Water Consultancy

Water Rate and Revenue Analysis

Final Report

City of Paso Robles

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City of Paso Robles
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1 Introduction

The City of Paso Robles (City) owns and operates approximately 174 miles of waterlines, 4 storage facilities, and 7 booster stations to distribute drinking water throughout the City. The City's water supply system includes 20 wells that pump groundwater, Salinas River underflow, and surface water from Lake Nacimiento, with a surface water treatment plant that will soon go into operation.

The City's Water Operations Fund is used to account for the operation and maintenance of the City's water supply system, including the water production, transmission, and distribution system. The City's Water Operations Fund, as reported in the City's "Comprehensive Annual Financial Report" (CAFR) for Fiscal Year ended June 30, 2014,[1] operated at $12.1 million in business type activities and has a projected total annual operating expense of $13 million for Fiscal Year 15/16. Revenues are generated primarily from user fees and facility charges.[2] Fiscal Year 2014 revenues were approximately $9.6 million per year, falling short of meeting annual revenue requirements.

In early 2007, a water rate increase was proposed particularly to cover the costs associated with the Nacimiento Water Project. Following much community discussion and delays in adoption, a uniform water rate structure went into effect January 1, 2012, with the last annual water rate adjustment scheduled to go into effect on January 1, 2016.

The City last completed a comprehensive financial evaluation of its water utility rates and fees in 2010 and 2009, respectively.[3] Based upon the findings and conclusions from those studies, the City adopted updated water rates and fees to improve the financial position and sustainability of the Water Operations Fund. The adopted rate adjustments were driven primarily by the City's need to increase its ability to provide treated water to its existing customers and fund a phased approach for the financial obligations and operational requirements of the new Nacimiento water supply and other water system reliability improvements. The Water Operations Fund has begun repaying $69.49 million in revenue bond financing for the 2007 Nacimiento Water Project. This financing package was refinanced in 2015 to obtain some long-term cost savings. The City's annual debt service associated with this 2015 Series A bond package is approximately $4.1 to $4.2 million.

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[1] The CAFR, prepared annually, provides a complete understanding of the City's financial affairs. Each year, the CAFR is audited by an independent certified public accounting firm in accordance with generally accepted auditing standards.

[2] Facility charges, also referred to as "connection fees," are charged to new development to ensure that future customers pay their share of system costs, both to recoup costs invested in the existing system and to finance future facilities needed to support growth.

[3] "2010 Uniform Water Rate Study", January 2010 by Kennedy/Jenks Consultants, and "Water Capacity Charge Study", January 2009, by HF&H Consultants, Inc.

From the prior financial studies, rates and fees were adopted to fund the projected revenue requirements of the Water Operations Fund. The current water rates are shown in Table 1-1. As shown, water rate adjustments are currently scheduled through January 1, 2016. Following the increase in January 2016, all water customers will pay $4.40/HCF for all water usage.

Table 1-1 Current Water Rates

User Class (All Customers)	Usage Charge $/HCF	
	Current	Eff. January 1, 2016
All Water Usage ($/HCF)	$4.10	$4.40

"HCF" = hundred cubic feet, or 748 gallons.

The City's current water rate structure is considered an "all variable uniform" water rate structure. That is to say that monthly water bills are based on actual metered usage by customer and that no fixed monthly service fee or minimum bills, nor a tiered rate structure, is now in place. As such, monthly water bills are based solely on actual metered water use for all customer types.

While many of the key issues facing the City in prior years remain, new conditions affect the City's ability to meet the Water Operations Fund financial obligations, which has begun to deplete the Water Operations Fund's cash on hand. Foremost among the financial concerns of the Water Operations Fund is the need to:

- Replace the 90 year old 21st Street Reservoir, a 4 million gallon water storage tank that is a critical element of the City's water utility, holding one-third of the City's stored water;
- Complete the construction of a 2.4 MGD[4] seasonal water treatment plant, and begin to fund its operation later this year;
- Design and construct a 4 MGD capacity water treatment plant suited for year-round operations, currently scheduled for FY 20-21;
- Add additional operations staff to support the needed increases in treatment plant capacity, and fund the associated increases in power and chemical consumption;
- Schedule for and fund the methodical replacement or rehabilitation of aging waterlines, water wells, and booster stations to maintain the reliability of the water system; and
- Meet state mandated reductions in water usage in response to California's drought, and incorporate the implementation of the drought response program into the City's water system operating plan and budget.

[4] "MGD" means "million gallons per day."

This 2015 water rate and revenue analysis is intended to consider all these factors and the current financial position of the Water Operations Fund, and to update projections of the level of future water rates. In addition to the development of updated water revenue requirements, this study also reviews the current water rate structure and changes in projected costs that may affect the City's water facility charges.

The following sections of this study provide the supporting information for the level and timing of potential water rate adjustments that may be needed to meet the current and projected financial requirements and document these findings for a potential adjustment to the City's water rates and rate structure over the coming years.

2 Development of Updated Financial Parameters

The cornerstone to the development of a utility's financial projection is the assessment of a utility's projected customers, usage characteristics, and system costs. Much of this information was provided by the City as an extraction of information from its utility billing system, and supporting cost information from City staff.

To meet the objectives of this water rate analysis, new financial data was obtained and integrated into the financial model, and an updated financial projection was developed using the principles and methods contained in American Water Works (AWWA), M-1 Manual, Principles of Water Rates, Fees and Charges and the requirements of Proposition 218 (specifically, California Constitution, Article XIIID, section 6) and California Constitution Article X, section 2.[5]

The proposed water rates are designed to recover the City's costs of providing service, stabilize revenues, and promote conservation in a manner that fairly and proportionately allocates costs amongst the City's water customers.

A discussion of this process and our results from the analysis is provided in the following sub-sections.

2.1 Current and Projected Customer Accounts and Water Demands

The City accounts for the customer usage and occupancy activity with its utility billing system. This system records and generates utility bills based on each customer's water usage. As required by the State Department of Water Resources, the City annually publishes a summary of customer characteristics. The customer account data for Calendar Year (CY) 2014 is shown in Table 2-1. The corresponding usage for CY 2014 was 2,539,431 HCF.

[5] In conducting this financial review and providing these financial projections, HDR/Water Consultancy is acting in a role other than that of "Municipal Advisor", as defined by the Securities and Exchange Commission (SEC). The City should consult with its Financial (Municipal) Advisor and Bond Counsel concerning the issuance, timing and structure of any new debt issue.

Table 2-1 Current Water Accounts

Customer Class	Accounts
Single Family Residential	8,785
Multi-Family Residential	406
Commercial / Institutional	824
Industrial	74
Landscape Irrigation	440
Other	97
TOTAL	**10,626**

Source: City Public Works Department, Water Div., 2014 DWR Water Statistics Report (all meter sizes).
CY = calendar year
HCF = hundred cubic feet = 748 gallons

To determine a reasonable level of projected growth for this water study, the City reviewed historic growth patterns and correlated this historical pattern with the most recent projections from the City's General Plan. Proceeding in this way, growth is projected to rise and fall in cyclical patterns much like it has historically. The result is an annualized estimate of new accounts through buildout that correlates well with the General Plan values, and should provide a reasonable basis of planning for the five year planning period. A summary of this growth projection is provided in Appendix A.

Since the City's water rate structure is directly tied to water usage, growth and water usage projections are an integral element of projecting water utility revenues. The projections derived herein include both the projected increase in water demand from growth, along with reductions in water usage to meet the State mandated reductions in response to the California drought. Revenues associated with growth's payment of water facility charges are also included as non-operating revenues in the cash flow model as they are an important source of water fund revenues, especially in years of high growth[6]. A summary of the projected growth and water usage values is show in Table 2-2.

[6] Water facility charges are reviewed periodically to evaluate their appropriateness. Based on a review of current information, no changes are proposed at this time.

Table 2-2 Projected New Customers and Water Demands

Fiscal Year (FY)	Annual Growth (EMUs)	Projected Water Demand (HCF)
FY 15-16	112	2,072,455 HCF
FY 16-17	151	2,483,881 HCF
FY 17-18	229	2,555,518 HCF
FY 18-19	306	2,625,792 HCF
FY 19-20	469	2,733,655 HCF
FY 20-21	588	2,868,979 HCF

Notes: Projected demand includes existing customer demands plus anticipated growth. Growth is expressed herein as an increase in "equivalent meter units" (EMUs), where 1 EMU is equivalent to the average usage of a base sized ¾-inch or 5/8-inchwater meter used by a single family residential account.[7] Projected water usage is in Hundred Cubic Feet (HCF), where 1 HCF is approximately equal to 748 gallons.

Note that the anticipated pace of growth reflected in Table 2-2 is shown through FY 20-21. Projections of customer accounts and water demand projections were prepared to correlate with the buildout population of 42,499 by the year 2045, as noted in the Land Use Element of the City General Plan, dated March 2014. The tables in this water rate study report denote values through FY 20-21, as this time frame incorporates the projected costs of the 21st Street Reservoir replacement, the upcoming 4 MGD water treatment plant expansion project, and is the end of the five year rate study planning horizon. As previously noted, the projection of customer accounts through 2046 is included in Appendix A.

In addition to the projection of new account growth, a critical review of the historical, current and projected water demands was performed in this 2015 rate study, as water usage dramatically affects system costs and revenues. The water demand projection is based on recent planning data, historical/current water billing and system production data, projections of demand reductions in response to the State mandated 28% reduction in monthly water usage as compared to 2013 through the spring of 2016, and other Best Management Practices derived by the California Urban Water Conservation Council (CUWCC) to achieve a long range conservation goal to reduce per capita water use by 20% by 2020, in accordance with the City's 2010 Urban Water Management Plan (UWMP).

The implications of these factors have been incorporated in the water demand projections shown in Table 2-2 and provide the basis of planning for the projection of water system costs and revenues derived from the sale of water.

[7] An equivalent meter is used to account for the typical demands associated with larger meters. A single family residence = 1 equivalent meter. A commercial project would equate to more than one equivalent meter.

Given that new customer account activity and water demand projections can not be derived as precise values, projections used herein should be considered only as estimates to provide a reasonable projection of near-term customer activity. The City routinely evaluates and reconciles this information as appropriate during its rate and budget review processes.

2.2 Budgeted/Projected Operating Expense

Costs associated with the management, administration, and operations of the City's water utility are accounted for in four Organizational Categories. As discussed further in Section 4, approximately 80% of water system's current operating costs are fixed, and do not vary with the amount of water used. An additional operational category for miscellaneous expenses has been developed herein to capture additional costs that are now or will be required by the Water Operations Fund. These five expense categories are:

- Utility Billing and Cashiering is responsible for the billing, accounting, and administration of the Water Operations Fund;
- Water Production and Distribution is responsible for the operation, maintenance, and management of the water system. Historically, virtually all of the operational costs of the water utility have been accounted for in this organization;
- Water Treatment Operations is a new organization used to account for water treatment related activities, including the new 2.4 MGD seasonal water treatment plant and the forthcoming 4 MGD year-round water treatment operation;
- Water Conservation Operations is responsible for the management, administration, and operations of the City's water conservation programs, rebates, and community engagement activities; and
- Miscellaneous Operating Expenses is an operating expense category created to note other cost obligations of the Water Operations Fund. Some of these cost categories are new items, other are ongoing costs that have been extracted from the other four existing operational organizations to promote additional attention and scrutiny. Each of these cost items will be consolidated within the existing four Water Operations Fund Organizations in future budgetary cycles.

The current Water Operations Fund operating budget and five years of projected water utility costs are shown in Table 2-3. As shown, Water Operations Fund operating expenses are projected to have only inflationary oriented increases (3%/yr. for all costs, except power at 4.5%/yr.) until FY 20-21. At that time, an increase in cost is expected as the City expands the use of high quality/reliable Nacimiento surface water supply to meet current and projected needs. This cost increase has been anticipated and programmed for some time as the City proactively pursued this diversification in its water supply portfolio to improve long-term water supply reliability, lessen the extent of groundwater pumping, and maintain safe levels of reserves during peak, high-demand summertime usage for the community. The timing of this change in costs is associated with the change in water supply operational approach, and the new 4 MGD Nacimiento water treatment plant begins to supply water to the Paso Robles community.

Table 2-3 Budgeted and Projected Operating Expenses

Operating Expenses	FY 15/16 [1]	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21
Utility Billing and Administration [2]						
Labor and other benefits	$344,337	$405,807	$417,981	$430,521	$485,151	$499,706
Professional and other services	$141,250	$145,488	$149,852	$154,348	$158,978	$163,747
Other (includes one-time software)	$140,375	$95,879	$104,769	$107,912	$111,150	$114,484
Charges From Other Depts	$41,100	$42,333	$43,603	$44,911	$46,258	$47,646
Subtotal	**$667,100**	**$689,500**	**$716,200**	**$737,700**	**$801,500**	**$825,600**
Water Production and Distribution [3]						
Labor and other benefits	$1,675,883	$1,777,944	$1,831,283	$1,886,221	$1,942,808	$2,001,092
Power	$995,000	$916,225	$985,560	$1,063,797	$1,157,018	$683,358
Fleet maintenance and fuel	$191,815	$197,569	$203,497	$209,601	$215,889	$222,366
Professional and other services	$432,000	$444,960	$458,309	$472,058	$486,220	$500,806
Insurance and fees	$540,987	$557,217	$573,933	$591,151	$608,886	$627,152
Repair and maintenance	$480,000	$494,400	$509,232	$524,509	$540,244	$556,452
Furniture and office supplies	$212,098	$52,000	$53,560	$55,167	$56,822	$58,526
Chemical and supplies	$160,965	$142,724	$151,321	$160,989	$172,583	$100,468
Charges from Other Depts	$446,100	$459,483	$473,267	$487,466	$502,089	$517,152
Other	$64,682	$66,622	$68,621	$70,680	$72,800	$74,984
Subtotal	**$5,199,530**	**$5,109,100**	**$5,308,600**	**$5,521,600**	**$5,755,400**	**$5,342,400**
Water Treatment Operations [4]						
Labor and other benefits	$0	$116,699	$120,200	$123,806	$127,520	$328,364
Power	$325,000	$461,381	$482,143	$503,839	$526,512	$2,000,745
Professional and other services	$50,000	$51,500	$53,045	$54,636	$56,275	$57,964
Insurance and fees	$30,000	$30,900	$31,827	$32,782	$33,765	$34,778
Repair and maintenance	$102,000	$105,060	$108,212	$111,458	$114,802	$118,246
Furniture and office supplies	$15,100	$15,553	$16,020	$16,500	$16,995	$17,505
Chemical and supplies	$430,000	$442,900	$456,187	$469,873	$483,969	$498,488
Charges from Other Depts	$126,900	$130,707	$134,628	$138,667	$142,827	$147,112
Other	$3,115	$3,208	$3,305	$3,404	$3,506	$3,611
Subtotal	**$1,082,100**	**$1,357,900**	**$1,405,600**	**$1,455,000**	**$1,506,200**	**$3,206,800**
Water Conservation Operations						
Labor and other benefits	$173,156	$178,351	$183,701	$189,212	$194,889	$200,735
Rebates and Public Educ	$113,800	$117,214	$120,730	$124,352	$128,083	$131,925
Other	$7,560	$7,787	$8,020	$8,261	$8,509	$8,764
Subtotal	**$294,500**	**$303,400**	**$312,500**	**$321,800**	**$331,500**	**$341,400**
Misc. Operating Expenses						
Misc. Capital Equipment	$262,000	$106,090	$109,273	$112,551	$115,927	$119,405
Sustainable GW Mgt - Legal Planning	$500,000	$500,000	$500,000	$300,000	$300,000	$300,000
Regional Naci Capital Cost/Reserves	$200,000	$206,700	$208,500	$209,900	$211,000	$212,000
Regional Naci O&M Cost Share	$661,900	$702,200	$723,300	$745,000	$767,400	$2,874,100
Regional Naci Variable Energy Share	$432,500	$472,300	$493,600	$515,800	$539,000	$2,048,300
Existing Naci Tax Credits	($463,000)	$0	$0	$0	$0	$0
Existing Naci Pipeline Debt Svs.	$4,200,000	$4,200,000	$4,200,000	$4,200,000	$4,200,000	$4,200,000
Total Operating Expenses	**$13,036,600**	**$13,647,200**	**$13,977,600**	**$14,119,400**	**$14,527,900**	**$19,470,000**

(1) Budget from Finance Dept as of June 2015
(2) Includes Finance Dept. recommendations for future additional Finance positions; 1/2 FTE to Water and 1/2 FTE to Sewer
(3) Presumes staffing for the 2.4 MGD plant is reclassified to Water Treatment Operations; power and other costs pace with forecasted annual groundwater production: excludes depreciation
(4) Treatment costs pacing with timing of 4 mgd plant expansion

Operating costs represent only a part of the Water Operations Fund requirements. Another element is the need to plan and fund the annual estimate of existing facility "wear and tear". The wear and tear of existing facilities requires funding for the renewal and replacement of these assets. A common method of estimating an adequate level of funding for "wear and tear" is to fund an amount equal to or greater than annual depreciation expense. The use of depreciation expense is reflective of the value of the City's assets (i.e. the City's investment) and depreciation expense reflects the annual amount of those assets losing their useful life from "wear and tear". Based on the City's chart of accounts of system assets, the estimated annual depreciation of water utility assets is approximately $1.3 million, increasing to over $1.8 million/year in FY 20-21.

It should be noted that the level of depreciation funding received much discussion during the development and adoption of the water rates in 2010. Given the poor financial condition of the Water Operations Fund at that time, funding depreciation was generally considered unaffordable in the early years of the five-year rate plan, with the expectation that $750,000 could be funded in FY 14-15 and $1.5 Million per year thereafter.

As discussed in later sections of this study, the Water Operations Fund is still unable to fully fund deprecation at this time, suggesting only a modest funding of $400,000 to $700,000/year through FY 18-19, and increasing to a more cost-based level in the latter years of the study. It is recommended the level of depreciation funding (i.e., capital improvements funded on a "pay-as you-go" basis) be revisited in subsequent revenue evaluations and rate studies. This cost-based recovery approach will be particularly important to retain the life expectancy of the newly constructed water treatment plant and reservoir replacement. Failure to adequately fund for capital replacement will simply lead to deferred capital infrastructure and higher overall operating costs and water losses. Depreciation funding is incorporated in the overall projected revenue requirements in a latter section of this report.

In addition to cost considerations, staff has developed and implemented a number of cost control measures as an element of the City's annual budgeting and performance evaluations to minimize the impact of future increases. Some examples of the water utility's cost control measures are:

- Meter replacement program to reduce unaccounted-for-water;
- Incorporated high level of automation at the treatment plant to minimize staffing requirements;
- Cross-training of staff to operate the treatment plant during the peak season, then backfill operations staff during the off season;
- Conduct annual efficiency audits at pumping facilities, then rehabilitation to reduce energy consumption (with 20-50% of rehabilitation costs through PG&E rebates);
- Perform most maintenance and repair work in-house; and
- Joint pursuit of Nacimiento full allocation which, if successful, would add more than +2,500 AFY additional entitlement to Lake Nacimiento water at no additional capital cost.

These and other programs and activities will continue to be implemented to improve operational efficiencies of the City's water utility.

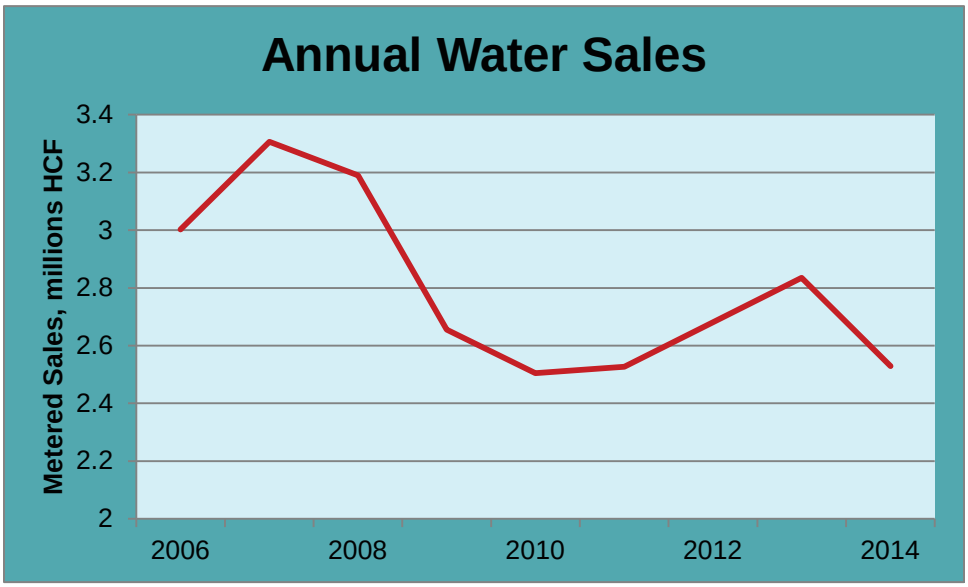
2.3 Projected Capital Improvement and Debt Service Financing Program

Utility systems are by nature capital intensive. The City has completed a variety of studies and design evaluations to plan for the necessary system improvements to maintain the reliability of the water system and meet upcoming regulatory requirements. These documents provided much of the basis of planning for the City's capital improvement program (CIP) for each utility and other City services.

Foremost among the engineering, planning and operational considerations is the need to replace the City's 90 year old 21st Street Reservoir and integrate the new Nacimiento surface water supply. While the CIP priorities in the 2010 study focused on the construction of a 4 MGD water treatment facility as the initial priority early action item, the financial picture of the Water Operations Fund has not materialized as planned. This reduced financial position was largely due two factors:

- The delay in the adoption and implementation of needed rate adjustments (increases), with final rates not being implemented until January 2012, a year later than proposed in the January 2010 report. Since that time, the City has proceeded with a smaller 2.4 MGD seasonal treatment facility that could be funded with cash reserves. This facility is scheduled to be online in late 2015.
- Reduced water sales in response to the current drought (See Figure 2-1).

Figure 2-1 Annual Water Sales



As directed by the City Council, the next priority water system capital improvement is the replacement of the $8 million 21st Street Reservoir. Unfortunately, the financial position of the Water Operations Fund is still inadequate to borrow the funds necessary to replace this reservoir, and therefore it must be constructed with cash from the available funding sources. While further delays in the replacement of this reservoir are less than desirable, the Water Operations Fund's financial limitations has required deferral of the reservoir replacement until at least FY 17-18, depending on the actual costs incurred over the next several years, the level of revenues derived from additional rate adjustments, and the pace of new growth in Paso Robles.

The City's current water system CIP is separated into five basic categories. These are: Water Treatment and Supply Project Improvements, Water yard, Well Improvements, Tank/Booster Station/Metering Project Improvements, and Pipeline Improvements. Consistent with the prior financial planning studies, this updated water system capital improvement program is spread out over the City's projected buildout period as much as possible to minimize near-term ratepayer impact.

As previously discussed, this water rate analysis is designed to review the rate and revenue requirements for the next five years. This time incorporates the projected costs of the 21St Street Reservoir and the upcoming 4 MGD water treatment plant expansion project. The City's CIP through FY 20-21 is summarized in Table 2-4. A comprehensive listing of the specific projects included in the City's long-range CIP is provided in Appendix A.

As shown, the two single largest near-term CIP projects are designed to mitigate the risk of the deteriorated 21st Street Reservoir, and continue to improve water supply reliability with the integration of the Nacimiento water supply.

As previously noted, the City's Water Operations Fund also has an existing debt obligation associated with the revenue bond financing from the 2007 Nacimiento Water Project. This approximately $180 million dollar regional project was designed to bring water from Lake Nacimiento to the City and other San Luis Obispo County water purveyors. The City's annual debt service obligation associated with its share of this debt is approximately $4.1 to $4.2 million, a substantial obligation for a water utility currently generating approximately $10 million per year.

Table 2-4 Projected Water Capital Improvement Program

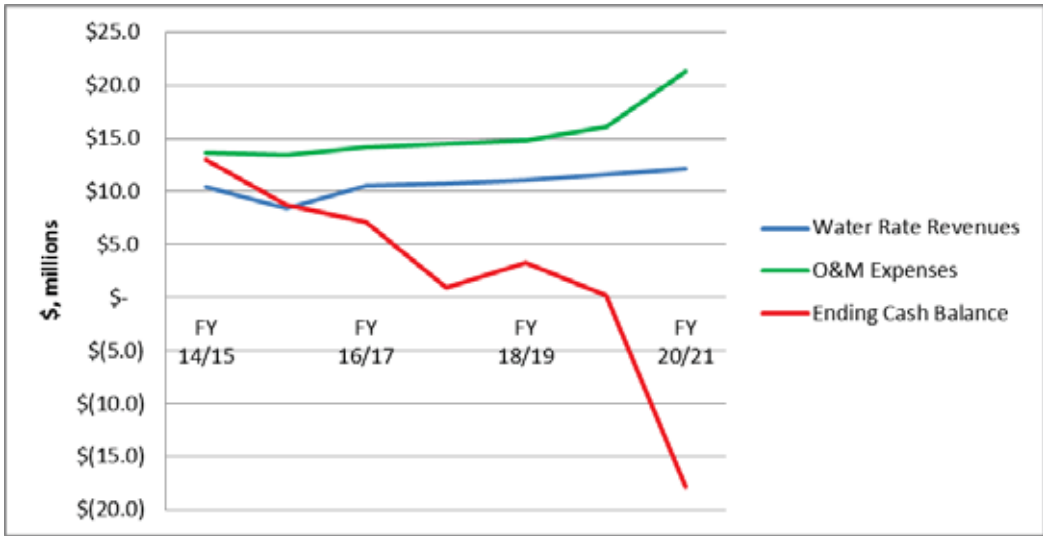
Proj #	Project	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Water Treatment and Supply							
1	Phase I - 2.4 MGD Facility	$2,060,000					
2	Phase II - Expand to 4 MGD					$8,611,600	$20,696,500
Subtotal Water Treatment and Supply =		**$2,060,000**	**$0**	**$0**	**$0**	**$8,611,600**	**$20,696,500**
Water Yard							
5	Replace City's corporation yard for public works operations. One-third of cost allocated to Water						
Subtotal Water Yard =		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Well Improvements							
7	Annual well rehabilitation	$250,300	$257,800	$265,500	$273,500	$281,700	$290,200
Subtotal Well Improvements =		**$250,300**	**$257,800**	**$265,500**	**$273,500**	**$281,700**	**$290,200**
Tank, Booster Station and Metering Projects							
9	21st Street Reservoir Repair/Replacement		$1,336,700	$7,802,100			
11	Water Tanks -Coating	$30,900	$31,800	$32,800	$33,800	$34,800	$35,800
12	Ongoing meter replacement program		$42,400	$43,700	$45,000	$46,400	$47,800
Subtotal Tank and Booster Station Projects =		**$30,900**	**$1,410,900**	**$7,878,600**	**$78,800**	**$81,200**	**$83,600**
Pipeline Improvements							
14	2nd St. & 3rd St. between Olive St. & Spring St.				$646,100		
15	Highland Park Dr.					$548,400	
16	12th St. Zone Expansion near 4th St.						$437,100
19	9th St. between Olive St. and Spring St.						$349,900
24	Spring St. north of 36th St.						$195,800
27	Block A Main Replacement	$300,000	$309,000	$318,300	$327,800	$337,600	$347,700
Subtotal Pipeline Improvements =		**$300,000**	**$309,000**	**$318,000**	**$974,000**	**$886,000**	**$1,331,000**
	Totals =	**$2,641,200**	**$1,977,700**	**$8,462,100**	**$1,326,300**	**$9,860,500**	**$22,401,300**

3 Projected Revenue Requirements Using Adopted and Proposed Rates

To assess the financial implications of the Water Operations Fund programs and costs, an annualized revenue plan has been prepared. This plan is developed by integrating water system operating and capital costs with projected growth and water demand criteria.

As expected, the results of the revenue plan indicate that additional revenues are needed to meet the current and projected financial obligations of the Water Operations Fund. The financial condition of the City's water utility without any further rate adjustment beyond the adopted increase in January 2016 is shown in Figure 3-1.

Figure 3-1 Projected Water Operations Fund Performance Without Additional Rate Adjustments



As shown, without additional increases in water rates, water system operating costs will continue to exceed operating revenue, and worsen in the latter years as the City increases use of high quality surface water supply from Nacimiento, and annual operating needs increase to over $21 million. Moreover, as a result of expenses exceeding revenue, the cash reserves available in the Water Operations Fund approach zero in FY 17-18, and only begins to grow based on non-operating revenues from facility charges, a speculative revenue source based on growth uncertainty.

Even with the optimistic growth projections and associated facility charge revenues and other cost-saving steps, by FY 20-21, the Water Operations Fund would be almost $18 million short after replacing the aged 21st Street Reservoir and expanding the water treatment plant. Given this financial condition, it is proposed that the 7.3% rate increase ($0.30/HCF) scheduled for January 2016 be supplemented with additional annual adjustments thereafter through January 1, 2021.

To evaluate the magnitude and timing of needed rate adjustments, a projected revenue requirement (financial plan) was prepared using alternative rates to meet the Water Operations Fund's financial obligations and strengthen the utility's position for a sustainable positive financial performance. Several cash flow evaluations and alternatives were prepared with City staff to balance financial performance with ratepayer impact.

These alternatives varied the capital improvement program needs and phasing, projected growth scenarios, water consumption levels, rate increase levels/phases, and rate structure elements such as fixed monthly service and water usage charges so that short term cash flow obligations were met and debt service coverage ratios were sustained above the level required by the current bond covenants. The resulting revenue plan using the proposed average rates needed to fund the water system costs is shown in Table 3-1.

As shown, annual rate increases are proposed to raise rate-based revenues to the level needed to improve the water utility's financial performance, provide greater revenue stability, meet the current Nacimiento debt coverage covenant requirements, and position the water utility to potentially issue new debt in future years. The plan includes:

- Development of proposed rates through FY 20-21;
- Continuation of the current rate structure regarding the uniform basis of charge for all metered water use, rather than adopting a tiered rate or water budget based rate structure;
- Inclusion of a small fixed monthly service charge to supplement the water usage charge to help improve the financial stability of the Water Operations Fund; and
- Continuation of the currently adopted Water Facility Charge of $23,500 per equivalent meter unit.

Each of these rate and revenue related items are discussed in the following sections.

A cautionary note is warranted regarding the use and development of the financial planning findings. Since the magnitude of anticipated increases may vary based on unforeseen change in costs, demand conditions, or reserve requirements, additional review of cost components, revenue requirements, and debt issuance needs should be made during the annual budget development and review process. Accordingly the level of the required annual rate increases may differ from the rate and revenue projections derived herein based on those annual findings.

A discussion of the City's current and proposed rates and rate structure is provided in the following sections.

Table 3-1 Projected Revenue Plan – Proposed Rates

Description	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Revenues						
Consumption/Usage Revenues	$8,454,900	$10,999,000	$12,372,500	$13,856,900	$15,573,900	$17,489,000
Fixed Monthly Service Charges	$0	$322,700	$738,100	$921,800	$1,125,000	$1,349,600
Misc. Revenues	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000
Total Operating Revenues	$8,754,900	$11,894,400	$14,098,700	$15,950,500	$18,073,900	$20,438,200
Operating Expenses						
Utility Billing and Administration	$667,100	$689,500	$716,200	$737,700	$801,500	$825,600
Water Production and Distribution	$5,199,530	$5,109,100	$5,308,600	$5,521,600	$5,755,400	$5,342,400
Water Treatment Operations	$1,082,100	$1,357,900	$1,405,600	$1,455,000	$1,506,200	$3,206,800
Water Conservation Operations	$294,500	$303,400	$312,500	$321,800	$331,500	$341,400
Miscellaneous Capital	$262,000	$106,090	$109,273	$112,551	$115,927	$119,405
Groundwater Management Sustainability	$500,000	$500,000	$500,000	$300,000	$300,000	$300,000
Regional Naci Capital Outlay/Reserve	$200,000	$206,700	$208,500	$209,900	$211,000	$212,000
Regional Naci O&M Cost Share	$1,094,400	$1,174,500	$1,216,900	$1,260,800	$1,306,400	$4,922,400
Existing Nacimiento Pipeline Debt Service	$4,200,000	$4,200,000	$4,200,000	$4,200,000	$4,200,000	$4,200,000
Depreciation Expense	$375,000	$433,500	$475,200	$678,800	$1,615,200	$1,861,700
Total Operating Expenses	$13,411,600	$14,080,700	$14,452,800	$14,798,200	$16,143,100	$21,331,700
Net Operating Revenue	($4,656,700)	($2,186,300)	($354,100)	$1,152,300	$1,930,800	($893,500)
Non-Operating Revenue (Expense)						
Interest Revenue	$388,500	$260,100	$249,500	$154,000	$368,800	$472,600
Water Connection Fee Revenues	$2,629,900	$3,548,300	$5,385,100	$7,180,200	$11,020,700	$13,826,700
Total Non-Op Revenues/Expenses	$3,018,400	$3,808,400	$5,634,600	$7,334,200	$11,389,500	$14,299,300
Net Income Before Capital Activity	($1,638,300)	$1,622,100	$5,280,500	$8,486,500	$13,320,300	$13,405,800
Capital Expenditures	$2,641,200	$1,977,800	$8,462,100	$1,326,300	$9,860,500	$22,814,300
Net Change in Funds Avail. After Capital Activity	($4,279,500)	($355,700)	($3,181,600)	$7,160,200	$3,459,800	($9,408,500)
Beginning Cash Balance	$12,951,000	$8,671,500	$8,315,800	$5,134,200	$12,294,400	$15,754,200
Ending Cash Balance	$8,671,500	$8,315,800	$5,134,200	$12,294,400	$15,754,200	$6,345,700
Debt Coverage Ratio (Includes Connection Fees (Naci Debt))	0.70	1.49	2.37	3.18	4.56	4.64
Debt Coverage Ratio (Excludes Connection Fee Revs)	0.07	0.64	1.09	1.47	1.93	1.34

Description	**Proposed Rates and Projected Changes in Accounts and Water Usage**					
Proposed Usage Rate Increase (Adopted through FY15-16)	7.3%	9.7%	9.0%	9.0%	7.0%	7.0%
Proposed Base Level Fixed Rate ($/Account/Month)	$0.00	$5.00	$6.25	$7.50	$8.75	$10.00
Proposed Average Usage Unit Rate ($/HCF)	$4.40	$4.83	$5.26	$5.73	$6.14	$6.56
Growth Based Changes in Accounts/Demands						
Number of Water Meters/Accounts	10,639	10,757	10,936	11,174	11,539	11,997
Number of Equivalent Water Meters (Capacity Basis)	11,840	11,991	12,221	12,526	12,995	13,583
Increase in Number of Equivalent Mtrs/Yr	112	151	229	306	469	588
Net Water Consumption/Sales (HCF)	**2,072,455**	**2,483,881**	**2,555,518**	**2,625,792**	**2,733,655**	**2,868,979**
Net Water Sales/Consumption (Acre Feet)	4,758	5,702	5,867	6,028	6,276	6,586

Notes: Fixed revenues only in place for 6 months, beginning in FY 16-17.
Timing of Key CIP - 21St Reservoir in FY 17-18, new WTP in FY 20-21.
Depreciation - Based on original costs, depreciation for new above ground assets fully funded, full pipeline funding begins in FY 19-20, 25% until then.

4 Current and Proposed Water Rates and Rate Structure

As noted during the conduct of previous financial planning assessments, the City's customers have benefitted from a low cost water supply and purposefully minimized capital and operational expenditures in order to minimize water rates. With the implementation of the 2010 water rate and revenue plan, the City began a more proactive plan for long-term reliability and sustained quality of the City's water system.

The City's present water rates were last adopted in early 2011 to convert from a fixed monthly service charge plus a uniform variable rate structure to an "all variable uniform" rate. The then-current fixed monthly service charge was $18.00 per account, regardless of the customer category or meter size. This fixed charge was put in place in 2008 to provide a stable fixed revenue stream to pay the City's debt service obligation for the Nacimiento water supply pipeline project. The variable rate, at that time, was a modest $1.32/HCF.

Through the conduct of the financial planning activity during the 2007 to 2008 period, the City evaluated a variety of tiered water rate options, as this pricing strategy is one of the Paso Robles Urban Water Management Plan and the California Urban Water Conservation Council's Best Management Practices used to promote water conservation. However, community input at that time suggested a need for further rate simplicity. As such, the fixed monthly service charge was eliminated, and an all variable uniform rate structure (volume-based rate without tiers) was adopted. Charging for water on this consistent pricing basis is also referred to as a "uniform block rate" structure and has been commonly used throughout California and the United States for many years. While that simplified the rate structure, the key disadvantage is it eliminated the revenue stability provided by the fixed charge component. As the drought continued over time, the call for conservation and mandatory cut-backs in use simply eroded the Water Operations Funds revenues at a greater amount than if a fixed monthly service charge component had been maintained on the rate structure. While conservation and efficient use are important, few utilities have rates in place which are 100% consumption based, and if they do, they generally have strong financial reserves (e.g. rate stabilization reserve) to absorb the financial/revenue variability associated with a 100% consumption based rate structure.

The current water rates were previously shown in Table 1-1. Development of the proposed rates is derived in the following subsections.

4.1 Development of Proposed Rates

An increase in water rates is proposed to continue to improve the financial position of the Water Operations Fund over the next five year planning period. While there are often a wide range of rate-related strategies that could be used to generate the needed funds and provide additional financial stability, based on the current needs of the Water Operations Fund and the rate and rate structure discussions from the previous planning efforts, the rate alternatives considered in this 2015 water rate study were narrowed to:

- Supplementing the revenues derived from the all-variable uniform rate structure with some form of a fixed monthly service charge, albeit much less than the $18.00 per account charge that was in place in 2008; or
- The continuation of the all variable uniform rate structure currently in place.

This Study evaluates both options. As previously noted, the proposed rates were developed using the principles and methods contained in American Water Works (AWWA), M-1 Manual, Principles of Water Rates, Fees and Charges and the requirements of Proposition 218 (specifically, California Constitution, Article XIIID, section 6) and California Constitution Article X, section 2.

Proposition 218 (California Constitution Article XIII D, section 6(b)) has five substantive requirements applicable to the City's water service fees:

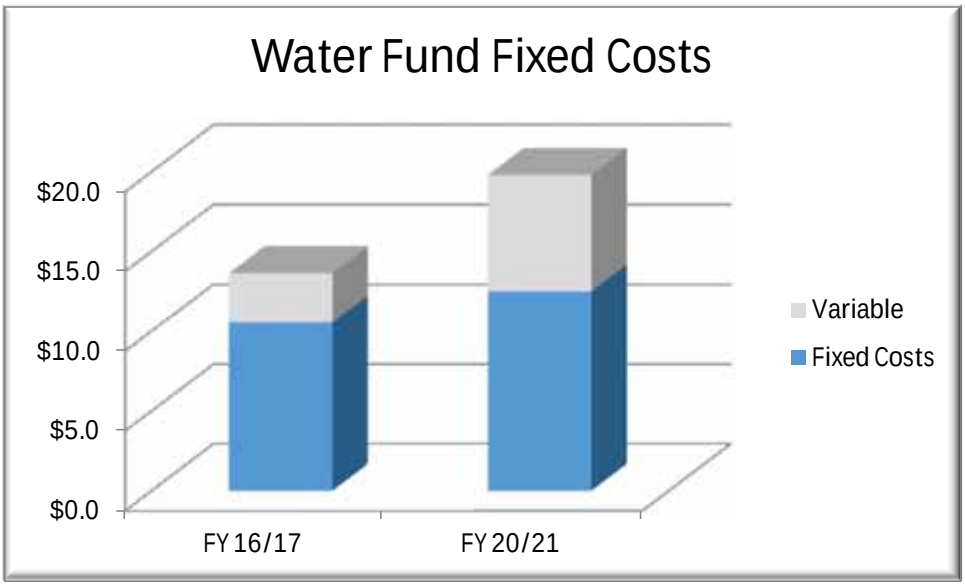
1. revenues derived from the fee must not exceed the funds required to provide the property related service;
2. revenues derived from the fee must not be used for any purpose other than that for which the fee was imposed;
3. the amount of a fee imposed upon any parcel or person as an incident of property ownership must not exceed the proportional cost of the service attributable to the parcel;
4. the fee may not be imposed for a service, unless the service is actually used by, or immediately available to, the owner of the property subject to the fee; and
5. the fee may not be imposed for general governmental services available to the public at large, likes police, fire, ambulance or library services.

Article X, section 2, of the California Constitution prohibits waste of water and encourages conservation, providing that water conservation "be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare of the State's water resources, and further precludes the "waste or unreasonable use or unreasonable method of use of water."

4.1.1 Fixed Monthly Service Charge Discussion

Because a significant portion of most water system expenses is fixed, the cost of supplying water to a community does not correlate directly with the amount of water supplied. For example, labor, infrastructure maintenance, along with meter reading and billing remain fairly steady regardless of monthly variations in water sales. Consequently, the use of fixed charges to collect a portion of a utility's fixed costs is a very common practice for water utilities as it provides a stable source of revenue. A fixed charge is a flat monthly charge that is billed, regardless of the amount of volumetric consumption. The fixed charge is billed in addition to the charge per unit of metered water use. This has proven particularly beneficial to communities impacted by the drought and the Governor's mandatory conservation measures. An assessment of the fixed/variable costs is shown graphically in Figure 4-1 and in the top portion of Table 4-1.

Figure 4-1 Water Operations Fund Fixed Costs



As shown, approximately 80% of the City's current operating expenses are fixed. This relationship is not unusual for a water utility. This ratio is expected to reduce to approximately 60% fixed in the latter years as a higher percentage of the water system's operating costs will be directly tied to the treatment of the Nacimento water supply. Note that these costs do not include capital expenditures, which are largely considered fixed.

Table 4-1 Fixed/Variable Cost Revenue Assessment

Description	Cost Allocation Fixed %	Cost Allocation Variable %	Cost Allocation Results Total	Cost Allocation Results Fixed	Cost Allocation Results Variable	Cost Allocation Results Total	Cost Allocation Results Fixed	Cost Allocation Results Variable
Water Fund Expenses and Debt	**FY 2016-17 BASIS**		**Costs (FY 2016-17)**			**Costs (FY 2020-21)**		
Utility Billing and Administration [1]	100%	0%	$689,500	$689,500	$0	$825,600	$825,600	$0
Water Production and Distribution [2]	79%	21%	$5,109,100	$4,050,150	$1,058,950	$5,342,400	$4,481,660	$860,740
Water Treatment Operations [2]	33%	67%	$1,357,900	$453,620	$904,280	$3,206,800	$602,580	$2,604,220
Water Conservation Operations [1]	100%	0%	$303,400	$303,400	$0	$341,400	$341,400	$0
Misc Water Program Costs								
Misc Capital Equipment	50%	50%	$106,090	$53,045	$53,045	$119,405	$59,703	$59,703
Sustainable GW Mgt - Legal Planning	50%	50%	$500,000	$250,000	$250,000	$300,000	$150,000	$150,000
Regional Naci Capital Outlay/Reserves	100%	0%	$206,700	$206,700	$0	$212,000	$212,000	$0
Regional Naci O&M Cost Share	50%	50%	$702,200	$351,100	$351,100	$2,874,100	$1,437,050	$1,437,050
Regional Naci Variable Energy Share	0%	100%	$472,300	$0	$472,300	$2,048,300	$0	$2,048,300
Nacimiento Debt Service	100%	0%	$4,200,000	$4,200,000	$0	$4,200,000	$4,200,000	$0
Total Expenses/Expenditures			$13,647,190	$10,557,515	$3,089,675	$19,470,005	$12,309,993	$7,160,013
Summary of Allocation of Water System Costs			100%	80%	20%	100%	60%	40%
			Revenues (FY 2016-17)			**Revenues (FY 2020-21)**		
Proposed Fixed Service Charge			**Year 1**			**Year 5**		
Projected Number of Accounts			10,757			11,997		
Calculated Fixed Costs/Account/Month (excluding Capital)			$31.72			$40.57		
Proposed Fixed Monthly Service Charge			**$5.00**			**$10.00**		
Estimated New Fixed Charge Revenues			**$645,390**			**$1,439,580**		
Percent of Fixed Costs Met by Fixed Revenues			**6%**			**12%**		

Notes: Water Fund expenses do not include capital expenditures and depreciation costs, both of which are genereally considered as 50 to 100% fixed.
(1) All Utility Billing Department and Conservation Department costs are fixed
(2) Variable costs include power and chemicals, all other Department costs are fixed

In addition, shown at the bottom of Table 4-1 is the development of a proposed monthly fixed charge. For Paso Robles, an initial fixed charge of $5.00 per account per month is proposed. This fixed charge is designed to cover the current cost of utility billing and administration, a service provided by the water utility that is evenly shared amongst all users. The fixed charge is proposed to increase to $10.00 per account per month over a 5-year period to provide additional fixed cost coverage. Incorporating a fixed charge component back into the City's water rate structure is more reflective of the manner in which the City incurs costs for this utility and would generate a more dependable base of fixed annual revenue of approximately $645,000 to $1,440,000 over the course of the five year planning period. Even at this level of fixed charge, it is well below the proportion of costs the City incurs on a fixed cost basis. A $5.00 per month service charge would cover only 6% of the water utility's fixed operating costs. In year five of the proposed rate plan, the $10.00/month fixed service charge would still only recover approximately 12% of the water system operating costs, well below the system's 60% fixed costs.

While fixed revenue benefits a water utility's financial stability, some may view it as inhibiting a low volume customer's ability to reduce their water bill and a disincentive counter to conserve water. It is important to remember that fixed costs are incurred, regardless of the volume of water consumed by a customer. The cost to read a meter, send a bill and process it is a customer-related cost which is relatively fixed by the number of customers. Having a fixed-charge rate component is consistent with the way in which the City incurs costs because even when a customer does not consume any water in a month, the utility still incurs costs associated with being ready to serve that customer.

Adopting a rate structure with a fixed charge starting at $5.00 per account per month enables the City's water utility to recover a portion of the fixed costs incurred for items such as utility billing and administration, while still promoting conservation and leaving the majority of the customer's water rate to be recovered via the uniform consumption-based usage charge. This approach is consistent with the "pay for what you use" philosophy and would both meet the needs of the City's water customers and provides additional funding for the operational needs of the Water Operations Fund and promotion of water conservation. If the fixed charge is not adopted, the variable charge would need to be increased to recover the $645,000 to $1,440,000 in annual revenue anticipated from the proposed fixed charge.

4.1.2 Development of Proposed Usage Charge

Consistent with the revenue requirements shown in Table 3-1, usage charges were based on projected metered water usage. Projected water usage was based on:

- Historic water usage – Records of metered water use by customer account over the years were examined, to derive usage trends in the years leading up to and after active water conservation. Records show that water usage by customer category has fallen sharply in response to the current drought (water sales declined from 3,305,868 HCF in 2007 to less than 2,540,000 HCF in 2014)[8] .
- New drought-mandated restrictions in water usage – Forecasted water sales take into account Governor Brown's mandated water use restrictions and the effects of the City's Water Conservation and Water Shortage Contingency Plan. Table 2-2 and Table 3-1 includes forecasted water sales through FY 20-21, forecasting lower yet water sales for the current year in response to the drought and the City's water conservation outreach, with gradual increases over the 5 year planning period.
- Projections in new accounts over the five year planning period – Projections of customer accounts and water demand correlate with the buildout population of 42,499 by the year 2045, as noted in the Land Use Element of the City General Plan, dated March 2014. That projection through buildout is included in Appendix A. Of importance to this Study is the pace of growth anticipated in the next 5 years. Rather than predict a straight-line growth from now until buildout, projections herein are based on repeat growth cycles similar in pace to what historically has been the case in Paso Robles. Following historic trends suggests the pace of growth in the next 5 years as listed in Tables 2-2 and 3-1.

The City currently charges $4.10 per HCF for all water used, regardless of the type of customer or the amount of water used in any particular billing cycle. Rates are scheduled to increase to $4.40/HCF beginning January 1, 2016.

As discussed above and shown in Figure 3-1 and Table 3-1, revenue generated from current usage charges is projected to be insufficient to cover expenses, including debt obligations associated with revenue bond financing of the Nacimiento Water Project and planned capital improvements. This need for additional water utility revenues is further documented in a test of revenue requirements. This FY 15-16 revenue test (shown in Appendix A) documents the shortfall in projected revenues in excess of $5.2 million, suggesting a 62% increase in rates. To generate sufficient revenues to meet this revenue shortfall, an increase in rates is required. The water rates proposed herein are designed to use the Water Operations Fund reserves to maintain a positive fund balance, enabling the City to adopt smaller annual rate increases to minimize the short-term impact on the City's ratepayers. The proposed rates are scheduled to become effective January 1, 2017, and annually thereafter through 2021, as shown in Table 4-2.

[8] City of Paso Robles water statistic reporting by calendar year to California Dept of Water Resources.

Table 4-2 Proposed Water Rates

User Class All Customers	January 1, 2016 (previously adopted rate increase)	January 1, 2017	January 1, 2018	January 1, 2019	January 1, 2020	January 1, 2021
All Water Usage ($/HCF)	$4.40	$4.83	$5.26	$5.73	$6.14	$6.56
Fixed Charge ($/Account/Month)	$0	$5.00	$6.25	$7.50	$8.75	$10.00

Note: Water rate increases to be effective January 1st of each year.

The rates outlined herein are intended to fund the essential water treatment plant, reservoir repair, and other capital needs to serve existing water customers, meet the Water Operations Fund's existing Nacimiento debt service requirements, provide the necessary funds for ongoing system management and operation and continue to improve the financial stability of the Water Operations Fund. To further minimize ratepayer impact, annual increases are suggested to be implemented in January of each year, as this is a seasonal period when water usage is at its lowest.

4.2 Typical Monthly Bills

Typical customer bills are often developed to evaluate the impact of a water rate schedule on a utility's customers. Current typical bills are derived by correlating the current schedule of charges shown in Table 1-1 with the average or typical consumption values for various customer types. Similarly, projected typical bills are calculated by applying the proposed rates to both the water usage charge and adding in the monthly service charge element of the proposed water rate schedule.

Table 4-3 reflects the resulting impact of the proposed rates over the five year planning period. Of course, each customer can affect the change in their individual bill based on a reduction in their monthly water usage. The comparison of typical bills shown herein assumes that there is no change in account-level water usage.

Table 4-3 Illustrative Water Bill Examples

Description	Rate as of January 1, 2016	Typical Bill (January each year)	
		Proposed Rate Year 1 (2017)	Proposed Rate Year 5 (2021)
Single Family (a)			
4 HCF (3/4 inch meter)	4 X $4.40/HCF =	$5.00 + (4 X $4.83/HCF) =	$10.00 + (4 X $6.56/HCF) =
	$17.60	$24.32	$36.24
9 HCF (3/4 inch meter)	9 X $4.40/HCF =	$5.00 + (9 X $4.83/HCF) =	$10.00 + (9 X $6.56/HCF) =
	$39.60	$48.47	$69.04
14 HCF (3/4 inch meter)	14 X $4.40/HCF =	$5.00 + (14 X $4.83/HCF) =	$10.00 + (14 X $6.56/HCF) =
	$61.60	$72.62	$101.84
Commercial (b)			
15 HCF (3/4 inch meter)	15 X $4.40/HCF =	$5.00 + (15 X $4.83/HCF) =	$10.00 + (15 X $6.56/HCF) =
	$66.00	$77.45	$108.40
50 HCF (1 inch meter)	50 X $4.40/HCF =	$5.00 + (50 X $4.83/HCF) =	$10.00 + (50 X $6.56/HCF) =
	$220.00	$246.50	$338.00

Notes:
(a) Where 4 units is the 1st quartile, 9 is the average, and 14 the 75th percentile (3/4" meters).
(b) Where 15 units is the average and 60 is the 90th percentile (3/4" & 1" meters).

4.3 Comparison of Monthly Bills with Other Communities

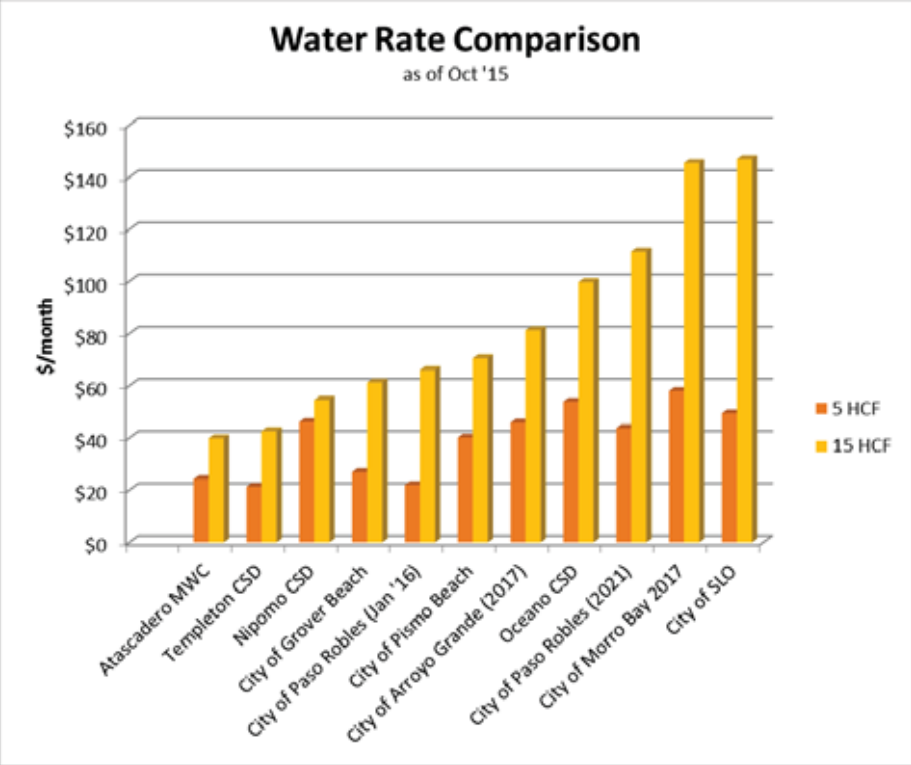
In addition to the development of typical bills for City customers, Figure 4-2 provides a comparison of the City's current and proposed monthly single-family bill with other local communities in San Luis Obispo County. The comparison is based on a monthly water usage of 5 HCF to represent the lower 25% of the City's single family customers, and 15 HCF to demonstrate the impact for the upper 25% of the single family accounts.

As shown, there is a wide range of charges among the surveyed communities. The City's current charges are in the low-medium range of the estimated bills. When comparing the proposed future rates in Paso Robles with the other communities' current rates, the City remains in the medium range for the small water user, and the higher range for the larger water users. Of course, it is reasonable to assume that all of these

communities will likely increase water rates between now and 2021, suggesting the City should remain in the low to medium range for all customer types throughout the five year planning period. A compilation of the water rates and rate structures for these communities is provided in Appendix A. Note that all of these agencies include a fixed charge component in its current water rate structure.

It should be noted that this rate survey does not provide the full picture of the utility's position. For example, in addition to water rate increases that are in process or will be proposed, agencies also may have varying water supply program cost, quality, and reliability issues or objectives, and there is often a wide range of variance in local level of service, capital reinvestment, and preventive maintenance considerations. Given the current condition and direction of the City's water utility and water resource requirements in the County, the City's water rates are well in line with other local communities.

Figure 4-2 Water Rate Comparison



4.4 Summary of Proposed Rates

The proposed rates are intended to fund the essential water treatment plant and other capital improvements needed to serve existing water customers, meet the Water Operations Fund's debt service requirements, fund planned capital projects, provide the necessary funds for ongoing system management and operation and return the Water Operations Fund to a desired level of financial stability. With current (FY 15-16) total Water Operations Fund revenues at approximately $11 million and projected operating costs exceeding $21 million in five years, an increase in rates is essential. The proposed rates are designed to meet this revenue shortfall, while minimizing the short-term impact on the City's customers.

Limited revisions are proposed to the City's existing rate structure with the inclusion of a nominal level of fixed revenue. This fixed revenue source is proposed to improve the financial stability of the Water Operations Fund during these continued times of economic uncertainty and need for the significant capital improvements and projects identified in the City's capital improvement program. Since revenues derived from the proposed rates structure are predominately based on customer usage, the City's water rates should continue to encourage water conservation.

In addition to the rate-related adjustments provided herein, the City should plan for the methodical review of system costs, water demands, and utility rates. Much of this work can be incorporated as an element of the annual budget process as additional information is being developed and evaluated. For future rate studies, the City may wish to also consider:

- Modifying the current water usage component of the water rate structure to consider the adoption of tiered rates or budget based rates, as both structures promote additional water conservation and recover the incremental costs of more expensive water in the rate structure;
- Reassessing the magnitude of the fixed charge currently proposed;
- Using debt financing in lieu of pay as you go for some of the larger capital projects if available and rates are set at a level to support the borrowing and repayment of the debt; and
- Developing a new Recycled Water Fund and enterprise or integrating the future recycled water program as an additional water supply element of the Water Operations Fund.

Appendix A – Miscellaneous Support Material

Appendix A: 2015

Water System Growth Projections

Fiscal Year	14/15		16/17		18/19		20/21		22/23		24/25		26/27		28/29
Population Projection (a)						32,300					34,400				
Number of EMU's per Year	78	112	151	229	306	469	588	588	84	120	162	221	541	541	541
Cumulative EMUs	13,587	13,699	13,850	14,080	14,385	14,854	15,442	16,031	16,115	16,235	16,398	16,619	17,160	17,701	18,242
Adjusted Population Based on EMU Pace of Growth	30,556	30,709	30,915	31,227	31,644	32,285	33,089	33,893	34,008	34,173	34,394	34,697	35,436	36,175	36,914

Fiscal Year	29/30	30/31		32/33		34/35		36/37		38/39		40/41		42/43		44/45
Population Projection (a)	37,700					39,900					41,900					42,499
Number of EMU's per Year	541	329	329	329	329	329	293	293	293	293	293	87	87	87	87	87
Cumulative EMUs	18,783	19,112	19,441	19,770	20,099	20,428	20,721	21,014	21,307	21,599	21,892	21,979	22,066	22,153	22,240	22,326
Adjusted Population Based on EMU Pace of Growth	37,653	38,103	38,552	39,001	39,451	39,900	40,300	40,700	41,100	41,500	41,900	42,018	42,137	42,256	42,374	42,493

(a) Source: City Planning Dept, 2014

Appendix A - Projected Revenue Plan Without Further Rate Adjustments

Description	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Revenues						
Consumption/Usage Revenues	$8,454,900	$10,490,200	$10,792,800	$11,089,600	$11,545,100	$12,116,600
Fixed Monthly Service Charges	$0	$0	$0	$0	$0	$0
Misc. Revenues	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000
Total Operating Revenues	$8,754,900	$10,740,200	$11,042,800	$11,339,600	$11,795,100	$12,366,600
Operating Expenses						
Utility Billing and Administration	$667,100	$689,500	$716,200	$737,700	$801,500	$825,600
Water Production and Distribution	$5,199,530	$5,109,100	$5,308,600	$5,521,600	$5,755,400	$5,342,400
Water Treatment Operations	$1,082,100	$1,357,900	$1,405,600	$1,455,000	$1,506,200	$3,206,800
Water Conservation Operations	$294,500	$303,400	$312,500	$321,800	$331,500	$341,400
Miscellaneous Capital	$262,000	$106,090	$109,273	$112,551	$115,927	$119,405
Groundwater Management Sustainability	$500,000	$500,000	$500,000	$300,000	$300,000	$300,000
Regional Naci Capital Outlay/Reserve	$200,000	$206,700	$208,500	$209,900	$211,000	$212,000
Regional Naci O&M Cost Share	$1,094,400	$1,174,500	$1,216,900	$1,260,800	$1,306,400	$4,922,400
Existing Nacimiento Pipeline Debt Service	$4,200,000	$4,200,000	$4,200,000	$4,200,000	$4,200,000	$4,200,000
Depreciation Expense	$375,000	$433,500	$475,200	$678,800	$1,615,200	$1,861,700
Total Operating Expenses	$13,411,600	$14,080,700	$14,452,800	$14,798,200	$16,143,100	$21,331,700
Net Operating Revenue	($4,656,700)	($3,340,500)	($3,410,000)	($3,458,600)	($4,348,000)	($8,965,100)
Non-Operating Revenue (Expense)						
Interest Revenue	$388,500	$260,100	$214,800	$26,700	$99,300	$6,700
Water Connection Fee Revenues	$2,629,900	$3,548,300	$5,385,100	$7,180,200	$11,020,700	$13,826,700
Total Non-Op Revenues/Expenses	$3,018,400	$3,808,400	$5,599,900	$7,206,900	$11,120,000	$13,833,400
Net Income Before Capital Activity	($1,638,300)	$467,900	$2,189,900	$3,748,300	$6,772,000	$4,868,300
Capital Expenditures	$2,641,200	$1,977,800	$8,462,100	$1,326,300	$9,860,500	$22,814,300
Net Change in Funds Avail. After Capital Activity	($4,279,500)	($1,509,900)	($6,272,200)	$2,422,000	($3,088,500)	($17,946,000)
Beginning Cash Balance	$12,951,000	$8,671,500	$7,161,600	$889,400	$3,311,400	$222,900
Ending Cash Balance	$8,671,500	$7,161,600	$889,400	$3,311,400	$222,900	($17,723,100)
Debt Coverage Ratio (Includes Connection Fees (Naci Debt))	0.70	1.21	1.63	2.05	3.00	2.60
Debt Coverage Ratio (Excludes Connection Fee Revs)	0.07	0.37	0.35	0.34	0.37	-0.69

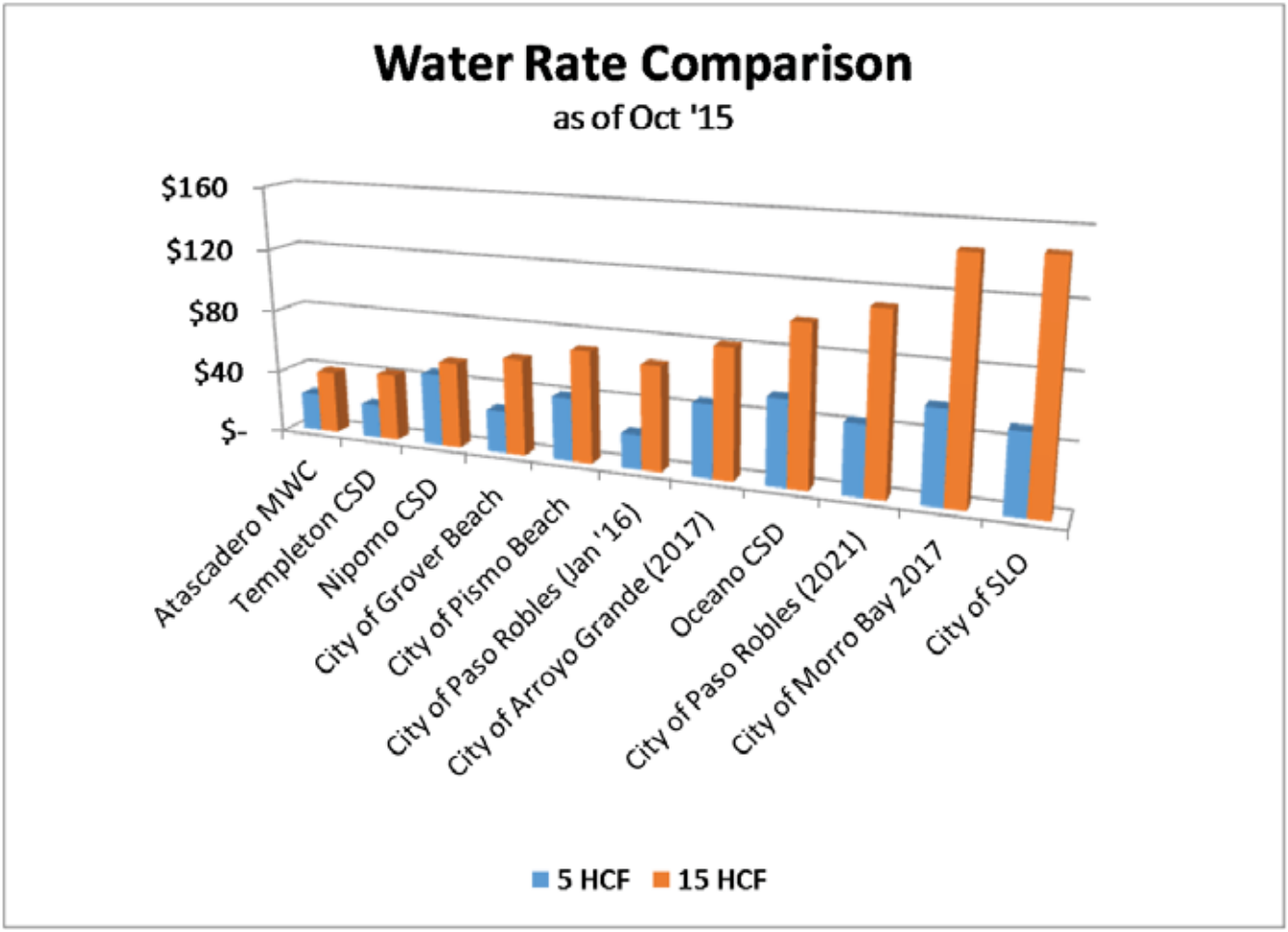
Description	**Proposed Rates and Projected Changes in Accounts and Water Usage**					
Proposed Usage Rate Increase (Adopted through FY15-16)	**7.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
Proposed Base Level Fixed Rate ($/Account/Month)	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**
Proposed Average Usage Unit Rate ($/HCF)	**$4.40**	**$4.40**	**$4.40**	**$4.40**	**$4.40**	**$4.40**
Growth Based Changes in Accounts/Demands						
Number of Water Meters/Accounts	10,639	10,757	10,936	11,174	11,539	11,997
Number of Equivalent Water Meters (Capacity Basis)	11,840	11,991	12,221	12,526	12,995	13,583
Increase in Number of Equivalent Mtrs/Yr	112	151	229	306	469	588
Net Water Consumption/Sales (HCF)	**2,072,455**	**2,483,881**	**2,555,518**	**2,625,792**	**2,733,655**	**2,868,979**
Net Water Sales/Consumption (Acre Feet)	4,758	5,702	5,867	6,028	6,276	6,586

Notes: Fixed revenues only in place for 6 months, beginning in FY 16-17.
Timing of Key CIP - 21St Reservoir in FY 17-18, new WTP in FY 20-21
Depreciation - Based on original costs, depreciation for new above ground assets fully funded, full pipeline funding begins in FY 19-20, 25% until then.

Appendix A - Water Operations Fund
Test of Revenue Requirement

Description	FY 15-16 Revenues/Costs
Total Operating Expenses	$13,411,600
Less Depreciation	($375,000)
Capital Expenditure	$2,641,200
Total Revenue Requirement	$15,677,800
Less Misc Revenues	($250,000)
Less Interest Revenues	($388,500)
Net Revenue Requirement	$15,039,300
Current Revenues	$8,454,900
Deficiency of Water Fund	$6,584,400
Allocated Connection Fee Revs (1)	$1,314,950
Balance Deficiency of Funds	**$5,269,450**
Deficiency as a Percent of Rates	**62.3%**

(1) - Only 50% of Connection Fees are applied to rates as these fees are growth related, and are not reliable revenues


Water Rate Comparison
as of Oct '15
$160
$120
$80
$40
$-
Atascadero MWC
Templeton CSD
Nipomo CSD
City of Grover Beach
City of Pismo Beach
City of Paso Robles (Jan '16)
City of Arroyo Grande (2017)
Oceano CSD
City of Paso Robles (2021)
City of Morro Bay 2017
City of SLO
5 HCF
15 HCF

City of San Luis Obispo

Current Water Rates

Effective 7/1/15
The City's monthly charge per billing unit:
(1 unit = 100 cubic feet = 748 gallons)

All Customers	Inside City	Outside City
0 to 8 units	$6.92/unit + $0.98/unit Drought Surcharge	$13.84/unit + $1.96/unit Drought Surcharge
9+ units	$8.65/unit + $1.23/unit Drought Surcharge	$17.30/unit + $2.46/unit Drought Surcharge
Base fee	$7.63 + $0.37 Drought Surcharge	$15.26

New rate structure will be reflected on customer water billings after the first complete billing cycle after the July 1st effective date.

A 5% utility users tax is applied to the water portion of the bill.

Atascadero Mutual Water Company

Minimum Rate per Meter Size:

Meter Size	Water Rates
5/8 inch meter	$ 18.00
3/4 inch meter	$ 18.00
1 inch	$23.00
1½ inch	$ 30.00
2 inch	$ 46.00
3 inch	$172.00
4 inch	$218.00
6 inch	$344.00
Hydrant Meter	$ 57.00

2,000 gallons will be included in these monthly minimum rates.

Charges For Water Consumed (includes Drought Rates)

3,000 to 12,000 gallons	$2.10 per thousand gallons
13,000 to 25,000 gallons	$3.25 per thousand gallons
26,000 to 50,000 gallons (non-SFR)	$4.80 per thousand gallons
26,000 to 50,000 gallons (SFR)	$5.25 per thousand gallons
> 50,000 gallons (non-SFR)	$5.50 per thousand gallons
51,000 - 75,000 gallons (SFR)	$6.50 per thousand gallons
76,000 to 100,000 gallons (SFR)	$8.00 per thousand gallons
> 100,000 gallons (SFR)	$10.00 per thousand gallons

Properties in pumping-surcharge areas pay an additional 15%

Mobile Home Parks, Apartment: Number of units X 14.00 per unit (includes 2,000 gallons per unit/month)
Motels RV Parks: Number of units x 5.20 per unit (includes 1,000 gallons per unit/month)
More than one residence on one meter: $14.00 per house (includes 2,000 gallons per unit/month).

Water Project (NWP) Surcharge

$2.50 per month charged to every meter/service except Fire Lines and accounts on standby.

Standby Service

Meters that qualify for standby service will be charged $10.00 per month (Available after 2 months of no usage. Standby charge starts on the 3rd month.)

City of Pismo Beach

Water: June 2015 Ord #2013-007
Sewer: June 2015 Ord #2013-008

(Operation, Maint, Replacement and Debt Svcs)

760 Mattie Road
Pismo Beach, CA 93449
805-773-4655 Fax: 805-773-7065

Water Rates:

		Per HCF:
WSFR	Tier One (0-10 HCF)	2.72
	Tier Two (11-20 HCF)	3.36
	Tier Three (21-35 (HCF)	3.97
	Tier Four (Over 35 HCF)	5.43
WNR	Multi Family, Mobile Homes	3.36
	Commercial	3.36
IRR	Irrigation	3.97
WCH	Const/Hyd	6.72
WMU	Municipal	3.36
WMI	Municipal Irrigation	3.97

Water Service Chgs by Meter Size

(27.20)	5/8"	26.57
(33.60)	3/4"	26.57
(59.55)	1"	53.14
	1 1/2"	88.48
	2"	141.63
	3"	265.71
	4"	442.94
	6"	1,062.86

City of Arroyo Grande

Fixed Service Charge ($/month)					
Meter Size	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
5/8"	27.33	27.52	28.17	28.83	29.51
3/4"	29.32	29.53	30.22	30.94	31.67
1"	35.30	35.55	36.39	37.24	38.12
1 ½"	43.27	43.58	44.60	45.65	46.73
2"	65.19	65.65	67.20	68.78	70.41
3"	226.60	228.21	233.59	239.10	244.74
4"	286.38	288.42	295.21	302.17	309.31
6"	425.87	428.91	439.01	449.36	459.96
8"	585.29	589.46	603.34	617.57	632.14
Service fee per additional unit	7.40	7.45	7.63	7.81	7.99

Residential Tiered Volume Charges ($/ccf)						
Customer Class	Allotment	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Single Family						
Tier 1	1 - 18 ccf	3.33	3.42	3.54	3.66	3.78
Tier 2	19 - 36 ccf	3.67	3.76	3.90	4.03	4.16
Tier 3	>36 ccf	4.89	5.02	5.19	5.37	5.55
Multi-Family						
Tier 1	1 - 18 ccf	3.33	3.42	3.54	3.66	3.78
Tier 2	19 - 27 ccf	3.67	3.76	3.90	4.03	4.16
Tier 3	>27 ccf	4.89	5.02	5.19	5.37	5.55

City of Grover Beach

HOW DO I CALCULATE MY RESIDENTIAL WATER BILL?

Utility Account Fees:

Tiered Water Rates		Meter Charge			
	Per Unit:		Monthly Charge:		Monthly Charge:
First 12 units	$3.34	3/4" Meter	$10.06	Storm Water Fee	$4.75
Next 8 units	$3.53	1" Meter	$16.78	City Sewer Charge	$9.92
Next 22 units	$4.04	Utility Tax		Sanitation District Charge	$14.86
Over 42 units	$4.57	1% of Water Charges			

*Note 1 unit = 748 gallons

The City of Grover Beach generates water billing on a bi-monthly basis for a 2-month billing cycle. The current "monthly" rates listed above will be used in the sample billing below to assist you in calculating your own bill.

SAMPLE BILL (2-month billing cycle): ¾" Meter with 18 units of water used

WATER:	Monthly Fee	Total Fee	
3/4" Meter	10.06	20.12	(10.06 x 2 months)
First 12 units		40.08	(3.34 x 12 units)
Next 6 units		21.18	(3.53 x 6 units)
SUBTOTAL		$81.38	

Templeton COMMUNITY SERVICES DISTRICT

DEPARTMENTS DOING BUSINESS GOVERNMENT LIVING HI

Search Templeton CSD Go

TCSD Water Conservation
Water Rates
Water Code

ONLINE BILL PAY
NOTIFY ME
REPORT A CONCERN
COMMUNITY VOICE

Select Language

Home > Departments > Utilities > Water > Water Rates

Water Rates

Water Use Charges

In the event of water usage of less than 300 cubic feet, see monthly minimum charges below.

Water Usage (in cubic feet)	Charge (per 100 cubic feet)
301 - 2,000	$2.13
2,001 - 4,000	$2.84
4,001 - 8,000	$3.69
8,001 and Above	$4.83

Monthly Minimum Charges

Effective January 1, 2013

Meter Size	Monthly Minimum Charge
5/8 inches	$17.05
1 inches	$26.85
1 1/2 inches	$38.45
2 inches	$48.25
3 inches	$75.85
4 inches	$150.70
6 inches	$195.25

When there are multiple units being serviced by one meter the minimum charge will equal the number of units times the 5/8" x 3/4" minimum charge of $17.05. In addition, the amount of water allowed under the minimum rate will equal the number of units times 300 cubic feet. Any additional usage will be charged accordingly (see above).

Water service outside the District boundaries will be charged at 120% of the normal rates.

Cambria Community Services District

RESIDENTIAL WATER

Number of Units per 2 Month Billing Cycle	Base Rate and per Unit Usage Charge	Total Water
Base Rate Includes Zero to Six (0-6) Units 0		
1		
2		
3	$ 23.82	$ 23.82
4		
5		
6		
7	6.05	29.87
8	6.05	35.92
9	6.05	41.97
10	6.05	48.02
11	6.05	54.07
12	6.05	60.12
13	6.05	66.17
14	6.05	72.22
15	6.05	78.27
16	6.18	84.45
17	6.18	90.63
18	6.18	96.81
19	6.18	102.99
20	6.18	109.17
21	6.30	115.47
22	6.30	121.77
23	6.30	128.07
24	6.30	134.37

Base

Assuming you are using the same number of units of water, this will give you an estimate of your total new bill including the new EWS Charges.

FOR RESIDENTIAL CUSTOMERS DURING PERIODS OF EWS TREATMENT FACILITY OPERATION:

When the EWS brackish water treatment facility is operating, your additional EWS Charges will be reflected in Column F.

Using the same 4 units of water example as above, your existing residential bill was $94.67, and your additional EWS Charges will be $25.00, for a total new bill of $119.67.

BI-MONTHLY RESIDENTIAL RATE TABLE FOR ADDITIONAL EWS CHARGES

Units of Water Used	FIXED METER CHARGES EWS Water Base Charge	WATER QUANTITY CHARGES EWS Water Usage Charge	TOTAL EWS CHARGES DURING PERIODS WHEN THE EWS FACILITY IS NOT OPERATING	OPERATING CHARGES EWS Water Operating Charge	TOTAL EWS CHARGES DURING PERIODS WHEN THE EWS FACILITY IS OPERATING
Column A	Column B	Column C	Column D Column D = B + C	Column E	Column F Column F = B + C + E
0	$13.00	$0.00	$13.00	$0.00	$13.00
1	$13.00	$1.50	$14.50	$1.50	$16.00
2	$13.00	$3.00	$16.00	$3.00	$19.00
3	$13.00	$4.50	$17.50	$4.50	$22.00
example 4	$13.00	$6.00	$19.00	$6.00	$25.00
5	$13.00	$9.00	$22.00	$9.00	$31.00
6	$13.00	$12.00	$25.00	$12.00	$37.00
7	$13.00	$15.00	$28.00	$15.00	$43.00
8	$13.00	$18.00	$31.00	$18.00	$49.00
9	$13.00	$21.00	$34.00	$21.00	$55.00
10	$13.00	$24.00	$37.00	$24.00	$61.00
11	$13.00	$27.00	$40.00	$27.00	$67.00
12	$13.00	$30.00	$43.00	$30.00	$73.00
13	$13.00	$33.00	$46.00	$33.00	$79.00
14	$13.00	$36.00	$49.00	$36.00	$85.00
15	$13.00	$39.00	$52.00	$39.00	$91.00
16	$13.00	$42.00	$55.00	$42.00	$97.00
17	$13.00	$46.50	$59.50	$47.00	$106.50
18	$13.00	$51.00	$64.00	$52.00	$116.00
19	$13.00	$55.50	$68.50	$57.00	$125.50
20	$13.00	$60.00	$73.00	$62.00	$135.00
30	$13.00	$105.00	$118.00	$112.00	$230.00
40	$13.00	$150.00	$163.00	$162.00	$325.00

Plus

City of Morro Bay

Water Rates/Effective Dates

		Previous Rate	7/1/2015	7/1/2016	7/1/2017	7/1/2018	7/1/2019
Fixed Montly Charge		$ 16.43	$ 23.00	$ 26.00	$ 28.00	$ 30.00	$ 32.00
Water Quantity Charges							
(Billed in 100 cubic feet of metered water use ($/hcf)							
Tier	Use in Tier						
Tier 1	1-3 hcf	$0.00	$ 3.00	$ 4.00	$ 5.00	$ 5.50	$ 6.00
Tier 2	4-10 hcf	$5.56-$5.74	$ 6.00	$ 7.00	$ 7.50	$ 8.00	$ 8.50
Tier 3	11-50 hcf	$5.77-$7.81	$ 9.00	$ 9.50	$ 10.00	$ 10.50	$ 11.00
Tier 4	>50 hcf	$7.85-$13.68	$ 12.00	$ 12.50	$ 13.00	$ 13.50	$ 14.00

1 hcf=100 cubic feet=748 gallons

Oceano Community Services District

Typical Household Rates

Cost for 20 units of water	*Per Consumption*	*Cost*
New Water Rates in effect as of May 20, 2015		
BASE RATE:		*$46.26*
5/8" Meter and first 6 units of consumption		
VARIABLE RATE:		
First Tier 0-6 Units	*$46.26*	*46.26*
Second Tier 7-12 Units	*$3.25*	*19.50*
Third Tier 13-18 Units	*$3.60*	*21.60*
Fourth Tier 19-24 Units	*$4.00*	*8.00*
Fifth Tier Over 25 Units	*$4.20*	*0.00*
Lopez Remediation	*$1.54*	*30.80*
Sewer Rates		*19.49*
Sanitation District		*29.72*
TOTAL BI-MONTLY CHARGE		***$175.37***

Nipomo Community Services District

RESIDENTIAL WATER RATES

BI-MONTHLY AVAILABILITY CHARGES [1]

Effective November 1 of each Fiscal year

METER SIZE	2011-12	2012-13	2013-14	2014-15	2015-16
1 inch and less	$26.85	$29.40	$32.19	$35.25	$38.60
Litigation Charge	$6.32	$6.32	$6.32	$6.32	$6.32
1 1/2 inch	$76.22	$83.46	$91.39	$100.07	$109.58
Litigation Charge	$14.36	$14.36	$14.36	$14.36	$14.36

The above referenced litigation charge reflects the adjusted rate to offset the District's financial obligations related to the lawsuit titled *Santa Maria Valley Water Conservation District v. The City of Santa Maria, the Nipomo Community Services District, et al*. This lawsuit is commonly referred to as the Santa Maria Groundwater Adjudication. When the District's financial obligations regarding this lawsuit have been satisfied, the litigation charge will be eliminated.

Residential Water Commodity Rates [1][2]

Effective November 1 of each Fiscal Year

Single-Family
4-Block Structure

	2011-12	2012-13	2013-14	2014-15	2015-16
0 to 24 Ccf	$1.64	$1.80	$1.97	$2.16	$2.37
25 to 40 Ccf	$2.05	$2.25	$2.46	$2.69	$2.95
41 to 100 Ccf	$2.88	$3.15	$3.45	$3.78	$4.14
Over 100 Ccf	$4.93	$5.40	$5.91	$6.47	$7.08

[1] Does not include fixed charges.
[2] Does not include Blacklake Buy-In-Charge (NCSD Code § 3.40)

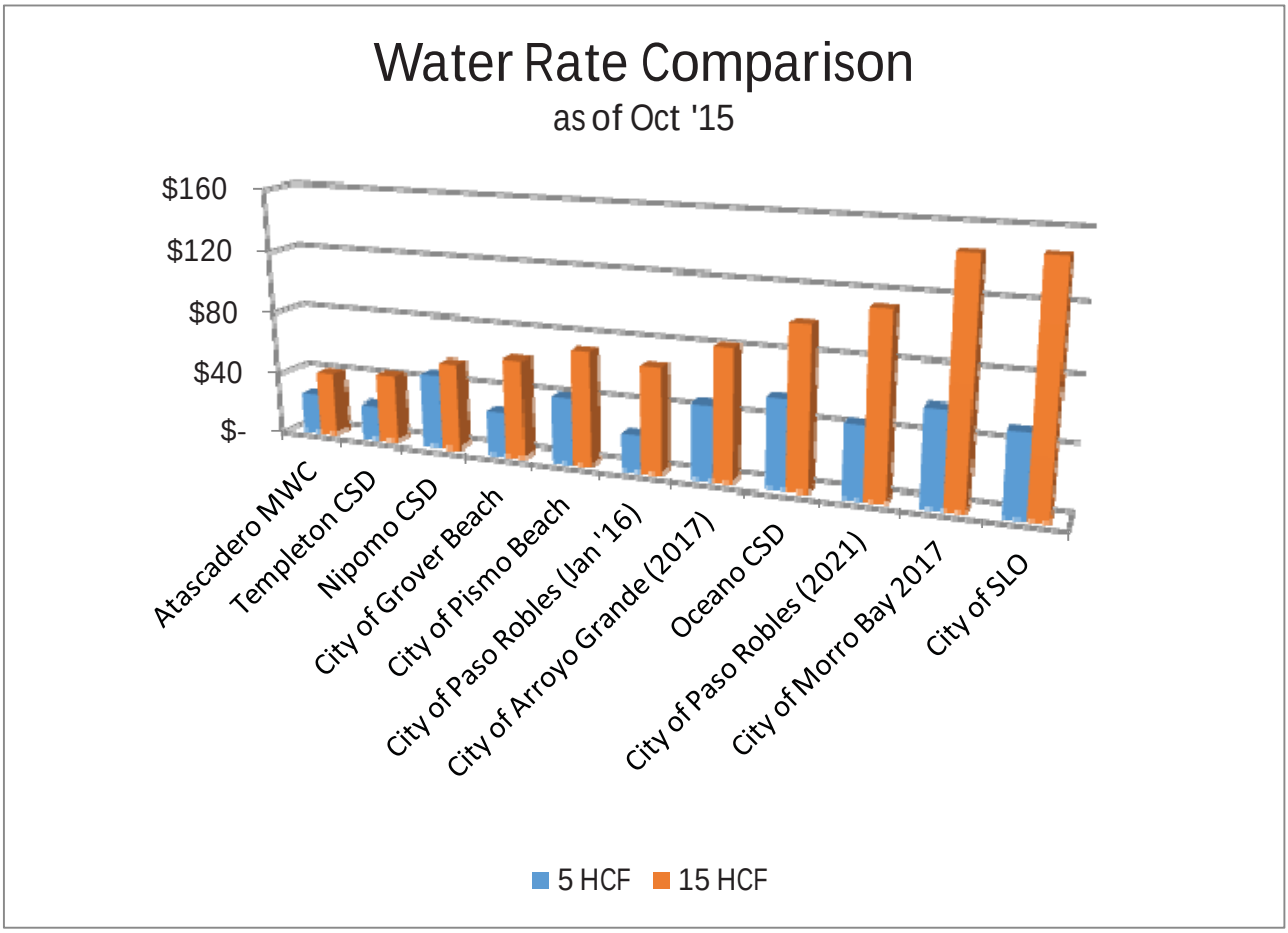
Appendix A - Water Fund
Capital Improvement Program (CIP)

	Project	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30	FY 2030-31	FY 2031-32	FY 2032-33	FY 2033-34	FY 2034-35	FY 2035-36
Water Treatment and Supply																						
1	Phase I - 2.4 MGD Facility	$2,060,000																				
2	Phase II - Expand to 4 MGD					$8,611,600	$20,696,500															
3	Acquire Add'l Naci Water, and placeholder for 6 mgd WTP capacity															$8,179,300	$8,424,700	$17,354,900				
4	Planned treatment plant rehabs														$3,025,000							$3,721,000
Subtotal Water Treatment and Supply =		$2,060,000	$0	$0	$0	$8,611,600	$20,696,500	$0	$0	$0	$0	$0	$0	$0	$3,025,000	$8,179,300	$8,424,700	$17,354,900	$0	$0	$0	$3,721,000
Water Yard																						
5	Replace City's corporation yard for public works operations. One-third of cost allocated to Water Dept												$5,009,000									
6	Water Yard scheduled rehab / code compliance								$500,000											$1,232,100		
Subtotal Water Yard =		$0	$0	$0	$0	$0	$0	$0	$500,000	$0	$0	$0	$5,009,000	$0	$0	$0	$0	$0	$0	$1,232,100	$0	$0
Well Improvements																						
7	Annual well rehabilitation	$250,290	$257,799	$265,533	$273,499	$281,704	$290,155	$298,859	$307,825	$317,060	$326,572	$336,369	$346,460	$356,854	$367,559	$378,586	$389,944	$401,642	$413,691	$426,102	$438,885	$452,052
8	New well drilling program							$860,912							$1,058,813							
Subtotal Well Improvements =		$250,300	$257,800	$265,500	$273,500	$281,700	$290,200	$1,159,800	$307,800	$317,100	$326,600	$336,400	$346,500	$356,900	$1,426,400	$378,600	$389,900	$401,600	$413,700	$426,100	$438,900	$452,100
Tank, Booster Station and Metering Projects																						
9	21st Street Reservoir Repair/Replacement		$1,336,734	$7,802,071																		
10	New Main East Zone 2.0 MG Storage																				$7,946,889	
11	Water Tanks -Coating	$30,900	$31,800	$32,800	$33,800	$34,800	$35,800	$36,900	$38,000	$39,100	$40,300	$41,500	$42,800	$44,100	$45,400	$46,700	$48,100	$49,600	$51,100	$52,600	$54,200	$55,800
12	Water Meters - ongoing meter replacement program of the proposed meter reading devices		$42,436	$43,709	$45,020	$46,371	$47,762	$49,195	$50,671	$52,191	$53,757	$55,369	$57,030	$58,741	$60,504	$62,319	$64,188	$66,114	$68,097	$70,140	$72,244	$74,412
13	Tank rehab								$950,078				$1,069,321		$1,134,442				$1,276,825			
Subtotal Tank and Booster Station Projects =		$30,900	$1,411,000	$7,878,600	$78,800	$81,200	$83,600	$86,100	$1,038,700	$91,300	$94,100	$96,900	$1,169,200	$102,800	$1,240,300	$109,000	$112,300	$115,700	$1,396,000	$122,700	$8,073,300	$130,200
Pipeline Improvements																						
14	2nd St. and 3rd St. between Olive St. and Spring St.				$646,108																	
15	Highland Park Dr.					$548,392																
16	12th St. Zone Expansion near 4th St.						$437,068															
17	14th St. and 21st St. between Pine St. and Riverside Ave.							$410,820														
18	17th St. between Olive St. and Spring St.								$376,269													
19	9th St. between Olive St. and Spring St.						$349,893															
20	8th St. between Olive St. and Spring St.							$344,400														
21	19th St. and 20th St. between Park St. and Spring St.								$252,113													
22	26th St. between Vine St. and Spring St.									$257,066												
23	5th St. and 6th St. between Oak St. and Spring St.							$217,710														
24	Spring St. north of 36th St.						$195,844															
25	15th St. and Railroad St., east of Pine St.								$168,498													
26	West Fairview Ln.									$76,989												
27	Block A Main Replacement	$300,000	$309,000	$318,270	$327,818	$337,653	$761,151	$783,985	$807,505	$831,730	$856,682											
28	Olive St. and Spring St. between 19th St. and 36th St.													$3,060,735								
29	Creston Rd., Sante Fe Ave. and San Augustin Dr.												$1,283,315									
30	Pacific Ave. between Merry Hill Rd. & Olive St.											$1,077,043										
31	Hillcrest Dr. Between 15th St. and West 17th St.														$574,843							
32	12th St. between Spring St. and Riverside Ave.															$571,832						
33	20th St. between Olive St. and Spring St.																$489,485					
34	Oak St. between 4th St. and 7th St.														$435,670							
35	15th, 16th, Filbert, Terrace Hill															$384,857						
36	Merry Hill Rd. between 12th St. and Hillcrest Dr.																	$375,235				
37	18th St. between Filbert St. and Chestnut St.																		$314,982			
38	Block B Main Replacement										$1,016,001	$1,046,481	$1,077,875	$1,110,211	$1,143,518	$1,177,823	$1,213,158	$1,249,553	$1,287,039	$1,325,651		
39	Thunderbird well field to South River Rd.-Charolais Rd. intersection																					$2,477,048
40	Airport loop between Tower 25 well and Aerotech Center Way																					
41	Dry Creek Rd. and Golden Hill Rd.																					
42	Block C Main Replacement																					$2,040,123
43	Major water utility repair seasons									$3,063,853			$3,347,955				$3,768,152			$4,117,562		
Subtotal Pipeline Improvements =		$300,000	$309,000	$318,000	$974,000	$886,000	$1,744,000	$1,757,000	$1,604,000	$4,230,000	$1,873,000	$2,124,000	$5,709,000	$4,171,000	$2,154,000	$2,135,000	$5,471,000	$1,625,000	$1,602,000	$5,443,000	$0	$4,517,000
	Totals =	$2,641,200	$1,977,800	$8,462,100	$1,326,300	$9,860,500	$22,814,300	$3,002,900	$3,450,500	$4,638,400	$2,293,700	$2,557,300	$12,233,700	$4,630,700	$7,845,700	$10,801,900	$14,397,900	$19,497,200	$3,411,700	$7,223,900	$8,512,200	$8,820,300

Appendix A - Water Fund
Capital Improvement Program (CIP)

	Project	FY 2036-37	FY 2037-38	FY 2038-39	FY 2039-40	FY 2040-41	FY 2041-42	FY 2042-43	FY 2043-44	FY 2044-45	TOTAL PROJECT COST[1]
Water Treatment and Supply											
1	Phase I - 2.4 MGD Facility										$2,060,000
2	Phase II - Expand to 4 MGD										$29,308,000
3	Acquire Add'l Naci Water, and placeholder for 6 mgd WTP capacity										$33,959,000
4	Planned treatment plant rehabs							$4,576,000			$11,322,000
Subtotal Water Treatment and Supply =		$0	$0	$0	$0	$0	$0	$4,576,000	$0	$0	$76,649,000
Water Yard											
5	Replace City's corporation yard for public works operations. One-third of cost allocated to Water Dept										$5,009,000
6	Water Yard scheduled rehab / code compliance					$1,515,300					$3,247,000
Subtotal Water Yard =		$0	$0	$0	$0	$1,515,300	$0	$0	$0	$0	$8,256,000
Well Improvements											
7	Annual well rehabilitation	$465,613	$479,582	$493,969	$508,788	$524,052	$539,773	$555,966	$572,645	$589,825	$11,908,000
8	New well drilling program		$1,381,511					$1,601,549			$4,903,000
Subtotal Well Improvements =		$465,600	$1,861,100	$494,000	$508,800	$524,100	$539,800	$2,157,500	$572,600	$589,800	$16,811,000
Tank, Booster Station and Metering Projects											
9	21st Street Reservoir Repair/Replacement										$9,139,000
10	New Main East Zone 2.0 MG Storage										$7,947,000
11	Water Tanks -Coating	$57,500	$59,200	$61,000	$62,800	$64,700	$66,600	$68,600	$70,700	$72,800	$1,470,000
12	Water Meters - ongoing meter replacement program of the proposed meter reading devices	$76,644	$78,943	$81,312	$83,751	$86,264	$88,852	$91,517	$94,263	$97,090	$1,919,000
13	Tank rehab		$1,480,190				$1,665,967				$7,577,000
Subtotal Tank and Booster Station Projects =		$134,100	$1,618,300	$142,300	$146,600	$151,000	$1,821,400	$160,100	$165,000	$169,900	$28,052,000
Pipeline Improvements											
14	2nd St. and 3rd St. between Olive St. and Spring St.										$646,000
15	Highland Park Dr.										$548,000
16	12th St. Zone Expansion near 4th St.										$437,000
17	14th St. and 21st St. between Pine St. and Riverside Ave.										$411,000
18	17th St. between Olive St. and Spring St.										$376,000
19	9th St. between Olive St. and Spring St.										$350,000
20	8th St. between Olive St. and Spring St.										$344,000
21	19th St. and 20th St. between Park St. and Spring St.										$252,000
22	26th St. between Vine St. and Spring St.										$257,000
23	5th St. and 6th St. between Oak St. and Spring St.										$218,000
24	Spring St. north of 36th St.										$196,000
25	15th St. and Railroad St., east of Pine St.										$168,000
26	West Fairview Ln.										$77,000
27	Block A Main Replacement										$5,634,000
28	Olive St. and Spring St. between 19th St. and 36th St.										$3,061,000
29	Creston Rd., Sante Fe Ave. and San Augustin Dr.										$1,283,000
30	Pacific Ave. between Merry Hill Rd. & Olive St.										$1,077,000
31	Hillcrest Dr. Between 15th St. and West 17th St.										$575,000
32	12th St. between Spring St. and Riverside Ave.										$572,000
33	20th St. between Olive St. and Spring St.										$489,000
34	Oak St. between 4th St. and 7th St.										$436,000
35	15th, 16th, Filbert, Terrace Hill										$385,000
36	Merry Hill Rd. between 12th St. and Hillcrest Dr.										$375,000
37	18th St. between Filbert St. and Chestnut St.										$315,000
38	Block B Main Replacement										$11,647,000
39	Thunderbird well field to South River Rd.-Charolais Rd. intersection	$5,953,172									$8,430,000
40	Airport loop between Tower 25 well and Aerotech Center Way						$2,176,640	$5,231,192			$7,408,000
41	Dry Creek Rd. and Golden Hill Rd.								$2,225,767	$5,349,259	$7,575,000
42	Block C Main Replacement	$2,101,327	$2,164,367	$2,229,298	$2,296,176	$2,365,062	$2,436,014	$2,509,094	$2,584,367	$2,661,898	$23,388,000
43	Major water utility repair seasons		$2,317,176	$2,386,691							$19,001,000
Subtotal Pipeline Improvements =		$8,054,000	$4,482,000	$4,616,000	$2,296,000	$2,365,000	$4,613,000	$7,740,000	$4,810,000	$8,011,000	$95,931,000
	Totals =	$8,653,700	$7,961,400	$5,252,300	$2,951,400	$4,555,400	$6,974,200	$14,633,600	$5,547,600	$8,770,700	$225,699,000

Attachment B
Water Rate Comparison to Nearby Communities



Comparisons are monthly water bills for residential customers with the usage rate shown; Comparative bills based on published information regarding each utility's rate structure.