guidelines require that recipients of state-administered grants and/or loans establish a system of user charges that recovers operations, maintenance, and replacement costs from users on a basis proportionate to use. The guidelines specifically require a fair and equitable apportioning of costs based on each user class's contributions of flow and strength of wastewater pollutants discharged.

II. Study Objectives and Assumptions

The City engaged Raftelis Financial Consultants (RFC) in 2007 to conduct a wastewater rate study to evaluate the existing rate structure and recommend alternative structures that will meet state and regulatory requirements, the City's study objectives, and the City's pricing objectives. RFC was also engaged to develop a rate and financial planning model (rate model) that would provide more detailed forecasts to assist in the preparation of updating rates in future years. The City's study objectives were as follows:

- Develop a five-year financial plan which will:
  - Address capital needs;
  - Recover adequate and stable revenues; and,
  - Consistent with City's financial policies.
- Identify and evaluate alternative rate structures which will:
  - Satisfy the City's pricing objectives;
  - Minimize customer impacts; and,
  - Provide conservation incentives.
- Develop a financial planning and rate model which will:
  - Incorporate the City's operations and maintenance costs, and capital improvement program;

- Calculate rates and charges; and,
- Allow sensitivity analyses and easy updates.

III. Existing Rates/Rate Structure

The City's existing wastewater structure consists of a uniform bi-monthly charge per dwelling unit for all residential customers. Non-residential customers are assessed a fixed bi-monthly meter charge based on meter size and a uniform commodity rate based on water usage. The City has also established a strength surcharge based on biochemical oxygen demand (BOD) and suspended solids (SS) but these surcharges have not been assessed to any customers. In July 2007, the City increased its wastewater rates by 20 percent in order to meet operating and capital expenses necessary to provide quality service to all its customers. Table 1 below shows the City's existing rates.

Table 1 – Existing Rates
Effective 7/20/07

	Bimonthly Charges
Service Charge	
Residential Customers	$ 39.00
Non-residential Customers	
1" meter	$ 53.80
1-1/2" meter	$ 76.38
2" meter	$ 183.96
3" meter	$ 334.63
4" meter	$ 669.28
6" meter	$ 1,278.97
Quantity/Quality Charge (Non-residential only)	
Quantity charge ($/ccf)	$ 4.56
BOD surcharge ($/ccf)	$ 0.41
SS surchage ($/ccf)	$ 0.41

IV. Financing Plan

A review of the wastewater system's revenue requirements is the first step in the rate design process. The review involves an analysis of annual operating revenues under existing rates, capital revenues, O&M and capital expenses, and operating and capital reserve requirements. This section provides a discussion of the projected O&M and capital expenditures, capital improvements financing plans, debt service requirements, and the revenue adjustments required to ensure the financial stability of the wastewater enterprise.

The study is based on several assumptions, which are listed below:

1. The study period ranges from fiscal year (FY) 2008 to FY 2013.
2. Capital improvements expenses are inflated by five percent per year for the first two years, and three percent per year thereafter.
3. Interest earnings on reserves are calculated at 3.5 percent per year.

4. Target reserve balance is set at 50 percent of total operating revenue.
5. The Hyperion capital payments are budgeted at 80 percent of L.A.'s projected expenses.
6. Customer accounts and consumption data is based on FY 2007 data obtained from the City.

A. Revenue Requirements

The wastewater utility annual revenue requirements consist of two components: O&M and capital expenditures. The City's FY 2008 budget was used as starting point from which to project O&M expenses. All of the expenses in Table 2, with the exception of Contractual Services and Internal Service Fund Charges, were escalated at 3% per year. Contractual Services include the Hyperion Treatment Plant O&M costs passed on by L.A. These costs are increasing at approximately 3.5% per year, and are a significant portion of the City's expenses. In FY 2008, treatment services are projected to account for approximately 21% of the City's O&M expenses. Internal Service Fund Charges are escalated by 2% per year, consistent with the City's projections. Other Charges represent the City's existing debt service payments and bad debt charges. Table 2 summarizes the City's annual O&M expenses.

Table 2 - Summary of O&M Expenses

Line No.		Budgeted 2008	Projected 2009	Projected 2010	Projected 2011	Projected 2012	Projected 2013
1	Salaries and Benefits	$ 847,219	$ 872,635	$ 898,814	$ 925,779	$ 953,552	$ 982,159
2	Materials and Supplies	$ 80,950	$ 83,379	$ 85,880	$ 88,456	$ 91,110	$ 93,843
3	Contractual Services	$ 1,751,412	$ 2,778,053	$ 2,861,966	$ 2,964,097	$ 3,070,255	$ 3,180,352
4	Internal Services Fund Charges	$ 2,451,363	$ 2,500,390	$ 2,550,398	$ 2,601,406	$ 2,653,434	$ 2,706,503
5	Other Charges	$ 1,708,486	$ 1,707,096	$ 1,703,788	$ 1,708,527	$ 1,710,598	$ 1,704,416
6	Other Contractual Services	$ 10,460	$ 10,774	$ 11,097	$ 11,430	$ 11,773	$ 12,126
7	**TOTAL O&M EXPENSES**	**$ 6,849,890**	**$ 7,952,327**	**$ 8,111,943**	**$ 8,299,695**	**$ 8,490,722**	**$ 8,679,399**

In addition to the O&M expenses, the City also incurs capital costs. Apart from the capital expenses used to repair and rehabilitate the City's collection system, the City has to pay its proportionate share of the costs of the repairs and improvements made to the Hyperion treatment plant and conveyance system. For the current fiscal year (FY 2008), the Hyperion capital charges are projected to account for over 53 percent of the total City's capital improvement plan (CIP). In future years, the Hyperion payment ranges from 43 percent to as much as 90 percent of the City's annual capital expenses. Table 3 shows the City's projected CIP.

Table 3 - Capital Improvement Plan

Line No.	Project #	Description	Budgeted 2008	Budgeted 2009	Projected 2010	Projected 2011	Projected 2012	Projected 2013
1	0066	Repairs to Sewer System	$ 660,000	$ 2,840,500	$ 231,000	$ 1,080,000	$ 1,221,000	$ 1,327,074
2	0197	Hyperion Plant *	$ 1,981,983	$ 2,365,360	$ 3,437,600	$ 4,265,120	$ 4,363,360	$ 3,776,560
3	0896	Public Works Asset Management	$ 36,500	$ 36,500	$ 38,325	$ 39,420	$ -	$ -
4		Vehicle Replacement	$ -	$ 270,000	$ -	$ -	$ -	$ -
5		FY 07 Carryover	$ 1,031,422	$ -	$ -	$ -	$ -	$ -
6								
7	**TOTAL CIP (inflated)**		**$ 3,709,905**	**$ 5,512,360**	**$ 3,706,925**	**$ 5,384,540**	**$ 5,584,360**	**$ 5,103,634**

* % of projected Hyperion CIP 80.00%

B. Financing Options

In order to fund the CIP, the City has two options: using debt funding to spread the costs over a longer time frame or using cash financing through rates and reserves. In the first option, the debt-funded scenario, the City would issue two separate bond issues, $3 million in FY 2009 and $8 million in FY 2011 to finance the projected Hyperion capital charges. To calculate the debt service for these debt issues, RFC assumed a 20-year term with a five percent interest rate and three percent issuance cost. Table 4 below shows the total proposed debt.

Table 4 - Proposed Debt

	Proposed 2009	Proposed 2010	Proposed 2011	Proposed 2012	Proposed 2013
Proposed Debt - LA	$ 3,000,000	$ -	$ 8,000,000	$ -	$ -
Proposed Debt - City	$ -	$ -	$ -	$ -	$ -
Total Proposed Debt	**$ 3,000,000**	**$ -**	**$ 8,000,000**	**$ -**	**$ -**

In the second option, the rate-funded scenario, the entire CIP would be paid for through user rates.

C. Revenue Adjustments

RFC's analysis shows that the City's current revenue will not be sufficient to fund all the City's projected expenditures. Without revenue adjustments, the City will run out of reserves in FY 2010. In addition to collecting sufficient revenue to cover annual expenses, prudent business practice requires the City to maintain an operating reserve to pay for any unexpected expenditures that may arise. In keeping with City policy, RFC recommends a reserve level equal to 50 percent of annual operating revenue. Since it is not mandatory for the City to meet the recommended reserve level immediately, the City can build its reserve over time to minimize customer impacts.

The projected adjustments depend on the financing option used. In the debt-funded scenario, rate adjustments are minimized and spread over a longer period of time, whereas the rate-funded scenario requires higher rate adjustments but for a shorter period of time. Table 5 on the following page compares the necessary rate adjustments for the two scenarios.

Table 5 - Proposed Rate Adjustments

Fiscal Year	Rate-funded	Debt-funded
2009	20%	9%
2010	20%	9%
2011	10%	9%
2012	3%	9%
2013	0%	8%

V. Cost of Service

The section provides an overview of the allocation of operating and capital costs to the Flow, BOD, and SS strength parameters, the determination of the unit rates, and the calculation of commodity charges assessed to different customer classes.

Total revenue requirements, net of miscellaneous revenue, represents the net costs of providing service, or costs to be recovered through customer rates and charges. This net cost of providing service is then used as the basis to develop unit rates for the wastewater parameters and to allocate costs to the various customer classes in proportion to the wastewater services rendered. The concept of proportionate allocation to user classes implies that allocations should take into consideration the quantity and strength of wastewater a user class contributes.

In this study, wastewater rates were calculated for FY 2009, and accordingly FY 2009 revenue requirements are used in the cost allocation process.

Cost Allocation to Wastewater Parameters

The three cost allocation parameters are Flow, BOD, and SS. BOD and SS constitute the strength components of the wastewater discharge. The allocation of costs to the three parameters involves:

- Identification of functional areas and costs of the wastewater system.
- Apportioning of FY 2009 costs into O&M and Capital costs of service.
- Allocating the O&M and capital costs to the three parameters.

Costs are first categorized as collection, treatment, billing, customer service, etc. Then, the functional costs are then allocated to Flow, BOD, and SS. Finally, the cost of service allocations and unit rates are developed for each customer class identified in the study.

RFC has developed a cost of service model to calculate the City's actual costs to serve each type of customer. Our method used is consistent with SWRCB guidelines and with standard industry practice. In order to determine the cost of providing service to each customer class, RFC allocated the City's O&M and capital expenses to three cost centers: Flow, BOD and SS. All of the City's collection costs are allocated to flow. The O&M and Capital costs associated with the Hyperion System are allocated based on percentages provided by L.A. to Flow, BOD, and SS used for the Hyperion System.

The cost of providing wastewater service varies with the strength of wastewater. To differentiate among the different types of customers, RFC identified high strength customers such as restaurants,

bakeries, mortuaries, etc. In the future, the remaining non-residential customers should also be classified based on the type of customer.

Since there are no flow data available for each customer type, RFC conducted a mass balance to determine the flow and strength data per customer class. Table 6 details the mass balance calculation.

Table 6 - Mass Balance

	Water Use ccf	% Return to Sewer	WW Flow mgd	BOD mg/L	SS mg/L	Flow ccf	BOD lbs/yr	SS lbs/yr
Total Flow	4,761,432	65%	6.299	191	187	3,073,710	3,662,384	3,585,685
Less: I&I (30%)			1.890	25	25	922,113	143,811	143,811
Net from Customers						2,151,597	3,518,573	3,441,874
High Strength Users	262,414	95%	0.51	768	571	249,293	1,194,372	888,003
Total from Remaining Customers						1,902,304	2,324,202	2,553,871
Non Residential	701,134	95%	1.37	195	215	666,077	810,265	893,369
Residential	3,797,884	33%	2.53			1,236,226	1,513,937	1,660,502
			gpd					
Per Residential Unit			206	196	215	101	196	215

The mass balance is used to determine the flow and strength factors for the residential class. The City has a high groundwater table and therefore RFC estimated an infiltration and inflow (I&I) factor of 30 percent to determine the total wastewater flow from customers. Non-residential customers are estimated to discharge 95 percent of their total water usage into the wastewater system. The mass balance shows that an average residential unit (both single and multifamily) discharges an average of 206 gallons per day (gpd) into the wastewater system and has a strength of 196 mg/L of BOD and 215 mg/L of SS. All customers, other than the high strength customers, are assumed to have residential strength. Based on the City's characteristics, RFC believes that the assumptions used and resulting factors are reasonable.

VI. Rate Structure Alternatives

In order to determine the most viable rate structure alternatives for the City, a workshop was held with the Public Works Commission (Commission) as well as City staff from several departments to determine the City's wastewater rate structure pricing objectives. Each pricing objective that was reviewed by the Commission and City staff is described below.

- Financial Sufficiency – The rate structure should generate revenues sufficient to not only meet operating and maintenance costs and capital expenses, but also maintain sufficient reserve levels and bond coverage ratio requirements.
- Cost of Service – Costs from customers should be recovered in proportion to cost of providing service to that customer class.
- Equitable Contributions from New Customers – New customers should pay for facilities needed to serve them.
- Conservation – The rate structure should promote conservation of water and demand management.

- Minimization of Customer Impacts – The rate structure should minimize the impact on each customer class.
- Simple to Understand and Update – The rate structure should to be easy for customers to understand and for City staff to maintain and update in future years.
- Ease of Implementation – The rate structure should be compatible with the City current billing system and other information systems.
- Legality – The rate structure should use approved methodologies to ensure rates are defensible if challenged.
- Economic Development – Attracting economic development can be achieved through preferential connection charges.
- Revenue Stability – The rate structure should minimize variability in revenues from year to year.
- Rate Stability – The rate structure should minimize dramatic rate spikes over time.

The Commission and City staff was asked to rank the pricing objectives in order of importance as follows: most important, very important, important, and least important, on a scale of 1 to 4 (4 being the Most Important and 1 being the Least Important). Table 7 below presents the result of the workshop. The score of each objective was weighted based on the rating given.

Table 7 - Pricing Objectives Result

Classification	Rank	Objective	Score
Most Important	1	Financial Sufficiency	37
	2	Revenue Stability	35
	3	Rate Stability	34
Important	4	Simple to Understand and Update	28
	5	Equitable Contributions from New Customers	25
	6	Cost of Service Based Allocations	24
	6	Defensible	24
	6	Conservation	24
	6	Ease of Implementation	24
	10	Minimization of Customer Impacts	21
Least Important	11	Economic Development	15
	12	Affordability to Disadvantaged Customers	14

Based on the results of the pricing objectives exercise, RFC identified and suggested four rate structure alternatives to the Commission, and recommended Alternative 4 due its viability and

ability to best meet the pricing objectives of the Commission and City staff. Table 8 shows the four alternatives and is followed by a description of each alternative.

Table 8 - Rate Structure Alternatives

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Residential	Fixed	Flow based	Fixed + Flow based	Fixed
Non-Residential	Flow based	Flow based	Fixed + Flow based	Fixed, Flow + Surcharge

Alternative 1 involves a fixed residential bi-monthly flat rate and flow based rate (per hundred cubic feet (ccf)) for non-residential customers.

Advantages

- More equitable distribution of costs since non-residential customers are not charged a fixed component based on meter size
- Provides a conservation incentive for non-residential customers

Disadvantages

- Revenue fluctuation will increase
- No strength component for non-residential customers

Alternative 2 involves a flow based rate (per ccf) for all customers.

Advantages

- More equitable distribution of costs
- Provides conservation incentive for all customers

Disadvantages

- Revenue fluctuation will be greatest
- Increased customer service inquiries related to variance in residential bills
- No strength component for non-residential customers

Alternative 3 involves a rate structure comprised of a fixed (or base charge) bi-monthly charge and a flow based rate (per ccf) for all customers.

Advantages

- Considers the fixed costs of sewer operations
- Provides greater stability of revenues due to fixed component for non-residential
- Provides incentive for conservation

Disadvantages

- Increased customer service inquiries related to variance in residential bills
- Greater fluctuation of revenue due to variable component from residential
- No strength component for non-residential customers

Alternative 4 involves a uniform monthly fee for residential customers and a rate structure comprised of three components for non-residential customers: a fixed (or base charge) bi-monthly charge, a flow based rate (per ccf), and a surcharge (per ccf) for BOD and SS.

Advantages	Disadvantages
▪ More equitable distribution of costs due to inclusion of surcharges	▪ Impact on high strength users
▪ Provides greater stability of revenues due to fixed charges for residential and fixed component for non-residential	▪ One-time cost to set up data base for implementation
▪ Provides incentive for non-residential conservation	
▪ Closest match to regulatory requirements	

A. Recommended Alternative 4

During the Public Works Commission meeting on February 20, 2008, the Commission approved RFC's recommendation and instructed RFC to develop a rate schedule based on Alternative 4 for both the debt-funded and rate-funded scenarios.

The change in the rate structure will cause significant changes to the amount of revenue collected from customer classes. The differences between the rates under the current structure and under the Alternative 4 structure are highlighted in Table 9 below, which compares the rates under the two structures **without any revenue adjustments**. Under Alternative 4 rates, the residential class would pay 59% more. Correspondingly, non-residential class would pay less.

Table 9 - Current Bi-monthly Rates under Alternative 4 Rate Structure

	Existing	Alternative 4	% Change
Residential (per dwelling)	$ 39.00	$ 61.88	59%
Non-Residential:			
Fixed charge*	$ 53.80	$ 33.62	-38%
Quantity charge ($/ccf of water usage)	$ 4.56	$ 3.30	-28%
Strength surcharge** ($/ccf of water usage)	$ 0.41	$ 1.04	153%

*Fixed charge under existing rates is the 1" meter charge
**Applies to high-strength customers only

Table 10 below shows the actual rate schedules with the proposed rate adjustments based on the financing scenario used.

Table 10 - Alternative 4 Bi-monthly Rate Schedules with Proposed Rate Adjustment

	Proposed Rates			
	FY 2009		FY 2010	
	Rate Funded	Debt Funded	Rate Funded	Debt Funded
Residential (per dwelling)	$ 73.97	$ 66.97	$ 87.38	$ 72.09
Non-Residential:				
Fixed charge	$ 33.62	$ 33.62	$ 34.20	$ 34.20
Quantity charge ($/ccf of water usage)	$ 3.98	$ 3.58	$ 4.74	$ 3.87
Strength surcharge* ($/ccf of water usage)	$ 1.39	$ 1.37	$ 2.34	$ 1.93

*Applies to high-strength customers only

In an effort to minimize customer impacts, RFC considered a phase-in alternative for both scenarios. The phase-in option would allow residential rates to increase slowly by freezing the revenue generated from non-residential customers at the current level until the rates increases caught up to the required level. However, because such a scenario is susceptible to challenges under Proposition 218 and due to the small benefits it provides residential customers, the Commission decided against the phase-in alternative and agreed to move forward with the full restructuring instead.

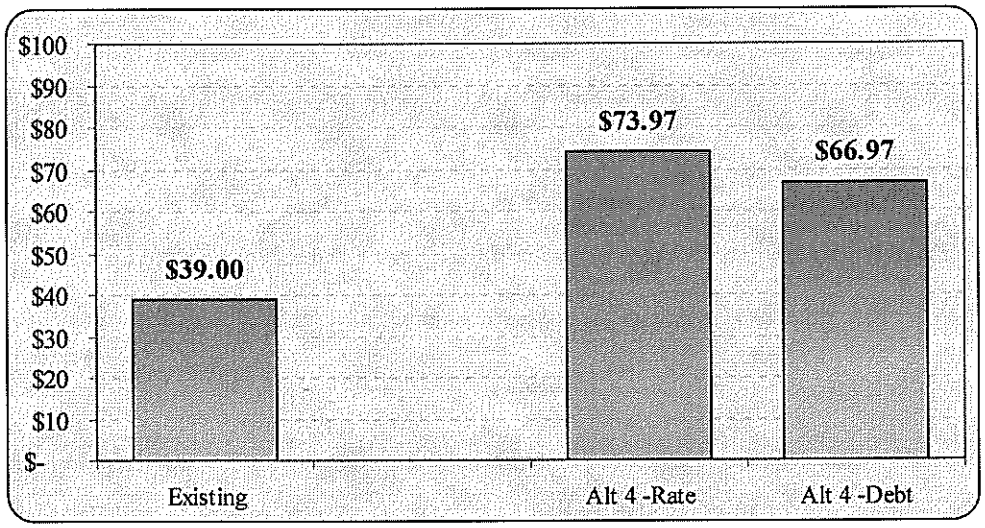
VII. Customer Impacts

One of the most important components of the rate study was an analysis of how the proposed rate structure would impact the bi-monthly bills of wastewater customers. RFC worked closely with City staff to ensure that appropriate revenue requirements would be recovered, while monitoring related impacts on customers. The customer impacts for each customer class are discussed below.

A. Residential Customers

Based on the rates calculated above, RFC has analyzed the impacts on residential customers with rate adjustments under each financing option, as shown in Figure 1 on the following page. The significant increase in residential rates resulted from the rate restructuring in accordance with cost of service principles. Under the rate-funded scenario, the FY 2009 rates represent a $17 increase in monthly sewer bills. Similarly, the debt-funded scenario rates represent a $14 increase per month.

Figure 1 - Bi-monthly Residential Impacts – FY 2009



B. Non-Residential Customers

Non-residential customers are classified into two categories: high strength customers and regular non-residential. Only high strength customers are assessed the strength surcharge. The existing non-residential bill is calculated based on a 1" meter. Figures 2 and 3 illustrate the customer impacts for the high strength and regular non-residential customers, respectively, for Alternative 4 with rate adjustments under the different financing options for FY 2009.

Figure 2 - Bi-monthly High Strength Non-Residential Impacts – Alternative 4

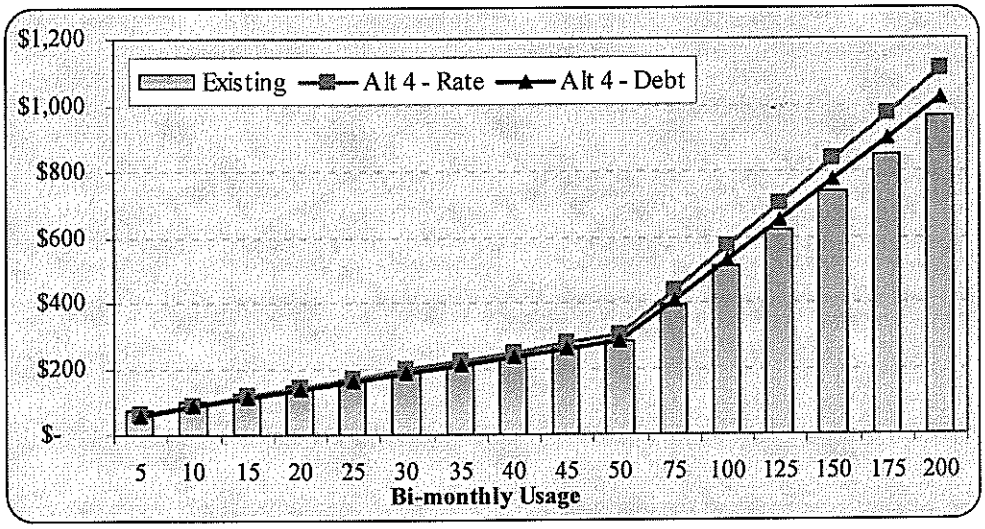
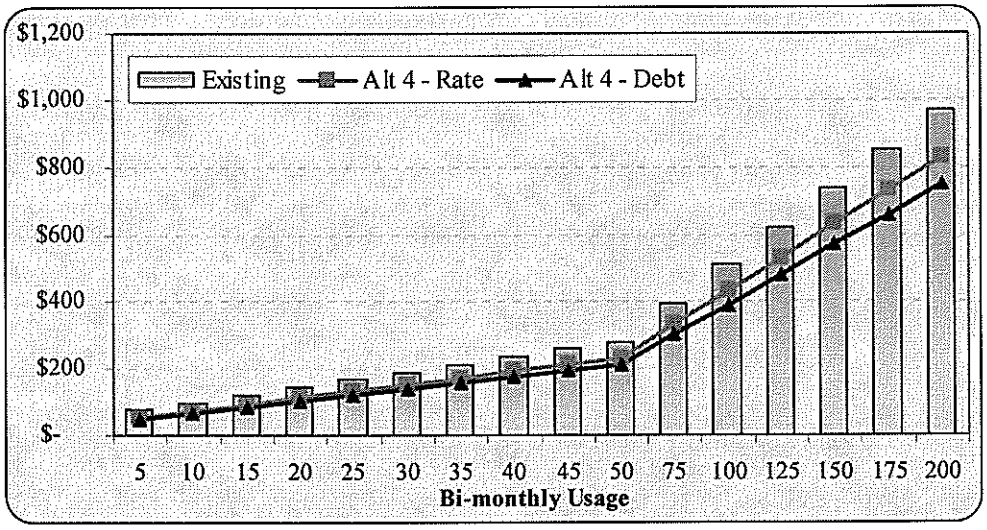


Figure 3 - Bi-monthly Non-Residential Impacts – Alternative 4

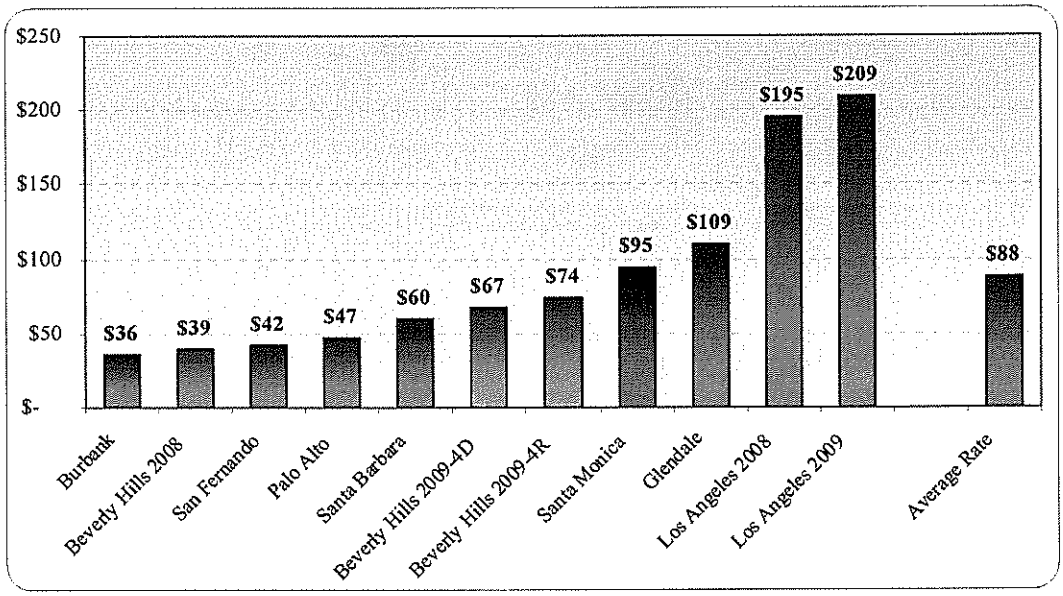


VIII. Rate Survey

RFC conducted a rate survey to compare the City's current bi-monthly bills for residential customers with those in nearby cities or agencies. Figure 4 on the following page shows the results of the survey. Even with the proposed rate increases for FY 2009, the City's rates are still comparable to those assessed by nearby cities.

Comparing wastewater bills with other representative communities can provide insights into a utility's sewer services pricing policies. However, care should be taken in drawing conclusions from such a comparison, as higher bills may not necessarily 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, customer constituency, level of treatment, level of grant funding, age of system, level of general fund subsidization, and rate setting methodology.

Figure 3 - Single Family Residential Bi-monthly Sewer Bills



IX. Conclusion

The City prefers the rate funded scenario due to the ongoing nature of capital costs from Hyperion and the size of the debt issues. The resultant rate schedule for FY 2009 and FY 2010 would be as follows:

	FY 2009	FY 2010
Residential (per dwelling)	$ 73.97	$ 87.38
Non-Residential:		
Fixed charge	$ 33.62	$ 34.20
Quantity charge ($/ccf of water usage)	$ 3.98	$ 4.74
Strength surcharge* ($/ccf of water usage)	$ 1.39	$ 2.34

*Applies to high-strength customers only