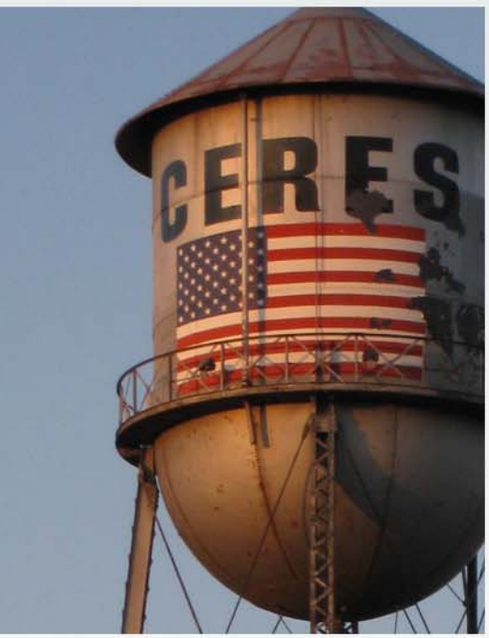

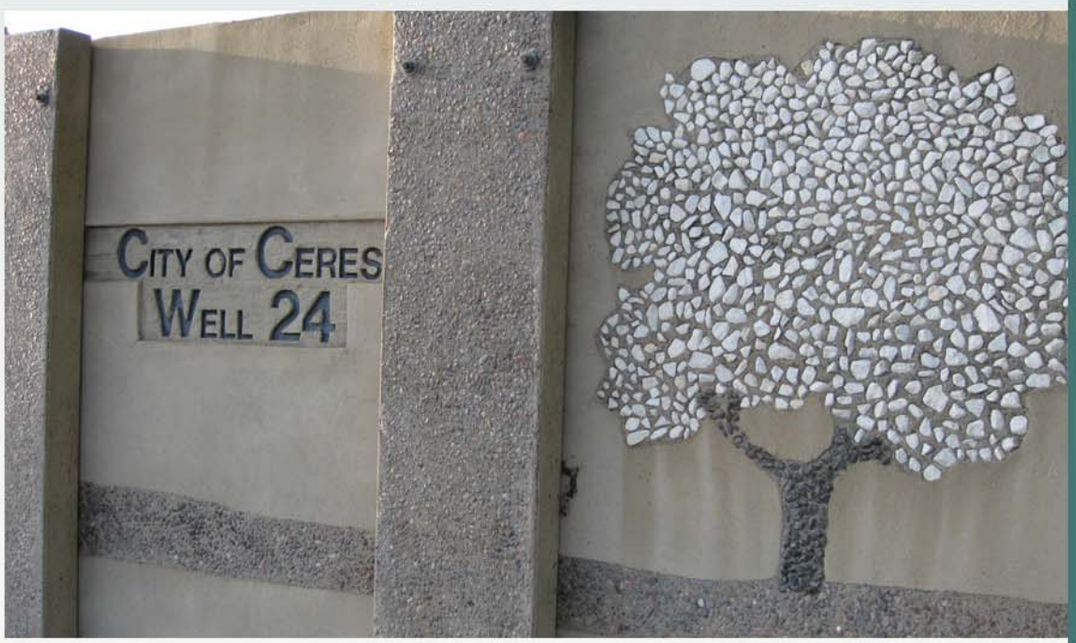

NOVEMBER 2012

CITY OF CERES

Water Rate Study

WEST YOST ASSOCIATES

HF&H

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In preparing this water rate update, expenses, revenues, and reserves were projected through fiscal year (FY) 2017-18. Based on these projections, revenue increases were derived to meet the funding requirements. The following findings and recommendations were made.

ES.1 FINDINGS AND RECOMMENDATIONS

1. **Key Assumptions.** Rates were set to generate revenue sufficient to fund the City's water system's operations and maintenance expenses, local water system capital improvements funded from cash, and to increase reserves, which are currently lower than recommended. Funding for the Regional Surface Water Supply Project has not been included at this time.
2. **Rate Projections.** The rate projections are shown in Table ES-1. With these increases, the City will be able to fund $8,300,000 in capital improvements over the next five years, an average of $1,500,000 per year. By the end fifth year, the rates will enable the City to continue to fund $2,000,000 per year on a pay-as-you-go cash basis as recommended in the Master Plan, and reserves will reach the targeted levels.
3. **Revenue from Service and Consumption Charges.** The revenue from the basic service charges is currently 55 percent of total rate revenue; the remaining rate revenue is generated by the volumetric charges. We recommend gradually shifting the amount of revenue generated by the basic service charges to the volumetric charges to improve the conservation signal in the rate structure. With more revenue generated by the volumetric charges, customers will receive a stronger reward for efficient water use and a deterrent for inefficient water use, as advised by California Urban Water Conservation Council guidelines.
4. **Service Charge Structure.** Service charges are intended to apportion the cost of capacity among customers on the basis of the size of their services. The City's current service charges for larger services are not aligned with the capacity that they provide. The proposed service charges are adjusted over the coming five years so that they are aligned by the fifth year. As a result, service charges for smaller connections remain relatively unchanged but increase for larger connections. After the re-alignment is achieved by FY 2017-18, subsequent rate increases should be made to the service charges by an equal percentage amount.
5. **Consumption Charge Structure.** In the transition from unmetered to metered residential charges, the initial single family volumetric charge was set lower than the non-single family volumetric charge. In this way, single family customers would have time to adapt to bills based on the new water meters. It is proposed that a second tier be added that would apply to single family water use over 50,000 gallons per month, which applies to only 2 percent of the bills. Water use of this amount or more is excessive, places a burden on the facilities, and should be charged a premium to recover costs. It is also proposed that the volumetric charge for water use up to 50,000 gallons increases so that it converges with the consumption for other customers by FY 2015-16. In this way, the volumetric rates will reflect the cost of service, which does not differ by as much as the current volumetric charges.

Table ES-1. Current and Proposed Water Rates

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
	Current	(proposed)	(proposed)	(proposed)	(proposed)	(proposed)
Service Charges						
5/8" & 3/4" Meter	$20.42	$20.36	$20.30	$20.25	$20.19	$20.13
1" Meter	$24.91	$23.96	$23.00	$22.04	$21.09	$20.13
1 1/2" Meter	$31.38	$34.16	$36.95	$39.73	$42.51	$45.30
2" Meter	$50.22	$56.28	$62.34	$68.41	$74.47	$80.53
3" Meter	$94.23	$115.65	$137.07	$158.49	$179.91	$201.33
4" Meter	$157.08	$206.20	$255.31	$304.43	$353.54	$402.66
6" Meter	$313.78	$412.08	$510.39	$608.70	$707.01	$805.31
8" Meter	$502.51	$688.34	$874.17	$1,060.00	$1,245.84	$1,431.67
Volumetric Charges						
Single Family						
Tier 1 per thousand gallons	$0.72	$1.00	$1.29	$1.59	$1.78	$2.00
Tier 2 per thousand gallons		$1.45	$1.88	$2.31	$2.59	$2.90
Non-Single Family						
Rate per thousand gallons	$1.45	$1.45	$1.48	$1.59	$1.78	$2.00

Notes: Single family residential tier 1 usage is defined as 0 to 50,000 gallons/month. Tier 2 usage is defined as usage greater than 50,000 gallons/month.

CHAPTER 1
Introduction

1.1 OVERVIEW

With the June 2011 completion of the City's Water Master Plan, there are now several new capital improvement projects (CIPs) that have been identified as being critical to ensure the reliable delivery of high quality drinking water at sufficient pressure and flow to meet Department of Public Health requirements. These CIPs were not previously identified, and therefore were not included in the rate study performed in November 2008, which established the current rate structure through FY 2012-13. This rate study identifies revenue increases and rate structure changes to implement rates for the FY 2013-14 through FY 2017-18 timeframe. This rate study was prepared by HF&H Consultants, working with West Yost Associates, who prepared the Water Master Plan.

1.2 CURRENT RATES

The City has a current population of approximately 46,000 and serves water to customers located inside and outside the City. The City's rate payers pay the sum of two charges every month for water service: a basic service charge based on the size of the service connection plus a volumetric charge based on metered water use during the billing period. The charge for a meter of a given size is the same for all meters of that size regardless of which class of customer is served. The City last increased its rates July 1, 2012. The volumetric charge is currently $0.72 per thousand gallons for single family residential (SFR) customers and $1.45 per thousand gallons for all non-single family residential customers.

1.3 RATE MAKING OBJECTIVES

The City has several rate-making objectives that the recommended rates are designed to achieve. Rates are designed to provide:

- **Revenue sufficiency** – generate sufficient revenue to fund operating and capital costs and maintain adequate reserves.
- **Revenue stability** – recover revenue from the City's fixed and variable charges that will cover its fixed and variable costs, barring water shortages when rationing is required.
- **Conservation signal** – reward customers for efficient water use and to discourage waste.
- **Administrative ease** – enable easy implementation and ongoing administration, including monitoring and updating.
- **Affordability** – be as affordable as possible while maintaining the City's sound financial position and credit rating.
- **Customer acceptance** – be as simple as possible to facilitate customer understanding and acceptance.
- **Fairness** – provide for each customer class to pay its proportionate share of the required revenue in compliance with legal rate-making requirements.

In the current rate study, a key consideration was encouraging efficient water use within the SFR customer class, which is where the majority of water use occurs. The City Council determined that creating a tiered rate structure for the SFR volumetric charges would focus the price signal on the appropriate customers, given today's customer demand patterns.

In addition to redesigning the residential volumetric charges, the City Council also wanted to ensure that rates would generate sufficient revenue to provide funding for master plan capital projects through pay-as-you-go financing, and increase reserves to acceptable levels.

CHAPTER 2
Revenue Requirement Projections

To determine whether additional rate revenue is required, projected operating and capital expenses are compared with projected revenue from current rates. Rates are then increased so that the expenses are covered and operating and capital reserves are maintained.

2.1 EXPENSE AND REVENUE PROJECTIONS

The City's FY 2012-13 budget served as the basis for determining the revenue requirement projections through FY 2017-18. Table 2-1 summarizes the projected expenditure trends, which are noteworthy in the following respects:

- **City operating expenses –** Operating and maintenance (O&M) expenses are projected to gradually increase during the planning period at the projected rate of inflation.
- **Turlock Irrigation District (TID) reimbursement –** TID expended funds studying the Regional Surface Water Supply Project. Ceres is reimbursing TID for Ceres' share of these planning costs. The reimbursement of $2M is planned to be repaid over four years with interest; repayment is complete by FY 2014-15.
- **Debt service** – Debt service is projected to hold relatively constant over the planning period with no additional bonds planned.
- **Pay-as-you-go capital projects** – The annual capital projects ramp up from $0.9M to $2.3M by FY 2017-18. Based on the Water Master Plan, $2M per year (current dollars) will fund necessary projects for existing customers in 25 years. Table 2-2 details the pay-as-you-go capital projects that are anticipated over the five-year planning horizon. Note that all of the projects will be funded on a pay-as-you-go basis without issuing debt. Note also that all of these projects are local Ceres projects that improve reliability and protect water quality. None of the projects are related to the Regional Surface Water Supply Project.
- **Transfers to reserves –** Section 2.2 describes the factors considered in determining whether reserves are adequate. Reserves are currently lower than recommended. The annual transfers to reserves are set so that the target fund balance for operating and capital reserves is achieved by FY 2017-18.

Table 2-1 also shows the projected annual revenue increases, which would become effective July 1 of each year. Rates for service and volumetric charges have been designed to generate the required revenue. Note that the revenue increase percentages do not directly translate into customer bill increases, as is explained in detail in Section 3. In other words, the 9.9 percent revenue increase for FY 2013-14 will vary for each customer depending on the size of the service and the volume of water used.

Table 2-1. Revenue Requirement Projections

	Budgeted ($M)		Projected ($M)				
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Net O&M Expenses	$3.59	$3.95	$4.06	$4.13	$4.19	$4.26	$4.34
TID Reimbursement	$0.50	$0.53	$0.52	$0.49	$0.00	$0.00	$0.00
Debt Service	$0.31	$0.31	$0.31	$0.31	$0.31	$0.30	$0.30
Pay-As-You Go Capital Projects	$0.00*	$0.91	$0.77	$1.27	$1.64	$2.25	$2.31
Transfers to Reserves	$0.00	$(0.46)	$0.12	$0.22	$0.93	$0.68	$0.78
Total	$4.41	$5.23	$5.78	$6.42	$7.07	$7.49	$7.73
Revenue Increase	7.4%	3.8%	9.8%	9.8%	8.0%	6.6%	6.2%
Annual Change		$0.82	$0.55	$0.64	$0.65	$0.42	$0.24

Table 2-2. Pay-As-You-Go Capital Improvement Schedule

Capital Project	Budget ($2012)	Schedule					
		2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Well 21 Site Improvements	$30,000						
Well 23 Generator	$75,000						
Building CIP – Water	$50,000						
Hollister/Darrah Water System Upgrade	$450,000						
Misc. Water System Improvements	$1,000,000						
New North Side Well	$1,200,000						
Central Avenue Main	$4,900,000						
Master Plan/General Plan Update	$500,000						
River Bluff Tank and Pump Station Design	$400,000						
Totals	$8,605,000	$905,000	$750,000	$1.2M	$1.75M	$2.0M	$2.0M

2.2 RESERVE FUNDS

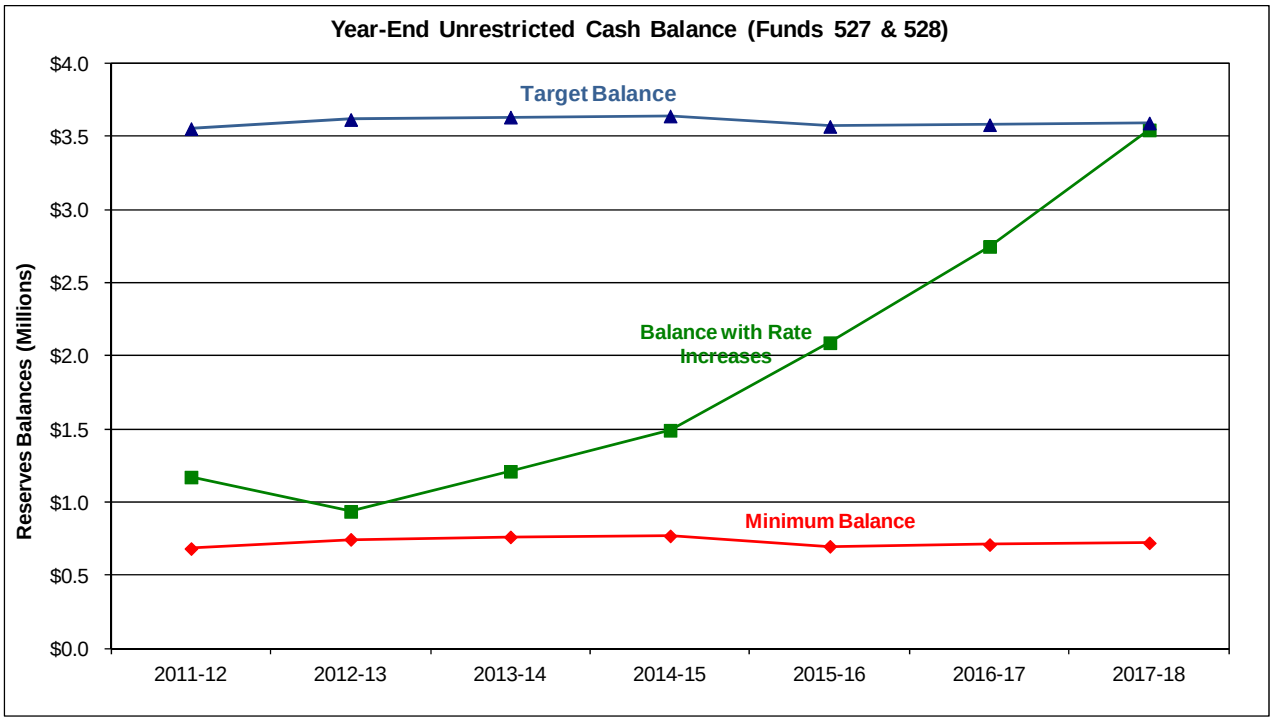
The revenue increases indicated in Table 2-1 are required to offset the City's increased costs and to maintain adequate reserves. Rates must be set so that the fund balance achieves the target balances for the reserve funds. It is the City's practice to maintain a single reserve for each enterprise. For purposes of rate making, we have subdivided the water enterprise reserve into operating and capital components. In this way, it is possible to set target balances for each component based on the component's functions:

- **Operating Reserve** – The Operating Reserve provides working capital for month-to-month O&M expenditures. With sufficient working capital, the City can operate without cash flow constraints. At a minimum, we recommend an operating reserve that is based on how frequently customers are billed. This frequency establishes the lag between when the City incurs expenses and when it receives revenue from billings. The City bills its customers monthly. We recommend that, at a minimum, the Operating Reserve equal 1.5 times the bill frequency (or six weeks in the City's case). The City's Operating Reserve should never drop below this minimum balance.
- **Capital Improvement Reserve** – The Capital Improvement Reserve provides working capital for the City's capital improvement program. The fund balance needs to be sufficient to at least pay contractors without delays caused by cash flow limitations. The fund balance can be larger so that the City can fund larger construction projects on a pay-as-you-go basis, thereby eliminating financing costs. The fund balance can also be larger to provide a measure of self-insurance for emergencies. In the City's case, we have recommended a minimum fund balance to provide adequate cash flow for construction; however, there is not an additional margin for larger capital projects (which will have to be financed) or a margin for emergency contingencies.

Figure 2-1 shows the combined fund balance for the Operating and Capital Improvement reserves compared with the target balances. The line labeled "Minimum Target Balance" (diamond symbols) represents the Operating Reserve target balance. The line labeled "Target Balance" (triangle symbols) is the sum of the target balances for the Operating Reserve and the Capital Improvement Reserve.

Figure 2-1 indicates that the fund balance is below the target in FY 2011-12. With the projected revenue increases, the fund balance will reach the target balance by FY 2017-18. In this way, a combination of revenue increases and the use of the fund balance cover the increased operating and capital costs that are projected. In the initial years, the rate increases stabilize the reserves at a low level. The subsequent rate increases are planned to increase the reserves to the target level. The projected upward trajectory of the fund balance is dependent on assumptions based on the best available data today. If actual expenses exceed today's projections, the fund balance may not reach the target balance; however, it is critical that the rate increases be sufficient to avert a further decline in the fund balance. If actual expenses are significantly less than projected, the City has the option to selectively reduce each year's rate increase to avoid accumulating excessive reserves.

Figure 2-1. Projected Fund Balance at Year-End



CHAPTER 3
Rate Design

The rate design produces rates that will generate the appropriate amount of revenue from the service and volumetric charges and, with respect to the volumetric charges, from each customer class.

Service charge revenue covers a portion of the water system's fixed costs, which are the majority of the costs. The remainder of the fixed costs is covered by the volumetric charges. The City's current service charges generate about 55 percent of the total rate revenue, which is above the upper limit recommended by California Urban Water Conservation Council guidelines.[1] In view of the fact that the City is in the early stages of converting its residential customers to metered rates, having this much revenue come from a fixed charge adds revenue stability during the transition. Over time, however, the amount of revenue coming from service charges can be reduced.

3.1 RATE-MAKING OBJECTIVES

The rate design is guided by the prevailing rate-making objectives, which for the City are summarized as follows:

1. **Reduce revenue from service charges.** Gradually lower the amount of revenue generated by the basic service charges from 55 percent with the objective of eventually reaching 30 percent mark recommended by State guidelines. With service charges at 30 percent of total rate revenue, 70 percent of the revenue will come from volumetric charges, which will give customers a reward for efficient water use and a deterrent for inefficient water use.
2. **Restructure service charges.** The current service charges increase for larger services. The relationship between charges for the largest and smallest service charges is not documented and is not proportionate to the capacity provided by the meters. The service charges were graduated using the specifications for the new meter capacities, the effect of which is to increase the service charges for the larger services. Because of the magnitude of the difference between the current and proposed service charges, the adjustment is phased in over five years.
3. **Restructure SFR volumetric charges.** The current SFR volumetric rate is low compared with the volumetric charge for all other customers, which was planned as SFR customers adapt to metered water rates. Over the next three years, the SFR volumetric rate will be increased to equal the volumetric rate for all other customers. In addition, a second tier will be added to the SFR volumetric rates beginning at 50,000 gallons per month usage to discourage inefficient water use.
4. **Stabilize volumetric charges for all other customers.** The volumetric charge for non-SFR customers will increase very slightly to allow the SFR volumetric to converge with it.

[1] California Urban Water Conservation Council Best Management Practice 1.4.

The City's rate-making objectives are consistent with industry standards and practices by retail water agencies in California. The effect of this strategy will be to hold down service charges for smaller connections and increase service charges for larger connections. This tends to benefit the SFR customer class. Conversely, the SFR volumetric charges will increase at a greater rate than the volumetric charge for other customers.

3.2 SERVICE CHARGES

Since January 2012, all residential and non-residential customers have been billed using a single set of fixed monthly service charges. Such service charges are designed to recover a portion of the fixed charges, which are substantial in a water utility. The current service charges are not graduated in proportion to the size of the customer's service connection. Based on meter capacity information from Sensus, the maker of the newly installed meters, it was noted that the largest meter capacity is about 71 times that of the smallest meter; the current rates only show the largest meter capacity at 25 times the smallest meter.

To minimize the bill impact that customers with larger meters would experience, the City Council preferred a five-year transition to the new service charges. The recommended service charges for FY 2013-14 through FY 2017-18 are presented in Table 3-1. During the transition period, the amount of revenue generated by the service charges as a percent of total rate revenue declines from 55 percent to 40 percent.

Table 3-2 presents the distribution of various meter sizes among the customer classes. Most of the smallest meters are residential. Meters three inches or larger are primarily governmental customers and constitute less than 1 percent of all meters; only 0.5 percent of the meters are over 2" in diameter. As noted in Table 3-1, when the service charges are revised to reflect the corrected graduated service charge capacity ratios, meters of one inch or less, which constitute 95 percent of all customers, will experience a slight decrease. Table 3-3 presents a comparison of Ceres' current and monthly service charges with its neighboring agencies.

3.3 SFR VOLUMETRIC CHARGES

Designing tiered rates involves two steps: (1) determining the "breakpoints" between tiers where the rate per tier changes and (2) determining the rate per tier.

3.3.1 Breakpoints Between Tiers

The most recent year's SFR customer billing data was used for identifying breakpoints between tiers. This dataset contains consumption by account for all of the SFR bills for one year. The distribution of this billing data is plotted in Figure 3-1. This histogram shows the amount of monthly water consumption as a percentage of the total number of bills. The most common bill monthly consumption is 7 thousand gallons (tgals), which is about 5 percent of all of the bills and is close to the median winter bill (8 tgals). A bill of this amount represents, for the most part, indoor use with little irrigation. Median use is 13 tgals, which means that half of the total bills are 13 tgals or less and half are more than 13 tgals. Median summer use is 19 tgals, which is 2.5 times the median winter use and reflects the peak demand for irrigation. This figure only extends to bills of 100 tgals; there are still some bills beyond 100 tgals. Although there are few bills

beyond 100 tgals, they account for a disproportionately high water consumption by only a very few customers.

Table 3-1. Current and Proposed Water Rates

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
	Current	(proposed)	(proposed)	(proposed)	(proposed)	(proposed)
Service Charges						
5/8" & 3/4" Meter	$20.42	$20.36	$20.30	$20.25	$20.19	$20.13
1" Meter	$24.91	$23.96	$23.00	$22.04	$21.09	$20.13
1 1/2" Meter	$31.38	$34.16	$36.95	$39.73	$42.51	$45.30
2" Meter	$50.22	$56.28	$62.34	$68.41	$74.47	$80.53
3" Meter	$94.23	$115.65	$137.07	$158.49	$179.91	$201.33
4" Meter	$157.08	$206.20	$255.31	$304.43	$353.54	$402.66
6" Meter	$313.78	$412.08	$510.39	$608.70	$707.01	$805.31
8" Meter	$502.51	$688.34	$874.17	$1,060.00	$1,245.84	$1,431.67
Volumetric Charges						
Single Family						
Tier 1 per thousand gallons	$0.72	$1.00	$1.29	$1.59	$1.78	$2.00
Tier 2 per thousand gallons		$1.45	$1.88	$2.31	$2.59	$2.90
Non-Single Family						
Rate per thousand gallons	$1.45	$1.45	$1.48	$1.59	$1.78	$2.00

Notes: Single family residential tier 1 usage is defined as 0 to 50,000 gallons/month. Tier 2 usage is defined as usage greater than 50,000 gallons/month.

Table 3-2. Distribution of Meters

Service Type/Size	Commercial	Government / School	Industrial	Irrigation	MFR-Apt Duplex	SFR	Total by Service Type/Size
5/8"	5	1	0	1	22	374	403
3/4"	149	17	53	32	259	9,843	10,353
1"	90	4	27	31	30	22	204
1 1/2"	50	3	5	59	57	0	174
2"	112	24	31	127	41	5	340
3"	5	5	0	3	0	1	14
4"	4	16	1	8	13	0	42
6"	0	2	0	1	0	0	3
8"	0	2	0	0	0	0	2
Total	415	74	117	262	422	10,245	11,535

Table 3-3. Comparison of Neighboring Agency Service Charges

Meter Size	Ceres Current (eff. 7/1/12)	Ceres Proposed (eff. 7/1/13)	Manteca (eff. 1/1/13)	Modesto (eff. 7/1/12)	Lathrop (eff. 1/1/13)	Patterson (eff. 1/1/13)	A Lodi (eff. 1/1/12)	B Merced (eff. 1/1/12)	C Turlock (eff. 1/1/11)
5/8"	$20.42	$20.24	$18.90	$14.69	$11.50	$10.21	$23.20	$35.14	$24.05
3/4"	$20.42	$20.24	$18.90	$14.69	$16.50	$10.21	$23.20	$35.14	$24.05
1"	$24.91	$23.84	$29.25	$20.85	$26.50	$13.73	$37.66	$36.54	$24.05
1 1/2"	$31.38	$33.90	$54.75	$36.07	$51.60	$16.33	$66.18	$48.71	$38.50
2"	$50.22	$55.81	$85.50	$54.43	$81.70	$25.86	$95.15	$67.00	$41.90
3"	$94.23	$114.48	$157.35	$103.42	$151.90	$79.28	$102.81	$77.66	$57.10
4"	$157.08	$203.85	$260.00	$158.48	$252.10	$101.63	$132.20	$91.37	$83.05
6"	$313.78	$407.39	$516.20	$311.31	$502.80	$157.73	$190.91	$106.60	$113.60
8"	$502.51	$680.00	$823.85	$494.82	$803.50	$220.75	$249.67	$152.30	$163.55

A: 1 1/2" and 2" meter pricing presented above represents the average of the SFR and Non-SFR rates

B: Flow allowances in Merced's monthly meter charges : 3/4" and 1" include 22,440 gals; 1 1/2" include 29,920 gals; 2" and greater include 37,400 gals.

C: Includes the first 20,607 gallons at no additional cost

The bills shown in Figure 3-1 were cumulated and plotted in Figure 3-2. The upper curve represents cumulative number of bills and the lower curve represents the corresponding cumulative water consumption. The cumulative bill distribution was used for identifying the residential tier breakpoint at 50 tgals of monthly consumption. At this level of consumption, the top ten percent of consumption (blue line) and two percent or 2,718 of the bills (green line) would be affected. Introducing a breakpoint at 50 tgals is recommended to curb such high use by very few customers. In the future, the City could add more tiers to create a set of tiers in which tiers for low water use would be priced at below the average cost of water to reward efficiency.

3.3.2 Rates For Each Tier

The tier 1 residential rate is set such that it converges with the volumetric rate for non-residential customers over three years. The tier 2 residential rate is initially set equal to the non-residential volumetric charge. The 45 percent premium paid for tier 2 water provides a reasonable economic incentive to customers at this level of demand to invest in saving water (*e.g.*, landscape and irrigation system retrofits, repair leaks, install low-use appliances) rather than in paying high water bills for inefficient water use. Over time, the 45 percent differential will be maintained unless and until additional tiers are added.

Figure 3-1. Bill Distribution

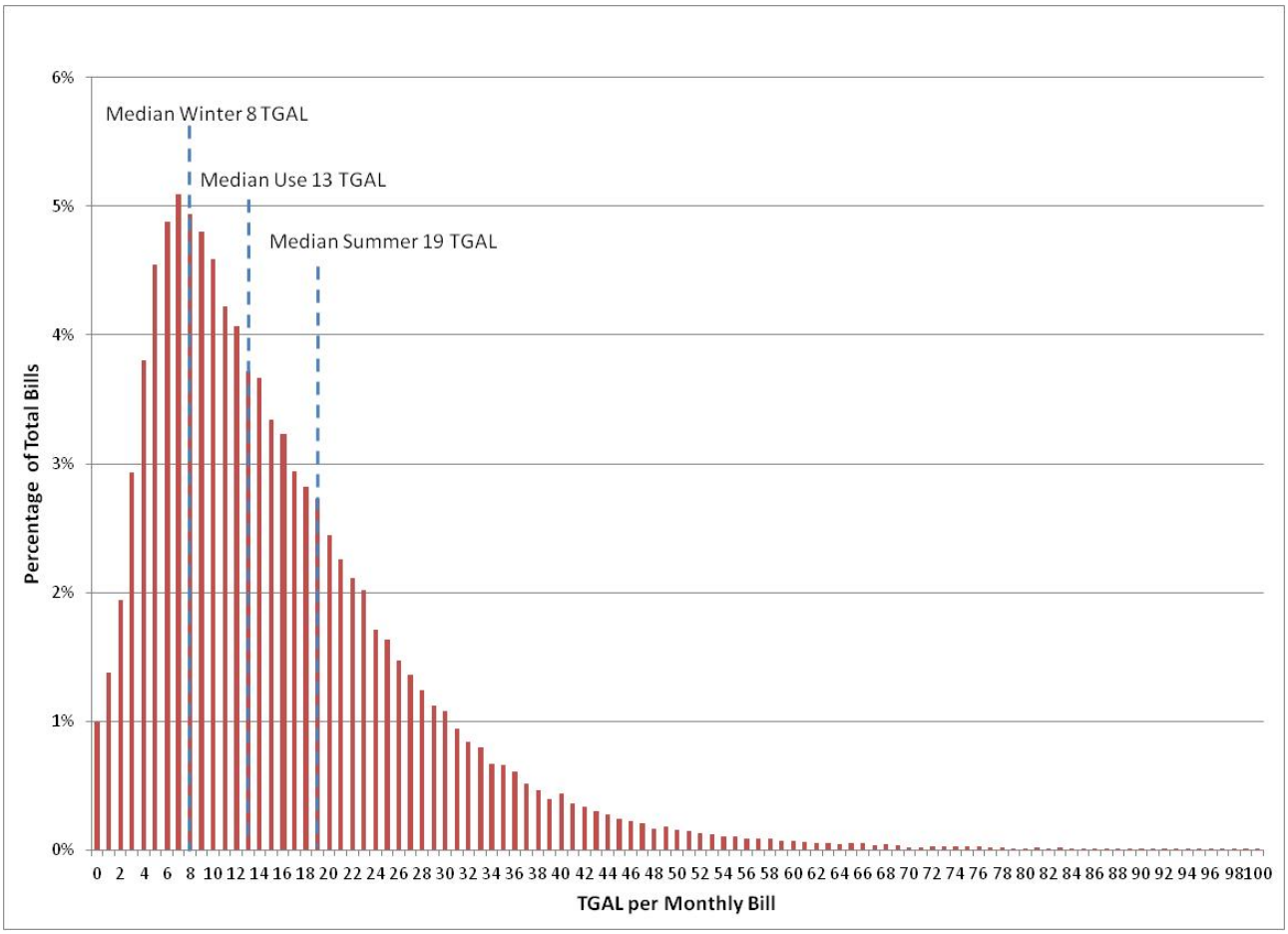
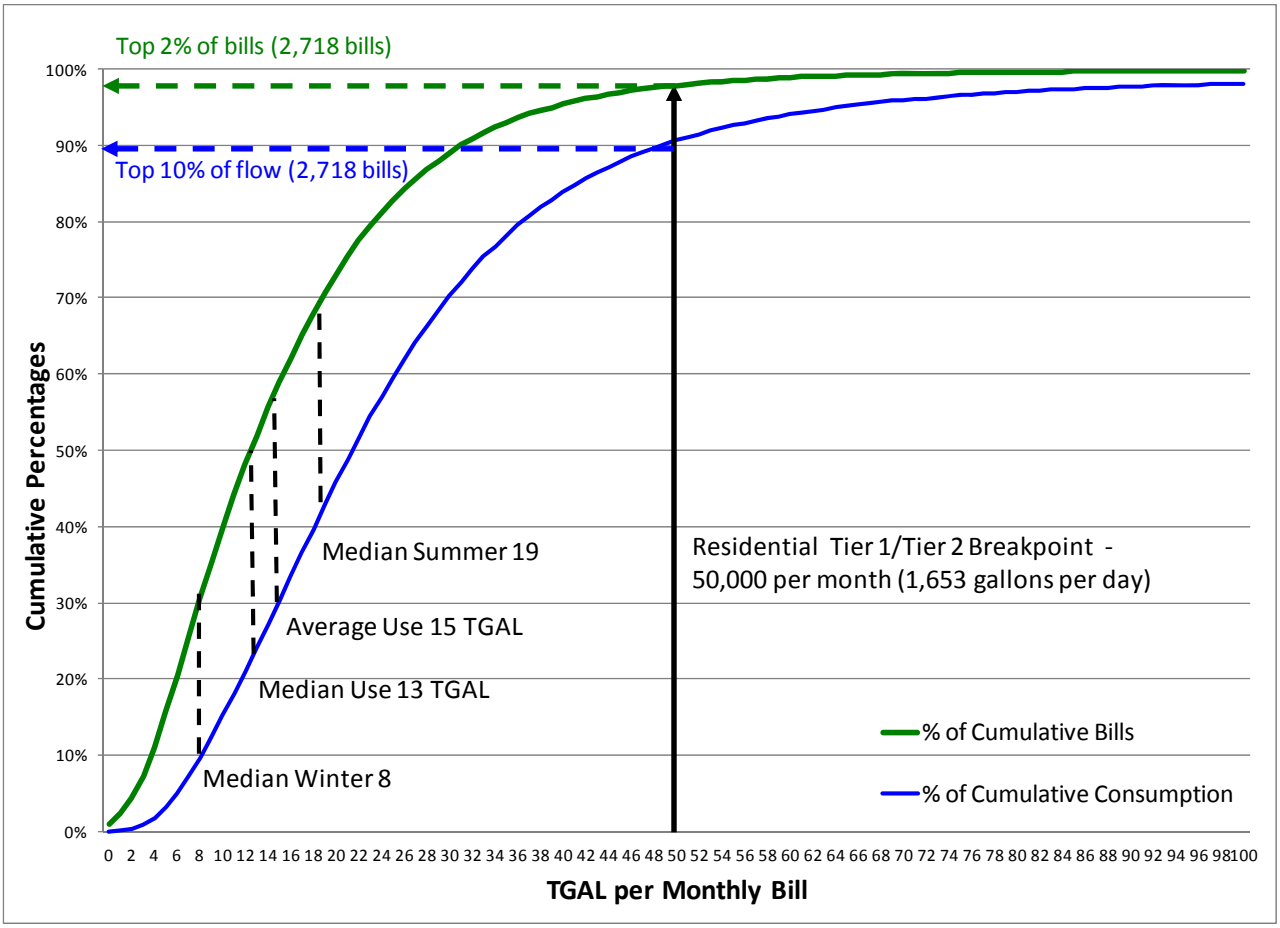


Figure 3-2. Cumulative Bill Distribution for Residential Accounts



The City's rate payers pay the sum of two charges every month for water service: a basic service charge based on the size of the service connection plus a volumetric charge based on metered water use during the billing period. Because of the structure of the rates, the impact on bills depends on the amount of water use. Figure 4-1 indicates in graphical format what the impacts are on single family customer's bills based on monthly water use. The figure compares bills under the current and proposed residential rate structures for a range of monthly consumption. Monthly billing costs also include the basic service charge for a 3/4" meter. The figure shows the monthly billing costs for the current rate structure, and FY 2012-13 rates, the monthly billing costs for the current rate structure, and FY 2013-14 rates, and the monthly billing costs for the proposed tiered rate structure, with FY 2013-14 rates. In comparing the two-tier structure with the current uniform structure with the rate increase, it can be seen that bills under the two-tier structure are the same under the uniform structure until demand reaches 50 tgals.

Based on the rates in Table 3-1, customer bill impacts were evaluated over the five-year planning horizon. Table 4-1 presents the monthly bill for an average single family residential customer, a commercial customer with a two-inch connection, and a commercial customer with a four-inch connection. Although Table 2-1 indicates the overall revenue increase is 9.8 percent for FY 2013-14, the impact on these example customers varies.

The bill comparisons for examples of other customers are shown in Tables 4-2 and 4-3. Although in Table 4-2 the average two-inch and four-inch connection experience a 6.5 percent and 15.4 percent increase, respectively, it should be noted that the increases will vary on a case-by-case basis. Table 4-2 presents an example elementary, junior high and high school within the City. In Table 4-3, the customers comprise different businesses with two, three, or four-inch connections.

Figure 4-2 compares the City's current FY 2012-13 and proposed FY 2013-14 bills for a single family customer with average flow (16 tgals per month) with other neighboring agencies. The comparison shows that the City's single family bills are in line with its neighbors.

Figures 4-3 and 4-4 compare the City's current FY 2012-13 bill and proposed FY 2013-14 bill for a commercial customer with a two-inch or four-inch connection, and average flow (31 tgals per month and 111 tgals per month, respectively) with other neighboring agencies. By comparison with other agencies, in both cases the City's commercial bills for a two and four-inch connection are in line with its neighbors.

Table 4-1. Example Residential and Commercial Monthly Bills

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
	(adopted)	(proposed)	(proposed)	(proposed)	(proposed)	(proposed)
Single Family						
Service charge (3/4" connection)	$20.42	$20.36	$20.30	$20.25	$20.19	$20.13
Volumetric Charge (15.82 TGAL)	$10.86	$15.21	$19.62	$23.94	$27.05	$30.30
Monthly bill	**$31.28**	**$35.57**	**$39.93**	**$44.18**	**$47.24**	**$50.43**
Monthly dollar increase	*$ 1.15*	*$ 4.29*	*$ 4.35*	*$ 4.26*	*$ 3.06*	*$ 3.19*
Annual percentage increase	*3.8%*	*13.7%*	*12.2%*	*10.7%*	*6.9%*	*6.8%*
Commercial						
Service charge (2" connection)	$50.22	$56.28	$62.34	$68.41	$74.47	$80.53
Volumetric Charge (31.22 TGAL)	$42.97	$42.97	$43.83	$46.90	$52.52	$58.83
Monthly bill	**$93.19**	**$99.25**	**$106.17**	**$115.30**	**$126.99**	**$139.36**
Monthly dollar increase	*$ 3.41*	*$ 6.06*	*$ 6.92*	*$ 9.13*	*$ 11.69*	*$ 12.37*
Annual percentage increase	*3.8%*	*6.5%*	*7.0%*	*8.6%*	*10.1%*	*9.7%*
Commercial						
Service charge (4" connection)	$157.08	$206.20	$255.31	$304.43	$353.54	$402.66
Volumetric Charge (110.70 TGAL)	$160.87	$160.87	$164.09	$175.57	$196.64	$220.24
Monthly bill	**$317.95**	**$367.07**	**$419.40**	**$480.00**	**$550.18**	**$622.90**
Monthly dollar increase	*$ 11.64*	*$ 49.12*	*$ 52.33*	*$ 60.60*	*$ 70.18*	*$ 72.71*
Annual percentage increase	*3.8%*	*15.4%*	*14.3%*	*14.4%*	*14.6%*	*13.2%*

Table 4-2. Example Monthly Bills for Schools

			FY 12-13			FY 13-14			Year-Over-Year Change	
School Name	Meter Size	Average Monthly Flow	Service Charge	Volumetric Charge	Total Bill	Service Charge	Volumetric Charge	Total Bill	Difference (%)	Difference ($)
Sinclear Elementary	4	34,280	$157	$50	$207	$206	$50	$256	24%	$49
Ceres High School	4	392,592	$157	$571	$728	$206	$571	$777	7%	$49
	3	10,967	$94	$16	$110	$116	$16	$132	19%	$21
(IRR)	0.75	20,888	$20	$30	$51	$20	$30	$51	0%	($0)
(IRR)	4	2,091,000	$157	$3,039	$3,196	$206	$3,039	$3,245	2%	$49
(IRR)	2	5,875	$50	$9	$59	$56	$9	$65	10%	$6
Total - Ceres HS			$479	$3,664	$4,143	$605	$3,664	$4,269	3%	$126
Mae Hensley JR High	6	77,365	$314	$112	$426	$412	$112	$525	23%	$98

Table 4-3. Example Commercial Monthly Bills

			FY 12-13			FY 13-14			Year-Over-Year Change	
Type of Customer	Meter Size	Average Monthly Flow	Service Charge	Volumetric Charge	Total Bill	Service Charge	Volumetric Charge	Total Bill	Difference (%)	Difference ($)
Fast Food	2	63,467	$50	$92	$142	$56	$92	$149	4%	$6
Grocery	2	158,950	$50	$231	$281	$56	$231	$287	2%	$6
Hotel	3	178,721	$94	$260	$354	$116	$260	$375	6%	$21
Big-Box Retailer	3	169,721	$94	$247	$341	$116	$247	$362	6%	$21
Apartment	4	133,275	$157	$194	$351	$206	$194	$400	14%	$49
Large Grocery	4	530,625	$157	$771	$928	$206	$771	$977	5%	$49

Figure 4-1. Single Family Residential Customer Bill Comparison

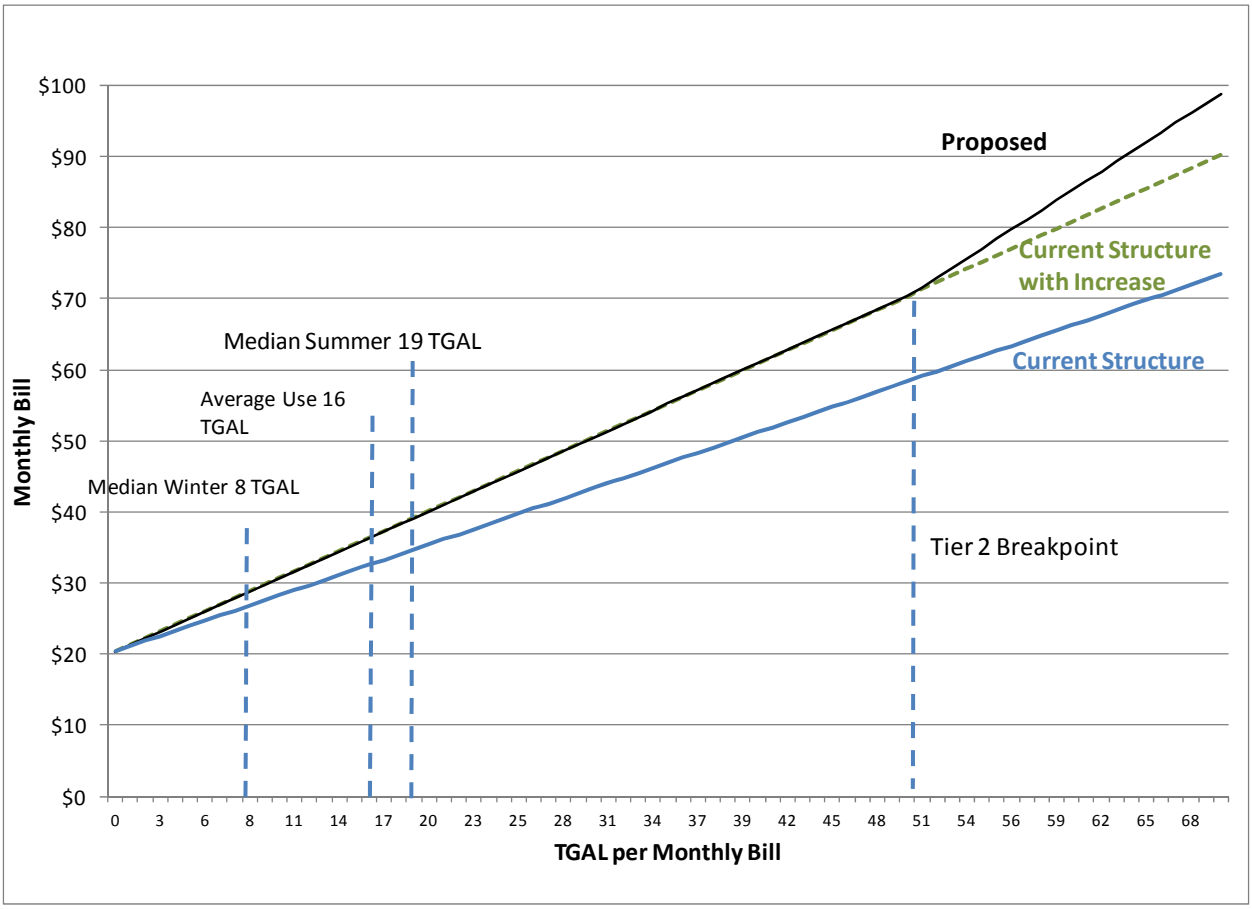


Figure 4-2. Single Family Residential Monthly Bill Comparison

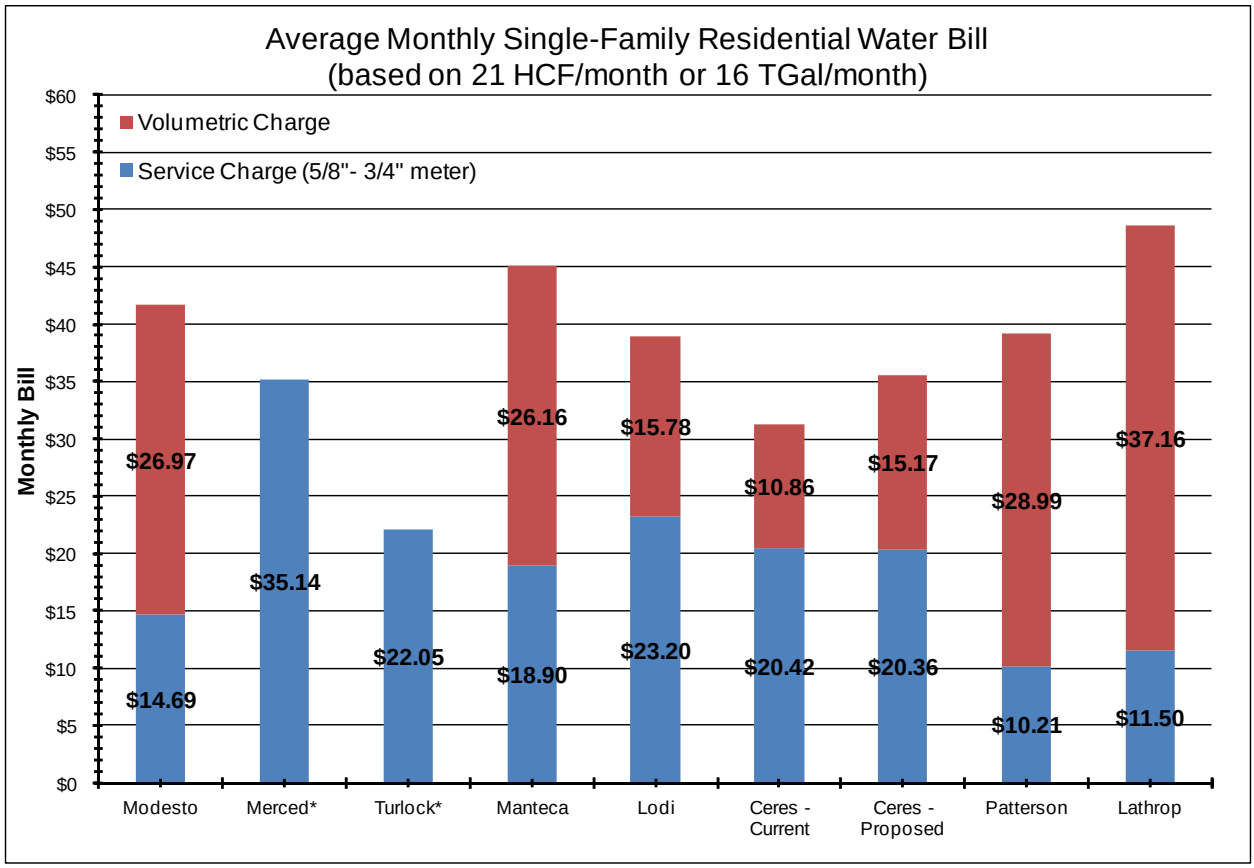


Figure 4-3. Commercial Monthly Bill Comparison (2" meter)

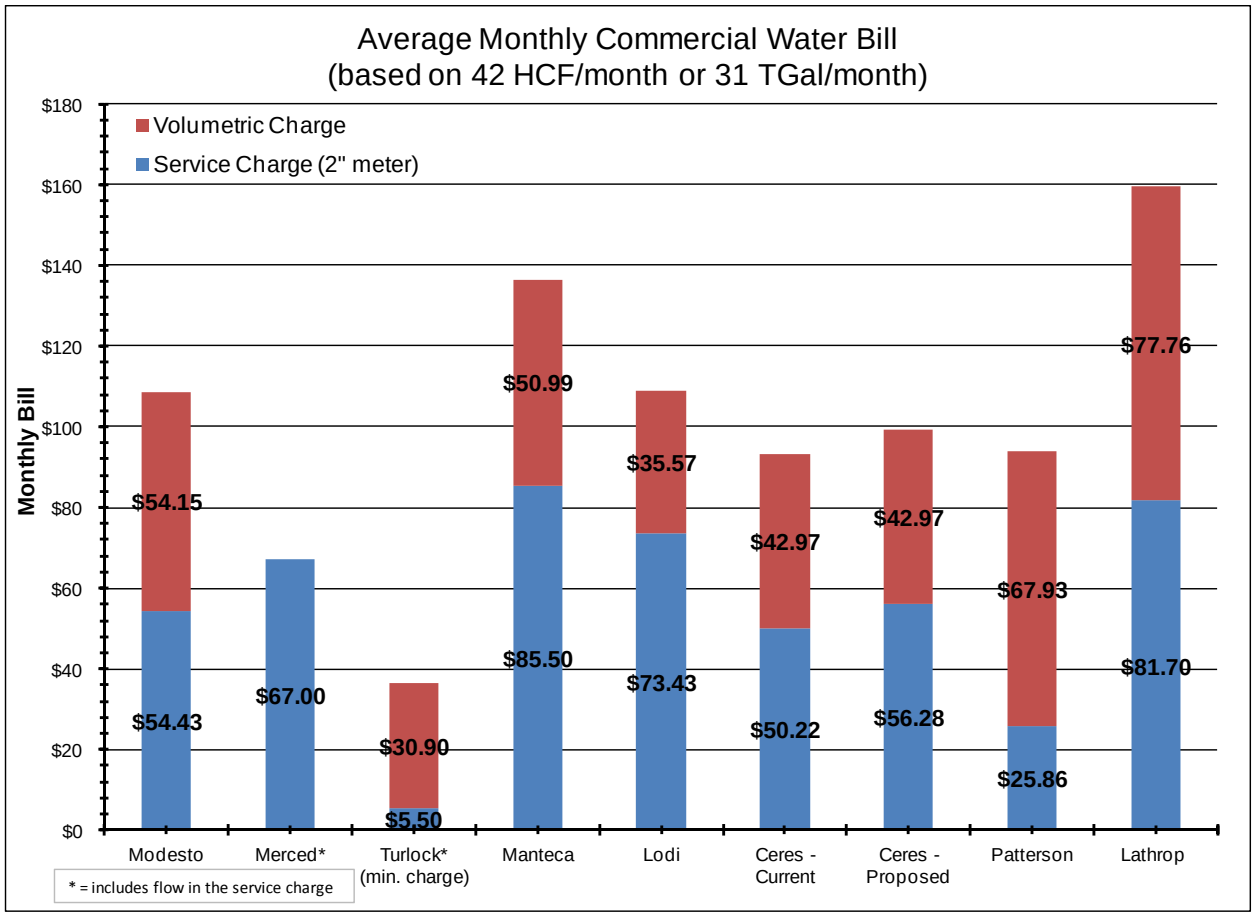


Figure 4-4. Commercial Monthly Bill Comparison (4" meter)