Item 3a.

STAFF REPORT

Meeting Date:	November 17, 2015
To:	Honorable Mayor & City Council
From:	Trish Rhay, Assistant Director of Public Works Services, Infrastructure & Field Operations
	Caitlin Sims, Senior Management Analyst
Subject:	Tiered Water Rates Structure Presentation
Attachments:	1. Public Works Commission Presentation from 11/12/15

INTRODUCTION

Since July 2015, City staff and the Public Works Commission's Conservation Subcommittee have been working with HF&H Consultants, LLC, ("HF&H") to analyze the City's existing rate structure. Through this process, the City and consultants have conducted a comprehensive analysis and re-evaluation of the tiered rate structure itself, with consideration for policy and legal decisions rendered during this past year. These considerations included the San Juan Capistrano Court Case, the City's mandatory water use reductions, and the implementation of the City's Water Enterprise Plan. This rate structure also takes into account long term reductions in consumption as result of ongoing conservation measures.

DISCUSSION

The City's current water rates structure includes three customer classes: Single Family Residential, Multi-Family Residential, and Commercial. There are four tiers in the Single-Family Residential and Multi-Family Residential Classes and only one tier in the Commercial Class. With increasing operating costs and decreasing revenues as a result of water conservation during the drought expected to continue for the foreseeable future, the current water rates structure is no longer revenue-neutral.

In November 2014, the City Council directed staff to consider the development of a new tiered rate structure that would address long-term conservation goals and revenues necessary to offset the cost of operations. While developing this framework, the Fourth District Court of Appeals issued a decision in the *Capistrano Taxpayers Association, Inc. v. City of San Juan Capistrano* case that required cities to comprehensively justify their tiered water rates by showing that they are based on the cost of providing service for the tiers within each customer class. The City entered into a contract with HF&H Consultants, LLC ("HF&H") to conduct this rate analysis.

Since July 2015, staff, HF&H, and the Public Works Commission Conservation Subcommittee (Commissioner Aronberg and Commissioner Wolfe) have been working to analyze the City's current rate structure and, as necessary, develop a new proposed tiered rate structure. The PWC Liaison Committee (Vice Mayor Mirisch and Councilmember Brien) reviewed this rate structure and recommended bringing it forward to the City Council for approval.

HF&H, staff and the Conservation Subcommittee have developed a proposed rate structure that they believe best addresses three primary factors:

(1) Identifies and defines customer classes and tier "breakpoints" in a manner that is consistent with Proposition 218:
    a. Proposition 218 requires that rates be set in accordance with service costs. In its decision on the *Capistrano Taxpayers Association, Inc. v. City of San Juan Capistrano* case, the California Fourth Court of Appeals further clarified that cities must be able to show how rates at different tier levels are based on the actual cost of providing service. In its evaluation, HF&H, staff and the Conservation Subcommittee fully assessed the costs of providing water to the different customer classes and the different tier levels.

(2) Is revenue neutral:
    a. The proposed rate structure allows the City to recover its fixed and variable operating costs even with the City's decreasing water consumption revenues, as the City strives for its long-term water supply and conservation goals.

(3) Accounts for the City's long-term water conservation goals:
    a. State law requires the City to reduce its water usage by 20% by 2020. This is separate from the short-term target of 32% that was set by the State Water Resources Control Board in response to the Governor's drought declaration. The City's target 2020 usage was identified in the City's Urban Water Management Plan and is based on the City's average daily consumption over a ten-year period (from 1996 to 2005). As the City moves towards this long-term conservation goal and customers use less water, the City's revenues from water consumption will decrease. Many of the City's costs for operating and maintaining the water system are fixed, so rates should be set at a level that allows the City to cover its operating and capital costs even as water consumption revenues are decreasing.

The following sections discuss the rate evaluation process and the resulting rates.

Revenue Requirements

The first step in the rate analysis was to evaluate the City's anticipated expenses and revenues over the next five years. These expenses include the cost of purchasing water from Metropolitan Water District ("MWD") and the fixed costs of operating the water system, including distribution lines, staff needed to operate and maintain the water system, materials and supplies (which may decrease as water purchases decrease but only minimally) and debt service payments. Additional expenses include budgeted capital projects such as water main and hydrant replacements, water meter replacements, water treatment plant maintenance, and reservoir replacement.

The City also recently adopted a ten-year Water Enterprise Plan (WEP), which includes projects and programs that will increase the City's water system reliability. Many of the capital projects identified in the WEP will be debt-financed, and the costs included in the City's rate revenue requirements include the debt-service payment requirements for the issuance of bonds for these projects and revenue level that maintain the required bonding agencies minimum debt service ratio. Other costs identified in the WEP, including additional personnel to implement the WEP, are also incorporated into the revenue requirement.

The City's revenues come primarily from water consumption charges, service charges based on meter size, and fire service charges. The Governor's drought declaration requiring the City to reduce its water consumption by 32% and the City's increased focus on conservation have resulted in a significant decrease to water consumption revenues in FY15/16. In FY 2015-16, it is projected that water consumption will reduce by 19.4% compared to FY 2014-15. The City has fixed costs necessary to operate and maintain its system, including the personnel, water distribution lines, materials, supplies, debt service payments, along with the aforementioned capital expenses. Even as water revenues decrease as consumption decreases, the majority of these fixed costs remain the same, while the variable cost of purchased water decreases. With the increased conservation, the City will need to increase its revenues in order to meet the total costs of operating the system and remain revenue neutral.

For the purposes of the analysis, HF&H and staff assumed that there would be a system-wide reduction of 19.4% compared to FY 2014-15 recorded revenues. This assumption can be supported by water conservation trends since Stage D Water Conservation Measures that were adopted by the City Council in May 2015.

Cost of Service Analysis

The next step in the rate evaluation was to determine the cost of providing water service to each customer class. The cost of service analysis allocates the cost of providing service equitably across all the classes (i.e. residential, multi-family, commercial), recognizing that different customer classes have different water use patterns and peak demands and, thus, place different level of service requirements. Single-Family Residential Class customers typically have larger areas of landscaping and, therefore, more outdoor irrigation during the summer months, so there is more peaking in that class. The Multi-Family Residential Class has the least amount of peaking because there is typically less irrigation and more consistent usage throughout the year, regardless of the season. The Commercial Class has peaking tendencies between the two other classes. An equitable rate structure must recognize these differences.

HF&H and staff used the base-extra capacity methodology, a rate-making methodology approved by the American Water Works Association (AWWA) that allocates the cost of providing service to the different classes based on their usage of the water system. In the base/extra capacity methodology, costs are classified by function (e.g., treatment, pumping, storage, distribution, metering) and allocated among the customer classes in proportion to their use of these functions. The allocation of each function's cost is based on each class' level of base (non-peak) and extra capacity (peak daily and hourly) demand, as well as with the size of their service connection. To account for the peak levels in service, from base non-seasonal, to average, maximum day and maximum hour, the water systems were designed and constructed to accommodate these peak demands. This methodology correlates the cost of service to meet peak demands with

the customer class's levels of demand. Higher levels of demand cost more to supply because of the increased cost of larger infrastructure and the attendant operating costs. By correlating costs with the level of demand, the City's rates will be set consistent with the *San Juan Capistrano* decision.

In addition to using the base/extra capacity methodology to determine each class' share of the total costs, the methodology was also used to determine each class' tiered rate structure, which is also consistent with the *San Juan Capistrano* decision's requirement that the rates in tiered structures correlate with the cost associated with each tier. The methodology correlates the costs for each tier and the size of each tier for each class to ensure that the rate per tier is proportionate to the cost of service.

This cost of service analysis provided the proposed rates and tier breakpoints for each class.

Proposed Rates & Bill Impacts

The proposed methodology, rates, and tier breakpoints were presented to the Public Works Liaison and the Public Works Commission in October 2015 and November 2015. There was general support for the analysis and both the Liaison Committee and Commission recommended this structure be brought forth for Council consideration and approval at their meetings on November 9, 2015 and November 12, 2015, respectively.

The rate model suggests that it would be appropriate for the Single-Family Residential Class to continue to have 4 tiers, but that the breakpoints between each tier should be adjusted. The rate model indicated that the number of Multi-Family Residential tiers should be reduced from the current 4 tiers to 2 tiers because there is a comparatively narrow difference in the range of peaking by Multi-Family Residential customers. The rate model was also used to evaluate tiers for the Commercial Class. The Commercial Class' quantity charge was previously tiered; the current structure is an un-tiered, uniform rate.

There was general support for four tiers in the Single-Family Residential Class and two tiers in the Multi-Family Residential class. However, the Public Works Liaison asked that staff present the proposed rates for two alternatives for the Commercial Class: an alternative with three tiers, and an alternative with four tiers.

Single Family Residential

Currently, there are four tiers in the Single-Family Residential Class. Based on the analysis of revenues from the single-family revenues, the cost of service needed to serve that class, and the water usage and peaking trends, it was determined that the Single-Family Residential Class should consist of four tiers. Table 1 (below) shows the proposed rates and rate structure for single-family residential customers in the City of Beverly Hills.[1] Each bill is issued bi-monthly, and a billing unit is equal to 1 hundred cubic foot (HCF). Table 1 shows the tiers in HCF and the equivalent gallons. Note that one HCF is equal to 748 gallons.

HF&H and staff analyzed the recent customer billing data and peak usage patterns in the Single-Family Residential Class and proposed new breakpoints based on the average winter usage, annual average day usage, and highest summer average usage.

[1] The City of West Hollywood's rates comprise the same tier structure; the rates are 25% higher than the City of Beverly Hills.

The analysis indicated that current demand has decreased since the last time the breakpoints were set.

Table 1 – Proposed Single-Family Residential Rates for City of Beverly Hills

	Current			Proposed		
	HCF per Account	Gallons/Day	Rate	HCF per Account	Equivalent Gallons	Rate
Tier 1	0-10	0 - 136	$3.71	0-42	0-585	$4.32
Tier 2	11-55	137 – 697	$4.90	43-61	586 – 772	$5.17
Tier 3	56-120	698 – 1,507	$7.73	62-92	773 – 1,158	$9.27
Tier 4	121+	1,508+	$14.93	93+	1,159+	$18.59

The overall rate increase for the single-family residential customer class is approximately 15% percent. Table 2 (below) shows several bill impacts for customers at different water use levels.

Table 2 – Single-Family Residential Bill Impacts

Water Use	Current Bill	Proposed Bill	$ Change	% Change
Low (6 HCF)	$65.52	$69.96	$3.66	+5.6%
Medium (60 HCF)	$339.61	$317.83	$(21.78)	-6.4%
High (130 HCF)	$952.71	41,316.75	4364.04	38.2%
Very High (300 HCF)	$3,490.81	4$4,477.17	$986.36	28.3%

Due to the peaking methodology being used, customers that use the most water, and therefore place the greatest demands on the system, will see the largest bill impacts.

Multi-Family Residential

In the current rate structure, there are four tiers in the Multi-Family Residential Class. While the current breakpoints are different from those in the Single-Family Residential Class, the rates for each of the four tiers are currently the same. The billing data analysis; however, suggested that the Multi-Family Residential Class had different water usage trends and less peaking than the Single-Family Residential Class, and suggested that two Multi-Family Residential tiers was appropriate for this class. Table 3 (below) shows the proposed rates and rate structure for Multi-Family Residential Customers in the City of Beverly Hills. Multi-Family Residential Customers are billed on a per-unit basis.

HF&H and staff analyzed the usage patterns in the Multi-Family Residential Class and proposed the new breakpoint based on the average base and peak usage.

Table 3 – Proposed Multi-Family Residential Rates for City of Beverly Hills

	Current			Proposed		
	HCF per Unit	Equivalent Gallons	Rate	HCF per Unit	Equivalent Gallons	Rate
Tier 1	0-4	0 – 61	$3.71	0-9	0-124	$4.72
Tier 2	5-9	62 – 124	$4.90	10+	125+	$17.50
Tier 3	10-16	125 – 211	$7.73			
Tier 4	17+	212+	$14.93			

The overall rate increase for the Multi-Family Residential customer class is 36% percent. Table 4 (below) shows several bill impacts for different customers, based on the number of units and level of usage.

Table 4 – Multi-Family Residential Bill Impacts

Water Use	Current Bill	Proposed Bill	$ Change	% Change
Low (6 HCF)	$28.98	$32.64	$3.67	+12.7%
Medium (12 HCF)	$66.87	$99.30	$32.44	48.5%
High (24 HCF)	$217.23	$309.33	$92.10	42.4%

Multi-Family residential customers will see the greatest impact to their water bills. This is largely because, in the current rate structure, the Multi-Family Residential Class as a whole is currently recovering 34% less than its overall cost of service. In addition, water usage across all seasons is more concentrated around the average (i.e. there is less peaking) because there is relatively consistent water usage at all times. As a result, those Multi-Family Residential customers that use higher amounts of water put a greater strain on the system. The rates are based on usage per dwelling unit and therefore account for the different building sizes in the City's multi-family housing.

Commercial

The Commercial Class currently has one uniform rate, regardless of consumption. Based on the data analysis and input from the Public Works Liaison Committee, HF&H and staff developed a proposal that includes additional tiers for the Commercial Class.

At the Public Works Liaison Committee Meeting on November 9, 2015, HF&H and staff presented a proposal that included three tiers. The Liaison Committee directed staff to include a proposal that included a fourth Commercial tier and to show the bill impacts of adding a fourth tier.

The two alternatives for the Commercial class (3 tiers and 4 tiers) can be found below.

Table 5 – Proposed Commercial Rates for City of Beverly Hills – 3 Tiers

	Current			Proposed		
	HCF per Account	Equivalent Gallons	Rate	HCF per Account	Equivalent Gallons	Rate
Tier 1	n/a	n/a	$6.34	0-140	0 – 104,720	$4.40
				141-170	105,468 – 127,160	$6.79
				171+	127,908	$9.62

In a 3-tier system, the overall rate increase for the Commercial class is 14%. Table 6 (below) shows what the bill impacts would be for customers at different water usage levels.

Table 6 – Proposed Commercial Rates for City of Beverly Hills – 4 Tiers

	Current			Proposed		
	HCF per Account	Equivalent Gallons	Rate	HCF per Account	Equivalent Gallons	Rate
Tier 1	n/a	n/a	$6.34	0-119	0 – 1,495	$4.40
				120-144	1,496 – 1,807	$4.90
				145-177	1,808 – 2,218	$6.90
				178+	2,219+	$9.99

In a 4-tier system, the overall rate increase for the commercial customer class is 16% percent. Table 6 (below) shows what the bill impacts would be for customers at different water use levels.

Table 7 – Commercial Bill Impacts – 4 Tiers

Water Use	Current Bill	Proposed Bill	$ Change	% Change
Low (249 gallons/day)	$170.16	$131.42	$(38.74)	-22.85%
Med (1,870 gallons/day)	$1,026.16	$762.96	$(263.20)	-25.6%
High (3,740 gallons/day)	$2,231.55	$2,432.36	$200.81	-9.0%
Very High (62,333 gallons per day)	$32,029.55	$49,385.51	$17,355.96	+54.2%

Because there are additional tiers proposed for the Commercial Class, the lowest water users will have rate decreases and, as a result, will have decreased bills. Commercial customers with the greatest water usage will see the greatest impacts. There will be a larger bill impact for the highest users in the 4-tier system.

Water Rate Impact on Penalty Surcharge

The new tiered water rate structure does not address the potential costs that have resulted from non-compliance with the Governor's drought declaration. These costs will be recovered as a part of the penalty surcharge, for which the framework was approved by the City Council at its June 30, 2015 meeting. The penalty rate will remain in effect as long as the City continues to maintain stage D water conservation declaration; however, the factors being applied will need to decrease in light of the overall rate increase. Additionally, Resolution No. 15-R-13037 exempts tier one residential customers (Single-Family and Multi-Family), from reducing their water use to 70% of the baseline period. Per the current structure, tier one usage consists of usage up to 10 HCF for single-family customers and up to 4 HCF for multi-family customers per billing cycle. Should this new structure be adopted, Council will need to determine if the penalty exemption should still apply and if so, determine how it should be applied. The proposed Single-Family Residential Class's tier one is from 0 to 42 HCF and Multi-Family Residential Class's tier one is from 0 to 9 HCF per dwelling unit. Council could choose to continue exempting tier one, which would be through the 42 HCF and 9 HCF, respectively, or to specify the number of HCF, if the previous tier one limits of 10 HCF and 4 HCF are preferable.

Water Rate Implementation

Under Proposition 218, the City is required to hold a protest hearing prior to the adoption of new water rates. The City must mail a notice to all parcel owners at least 45 days prior to a public hearing. Each parcel gets one protest. State law also requires that at least 50 percent of the affected parcels plus one must submit a protest in order to stop an increase. Should the Council decide to move forward with the protest vote following this meeting, the schedule for implementation of the rate structure would be as follows:

November 17, 2015:	Council approval to proceed with the rate modification
November 22, 2015:	Deadline to mail out notices to all water customers (minimum of 45-day advance notice)
Early January 2016:	Public Hearing/First Reading on Proposed Water Rate Adjustments
Mid-January 2016:	Second Reading
Mid-February 2016:	Effective Date of Ordinance / Rate Modification become effective (minimum is 30 days after Second Reading)

FISCAL IMPACT

In FY 2015-16, Water Enterprise revenues are estimated to be approximately $32.6 million, while the projected costs are approximately $35.9 million; this is a revenue shortfall of approximately $3.4 million. This projection is based on projected reductions of 19.4%, which is similar to actual usage reductions observed during the last several months. The proposed tiered water rates structure would ensure that the City's water system operations are revenue neutral even with increased conservation.

RECOMMENDATION

Staff recommends that the City Council direct staff to initiate the public hearing process and bring forward an ordinance for the new tiered water rates structure for consideration and adoption.

Don Rhoads	George Chavez
Finance Approval	Approved By

Attachment 1

City of Beverly Hills

Tiered Water Rates

Public Works Commission Meeting
November 12, 2015

HF&H Consultants, LLC

Background

- November 9 Presentation to Liaison Committee:
  - Based on re-evaluation of allocators and conservation assumptions, presented two alternatives
  - Alt #1 Quantity Charges:
    - Single Family: **16.8%** increase (4 Tiers)
    - Multi Family: **40.6%** increase (2 Tiers)
    - Commercial: **18.8%** increase (3 Tiers)
    - Overall increase of 22.1%
  - Alt #2 Quantity Charges
    - One class: **22.1%** increase (4 Tiers)
- Direction after November 9 meeting:
  - Prefer Alternative #1
  - Evaluate additional Commercial tier for very high use customers

Background Statistics

	Proj. FY 2015-16 Water Use (hcf)	% of Total
SFR	1,976,384	51%
MFR	842,197	22%
Com	1,051,530	27%
Total	3,870,111	100%

With conservation, MFR + Com ≅ SFR

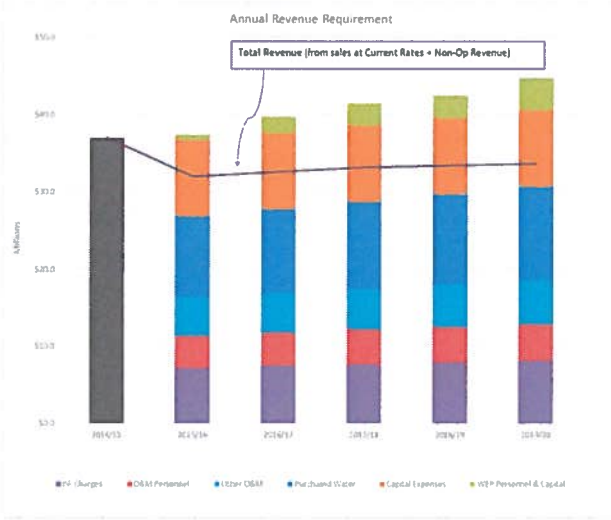
	Number of Accounts	% of Total
SFR	7,200	71%
MFR*	1,400	14%
Com	1,500	15%
Total	10,100	100%

Average MFR account ≅ 10 DUs

** 1,400 MFR accounts with 14,500 Dwelling Units*

The statistics combine Beverly Hills and West Hollywood

Revenue Requirement



Service Charge Revenue	
FY2015-16	-0.8%
FY2016-17	6.0%
FY2017-18	6.0%
FY2018-19	5.0%
FY2019-20	5.0%

Quantity Charge Revenue	
FY2015-16	23.0%
FY2016-17	6.0%
FY2017-18	6.0%
FY2018-19	5.0%
FY2019-20	5.0%

Cost of Service Analysis

- COS analysis is based on American Water Works Assoc. rate-making methodology
- Base/extra capacity methodology allocates costs of peaking in proportion to demand
- Higher peaks pay more because of the increased cost of infrastructure capacity and on-going operations and maintenance costs
- System-wide costs are 19.2% greater than what current rates are generating
- Revenue shortfall impacts each customer class differently
- Projected revenue reflects 19.4% conservation in FY2015-16 with ~6% rebound by 2020

Customer Class	Revenue at Current Rates	Cost of Service	Difference	
Quantity Charges				
SFR	$ 13,339,114	$ 15,705,909	$ 2,366,795	17.7%
MFR	$ 5,048,397	$ 7,150,873	$ 2,102,476	41.6%
Commercial	$ 6,947,005	$ 8,315,924	$ 1,368,919	19.7%
Total	$ 25,334,516	$ 31,172,706	$ 5,838,190	23.0%
Service (Meter) Charges	$ 4,808,080	$ 4,768,578	$ (39,501)	-0.8%
Grand Total	$ 30,142,596	$ 35,941,285	$ 5,798,689	19.2%

COS Analysis: Functional Allocations

Operating and Capital Expenses	Demand Service Levels				Other Services	
	Non-Peaking	Peaking			Customer	
	Base	Average Day	Maximum Day	Maximum Hour	Accounts	Fire
Source of Supply						
Groundwater extraction						
MWDSC imported water						
Purification						
Water quality treatment						
Water quality treatement						
Transmission						
Conveyance						
Pumping						
Balancing storage						
Distribution						
Conveyance						
Pumping						
Balancing storage						
Customer services and meters						
Hydrants						

COS Analysis: Quantity Charge COS by Class

QUANTITY CHARGE COST OF SERVICE CALCULATION (by Customer Class)	Nonseasonal Base	Average Day	Maximum Day	Maximum Hour	Quantity Charge Rev. Req.[1]
Unit Cost Calculation					
Revenue Requirement[1]	$17,702,469	$1,352,315	$5,017,008	$7,100,914	$31,172,706
Units of Service (hcf)	3,776,040	4,801,869	9,575,710	19,151,420	
Unit Cost of Service per HCF	$ 4.69	$ 0.28	$ 0.52	$ 0.37	
Units of Service (hcf per year)					
SFR	1,847,124	2,645,666	4,979,369	9,958,738	
MFR	899,958	943,935	2,106,656	4,213,312	
Comm	1,028,958	1,212,268	2,489,685	4,979,369	
Cost of Service (Unit Cost x Units of Service)					
SFR	$ 8,659,510	$ 745,080	$ 2,608,844	$ 3,692,475	$ 15,705,909
MFR	$ 4,219,097	$ 265,833	$ 1,103,742	$ 1,562,201	$ 7,150,873
Comm	$ 4,823,862	$ 341,402	$ 1,304,422	$ 1,846,238	$ 8,315,924
	$ 17,702,469	$ 1,352,315	$ 5,017,008	$ 7,100,914	$ 31,172,706

[1] *Reflects the revenue required from Quantity Charges*

All classes pay the same unit cost of service for their respective services

COS Analysis: Commercial Tiers

Comm Rate Calculation	T1	T2	T3	T4	T5	Total
Comm Revenue Requirement by Tier ($/yr)	$4,823,862	$341,402	$1,304,422	$1,846,238	$0	$8,315,924
Beverly Hills	$3,853,609	$282,164	$1,079,956	$1,531,853	$0	$6,747,582
West Hollywood	$970,253	$59,238	$224,466	$314,385	$0	$1,568,342
Total	$4,823,862	$341,402	$1,304,422	$1,846,238	$0	$8,315,924
Comm Flow (hcf/yr)						
Beverly Hills	875,238	569,475	540,108	495,408	-	
West Hollywood	176,292	95,645	89,808	81,339	-	
Total	1,051,530	665,121	629,916	576,747	-	
	T1	T2	T3	T4	T5	
Comm Rates ($/hcf)	0-119 hcf	120-140 hcf	141-177 hcf	178+ hcf		
	$ 4.40	$ 0.50	$ 2.00	$ 3.09	$ -	
Beverly Hills	$ 4.40	$ 4.90	$ 6.90	$ 9.99	$ -	
	$ 5.50	$ 0.62	$ 2.50	$ 3.87	$ -	
West Hollywood	$ 5.50	$ 6.12	$ 8.62	$ 12.49	$ -	

Average Cost per hcf by Class

	Quantity Charge Rev. Req.	Proj. Annual Demand (hcf)	Average Cost/hcf
SFR	$ 15,705,909	1,976,384	$7.95
MFR	$ 7,150,873	842,197	$8.49
Comm	$ 8,315,924	1,051,530	$7.91
Total	$ 31,172,706	3,870,111	$8.05

- The cost of service allocations are proportionate to the amounts of base and peak service that each class requires
- The average cost to serve Comm is lowest and highest for MFR

Alternative Quantity Charges

- **CURRENT - November 2015**

	SFR			MFR			Commercial		
	hcf/acct	gals/day	Rate ($/hcf)	hcf/DU	gals/day/DU	Rate ($/hcf)	hcf/acct	gals/acct	Rate ($/hcf)
Tier 1	0-10	1 - 136	$ 3.71	0-4	1 - 61	$ 3.71	None.		$ 6.34
Tier 2	11-55	137 - 697	$ 4.90	5-9	62 - 124	$ 4.90	Uniform		
Tier 3	56-120	698 - 1,507	$ 7.73	10-16	125 - 211	$ 7.73	rate for all		
Tier 4	121+	1,508+	$ 14.93	17+	212+	$ 14.93	usage.		

- **Proposed Quantity Charges - Alternative #1**

	SFR			MFR			Commercial		
	hcf/acct	gals/day	Rate ($/hcf)	hcf/DU	gals/day/DU	Rate ($/hcf)	hcf/acct	gals/day	Rate ($/hcf)
Tier 1	0-42	1 - 535	$ 4.32	0-9	1 - 124	$ 4.72	0-119	1 - 1,495	$ 4.40
Tier 2	43-61	536 - 772	$ 5.17	10+	125+	$ 17.50	120-144	1,496 - 1,807	$ 4.90
Tier 3	62-92	773 - 1,158	$ 9.27				145-177	1,808 - 2,218	$ 6.90
Tier 4	93+	1,159+	$ 18.59				178+	2,219+	$ 9.99

- **Proposed Quantity Charges - Alternative #2**

	All Classes		
	hcf/acct	gals/day	Rate ($/hcf)
Tier 1	0-57	1- 722	$ 4.43
Tier 2	58-72	723 - 909	$ 5.11
Tier 3	73-96	910 - 1,208	$ 7.96
Tier 4	97+	1,209+	$ 12.78

Quantity charges are for Beverly Hills. West Hollywood is 25% higher.

Comparison of Revenues From Alternatives

Total Revenue (Service Charge + Quantity Charge)

Customer Class	Projected Revenue @ Current Rates	Alternative #1 Revenue @ Proposed Rates	Alternative #1 Change vs. Current $	Alternative #1 Change vs. Current %	Alternative #2 Revenue @ Proposed Rates	Alternative #2 Change vs. Current $	Alternative #2 Change vs. Current %
SFR	$ 15,764,205	$ 18,111,076	$ 2,346,871	14.9%	$ 15,076,910	$ (687,295)	-4.4%
MFR	$ 5,843,930	$ 7,939,867	$ 2,095,937	35.9%	$ 8,068,328	$ 2,224,397	38.1%
Commercial	$ 8,534,460	$ 9,890,335	$ 1,355,874	15.9%	$ 12,796,040	$ 4,261,580	49.9%
Total Revenue	$ 30,142,596	$ 35,941,278	$ 5,798,682	19.2%	$ 35,941,278	$ 5,798,682	19.2%

- Alternative #1:
  - More precise
  - Recognizes variations in demand/services by class
  - Equitable rate increases in line with the cost of service
- Alternative #2:
  - Less precise
  - Doesn't recognize different levels of service
  - High residential users see the largest reductions
  - Large MFR complexes receive disproportionate increases (e.g., Senior Housing)

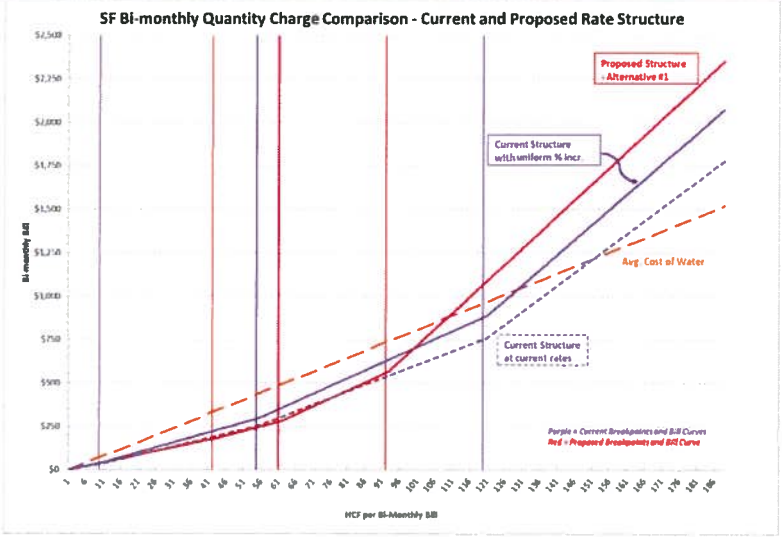
Sample Bill Impacts

					Alternative #1			Alternative #2		
Single Family										
Water Use	hcf	gals/day	Meter Size	Current Bill*	Proposed Bill*	Change vs. Current $	Change vs. Current %	Proposed Bill*	Change vs. Current $	Change vs. Current %
Low	6	75	1"	$ 65.62	$ 69.28	$ 3.66	5.6%	$ 69.96	$ 4.34	6.6%
Med	60	748	1"	$ 339.61	$ 317.83	$ (21.78)	-6.4%	$ 311.34	$ (28.27)	-8.3%
High	130	1,621	1"	$ 952.71	$ 1,316.75	$ 364.04	38.2%	$ 998.39	$ 45.68	4.8%
Very High	300	3,740	1"	$ 3,490.81	$ 4,477.17	$ 986.36	28.3%	$ 3,171.72	$ (319.09)	-9.1%
Multi Family										
	MFR (10 DUs)		Meter	Current	Proposed	Change vs. Current		Proposed	Change vs. Current	
Water Use	hcf/DU	gals/day/DU	Size	Bill/DU*	Bill/DU*	$	%	Bill/DU*	$	%
Low	6	75	1"	$ 28.98	$ 32.64	$ 3.67	12.7%	$ 31.13	$ 2.16	7.4%
Med	12	150	1"	$ 66.87	$ 99.30	$ 32.44	48.5%	$ 87.05	$ 20.19	30.2%
High	24	299	1"	$ 217.23	$ 309.33	$ 92.10	42.4%	$ 240.47	$ 23.24	10.7%
	MFR (20 DUs)		Meter	Current	Proposed	Change vs. Current		Proposed	Change vs. Current	
Water Use	hcf/DU	gals/day/DU	Size	Bill/DU*	Bill/DU*	$	%	Bill/DU*	$	%
Low	6	75	1.5"	$ 28.40	$ 32.06	$ 3.67	12.9%	$ 45.12	$ 16.72	58.9%
Med	12	150	1.5"	$ 66.29	$ 98.72	$ 32.44	48.9%	$ 121.82	$ 55.54	83.8%
High	24	299	1.5"	$ 216.65	$ 308.75	$ 92.10	42.5%	$ 275.23	$ 58.59	27.0%
Commercial										
Water Use	hcf	gals/day	Meter Size	Current Bill*	Proposed Bill*	Change vs. Current $	Change vs. Current %	Proposed Bill*	Change vs. Current $	Change vs. Current %
Low	20	249	1"	$ 170.16	$ 131.42	$ (38.74)	-22.8%	$ 132.01	$ (38.15)	-22.4%
Med	150	1,870	2"	$ 1,026.16	$ 762.96	$ (263.20)	-25.6%	$ 1,285.88	$ 259.72	25.3%
High	300	3,740	4"	$ 2,231.55	$ 2,432.36	$ 200.81	9.0%	$ 3,457.91	$ 1,226.36	55.0%
Very High	5000	62,333	4"	$ 32,029.55	$ 49,385.51	$ 17,355.96	54.2%	$ 63,544.01	$ 31,514.46	98.4%

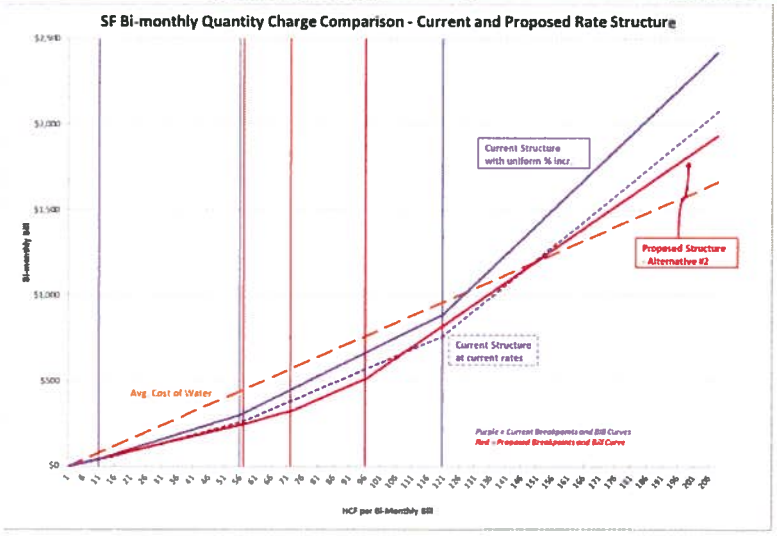
* Bills include Service and Quantity charge and reflect no proposed change in the bi-monthly service charge.

- Alternative #2 vs. #1:
  - SFR: High water users pay less in Alt #2
  - MFR: Average size complex pay less in Alt #2; Larger complexes pay more in Alt #2
  - Commercial: Medium and high water users pay more in Alt #2

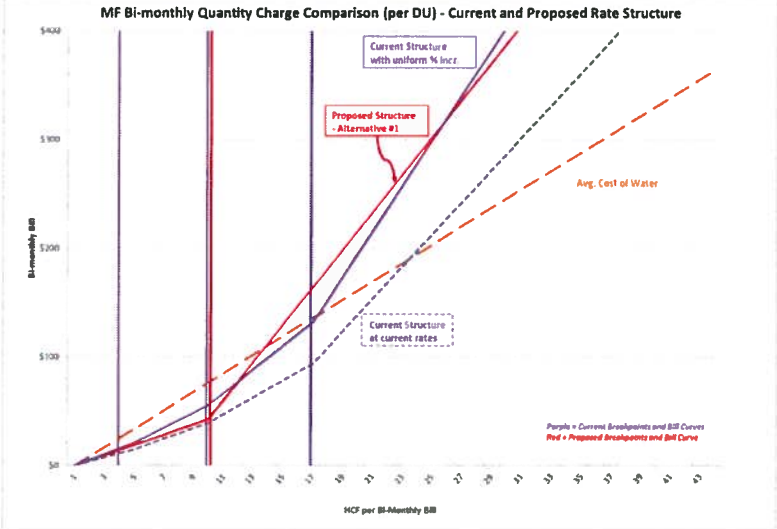
SFR Quantity Charge Comparison – Alt #1



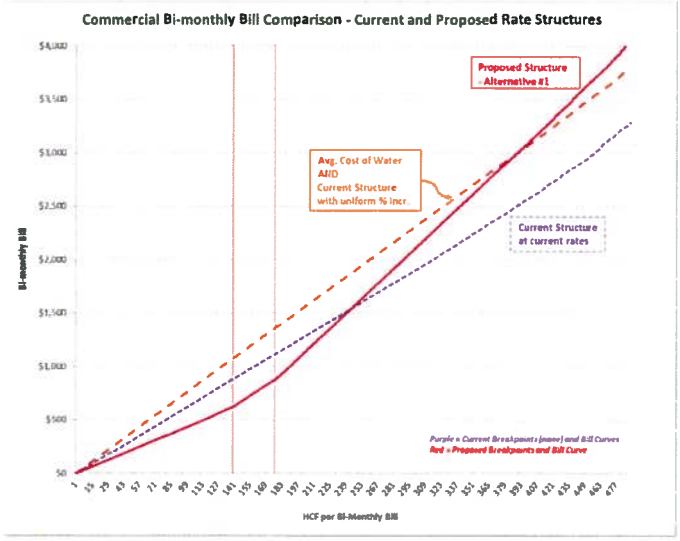
SFR Quantity Charge Comparison – Alt #2



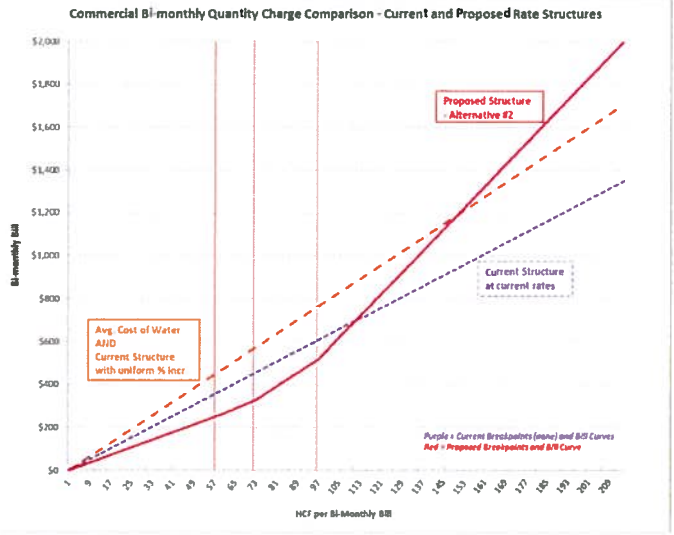
MFR Quantity Charge Comparison – Alt #1



Comm Quantity Charge Comparison – Alt #1



Comm Quantity Charge Comparison – Alt #2



Capacity Load Factors

Customer Classes	Capacity Load Factors			
	Non-Peaking	Peaking		
	Base	Average Day	Maximum Day	Maximum Hour
Single Family	1.00	1.43	2.70	5.40
Multi Family	1.00	1.05	2.34	4.68
Commercial	1.00	1.18	2.42	4.84
System-wide	1.00	1.27	2.54	5.08

Current Quantity Charges

Tier	HCF/ Bi-monthly Bill	Gallons/ Day	$/HCF	$/Gallon
Current Single Family Quantity Charges				
1	0 - 10	Up to 125	$3.71	$0.005
2	11 - 55	Up to 686	$4.90	$0.007
3	56 - 120	Up to 1,496	$7.73	$0.010
4	121+	Over 1,496	$14.93	$0.020
Current Multi Family Quantity Charges - PER DWELLING UNIT				
1	0 - 4	Up to 50	$3.71	$0.005
2	5 - 9	Up to 112	$4.90	$0.007
3	9 - 16	Up to 199	$7.73	$0.010
4	17+	Over 199	$14.93	$0.020
Current Commercial Quantity Charges				
No Tiers	All use		$6.34	$0.008

Single Family Quantity Charge Impacts – Alt #1

Single Family (Beverly Hills)									
Range of Usage (billed bi-monthly)		Est. # of		Cumulative	Vol. Charge Impact (bi-monthly)			% of	% of
hcf/bill	gallons per day	Customers	% of bills	% of bills	$ Impact	% Impact		Water	Revenue
1 to 10	1 to 136	474	7.8%	7.8%	$0.61 to $6.10	16.5% to	16.5%	0.6%	0.3%
11 to 20	137 to 261	777	12.7%	20.5%	$5.52 to $0.31	13.2% to	0.4%	3.3%	1.8%
21 to 42	262 to 535	1,864	30.5%	51.1%	($0.27) to ($12.45)	-0.3% to	-6.4%	15.6%	8.3%
43 to 76	536 to 959	1,493	24.5%	75.5%	($12.18) to ($1.27)	-6.1% to	-0.3%	23.0%	13.5%
77 to 78	960 to 984	55	0.9%	76.4%	$0.27 to $1.80	0.1% to	0.4%	1.2%	0.8%
79 to 100	985 to 1,258	480	7.9%	84.3%	$3.34 to $110.22	0.8% to	18.2%	11.5%	8.8%
101 to 150	1,259 to 1,881	554	9.1%	93.4%	$121.08 to $437.26	19.7% to	36.2%	18.2%	20.7%
151 to 250	1,882 to 3,128	294	4.8%	98.2%	$440.92 to $803.32	36.1% to	29.7%	14.8%	22.8%
251 to 3026	3,129 to 37,737	110	1.8%	100.0%	$806.98 to $10,965.31	29.7% to	24.8%	11.8%	22.9%
		6,100	100.0%					100.0%	100.0%

Multi Family Quantity Charge Impacts – Alt #1

Multi Family (Beverly Hills)								
Range of Usage (billed bi-monthly)		Est. # of		Cumulative	Vol. Charge Impact (bi-monthly)		% of	% of
hcf/DU	gpd/DU	Dwelling Units	% of bills	% of bills	$ Impact (per DU)	% Impact (per DU)	Water	Revenue
1 to 4	1 to 61	378	3.8%	3.8%	$1.01 to $4.03	27.2% to 27.2%	0.8%	0.4%
5 to 9	62 to 124	3,763	37.6%	41.4%	$3.85 to $3.12	19.5% to 7.9%	24.0%	13.3%
10 to 14	125 to 186	3,470	34.7%	76.1%	$12.89 to $51.98	27.4% to 66.6%	35.1%	31.7%
15 to 20	187 to 261	1,797	18.0%	94.1%	$61.75 to $81.81	72.0% to 53.4%	26.4%	33.3%
21 to 50	262 to 635	581	5.8%	99.9%	$84.39 to $158.98	50.2% to 26.4%	12.8%	19.4%
51 to 576	636 to 7,193	12	0.1%	100.0%	$161.55 to $1,511.97	26.2% to 17.9%	1.0%	1.9%
		10,000	100.0%				100.0%	100.0%

Commercial Quantity Charge Impacts – Alt #1

Commercial (Beverly Hills)								
Range of Usage (billed bi-monthly)		Est. # of		Cumulative	Vol. Charge Impact (bi-monthly)		% of	% of
hcf/bill	gallons per day	Customers	% of bills	% of bills	$ Impact	% Impact	Water	Revenue
1 to 51	1 to 647	659	59.9%	59.9%	($1.94) to ($98.79)	-30.6% to -30.6%	6.1%	3.5%
52 to 242	648 to 3,028	287	26.1%	86.0%	($100.73) to ($2.89)	-30.6% to -0.2%	20.9%	13.1%
243 to 300	3,029 to 3,751	34	3.1%	89.1%	$0.76 to $208.81	0.0% to 11.0%	5.9%	5.1%
301 to 500	3,752 to 6,245	54	4.9%	94.0%	$212.46 to $938.82	11.1% to 29.6%	13.1%	13.1%
501 to 750	6,246 to 9,361	32	2.9%	96.9%	$942.47 to $1,851.33	29.7% to 38.9%	12.2%	13.5%
751 to 1000	9,362 to 12,478	15	1.3%	98.2%	$1,854.98 to $2,763.83	39.0% to 43.6%	8.0%	9.3%
1001 to 1500	12,479 to 18,711	9	0.9%	99.1%	$2,767.48 to $4,541.40	43.6% to 48.2%	7.0%	8.4%
1501 to 2000	18,712 to 24,945	3	0.3%	99.4%	$4,541.40 to $6,249.61	48.2% to 50.4%	3.2%	3.9%
2001 to 9000	24,946 to 112,200	7	0.6%	100.0%	$6,249.61 to $31,551.63	50.4% to 56.0%	23.6%	30.0%
		1,100	100.0%				100.0%	100.0%

HCF Facts

- Hcf = ccf = hundred cubic feet
- 1 hcf equals
  - 748 gallons
  - A 100-foot tall column of water one-foot square
  - A cube of water 4.6 feet or 56 inches on edge
  - 2,992 16-ounce plastic water bottles
  - Enough water for 12 people to use 62 gallons per day for inside needs (cleaning, cooking, hygiene)
  - Enough water to cover a lawn 35 ft by 35 ft (1,200 sq ft) one inch deep

Projected Revenue Increases and Coverage

Effective Date	Revenue Increase	Conservation Assumption
Feb 2016	17.8%	19.4% less compared to FY 14-15
July 2016	6.0%	2% more demand than FY 15-16
July 2017	6.0%	2% more demand than FY 16-17
July 2018	5.0%	1% more demand than FY 17-18
July 2019	5.0%	1% more demand than FY 18-19

- Increase in FY 15-16 offsets revenue losses due to conservation. Subsequent increases are due to funding WEP and other capital costs.

Debt coverage ratio drops below 2.00 until July 2018

- 60% increase in Feb 2016 increases debt coverage ratio above 2.00
- 16.7% increase in Feb 2016 with 11% increase July 2016 increases debt coverage ratio above 2.00 in FY 16-17and allows for smaller 3% increases in subsequent years